Full wwPDB X-ray Structure Validation Report ⓘ

Aug 5, 2026 – 07:48 AM EDT

PDB ID	:	6BZ7 / pdb_00006bz7
Title	:	Thermus thermophilus 70S containing 16S G299A point mutation and near-cognate ASL Leucine in A site.
Authors	:	Hoffer, E.D.; Maehigashi, T.; Fagan, C.E.; Dunham, C.M.
Deposited on	:	2017-12-22
Resolution	:	3.68 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 ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

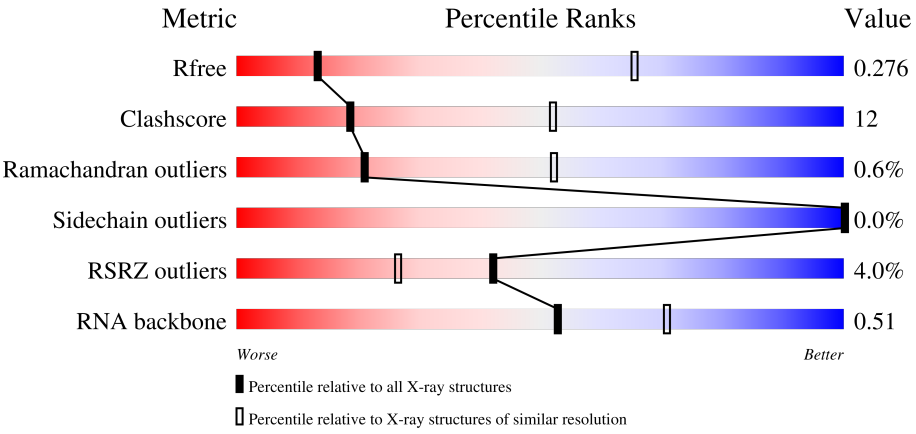
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.50

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 3.68 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}	180053	1263 (3.80-3.56)
Clashscore	190562	1305 (3.80-3.56)
Ramachandran outliers	187476	1259 (3.80-3.56)
Sidechain outliers	187428	1256 (3.80-3.56)
RSRZ outliers	180081	1262 (3.80-3.56)
RNA backbone	3983	1000 (4.26-3.08)

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	1508	% 45% 44% 10% •
1	XA	1508	% 44% 46% 10% •
2	QB	256	3% 61% 30% 8%
2	XB	256	4% 62% 29% 8%

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Mol	Chain	Length	Quality of chain
3	QC	239	4% 65% 21% 14%
3	XC	239	5% 67% 19% 14%
4	QD	209	7% 68% 31%
4	XD	209	7% 69% 31%
5	QE	162	7% 71% 22% 7%
5	XE	162	4% 76% 17% 7%
6	QF	101	73% 27%
6	XF	101	5% 67% 33%
7	QG	156	4% 81% 19%
7	XG	156	3% 83% 16%
8	QH	138	% 73% 26%
8	XH	138	4% 80% 19%
9	QI	128	8% 63% 36%
9	XI	128	11% 60% 38%
10	QJ	105	12% 59% 34% 6%
10	XJ	105	11% 69% 23% 9%
11	QK	129	8% 65% 27% 8%
11	XK	129	8% 66% 24% 10%
12	QL	132	7% 72% 23% 5%
12	XL	132	9% 68% 23% 8%
13	QM	126	11% 59% 35% 5%
13	XM	126	6% 60% 33% 6%
14	QN	61	18% 72% 26%
14	XN	61	2% 70% 28%
15	QO	89	78% 21%

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Mol	Chain	Length	Quality of chain
15	XO	89	2% 72% 26%
16	QP	88	% 65% 31% 5%
16	XP	88	2% 66% 30% 5%
17	QQ	105	7% 73% 22% 5%
17	XQ	105	3% 68% 28% 5%
18	QR	88	58% 22% 20%
18	XR	88	3% 53% 26% 20%
19	QS	93	6% 57% 31% 11%
19	XS	93	% 62% 26% 10%
20	QT	106	4% 70% 24% 7%
20	XT	106	8% 73% 21% 7%
21	QU	27	67% 26% 7%
21	XU	27	52% 41% 7%
22	QV	77	3% 57% 32% 10%
22	QW	77	16% 26% 53% 19%
22	XV	77	5% 60% 30% 10%
22	XW	77	13% 26% 48% 25%
23	QX	25	32% 68%
23	XX	25	12% 28% 8% 60%
24	QY	17	59% 35% 6%
24	XY	17	41% 53% 6%
25	RA	2915	% 48% 41% 10%
25	YA	2915	% 47% 43% 9%
26	RB	122	64% 28% 7%
26	YB	122	% 52% 39% 7%

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Mol	Chain	Length	Quality of chain
27	RD	276	8% 58% 39%
27	YD	276	8% 59% 39%
28	RE	206	4% 60% 38%
28	YE	206	4% 57% 41%
29	RF	210	3% 65% 31%
29	YF	210	4% 62% 33%
30	RG	182	4% 59% 40%
30	YG	182	3% 52% 47%
31	RH	180	11% 69% 26%
31	YH	180	9% 65% 29%
32	RI	148	26% 67% 31%
32	YI	148	3% 69% 28%
33	RN	140	% 65% 33%
33	YN	140	6% 69% 29%
34	RO	122	2% 70% 30%
34	YO	122	2% 78% 22%
35	RP	150	9% 66% 33%
35	YP	150	9% 58% 38%
36	RQ	141	12% 60% 40%
36	YQ	141	12% 57% 43%
37	RR	118	3% 65% 34%
37	YR	118	3% 65% 34%
38	RS	112	5% 72% 27%
38	YS	112	3% 70% 29%
39	RT	146	3% 55% 38% 6%

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Mol	Chain	Length	Quality of chain
39	YT	146	3% 54% 39% 6%
40	RU	118	3% 70% 28%
40	YU	118	7% 69% 29%
41	RV	101	5% 63% 36%
41	YV	101	9% 70% 30%
42	RW	113	3% 73% 27%
42	YW	113	9% 74% 26%
43	RX	96	3% 72% 24%
43	YX	96	2% 63% 33%
44	RY	110	14% 78% 19%
44	YY	110	7% 75% 23%
45	RZ	206	3% 56% 31% 11%
45	YZ	206	6% 59% 28% 11%
46	R0	85	8% 66% 29% 5%
46	Y0	85	2% 59% 29% 12%
47	R1	98	13% 71% 28%
47	Y1	98	6% 58% 37% 5%
48	R2	72	71% 25%
48	Y2	72	4% 67% 29%
49	R3	60	2% 67% 32%
49	Y3	60	3% 63% 35%
50	R4	71	68% 28%
50	Y4	71	66% 28%
51	R5	60	90% 8%
51	Y5	60	8% 85% 13%

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Mol	Chain	Length	Quality of chain
52	R6	54	17% 80% 19%
52	Y6	54	20% 89% 9%
53	R7	49	2% 63% 33%
53	Y7	49	71% 27%
54	R8	65	22% 62% 32% 5%
54	Y8	65	17% 66% 29%
55	R9	37	51% 38% 62%
55	Y9	37	16% 24% 57% 16%

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
56	MG	QA	1610	-	-	-	X
56	MG	QA	1631	-	-	-	X
56	MG	QV	104	-	-	-	X
56	MG	R8	101	-	-	-	X
56	MG	RA	3012	-	-	-	X
56	MG	RA	3013	-	-	-	X
56	MG	RA	3016	-	-	-	X
56	MG	RA	3024	-	-	-	X
56	MG	RA	3037	-	-	-	X
56	MG	RA	3042	-	-	-	X
56	MG	RA	3044	-	-	-	X
56	MG	RA	3050	-	-	-	X
56	MG	RA	3056	-	-	-	X
56	MG	RA	3061	-	-	-	X
56	MG	RA	3071	-	-	-	X
56	MG	RA	3081	-	-	-	X
56	MG	RA	3096	-	-	-	X
56	MG	RA	3119	-	-	-	X
56	MG	RA	3148	-	-	-	X
56	MG	RA	3155	-	-	-	X
56	MG	RA	3243	-	-	-	X
56	MG	RA	3494	-	-	-	X
56	MG	XA	1603	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	YA	3017	-	-	-	X
56	MG	YA	3018	-	-	-	X
56	MG	YA	3020	-	-	-	X
56	MG	YA	3031	-	-	-	X
56	MG	YA	3035	-	-	-	X
56	MG	YA	3047	-	-	-	X
56	MG	YA	3078	-	-	-	X
56	MG	YA	3161	-	-	-	X
56	MG	YA	3260	-	-	-	X
56	MG	YA	3426	-	-	-	X
56	MG	YA	3528	-	-	-	X

2 Entry composition (i)

There are 58 unique types of molecules in this entry. The entry contains 295575 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	1500	Total	C	N	O	P	0	0	0
			32246	14353	5981	10413	1499			
1	XA	1500	Total	C	N	O	P	0	0	0
			32248	14354	5984	10411	1499			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
QA	299	A	G	engineered mutation	GB 55771382
XA	299	A	G	engineered mutation	GB 55771382

- 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			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
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	127	Total	C	N	O	0	0	0
			1010	639	197	174			
9	XI	126	Total	C	N	O	0	0	0
			998	633	193	172			

- 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			
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	120	Total	C	N	O	S	0	0	0
			955	591	197	165	2			
13	XM	119	Total	C	N	O	S	0	0	0
			946	585	195	164	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			

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

- Molecule 22 is a RNA chain called tRNA fMet.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	QV	77	Total	C	N	O	P	0	0	0
			1644	732	297	538	77			
22	QW	76	Total	C	N	O	P	0	0	0
			1618	722	292	529	75			
22	XV	77	Total	C	N	O	P	0	0	0
			1644	732	297	538	77			
22	XW	76	Total	C	N	O	P	0	0	0
			1618	722	292	529	75			

- Molecule 23 is a RNA chain called messenger RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	QX	8	Total	C	N	O	P	0	0	0
			169	76	29	56	8			
23	XX	10	Total	C	N	O	P	0	0	0
			210	96	39	66	9			

- Molecule 24 is a RNA chain called ASL Leu.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	QY	17	Total	C	N	O	P	0	0	0
			358	162	64	116	16			
24	XY	17	Total	C	N	O	P	0	0	0
			358	162	64	116	16			

- Molecule 25 is a RNA chain called 23S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	RA	2882	Total 62071	C 27627	N 11611	O 19952	P 2881	0	0	0
25	YA	2883	Total 62091	C 27636	N 11613	O 19960	P 2882	0	0	0

- Molecule 26 is a RNA chain called 5S rRNA.

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

- Molecule 27 is a protein called 50S ribosomal protein L2.

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

- Molecule 28 is a protein called 50S ribosomal protein L3.

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

- Molecule 29 is a protein called 50S ribosomal protein L4.

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

- Molecule 30 is a protein called 50S ribosomal protein L5.

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

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

- Molecule 31 is a protein called 50S ribosomal protein L6.

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

- Molecule 32 is a protein called 50S ribosomal protein L9.

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

- Molecule 33 is a protein called 50S ribosomal protein L13.

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

- Molecule 34 is a protein called 50S ribosomal protein L14.

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

- Molecule 35 is a protein called 50S ribosomal protein L15.

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

- Molecule 36 is a protein called 50S ribosomal protein L16.

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

- Molecule 37 is a protein called 50S ribosomal protein L17.

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

- Molecule 38 is a protein called 50S ribosomal protein L18.

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

- Molecule 39 is a protein called 50S ribosomal protein L19.

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

- Molecule 40 is a protein called 50S ribosomal protein L20.

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

- Molecule 41 is a protein called 50S ribosomal protein L21.

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

- Molecule 42 is a protein called 50S ribosomal protein L22.

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

- Molecule 43 is a protein called 50S ribosomal protein L23.

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

- Molecule 44 is a protein called 50S ribosomal protein L24.

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

- Molecule 45 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	RZ	183	Total	C	N	O	S	0	0	0
			1461	933	260	265	3			
45	YZ	183	Total	C	N	O	S	0	0	0
			1461	933	260	265	3			

- Molecule 46 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	R0	81	Total	C	N	O	S	0	0	0
			643	398	137	107	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	Y0	75	Total	C	N	O	S	0	0	0
			599	370	127	101	1			

- Molecule 47 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	R1	97	Total	C	N	O	S	0	0	0
			763	481	150	131	1			
47	Y1	93	Total	C	N	O	S	0	0	0
			729	457	145	126	1			

- Molecule 48 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	R2	69	Total	C	N	O	S	0	0	0
			581	358	118	104	1			
48	Y2	69	Total	C	N	O	S	0	0	0
			581	358	118	104	1			

- Molecule 49 is a protein called 50S ribosomal protein L30.

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	R4	69	Total	C	N	O	S	0	0	0
			565	356	103	101	5			
50	Y4	69	Total	C	N	O	S	0	0	0
			565	356	103	101	5			

- Molecule 51 is a protein called 50S ribosomal protein L32.

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

- Molecule 52 is a protein called 50S ribosomal protein L33.

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

- Molecule 53 is a protein called 50S ribosomal protein L34.

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

- Molecule 54 is a protein called 50S ribosomal protein L35.

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

- Molecule 55 is a protein called 50S ribosomal protein L36.

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

- Molecule 56 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	QA	68	Total	Mg	0	0
			68	68		
56	QC	1	Total	Mg	0	0
			1	1		
56	QE	1	Total	Mg	0	0
			1	1		
56	QF	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	QH	1	Total Mg 1 1	0	0
56	QQ	1	Total Mg 1 1	0	0
56	QV	6	Total Mg 6 6	0	0
56	QY	1	Total Mg 1 1	0	0
56	RA	508	Total Mg 508 508	0	0
56	RB	7	Total Mg 7 7	0	0
56	RE	2	Total Mg 2 2	0	0
56	RF	1	Total Mg 1 1	0	0
56	RN	1	Total Mg 1 1	0	0
56	RO	2	Total Mg 2 2	0	0
56	RP	2	Total Mg 2 2	0	0
56	RQ	2	Total Mg 2 2	0	0
56	RR	1	Total Mg 1 1	0	0
56	RT	1	Total Mg 1 1	0	0
56	RU	1	Total Mg 1 1	0	0
56	RY	1	Total Mg 1 1	0	0
56	R0	4	Total Mg 4 4	0	0
56	R1	2	Total Mg 2 2	0	0
56	R4	1	Total Mg 1 1	0	0
56	R8	1	Total Mg 1 1	0	0
56	R9	1	Total Mg 1 1	0	0

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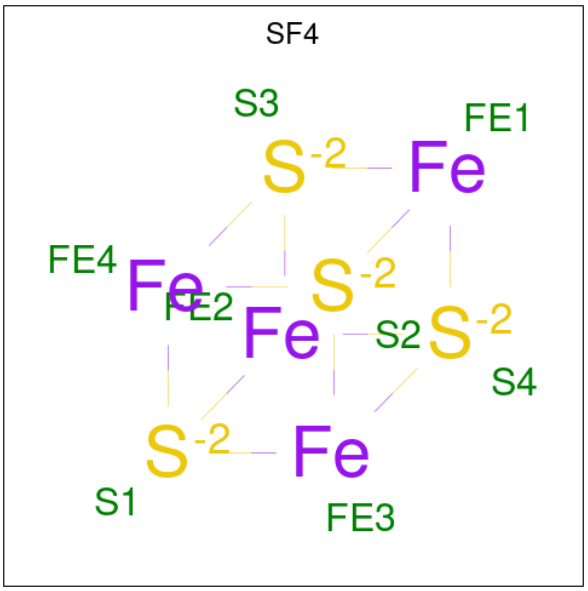
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	XA	82	Total Mg 82 82	0	0
56	XE	1	Total Mg 1 1	0	0
56	XL	1	Total Mg 1 1	0	0
56	XM	1	Total Mg 1 1	0	0
56	XQ	1	Total Mg 1 1	0	0
56	XS	1	Total Mg 1 1	0	0
56	XV	6	Total Mg 6 6	0	0
56	YA	546	Total Mg 546 546	0	0
56	YB	12	Total Mg 12 12	0	0
56	YD	2	Total Mg 2 2	0	0
56	YE	2	Total Mg 2 2	0	0
56	YO	1	Total Mg 1 1	0	0
56	YP	3	Total Mg 3 3	0	0
56	YQ	3	Total Mg 3 3	0	0
56	YX	2	Total Mg 2 2	0	0
56	YY	1	Total Mg 1 1	0	0
56	Y0	1	Total Mg 1 1	0	0
56	Y7	1	Total Mg 1 1	0	0
56	Y8	1	Total Mg 1 1	0	0
56	Y9	1	Total Mg 1 1	0	0

- Molecule 57 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



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

- Molecule 58 is ZINC ION (CCD ID: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	QN	1	Total Zn 1 1	0	0
58	RY	1	Total Zn 1 1	0	0
58	R4	1	Total Zn 1 1	0	0
58	R5	1	Total Zn 1 1	0	0
58	R6	1	Total Zn 1 1	0	0
58	R9	1	Total Zn 1 1	0	0
58	XN	1	Total Zn 1 1	0	0
58	YY	1	Total Zn 1 1	0	0
58	Y4	1	Total Zn 1 1	0	0
58	Y5	1	Total Zn 1 1	0	0

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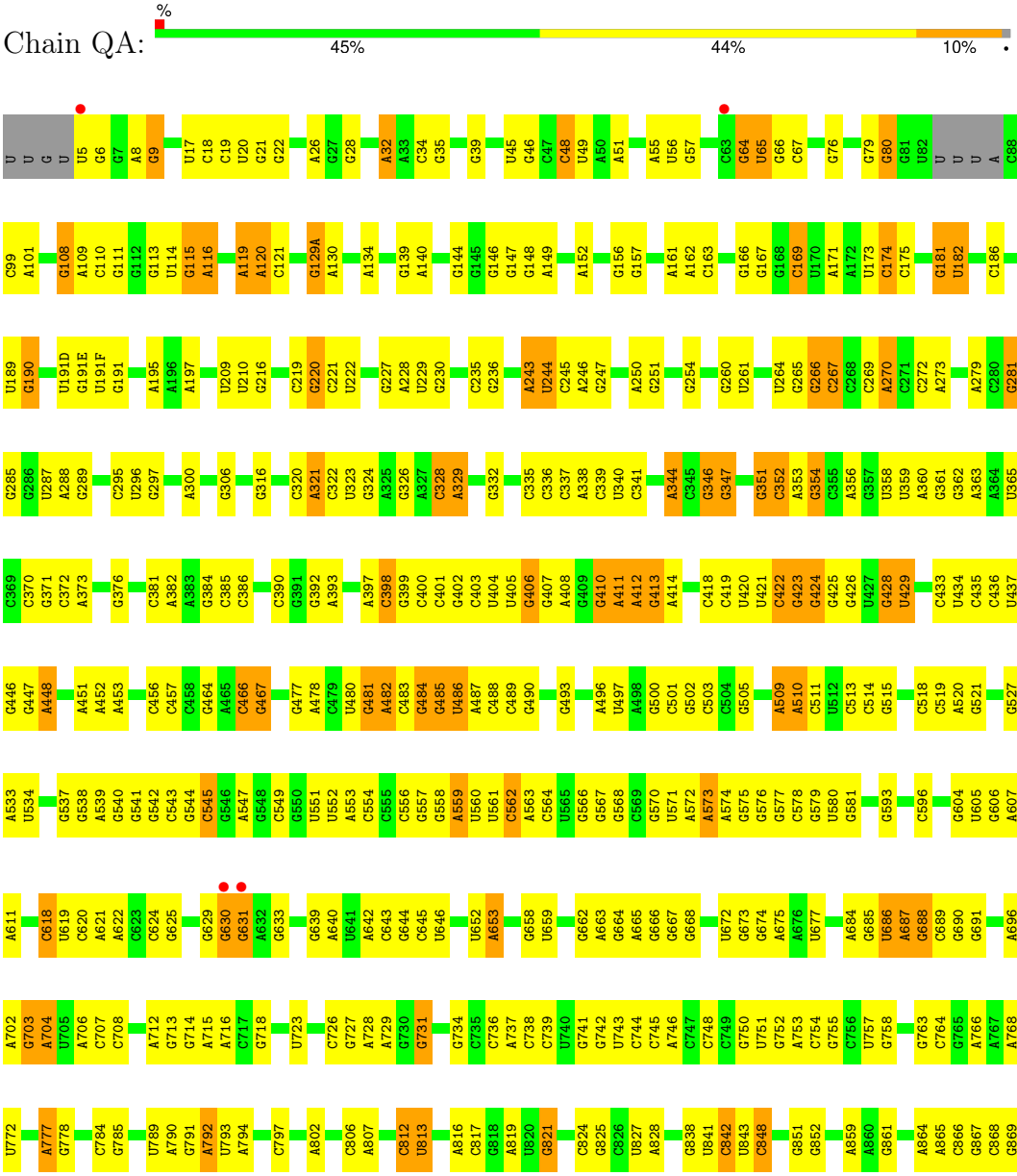
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
58	Y6	1	Total Zn 1 1	0	0
58	Y9	1	Total Zn 1 1	0	0

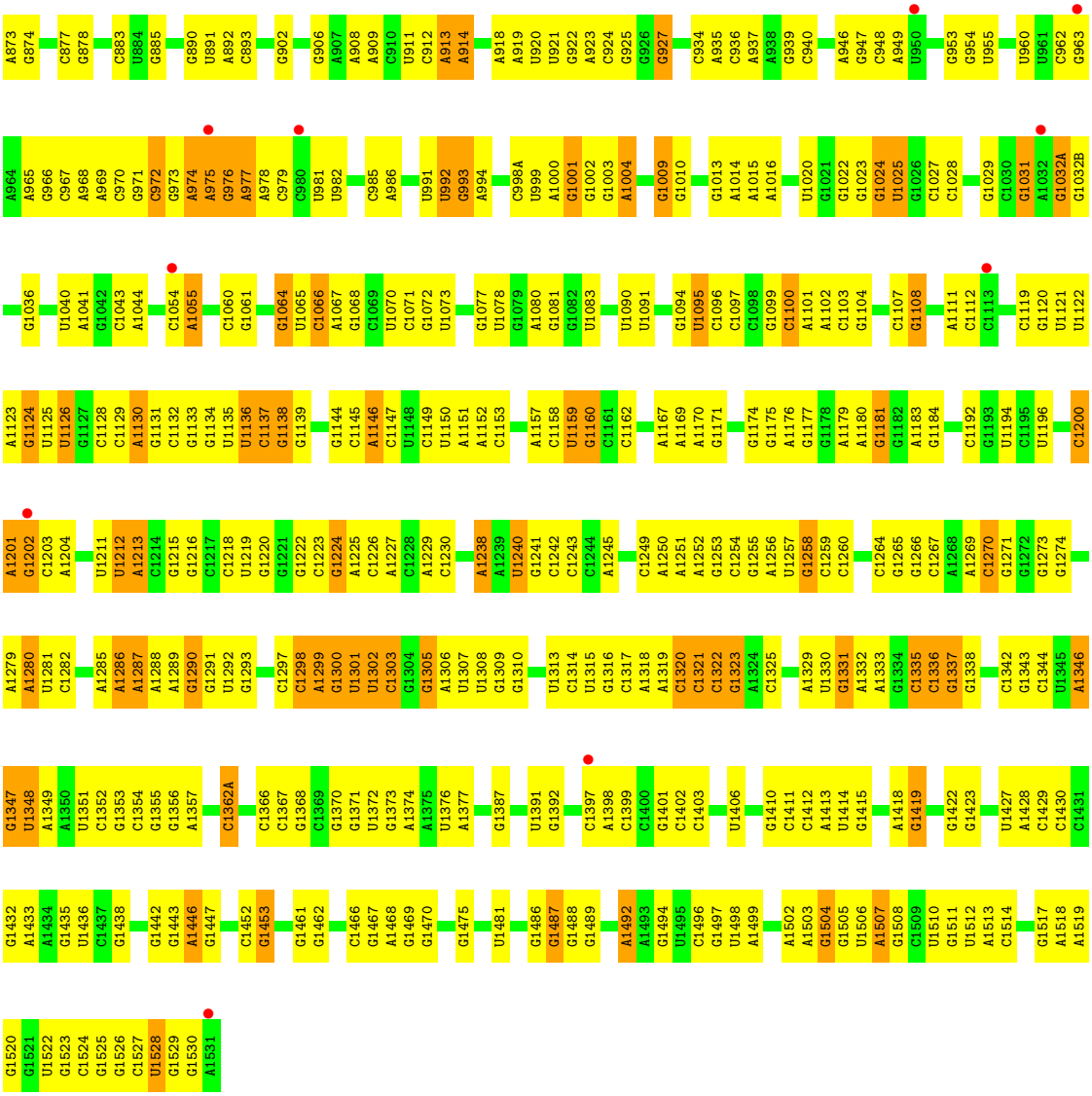
3 Residue-property plots (i)

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

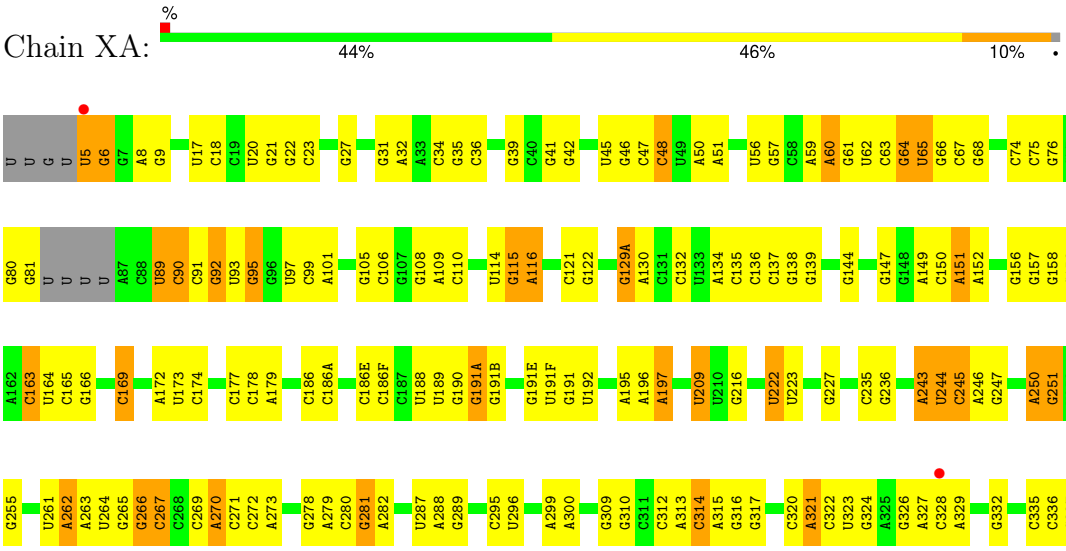
Chain QA:





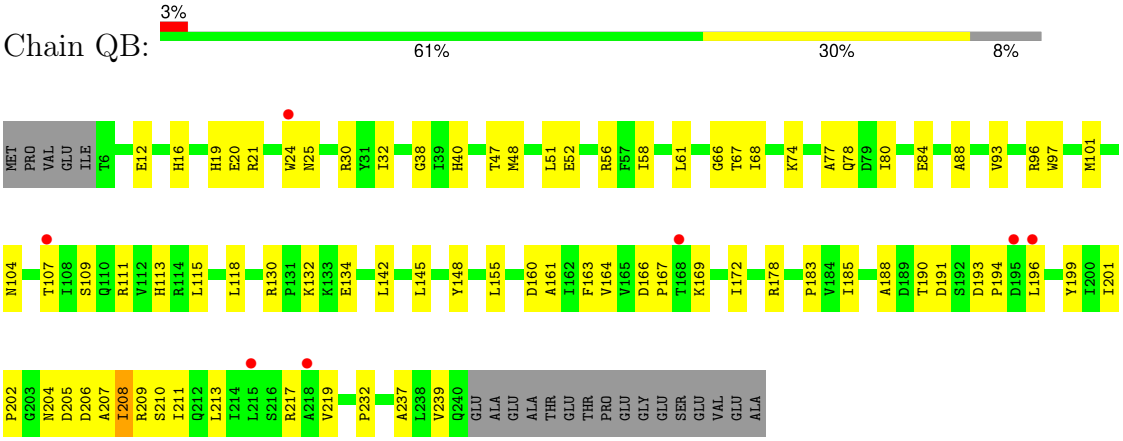
• Molecule 1: 16S rRNA

Chain XA:



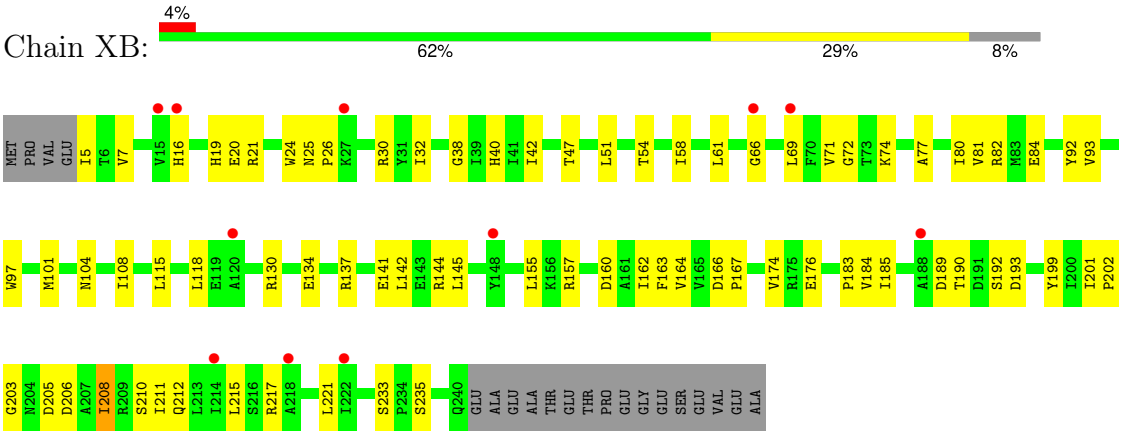
• Molecule 2: 30S ribosomal protein S2

Chain QB:



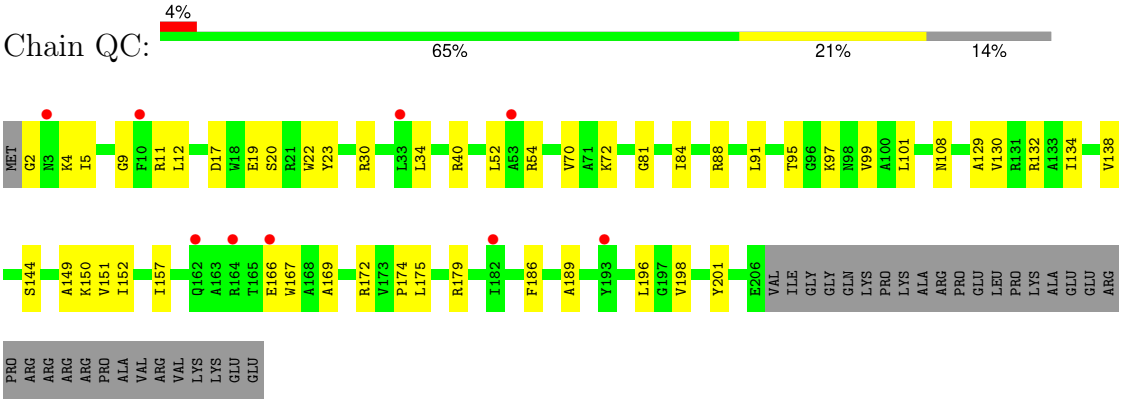
• Molecule 2: 30S ribosomal protein S2

Chain XB:



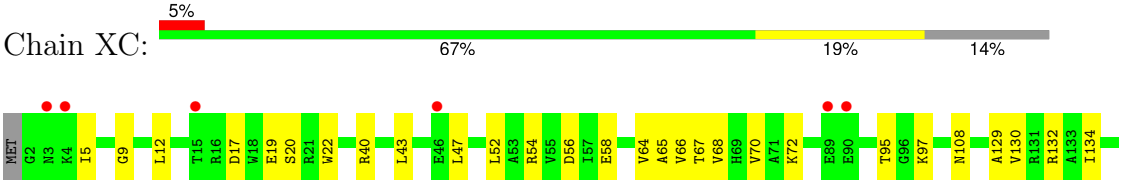
• Molecule 3: 30S ribosomal protein S3

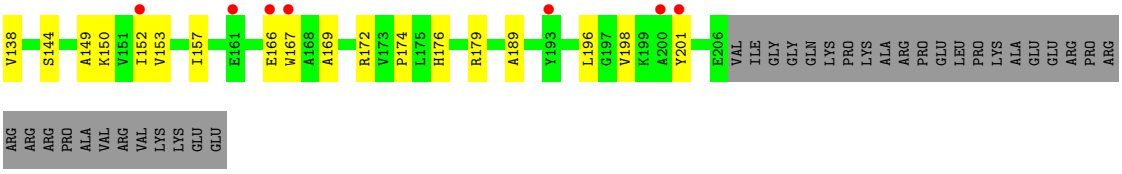
Chain QC:



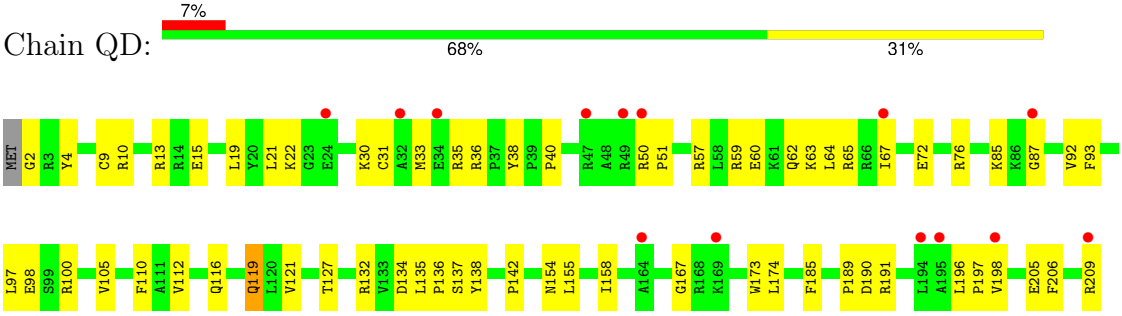
• Molecule 3: 30S ribosomal protein S3

Chain XC:

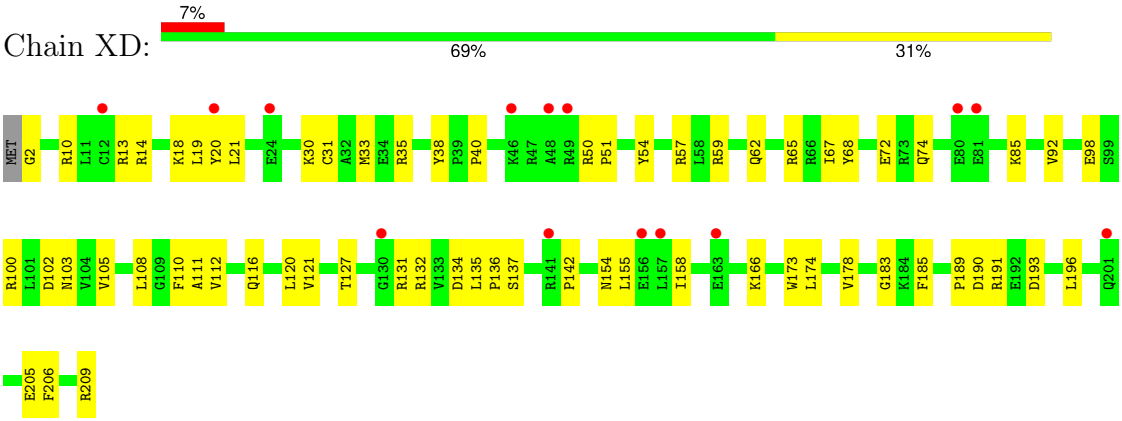




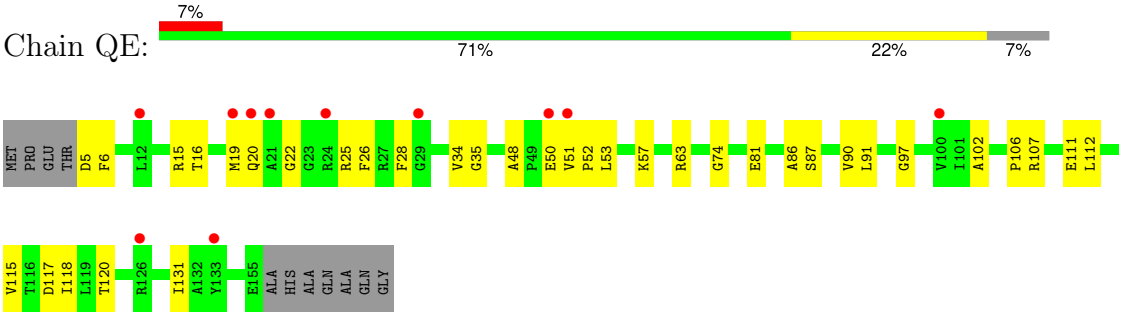
• Molecule 4: 30S ribosomal protein S4



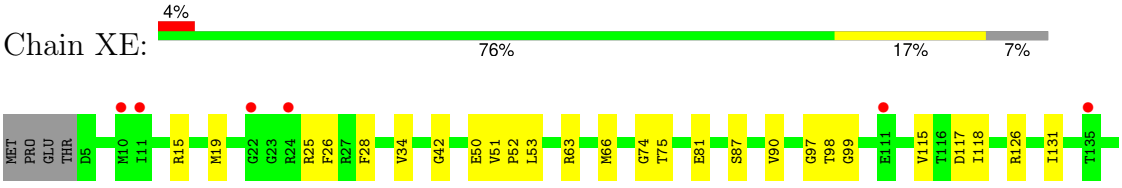
• Molecule 4: 30S ribosomal protein S4



• Molecule 5: 30S ribosomal protein S5

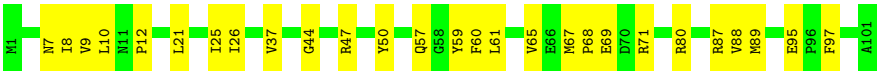


• Molecule 5: 30S ribosomal protein S5



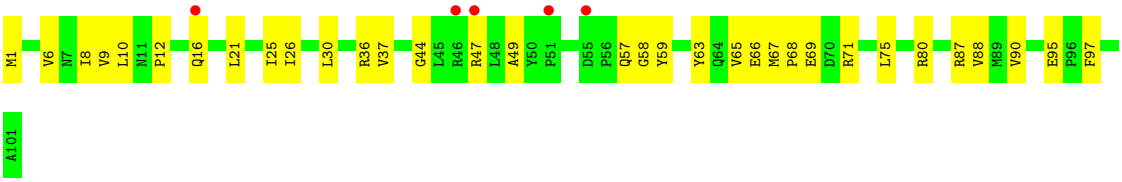
• Molecule 6: 30S ribosomal protein S6

Chain QF:



• Molecule 6: 30S ribosomal protein S6

Chain XF:

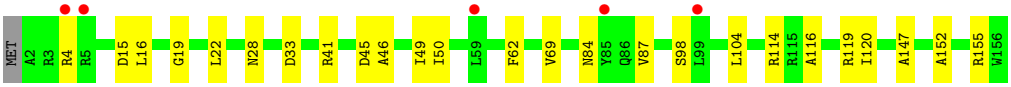


• Molecule 7: 30S ribosomal protein S7

Chain QG:

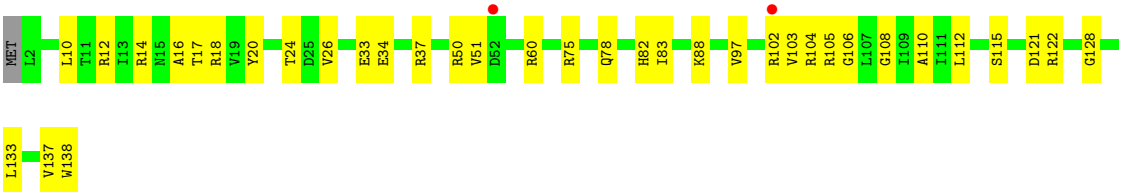
• Molecule 7: 30S ribosomal protein S7

Chain XG:



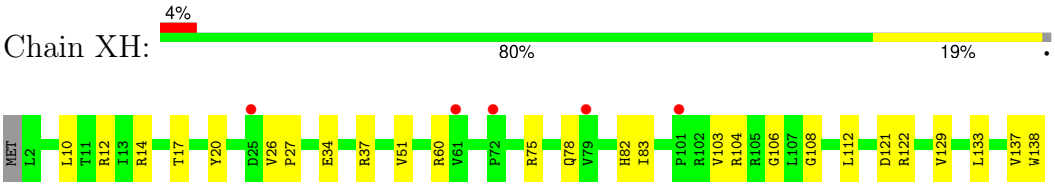
• Molecule 8: 30S ribosomal protein S8

Chain QH:



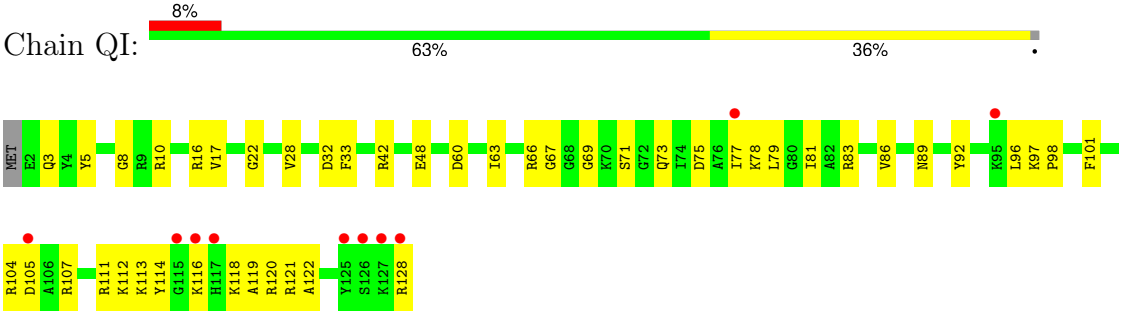
• Molecule 8: 30S ribosomal protein S8

Chain XH:



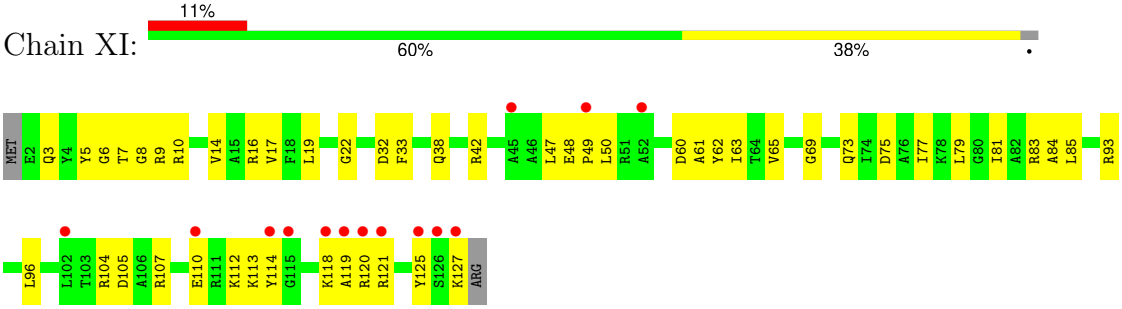
• Molecule 9: 30S ribosomal protein S9

Chain QI:



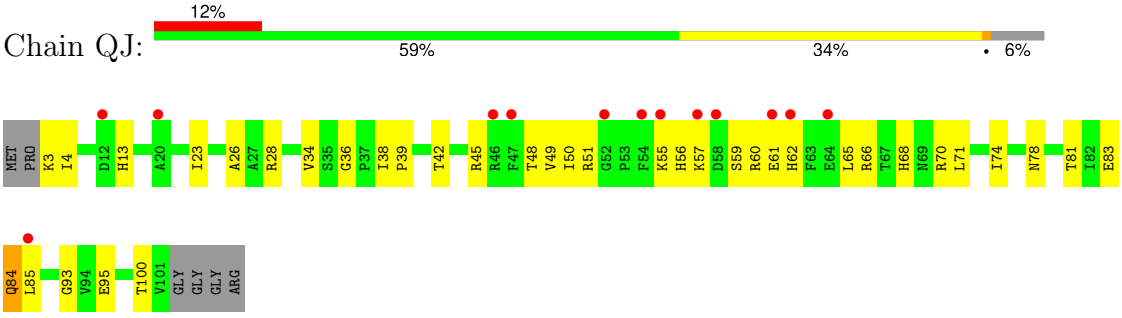
• Molecule 9: 30S ribosomal protein S9

Chain XI:



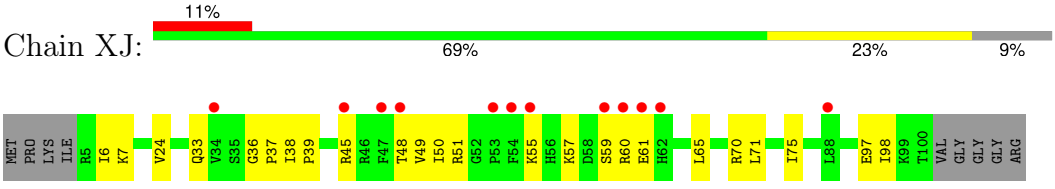
• Molecule 10: 30S ribosomal protein S10

Chain QJ:



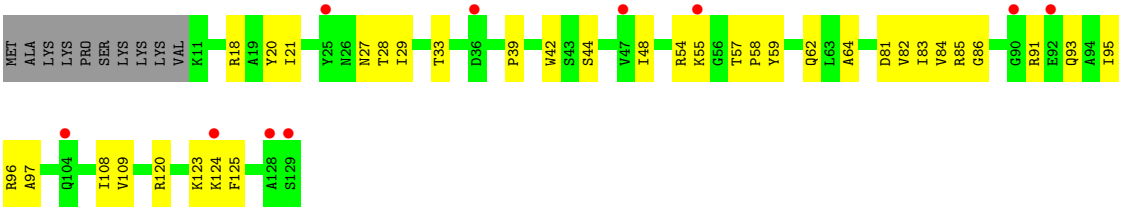
• Molecule 10: 30S ribosomal protein S10

Chain XJ:



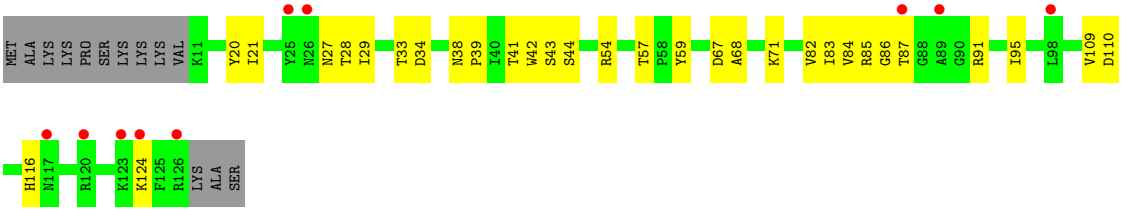
• Molecule 11: 30S ribosomal protein S11

Chain QK:



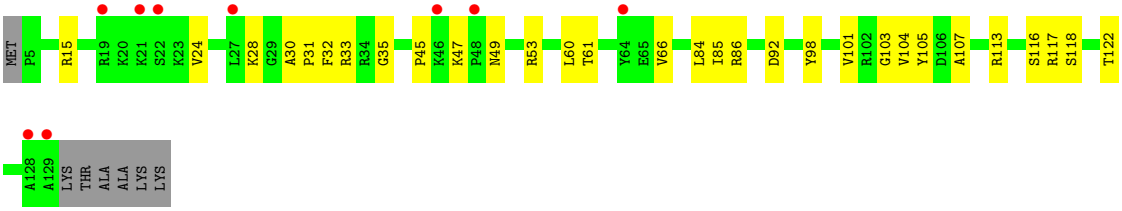
• Molecule 11: 30S ribosomal protein S11

Chain XK:



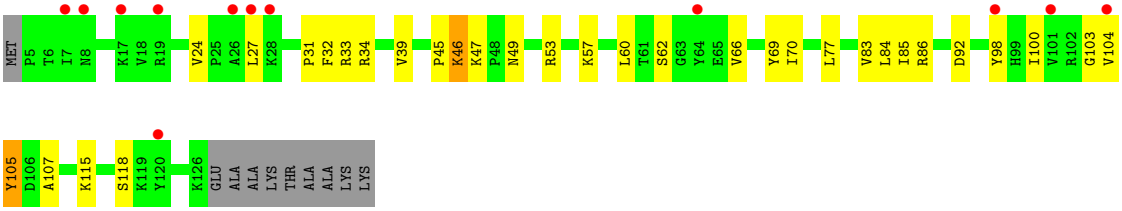
• Molecule 12: 30S ribosomal protein S12

Chain QL:



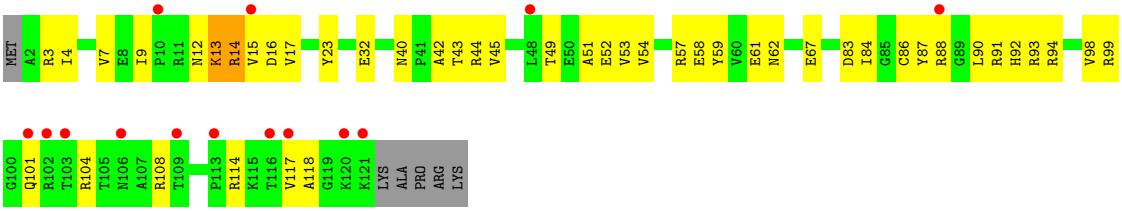
• Molecule 12: 30S ribosomal protein S12

Chain XL:



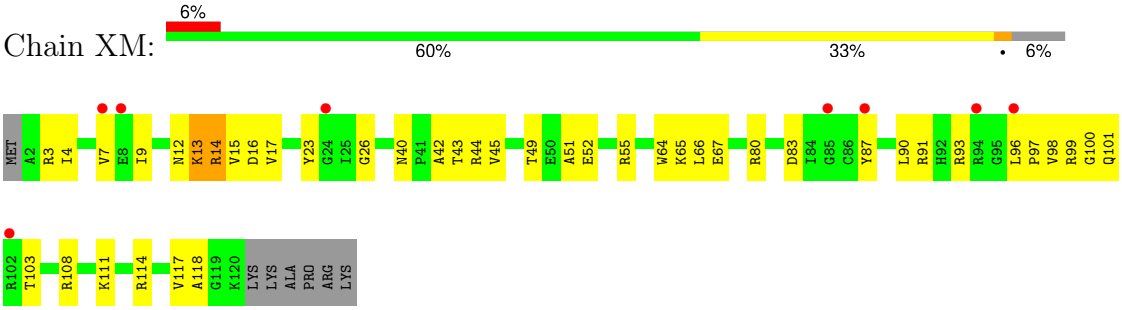
• Molecule 13: 30S ribosomal protein S13

Chain QM:



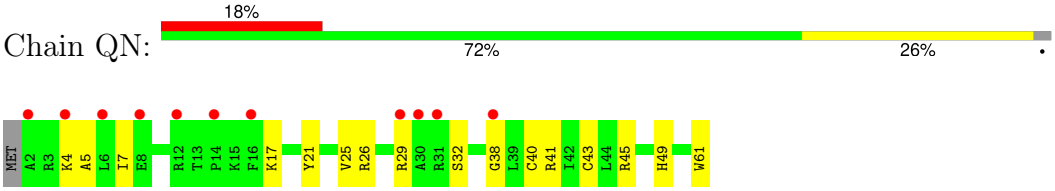
• Molecule 13: 30S ribosomal protein S13

Chain XM:



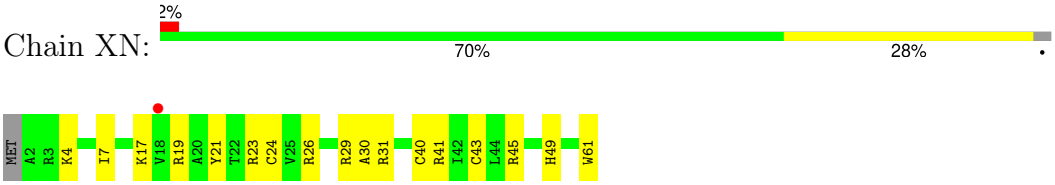
• Molecule 14: 30S ribosomal protein S14 type Z

Chain QN:



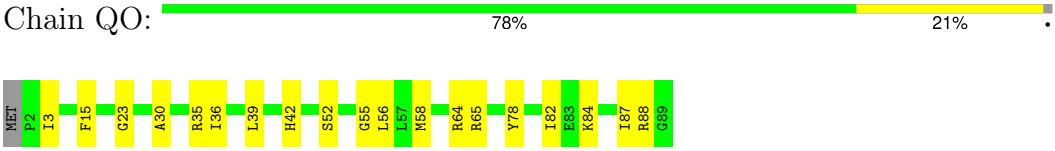
• Molecule 14: 30S ribosomal protein S14 type Z

Chain XN:



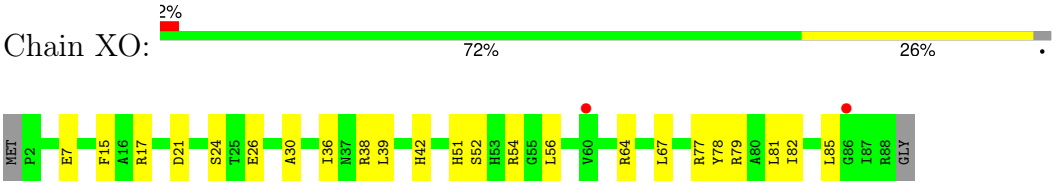
• Molecule 15: 30S ribosomal protein S15

Chain QO:



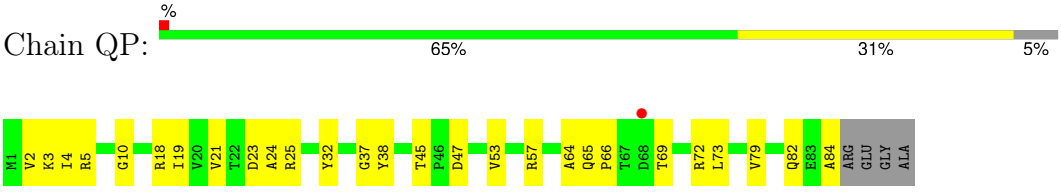
• Molecule 15: 30S ribosomal protein S15

Chain XO:



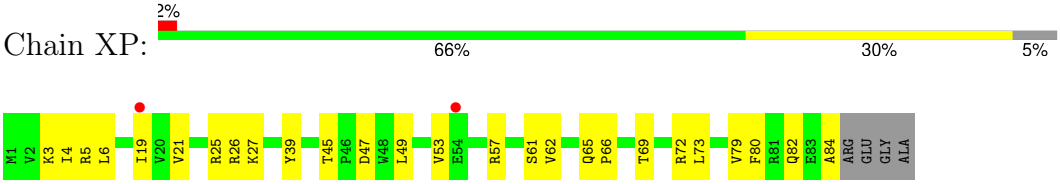
• Molecule 16: 30S ribosomal protein S16

Chain QP:



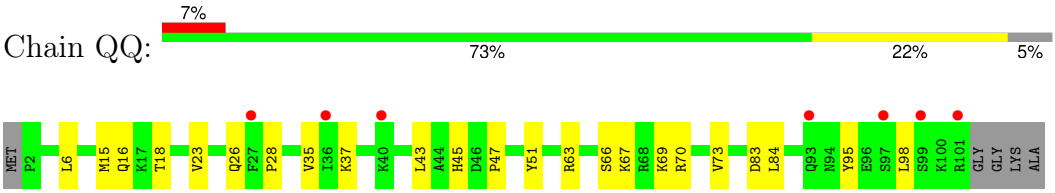
• Molecule 16: 30S ribosomal protein S16

Chain XP:



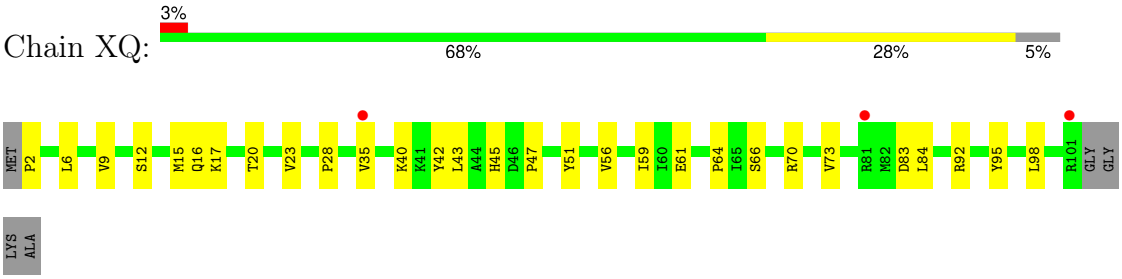
• Molecule 17: 30S ribosomal protein S17

Chain QQ:



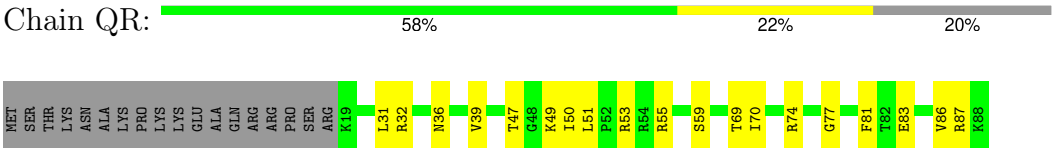
• Molecule 17: 30S ribosomal protein S17

Chain XQ:



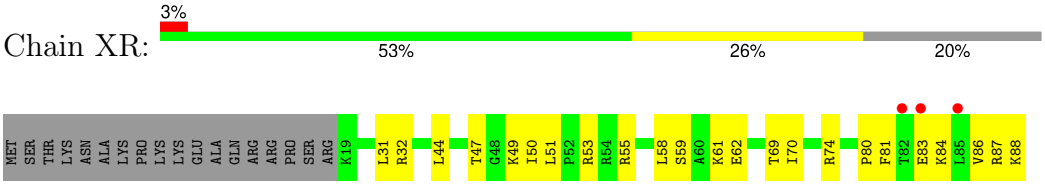
• Molecule 18: 30S ribosomal protein S18

Chain QR:



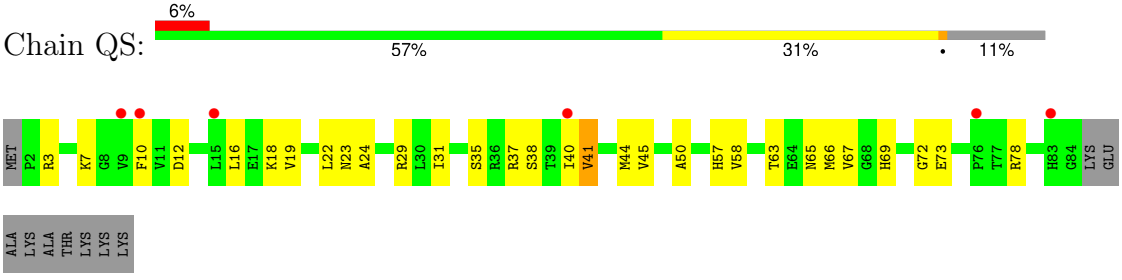
• Molecule 18: 30S ribosomal protein S18

Chain XR:



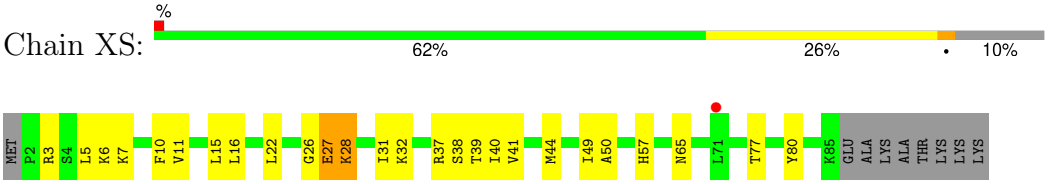
• Molecule 19: 30S ribosomal protein S19

Chain QS:



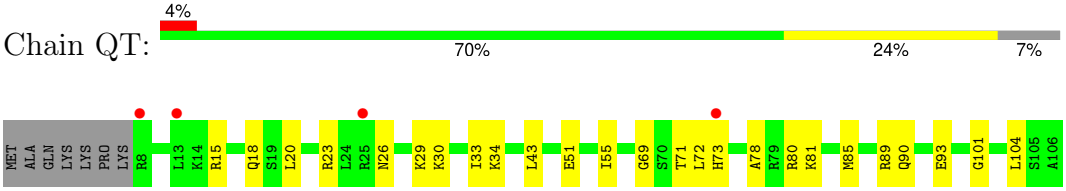
• Molecule 19: 30S ribosomal protein S19

Chain XS:



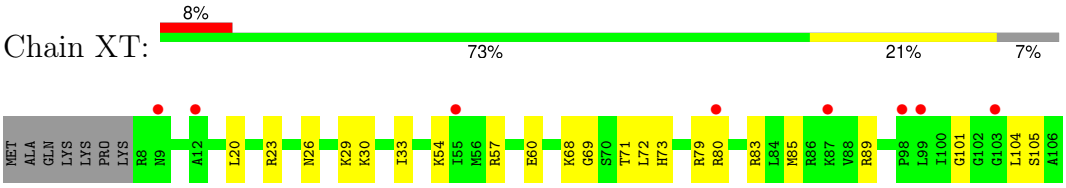
• Molecule 20: 30S ribosomal protein S20

Chain QT:



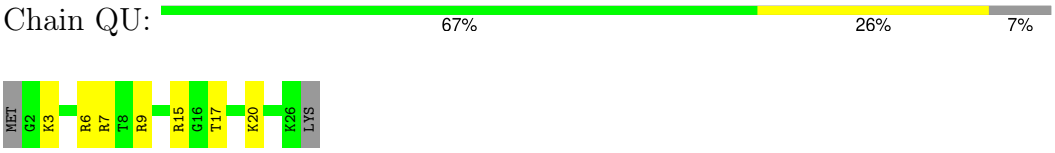
• Molecule 20: 30S ribosomal protein S20

Chain XT:



• Molecule 21: 30S ribosomal protein Thx

Chain QU:

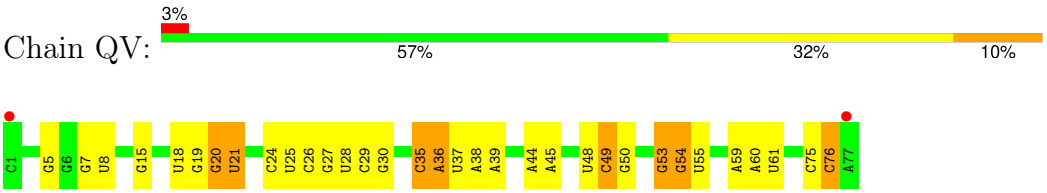


• Molecule 21: 30S ribosomal protein Thx

Chain XU:

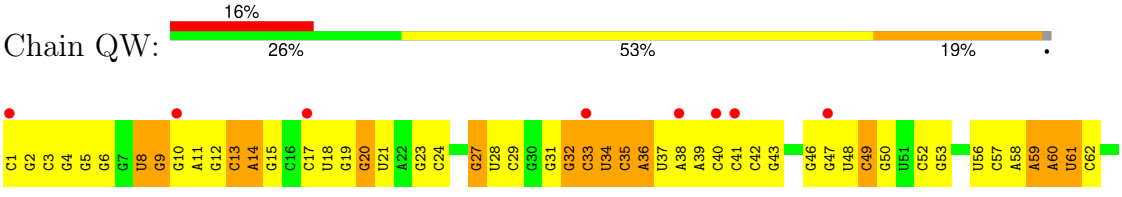
• Molecule 22: tRNA fMet

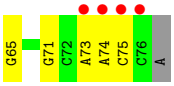
Chain QV:



• Molecule 22: tRNA fMet

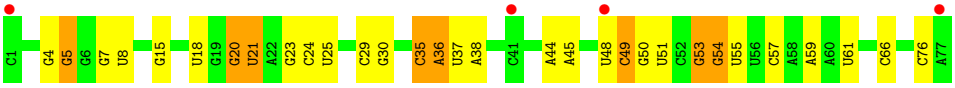
Chain QW:





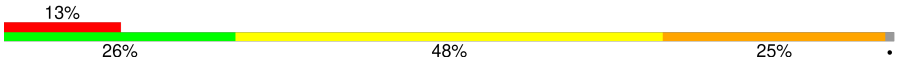
• Molecule 22: tRNA fMet

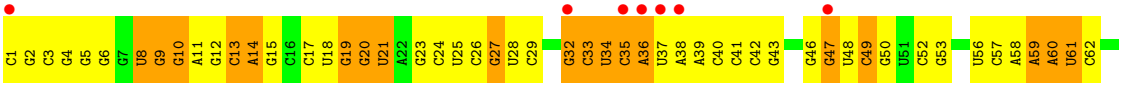
Chain XV:

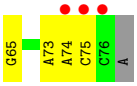


• Molecule 22: tRNA fMet

Chain XW:





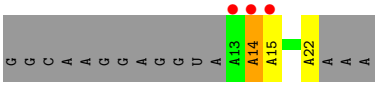


• Molecule 23: messenger RNA

Chain QX:

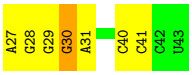
• Molecule 23: messenger RNA

Chain XX:



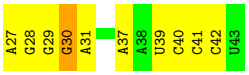
• Molecule 24: ASL Leu

Chain QY:



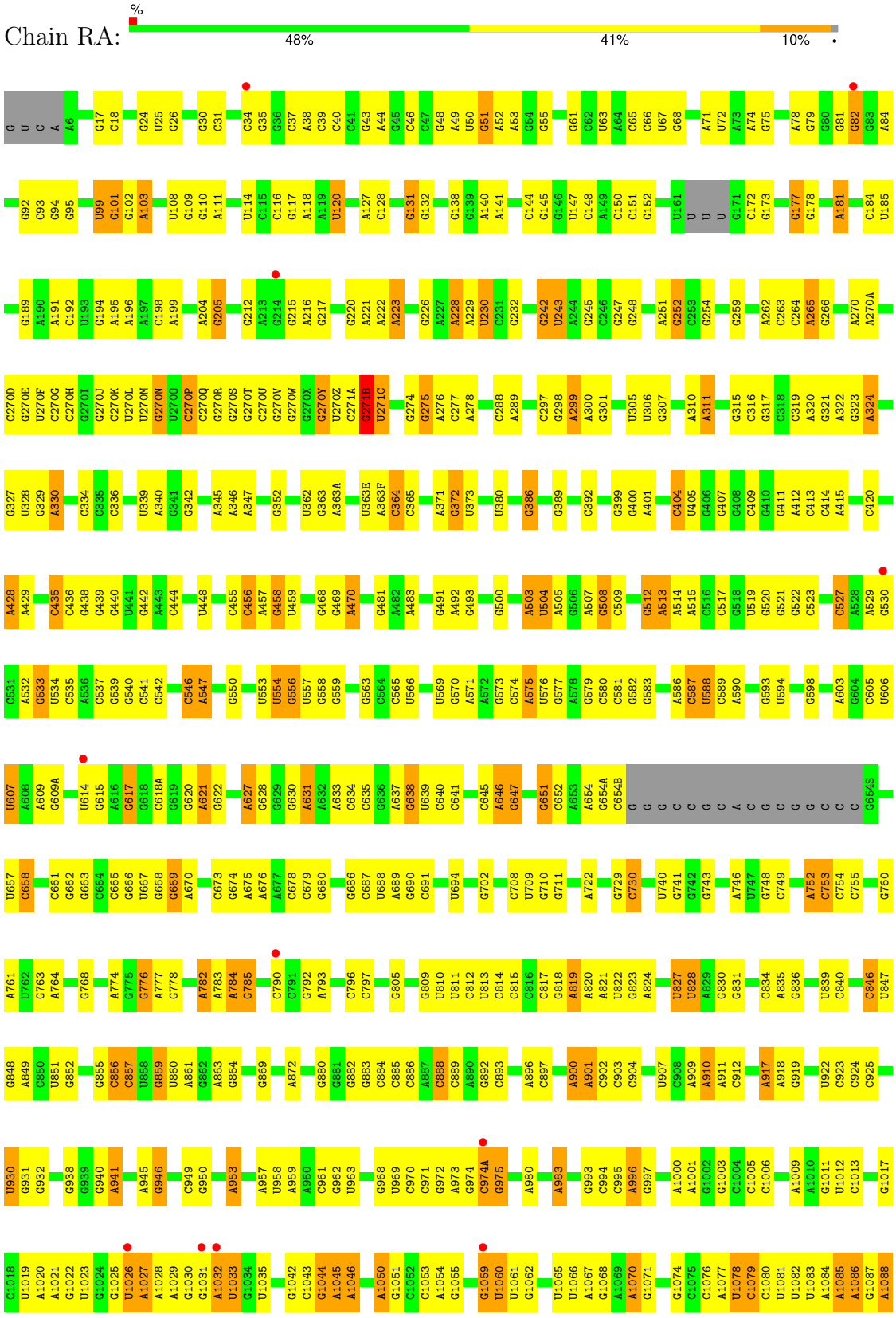
• Molecule 24: ASL Leu

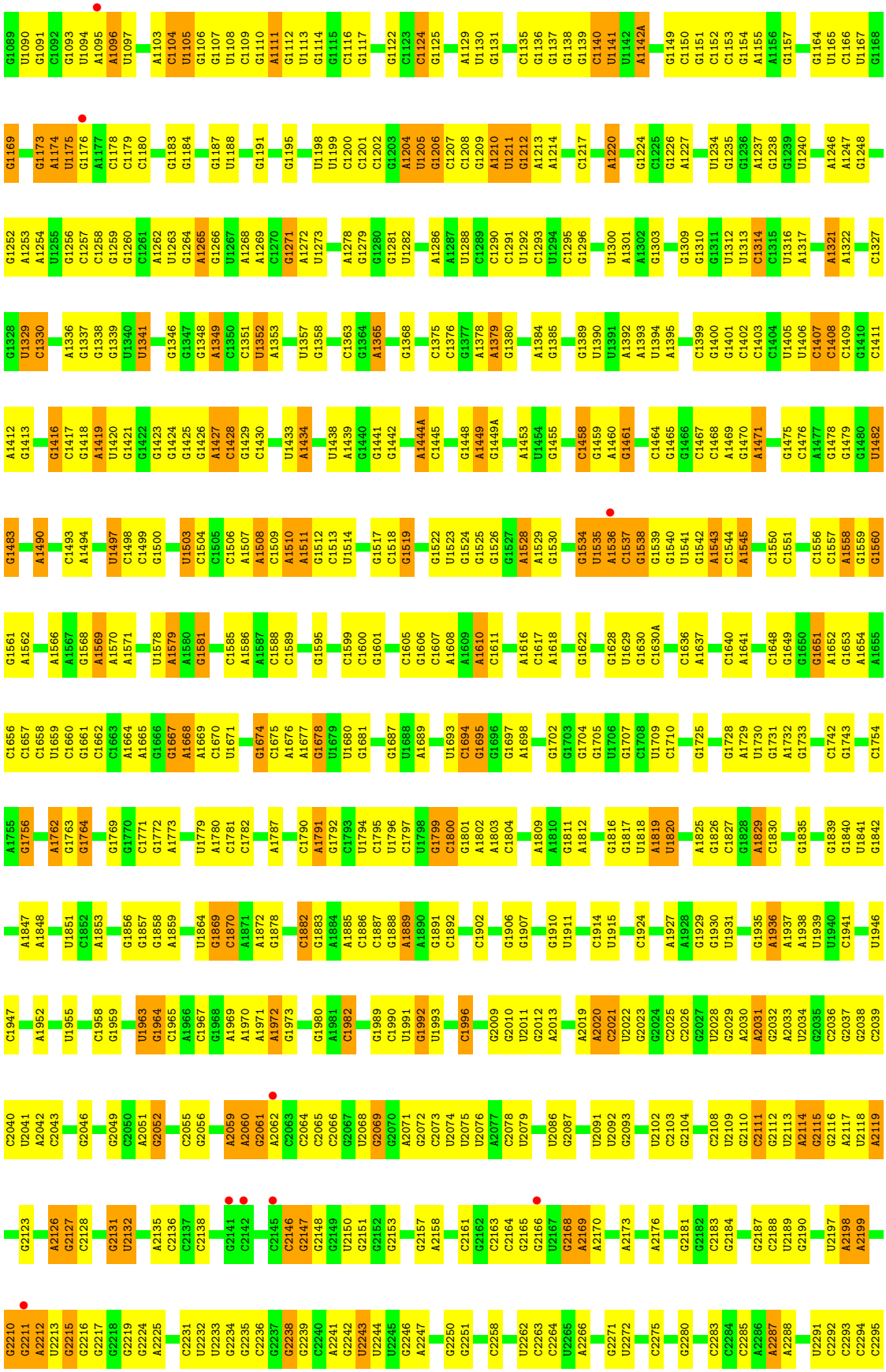
Chain XY:

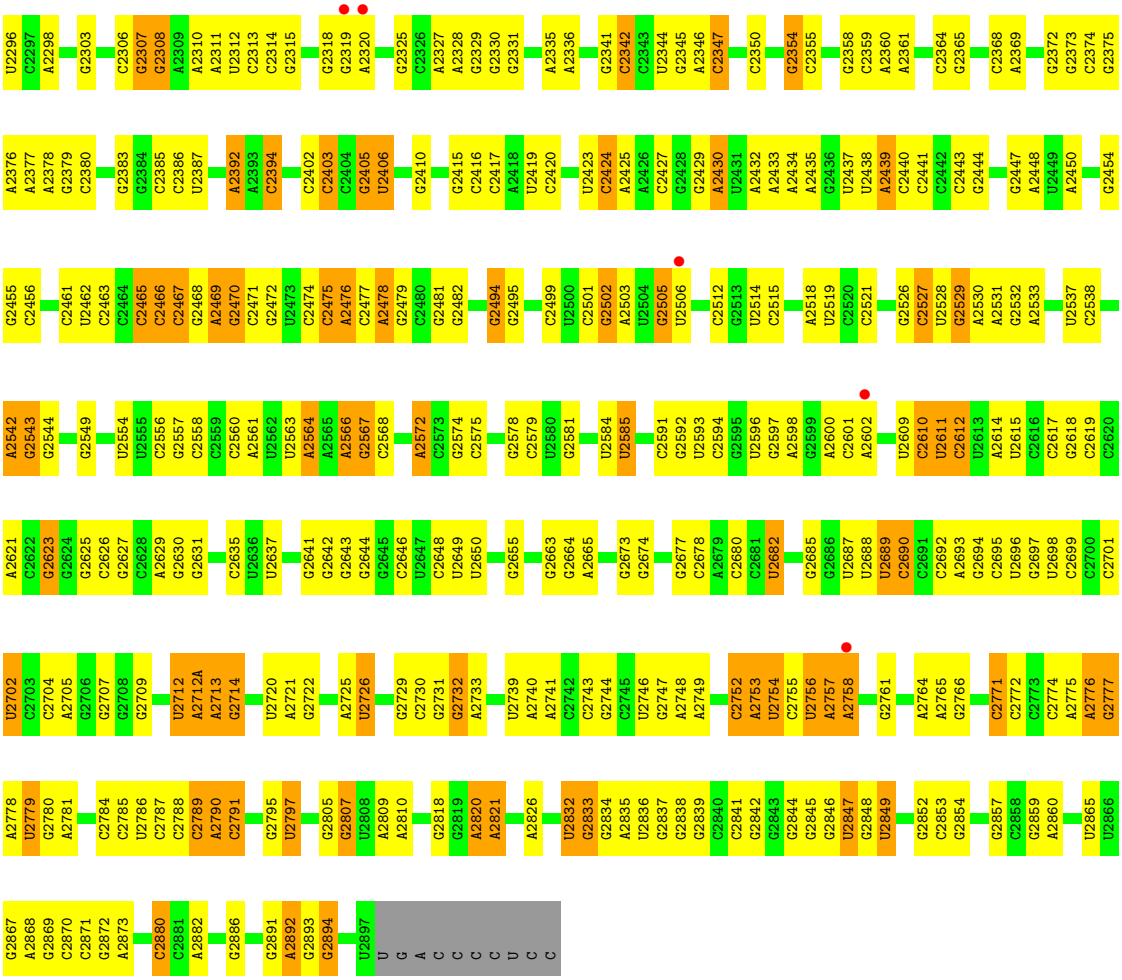


• Molecule 25: 23S rRNA

Chain RA:

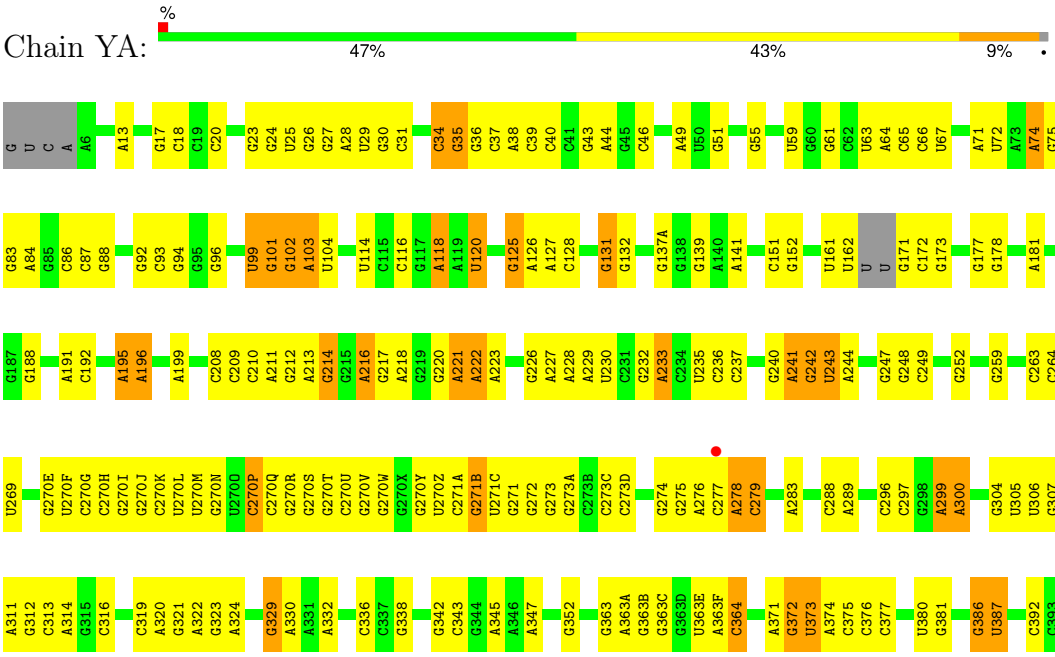


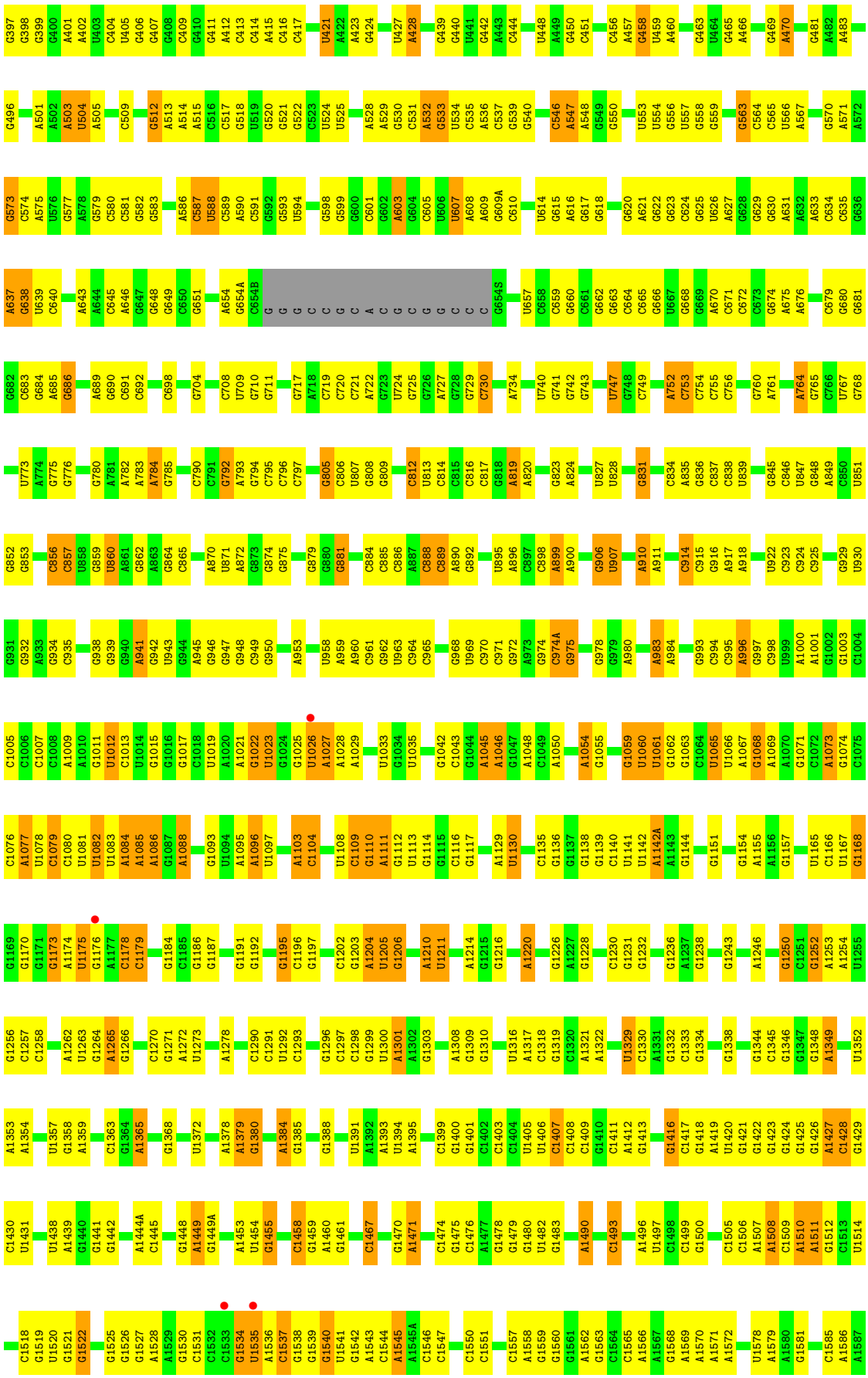




• Molecule 25: 23S rRNA

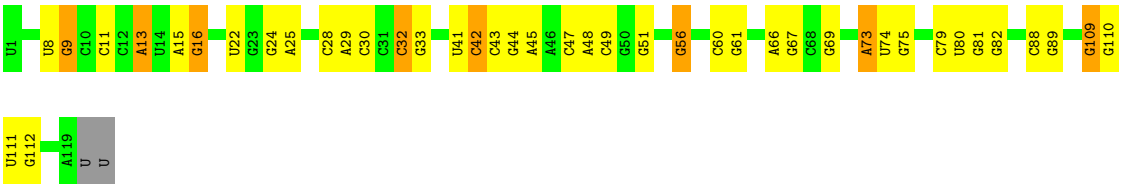
Chain YA:





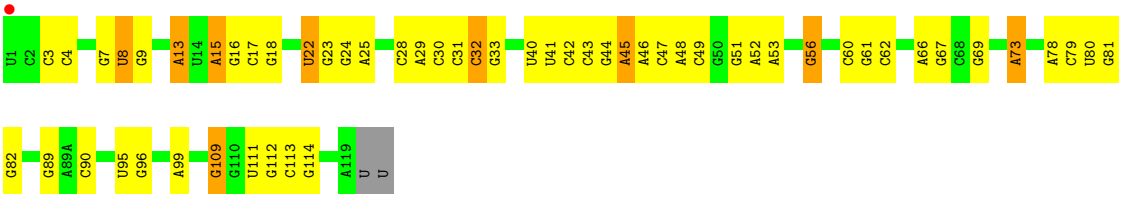
• Molecule 26: 5S rRNA

Chain RB:



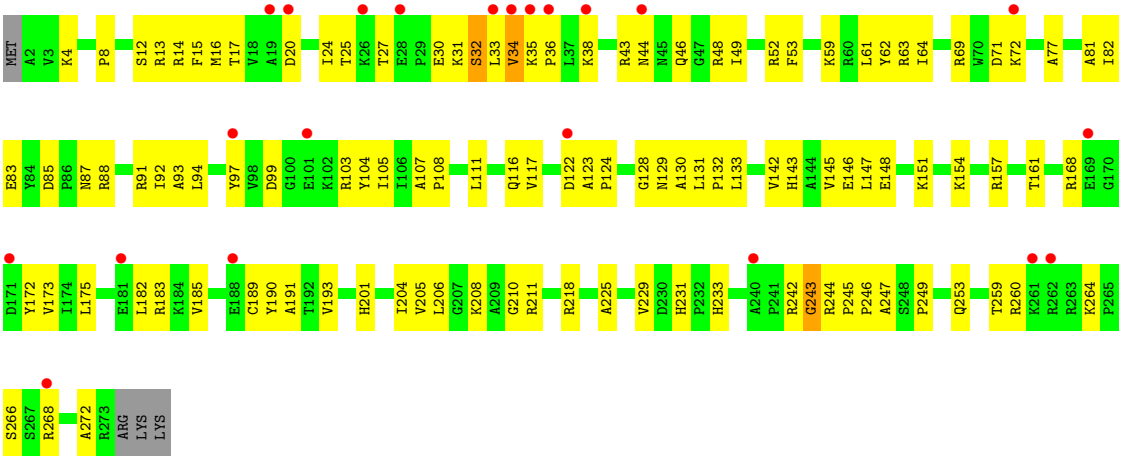
• Molecule 26: 5S rRNA

Chain YB:



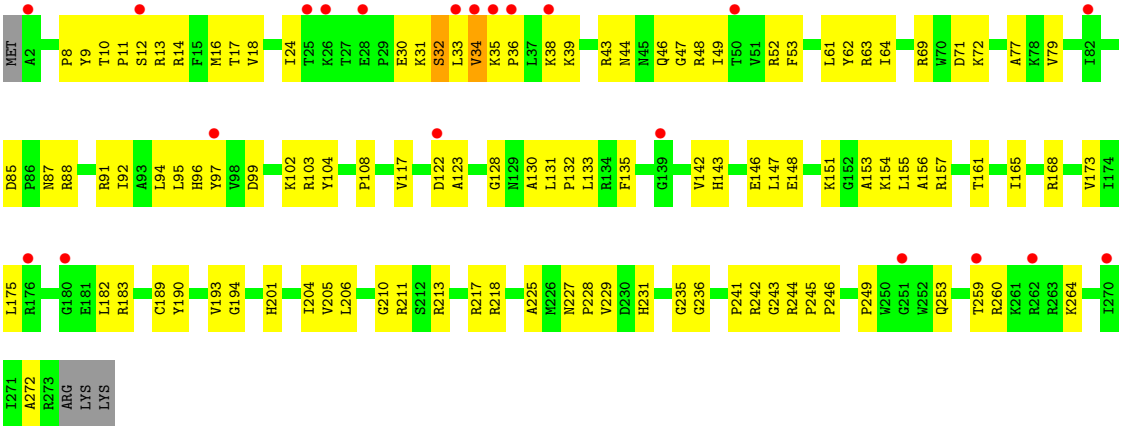
• Molecule 27: 50S ribosomal protein L2

Chain RD:



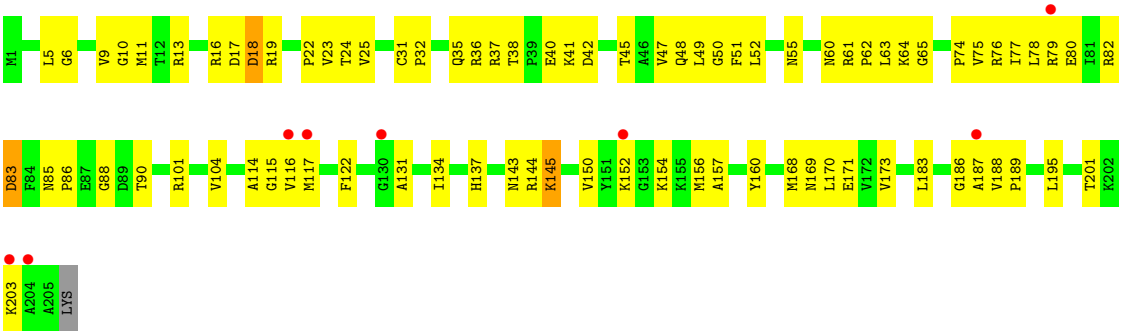
• Molecule 27: 50S ribosomal protein L2

Chain YD:



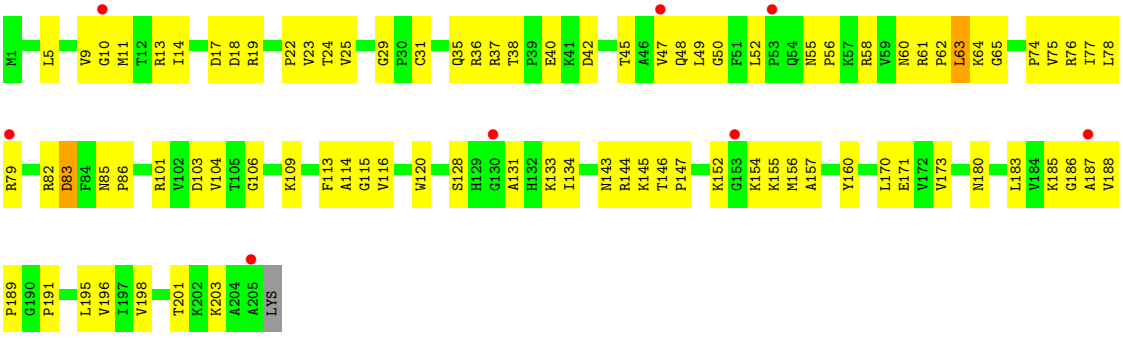
• Molecule 28: 50S ribosomal protein L3

Chain RE:



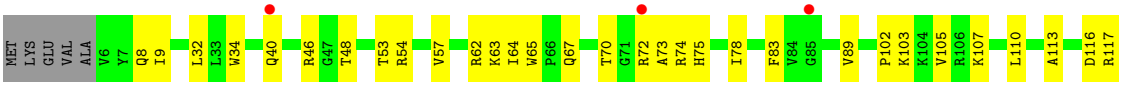
• Molecule 28: 50S ribosomal protein L3

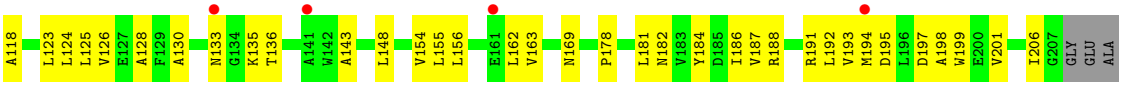
Chain YE:



• Molecule 29: 50S ribosomal protein L4

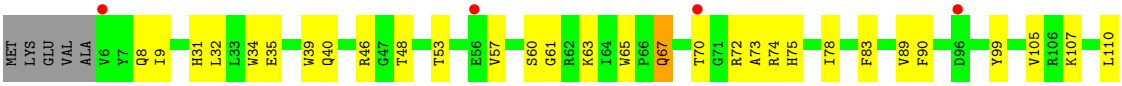
Chain RF:

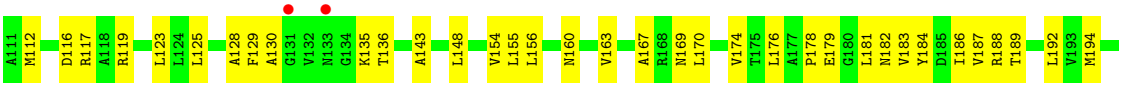


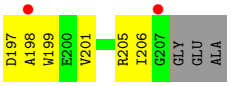


• Molecule 29: 50S ribosomal protein L4

Chain YF:

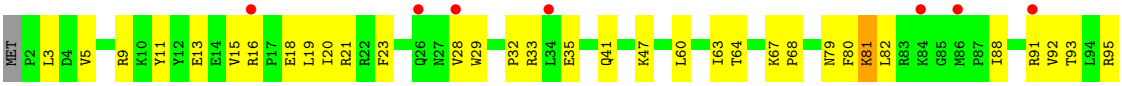


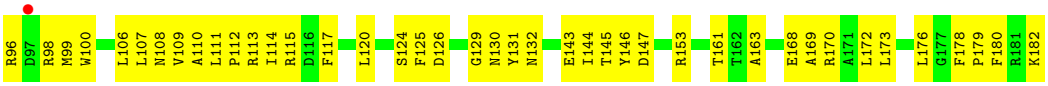




• Molecule 30: 50S ribosomal protein L5

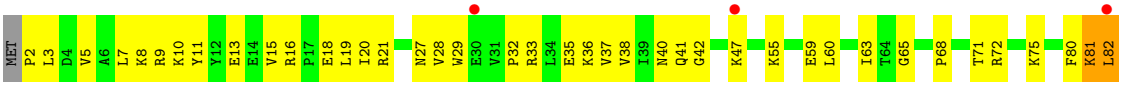
Chain RG:

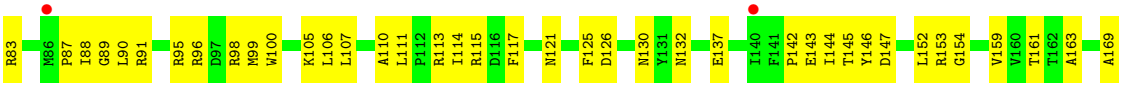




• Molecule 30: 50S ribosomal protein L5

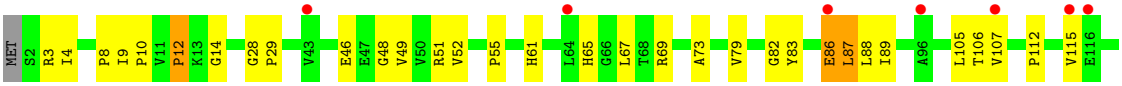
Chain YG:

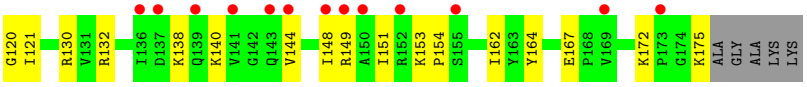




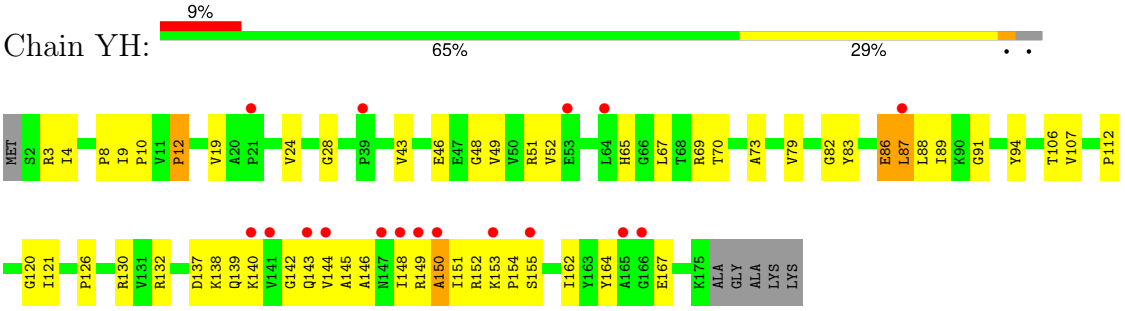
• Molecule 31: 50S ribosomal protein L6

Chain RH:

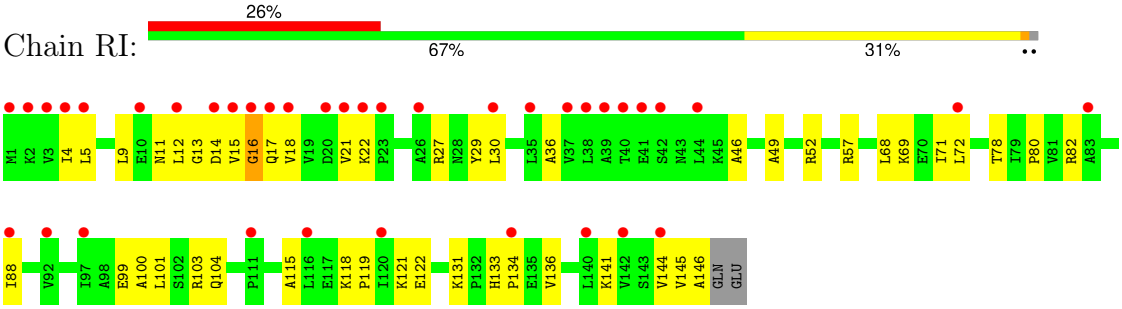




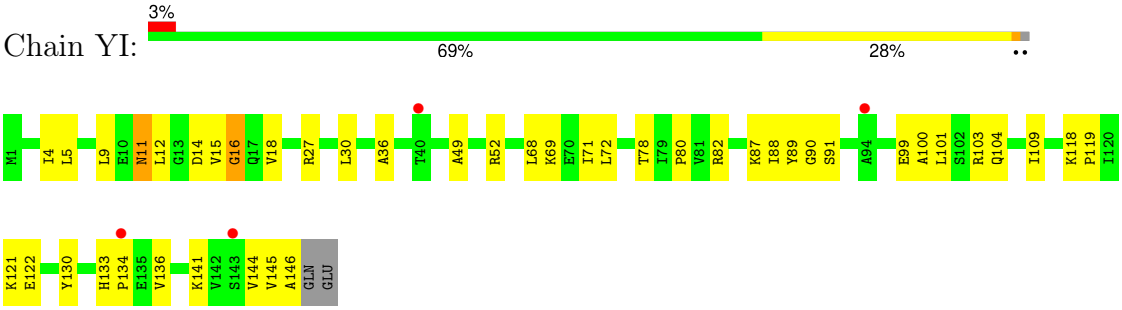
• Molecule 31: 50S ribosomal protein L6



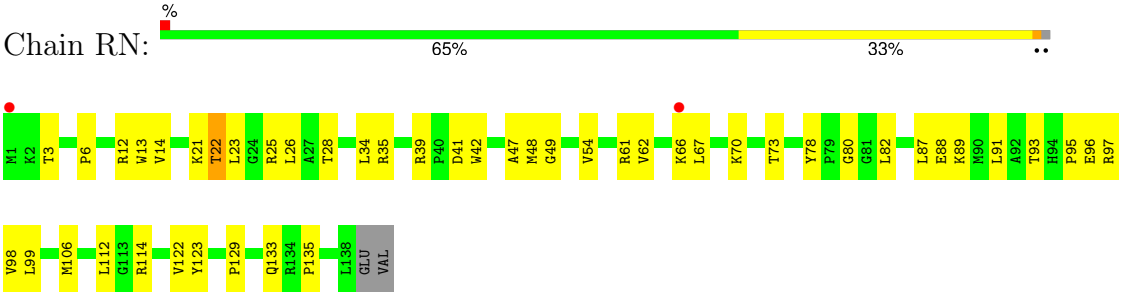
• Molecule 32: 50S ribosomal protein L9



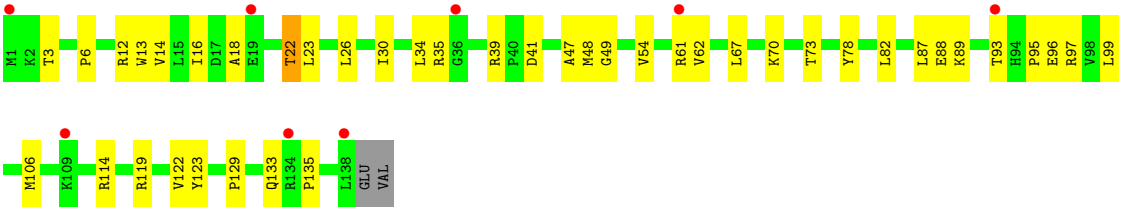
• Molecule 32: 50S ribosomal protein L9



• Molecule 33: 50S ribosomal protein L13



• Molecule 33: 50S ribosomal protein L13



• Molecule 34: 50S ribosomal protein L14

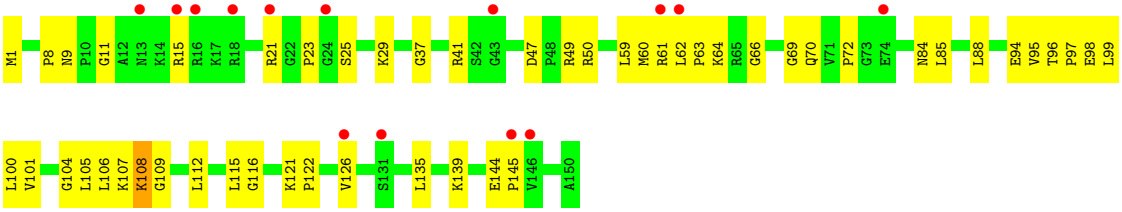
Chain RO:

• Molecule 34: 50S ribosomal protein L14

Chain YO:

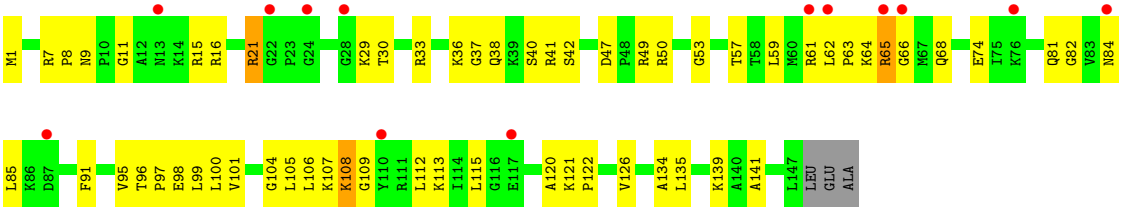
• Molecule 35: 50S ribosomal protein L15

Chain RP:



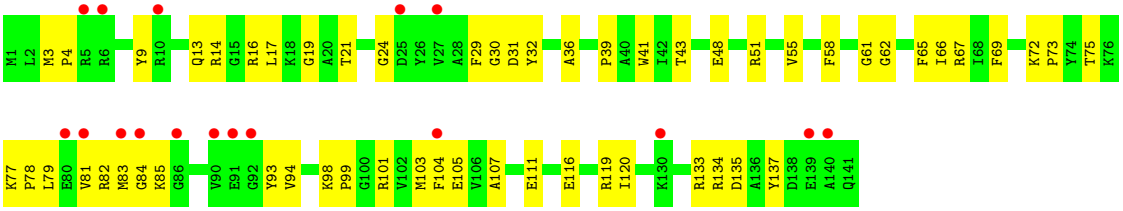
• Molecule 35: 50S ribosomal protein L15

Chain YP:

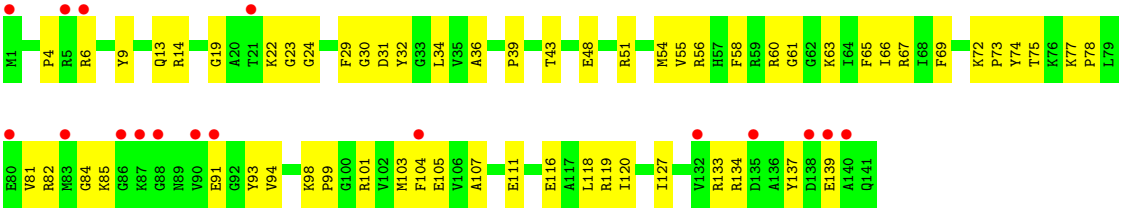


• Molecule 36: 50S ribosomal protein L16

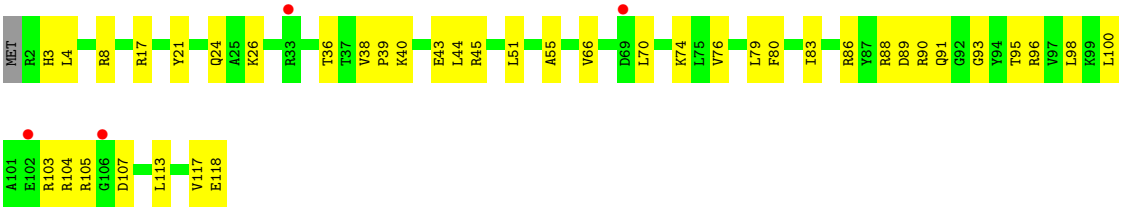
Chain RQ:



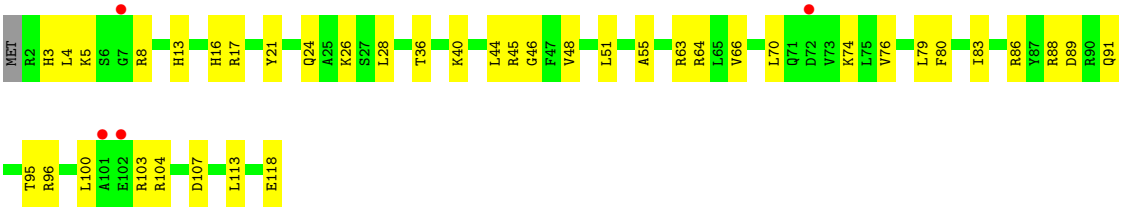
• Molecule 36: 50S ribosomal protein L16



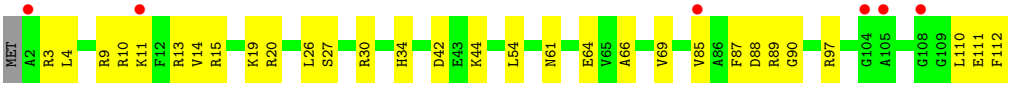
• Molecule 37: 50S ribosomal protein L17



• Molecule 37: 50S ribosomal protein L17

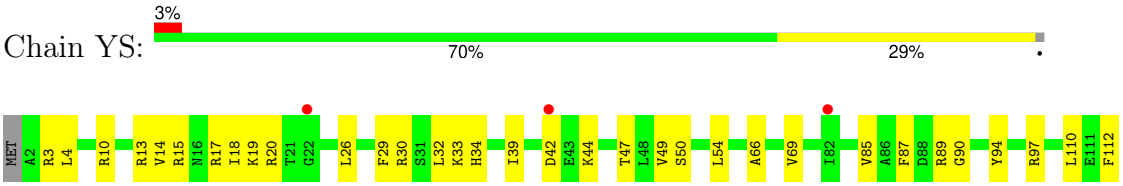


• Molecule 38: 50S ribosomal protein L18



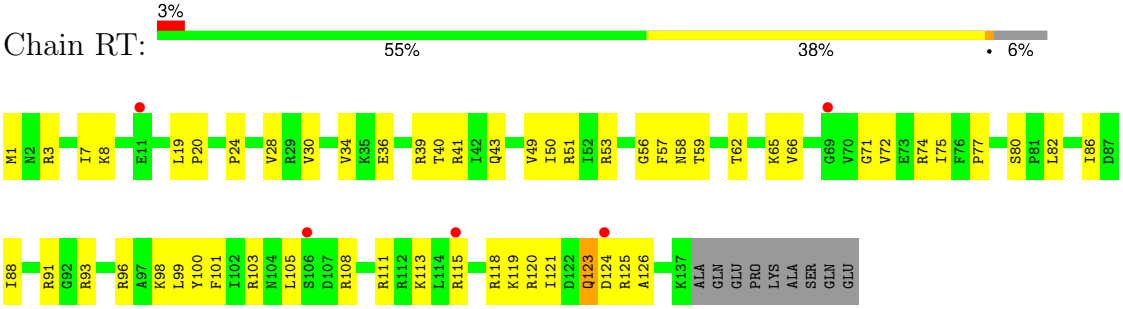
• Molecule 38: 50S ribosomal protein L18

Chain YS:



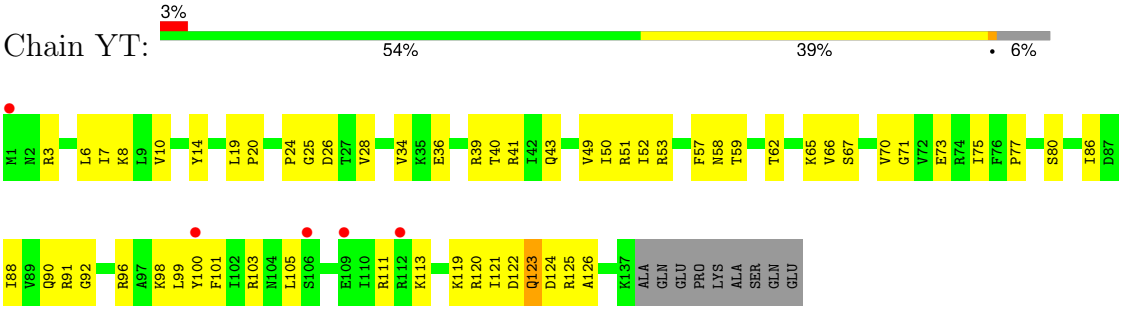
• Molecule 39: 50S ribosomal protein L19

Chain RT:



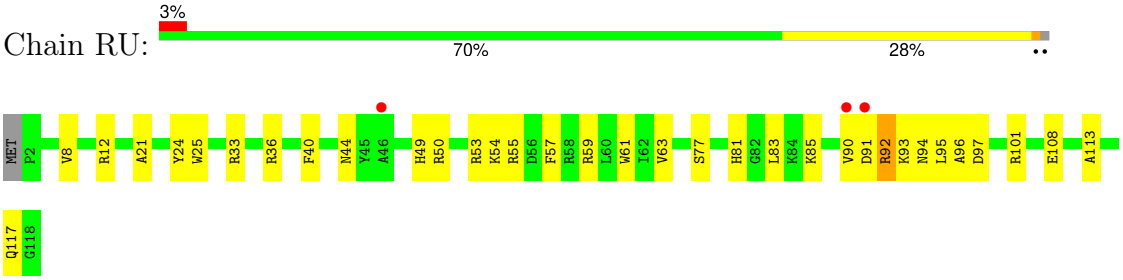
• Molecule 39: 50S ribosomal protein L19

Chain YT:



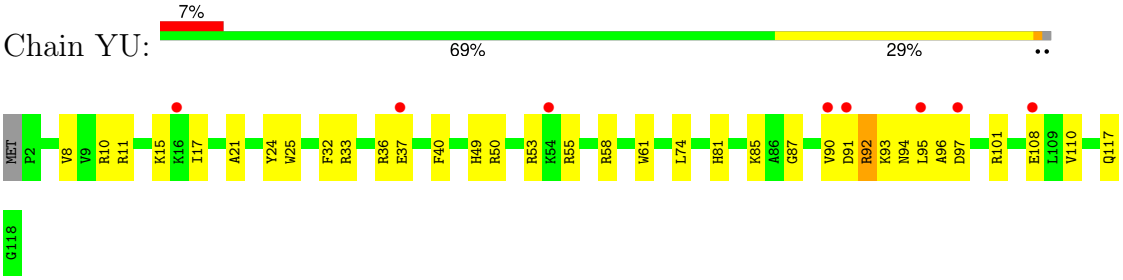
• Molecule 40: 50S ribosomal protein L20

Chain RU:



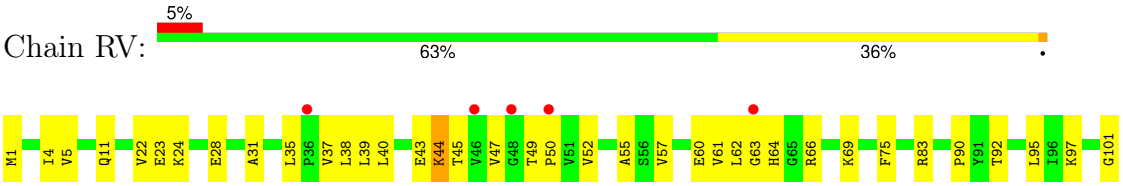
• Molecule 40: 50S ribosomal protein L20

Chain YU:



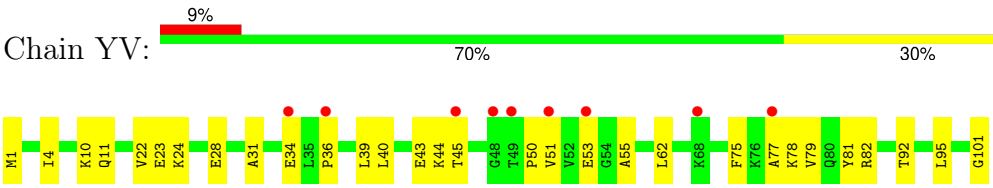
• Molecule 41: 50S ribosomal protein L21

Chain RV:



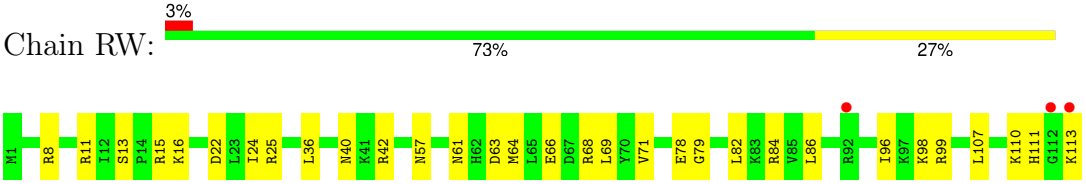
• Molecule 41: 50S ribosomal protein L21

Chain YV:



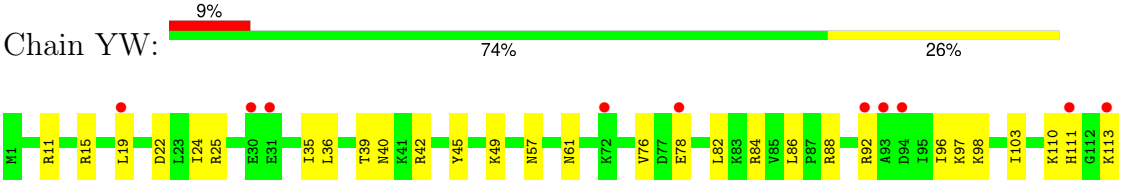
• Molecule 42: 50S ribosomal protein L22

Chain RW:



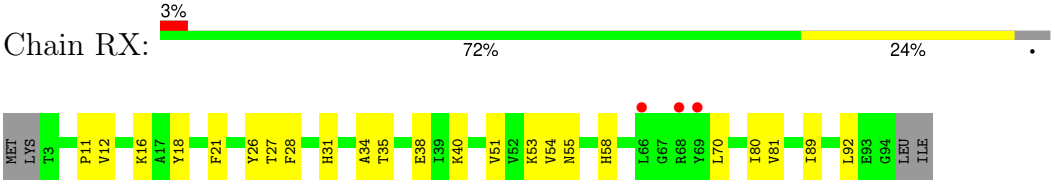
• Molecule 42: 50S ribosomal protein L22

Chain YW:



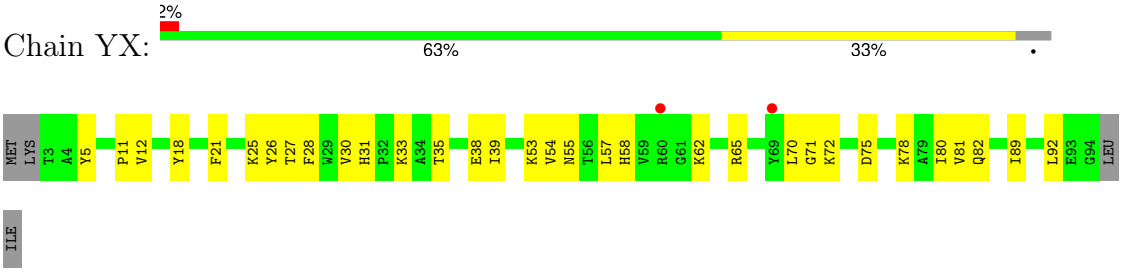
• Molecule 43: 50S ribosomal protein L23

Chain RX:



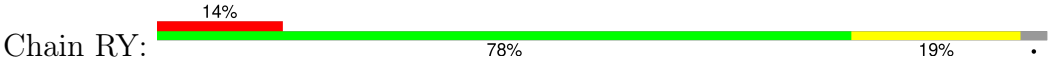
• Molecule 43: 50S ribosomal protein L23

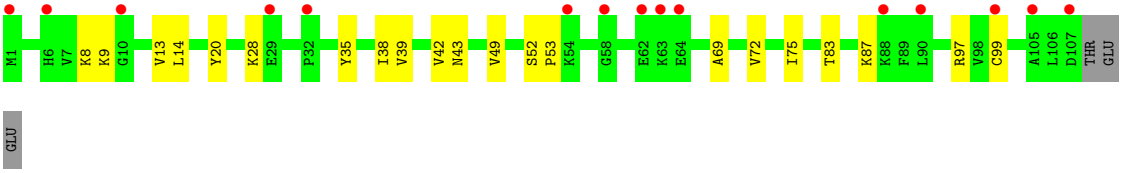
Chain YX:



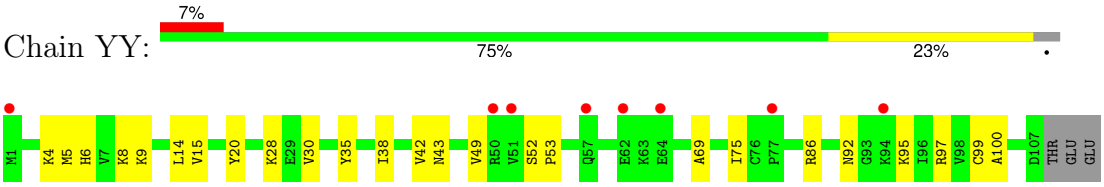
• Molecule 44: 50S ribosomal protein L24

Chain RY:

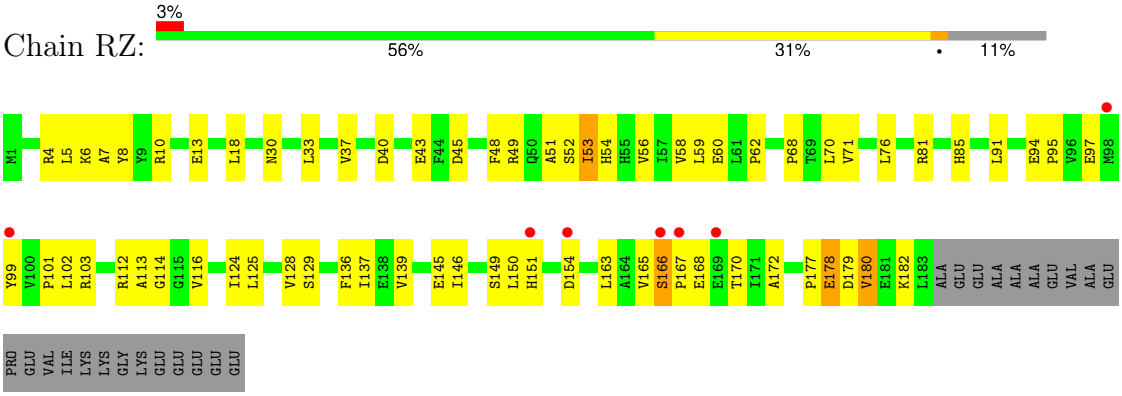




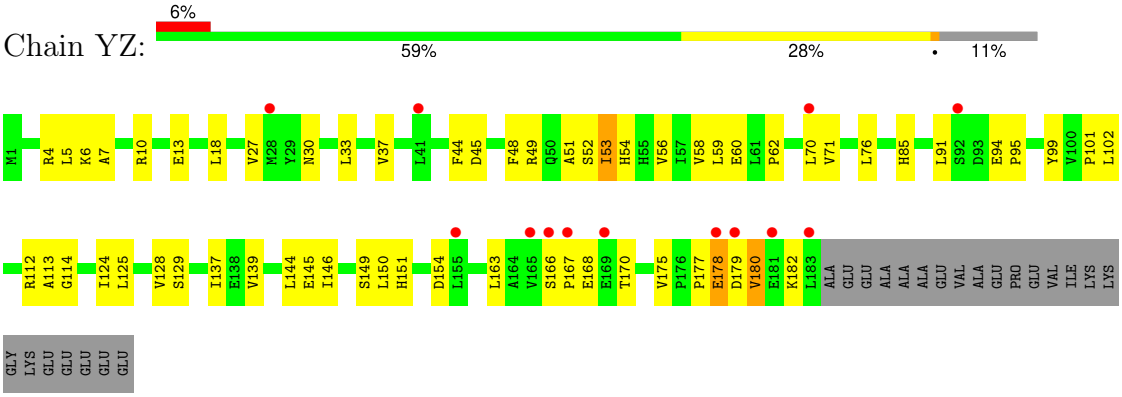
• Molecule 44: 50S ribosomal protein L24



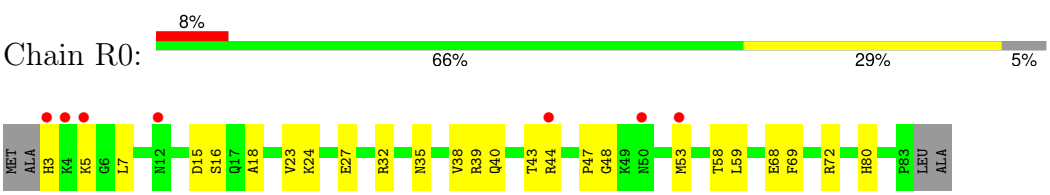
• Molecule 45: 50S ribosomal protein L25



• Molecule 45: 50S ribosomal protein L25

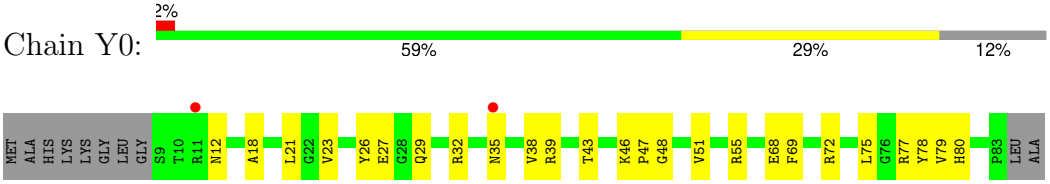


• Molecule 46: 50S ribosomal protein L27



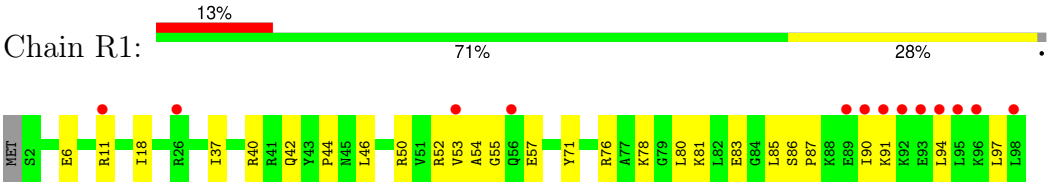
• Molecule 46: 50S ribosomal protein L27

Chain Y0:



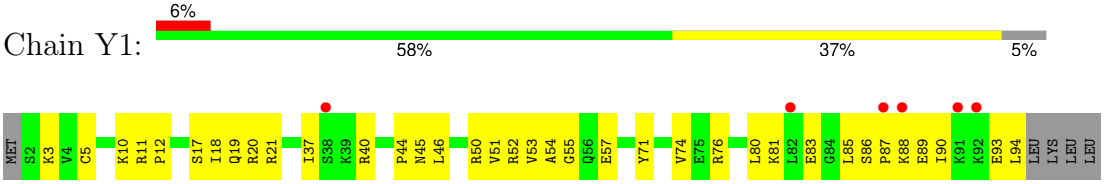
• Molecule 47: 50S ribosomal protein L28

Chain R1:



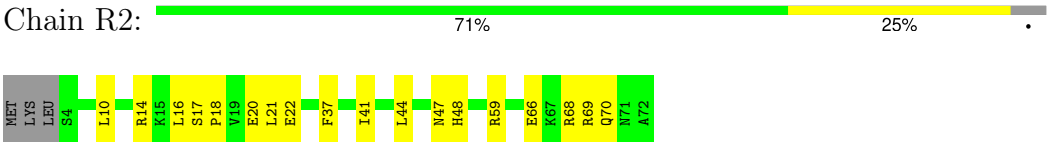
• Molecule 47: 50S ribosomal protein L28

Chain Y1:



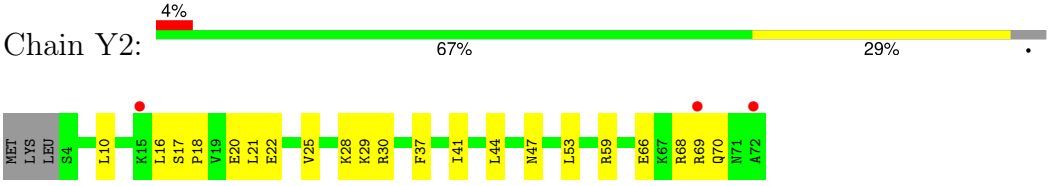
• Molecule 48: 50S ribosomal protein L29

Chain R2:



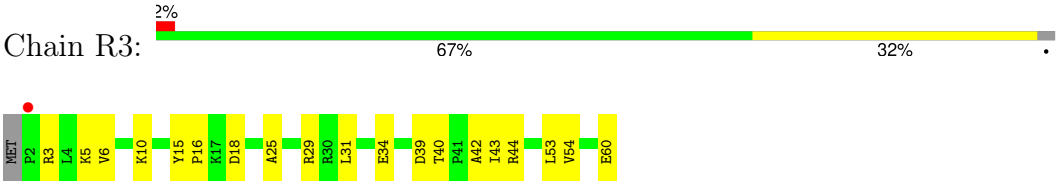
• Molecule 48: 50S ribosomal protein L29

Chain Y2:



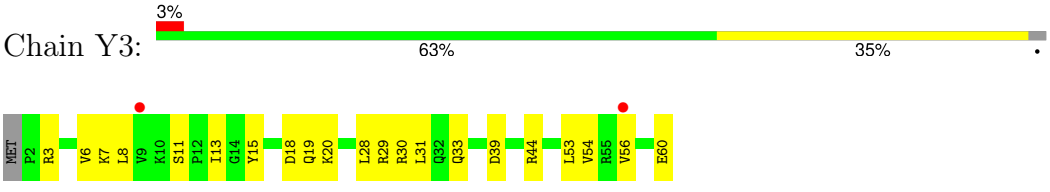
• Molecule 49: 50S ribosomal protein L30

Chain R3:



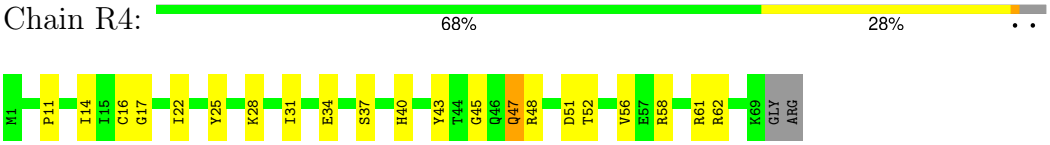
• Molecule 49: 50S ribosomal protein L30

Chain Y3:



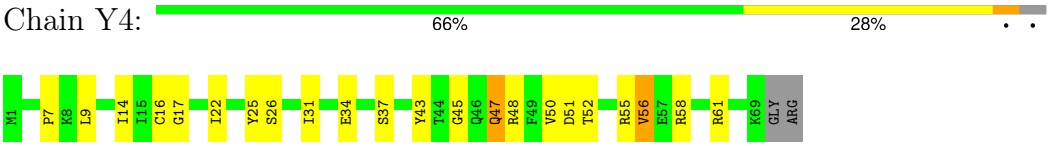
• Molecule 50: 50S ribosomal protein L31

Chain R4:



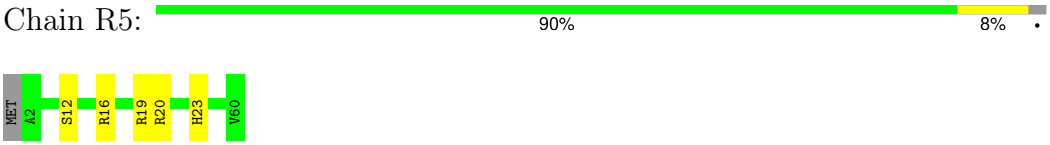
• Molecule 50: 50S ribosomal protein L31

Chain Y4:



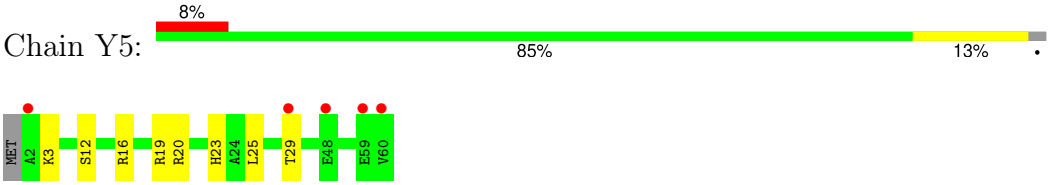
• Molecule 51: 50S ribosomal protein L32

Chain R5:



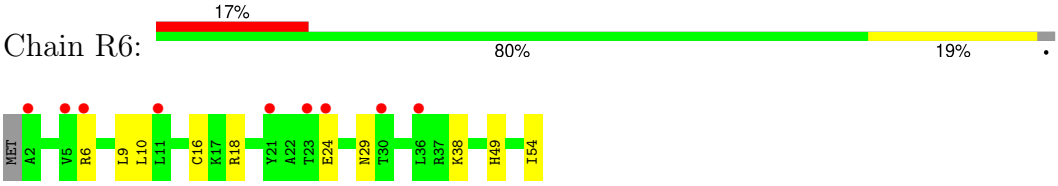
• Molecule 51: 50S ribosomal protein L32

Chain Y5:



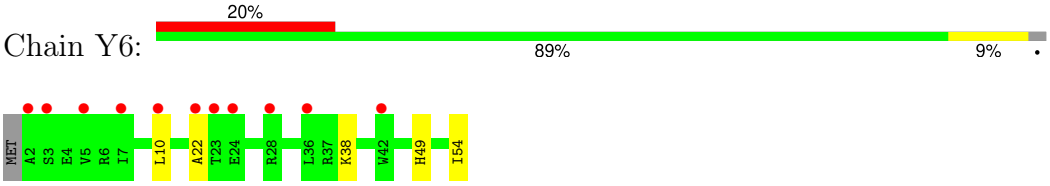
• Molecule 52: 50S ribosomal protein L33

Chain R6:



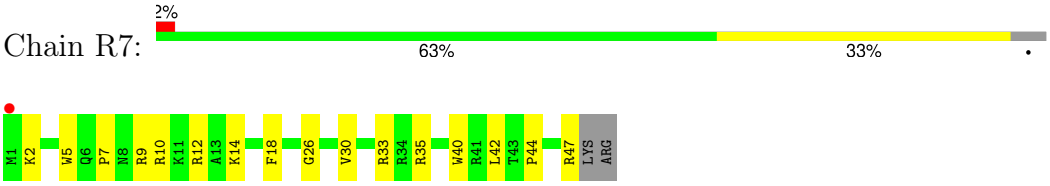
• Molecule 52: 50S ribosomal protein L33

Chain Y6:



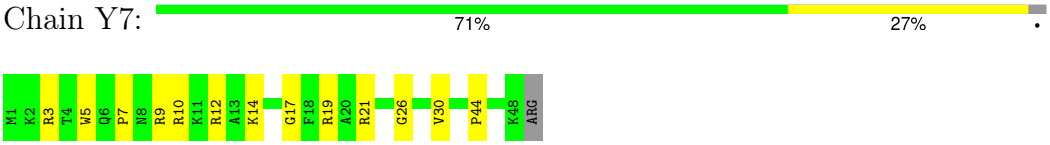
• Molecule 53: 50S ribosomal protein L34

Chain R7:



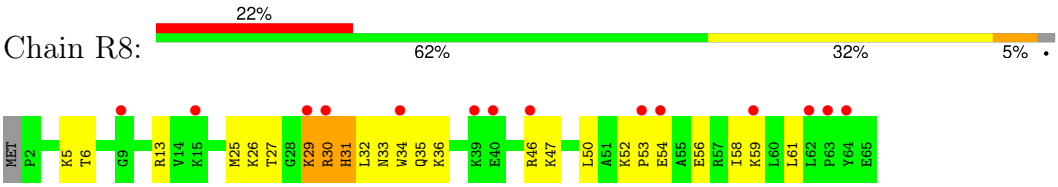
• Molecule 53: 50S ribosomal protein L34

Chain Y7:



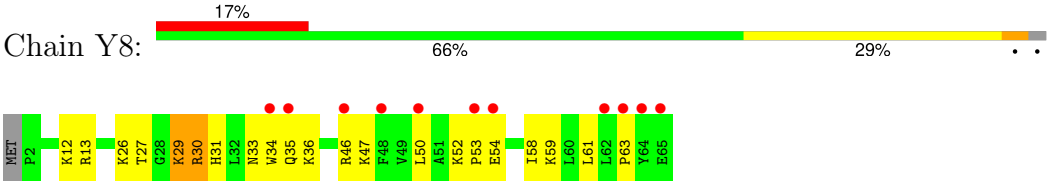
• Molecule 54: 50S ribosomal protein L35

Chain R8:



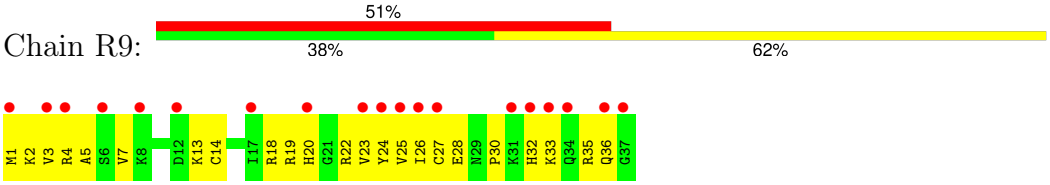
• Molecule 54: 50S ribosomal protein L35

Chain Y8:



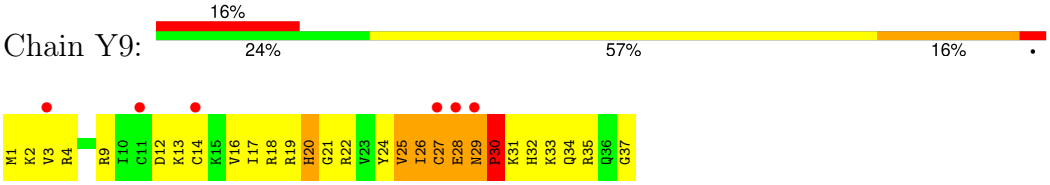
• Molecule 55: 50S ribosomal protein L36

Chain R9:



• Molecule 55: 50S ribosomal protein L36

Chain Y9:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	210.70Å 446.14Å 616.00Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	145.57 – 3.68 145.57 – 3.68	Depositor EDS
% Data completeness (in resolution range)	99.3 (145.57-3.68) 99.3 (145.57-3.68)	Depositor EDS
R_{merge}	0.30	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.29 (at 3.58Å)	Xtriage
Refinement program	PHENIX 1.12_2829	Depositor
R, R_{free}	0.228 , 0.274 0.230 , 0.276	Depositor DCC
R_{free} test set	30649 reflections (4.50%)	wwPDB-VP
Wilson B-factor (Å^2)	89.7	Xtriage
Anisotropy	0.196	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.30 , 103.5	EDS
L-test for twinning[2]	$< \|L\| > = 0.36$, $< L^2 > = 0.19$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.90	EDS
Total number of atoms	295575	wwPDB-VP
Average B, all atoms (Å^2)	106.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.76% 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 (i)

5.1 Standard geometry (i)

Bond lengths and bond angles in the following residue types are not validated in this section: MG, SF4, 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	0.12	0/36097	0.31	0/56339
1	XA	0.12	0/36100	0.31	0/56344
2	QB	0.15	0/1942	0.50	0/2619
2	XB	0.14	0/1950	0.48	0/2630
3	QC	0.14	0/1629	0.41	0/2195
3	XC	0.12	0/1629	0.39	0/2195
4	QD	0.27	1/1733 (0.1%)	0.55	2/2318 (0.1%)
4	XD	0.17	0/1733	0.49	0/2318
5	QE	0.13	0/1171	0.45	0/1576
5	XE	0.13	0/1171	0.45	0/1576
6	QF	0.15	0/856	0.44	0/1154
6	XF	0.13	0/856	0.42	0/1154
7	QG	0.13	0/1276	0.40	0/1709
7	XG	0.12	0/1276	0.40	0/1709
8	QH	0.12	0/1128	0.39	0/1517
8	XH	0.13	0/1128	0.41	0/1517
9	QI	0.14	0/1029	0.51	0/1379
9	XI	0.15	0/1017	0.49	0/1365
10	QJ	0.46	1/814 (0.1%)	0.66	5/1095 (0.5%)
10	XJ	0.14	0/790	0.47	0/1063
11	QK	0.12	0/900	0.35	0/1213
11	XK	0.12	0/879	0.37	0/1187
12	QL	0.16	0/991	0.61	0/1327
12	XL	0.17	0/972	0.69	5/1301 (0.4%)
13	QM	0.16	0/965	0.60	1/1292 (0.1%)
13	XM	0.16	0/956	0.60	1/1281 (0.1%)
14	QN	0.13	0/501	0.46	0/664
14	XN	0.14	0/501	0.48	0/664
15	QO	0.14	0/745	0.42	0/992
15	XO	0.12	0/740	0.39	0/987
16	QP	0.13	0/721	0.46	0/970
16	XP	0.13	0/721	0.45	0/970

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	QQ	0.11	0/847	0.39	0/1131
17	XQ	0.12	0/847	0.39	0/1131
18	QR	0.14	0/579	0.43	0/768
18	XR	0.14	0/579	0.44	0/768
19	QS	0.19	0/680	0.59	0/915
19	XS	0.17	0/689	0.57	1/926 (0.1%)
20	QT	0.18	0/765	0.56	0/1007
20	XT	0.18	0/765	0.53	0/1007
21	QU	0.11	0/221	0.43	0/288
21	XU	0.12	0/221	0.43	0/288
22	QV	0.12	0/1836	0.29	0/2859
22	QW	0.14	0/1807	0.37	0/2816
22	XV	0.12	0/1836	0.30	0/2859
22	XW	0.14	0/1807	0.35	0/2816
23	QX	0.09	0/188	0.20	0/290
23	XX	0.10	0/235	0.25	0/364
24	QY	0.09	0/400	0.26	0/621
24	XY	0.10	0/400	0.26	0/621
25	RA	0.13	0/69521	0.33	1/108529 (0.0%)
25	YA	0.15	1/69543 (0.0%)	0.34	11/108563 (0.0%)
26	RB	0.11	0/2878	0.27	0/4490
26	YB	0.12	0/2878	0.28	0/4490
27	RD	0.17	0/2165	0.56	2/2919 (0.1%)
27	YD	0.18	0/2165	0.56	2/2919 (0.1%)
28	RE	0.17	0/1601	0.64	0/2160
28	YE	0.18	0/1601	0.63	0/2160
29	RF	0.16	0/1620	0.49	0/2194
29	YF	0.17	0/1620	0.50	0/2194
30	RG	0.17	0/1499	0.57	0/2016
30	YG	0.17	0/1499	0.57	0/2016
31	RH	0.16	0/1362	0.59	1/1841 (0.1%)
31	YH	0.21	0/1362	0.71	2/1841 (0.1%)
32	RI	0.16	0/1151	0.58	0/1558
32	YI	0.17	0/1151	0.59	0/1558
33	RN	0.16	0/1131	0.61	1/1525 (0.1%)
33	YN	0.16	0/1131	0.59	1/1525 (0.1%)
34	RO	0.12	0/943	0.38	0/1269
34	YO	0.13	0/943	0.41	0/1269
35	RP	0.18	0/1162	0.66	0/1544
35	YP	0.20	0/1139	0.72	2/1514 (0.1%)
36	RQ	0.16	0/1143	0.60	0/1527
36	YQ	0.17	0/1143	0.62	0/1527
37	RR	0.18	0/974	0.55	0/1302

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\| > 5$	RMSZ	$\#\|Z\| > 5$
37	YR	0.15	0/974	0.52	0/1302
38	RS	0.15	0/892	0.51	0/1187
38	YS	0.16	0/892	0.51	0/1187
39	RT	0.16	0/1155	0.59	0/1542
39	YT	0.16	0/1155	0.59	0/1542
40	RU	0.17	0/982	0.59	0/1306
40	YU	0.17	0/982	0.59	0/1306
41	RV	0.14	0/790	0.51	0/1057
41	YV	0.13	0/790	0.52	0/1057
42	RW	0.15	0/911	0.48	0/1220
42	YW	0.14	0/911	0.48	0/1220
43	RX	0.14	0/739	0.43	0/993
43	YX	0.13	0/739	0.40	0/993
44	RY	0.12	0/831	0.41	0/1108
44	YY	0.12	0/831	0.44	0/1108
45	RZ	0.18	0/1493	0.69	4/2026 (0.2%)
45	YZ	0.19	0/1493	0.71	4/2026 (0.2%)
46	R0	0.13	0/652	0.41	0/867
46	Y0	0.14	0/607	0.43	0/809
47	R1	0.16	0/770	0.52	0/1022
47	Y1	0.23	0/736	0.47	0/978
48	R2	0.15	0/583	0.50	0/771
48	Y2	0.16	0/583	0.56	0/771
49	R3	0.14	0/474	0.44	0/635
49	Y3	0.14	0/474	0.44	0/635
50	R4	0.15	0/578	0.58	0/776
50	Y4	0.17	0/578	0.58	0/776
51	R5	0.18	0/473	0.46	0/639
51	Y5	0.13	0/473	0.42	0/639
52	R6	0.10	0/460	0.42	0/613
52	Y6	0.11	0/460	0.41	0/613
53	R7	0.15	0/417	0.51	0/550
53	Y7	0.16	0/426	0.54	0/561
54	R8	0.26	0/525	0.77	1/691 (0.1%)
54	Y8	0.26	0/525	0.80	0/691
55	R9	0.20	0/310	0.73	0/407
55	Y9	0.59	0/310	1.42	5/407 (1.2%)
All	All	0.14	3/319918 (0.0%)	0.39	52/478576 (0.0%)

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
28	YE	0	2

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	QJ	84	GLN	CD-NE2	11.35	1.57	1.33
4	QD	119	GLN	CB-CG	8.74	1.78	1.52
25	YA	2743	C	C5'-C4'	5.85	1.60	1.51

All (52) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	QD	119	GLN	CB-CG-CD	-10.20	95.27	112.60
25	YA	2754	U	OP1-P-O3'	-9.57	79.29	108.00
25	YA	2743	C	O4'-C1'-N1	9.31	122.46	108.50
25	YA	2754	U	OP2-P-O3'	-9.17	80.50	108.00
25	YA	2741	A	P-O3'-C3'	7.75	131.83	120.20
55	Y9	20	HIS	N-CA-C	7.68	119.90	110.91
55	Y9	26	ILE	N-CA-CB	6.92	122.70	111.36
35	YP	65	ARG	N-CA-C	-6.78	105.78	112.97
55	Y9	29	ASN	C-N-CD	-6.72	97.44	125.00
10	QJ	84	GLN	N-CA-CB	6.44	120.00	110.53
25	YA	2755	C	OP1-P-OP2	6.24	138.32	119.60
55	Y9	25	VAL	N-CA-C	6.23	122.29	109.34
35	YP	21	ARG	N-CA-C	6.16	120.65	111.96
55	Y9	30	PRO	N-CA-C	5.90	124.63	112.47
45	YZ	179	ASP	CA-C-N	5.83	132.47	121.97
45	YZ	179	ASP	C-N-CA	5.83	132.47	121.97
25	YA	2525	G	O4'-C1'-N9	5.81	117.22	108.50
31	YH	150	ALA	N-CA-C	-5.77	106.58	113.21
25	YA	2743	C	P-O5'-C5'	5.76	129.54	120.90
10	QJ	84	GLN	CB-CA-C	-5.69	98.94	109.29
31	YH	82	GLY	N-CA-C	5.65	126.58	113.18
45	YZ	180	VAL	CA-C-N	5.64	132.57	121.58
45	YZ	180	VAL	C-N-CA	5.64	132.57	121.58
10	QJ	84	GLN	CB-CG-CD	-5.61	103.07	112.60
45	RZ	179	ASP	CA-C-N	5.55	131.96	121.97
45	RZ	179	ASP	C-N-CA	5.55	131.96	121.97
45	RZ	180	VAL	CA-C-N	5.41	132.12	121.58
45	RZ	180	VAL	C-N-CA	5.41	132.12	121.58
31	RH	82	GLY	N-CA-C	5.40	125.97	113.18
12	XL	46	LYS	CA-C-N	-5.38	108.68	121.80
12	XL	46	LYS	C-N-CA	-5.38	108.68	121.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
19	XS	28	LYS	N-CA-C	5.34	118.70	111.17
25	YA	2741	A	O3'-P-O5'	5.32	111.97	104.00
25	YA	2743	C	O3'-P-O5'	5.31	111.97	104.00
10	QJ	83	GLU	CA-C-N	-5.30	112.76	121.92
10	QJ	83	GLU	C-N-CA	-5.30	112.76	121.92
13	XM	13	LYS	N-CA-C	5.29	122.06	110.80
4	QD	119	GLN	CG-CD-NE2	5.26	124.29	116.40
12	XL	104	VAL	CA-C-N	5.26	131.58	121.54
12	XL	104	VAL	C-N-CA	5.26	131.58	121.54
13	QM	13	LYS	N-CA-C	5.24	121.96	110.80
33	RN	114	ARG	N-CA-C	-5.21	102.76	110.48
12	XL	103	GLY	N-CA-C	5.15	125.38	113.18
33	YN	114	ARG	N-CA-C	-5.11	102.92	110.48
27	YD	32	SER	CA-C-N	5.07	131.22	121.54
27	YD	32	SER	C-N-CA	5.07	131.22	121.54
54	R8	31	HIS	N-CA-C	5.04	121.54	110.80
25	RA	271(B)	G	P-O3'-C3'	5.03	125.74	119.70
25	YA	271(B)	G	P-O3'-C3'	5.02	125.72	119.70
27	RD	32	SER	CA-C-N	5.01	131.10	121.54
27	RD	32	SER	C-N-CA	5.01	131.10	121.54
25	YA	2744	G	O5'-C5'-C4'	5.00	119.00	111.50

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
28	YE	146	THR	Peptide,Mainchain

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	32246	0	16278	646	0
1	XA	32248	0	16279	621	0
2	QB	1907	0	1958	52	0
2	XB	1915	0	1969	48	0
3	QC	1605	0	1668	39	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	XC	1605	0	1668	32	0
4	QD	1703	0	1766	54	0
4	XD	1703	0	1767	47	0
5	QE	1155	0	1213	23	0
5	XE	1155	0	1213	19	0
6	QF	843	0	857	19	0
6	XF	843	0	857	23	0
7	QG	1257	0	1296	21	0
7	XG	1257	0	1296	18	0
8	QH	1108	0	1165	24	0
8	XH	1108	0	1165	20	0
9	QI	1010	0	1037	37	0
9	XI	998	0	1024	42	0
10	QJ	801	0	849	38	0
10	XJ	777	0	816	24	0
11	QK	885	0	904	35	0
11	XK	864	0	881	25	0
12	QL	975	0	1062	26	0
12	XL	956	0	1046	29	0
13	QM	955	0	1021	46	0
13	XM	946	0	1007	37	0
14	QN	492	0	529	15	0
14	XN	492	0	529	13	0
15	QO	734	0	771	14	0
15	XO	729	0	768	17	0
16	QP	705	0	725	20	0
16	XP	705	0	725	23	0
17	QQ	834	0	904	15	0
17	XQ	834	0	904	22	0
18	QR	574	0	644	20	0
18	XR	574	0	644	23	0
19	QS	665	0	686	27	0
19	XS	674	0	699	23	0
20	QT	763	0	861	18	0
20	XT	763	0	861	19	0
21	QU	217	0	234	6	0
21	XU	217	0	234	10	0
22	QV	1644	0	836	21	0
22	QW	1618	0	826	45	0
22	XV	1644	0	836	19	0
22	XW	1618	0	826	44	0
23	QX	169	0	86	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
23	XX	210	0	109	3	0
24	QY	358	0	183	3	0
24	XY	358	0	184	5	0
25	RA	62071	0	31291	1007	0
25	YA	62091	0	31297	1170	0
26	RB	2573	0	1306	30	0
26	YB	2573	0	1306	44	0
27	RD	2115	0	2195	103	0
27	YD	2115	0	2195	106	0
28	RE	1568	0	1634	70	0
28	YE	1568	0	1634	66	0
29	RF	1585	0	1632	55	0
29	YF	1585	0	1632	57	0
30	RG	1474	0	1535	60	0
30	YG	1474	0	1535	73	0
31	RH	1336	0	1418	38	0
31	YH	1336	0	1418	74	0
32	RI	1136	0	1223	29	0
32	YI	1136	0	1223	28	0
33	RN	1104	0	1180	31	0
33	YN	1104	0	1180	28	0
34	RO	933	0	996	33	0
34	YO	933	0	996	26	0
35	RP	1145	0	1228	52	0
35	YP	1122	0	1206	53	0
36	RQ	1122	0	1179	51	0
36	YQ	1122	0	1179	52	0
37	RR	960	0	1021	31	0
37	YR	960	0	1021	28	0
38	RS	882	0	943	23	0
38	YS	882	0	943	28	0
39	RT	1141	0	1202	48	0
39	YT	1141	0	1202	50	0
40	RU	964	0	1022	48	0
40	YU	964	0	1022	47	0
41	RV	779	0	852	32	0
41	YV	779	0	852	25	0
42	RW	900	0	964	22	1
42	YW	900	0	964	21	0
43	RX	725	0	778	16	0
43	YX	725	0	778	25	0
44	RY	818	0	910	13	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
44	YY	818	0	912	15	1
45	RZ	1461	0	1493	48	0
45	YZ	1461	0	1493	47	0
46	R0	643	0	667	20	0
46	Y0	599	0	617	23	0
47	R1	763	0	848	19	0
47	Y1	729	0	802	24	0
48	R2	581	0	629	12	0
48	Y2	581	0	629	14	0
49	R3	469	0	518	14	0
49	Y3	469	0	518	16	0
50	R4	565	0	557	20	0
50	Y4	565	0	558	25	0
51	R5	459	0	477	5	0
51	Y5	459	0	480	9	0
52	R6	453	0	474	8	0
52	Y6	453	0	473	3	0
53	R7	409	0	454	12	0
53	Y7	418	0	467	9	0
54	R8	517	0	582	25	0
54	Y8	517	0	582	24	0
55	R9	307	0	338	23	0
55	Y9	307	0	338	142	0
56	QA	68	0	0	0	0
56	QC	1	0	0	0	0
56	QE	1	0	0	0	0
56	QF	1	0	0	0	0
56	QH	1	0	0	0	0
56	QQ	1	0	0	0	0
56	QV	6	0	0	0	0
56	QY	1	0	0	0	0
56	R0	4	0	0	0	0
56	R1	2	0	0	0	0
56	R4	1	0	0	0	0
56	R8	1	0	0	0	0
56	R9	1	0	0	0	0
56	RA	508	0	0	0	0
56	RB	7	0	0	0	0
56	RE	2	0	0	0	0
56	RF	1	0	0	0	0
56	RN	1	0	0	0	0
56	RO	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	RP	2	0	0	0	0
56	RQ	2	0	0	0	0
56	RR	1	0	0	0	0
56	RT	1	0	0	0	0
56	RU	1	0	0	0	0
56	RY	1	0	0	0	0
56	XA	82	0	0	0	0
56	XE	1	0	0	0	0
56	XL	1	0	0	0	0
56	XM	1	0	0	0	0
56	XQ	1	0	0	0	0
56	XS	1	0	0	0	0
56	XV	6	0	0	0	0
56	Y0	1	0	0	0	0
56	Y7	1	0	0	0	0
56	Y8	1	0	0	0	0
56	Y9	1	0	0	0	0
56	YA	546	0	0	0	0
56	YB	12	0	0	0	0
56	YD	2	0	0	0	0
56	YE	2	0	0	0	0
56	YO	1	0	0	0	0
56	YP	3	0	0	0	0
56	YQ	3	0	0	0	0
56	YX	2	0	0	0	0
56	YY	1	0	0	0	0
57	QD	8	0	0	1	0
57	XD	8	0	0	0	0
58	QN	1	0	0	0	0
58	R4	1	0	0	0	0
58	R5	1	0	0	0	0
58	R6	1	0	0	0	0
58	R9	1	0	0	0	0
58	RY	1	0	0	0	0
58	XN	1	0	0	0	0
58	Y4	1	0	0	0	0
58	Y5	1	0	0	0	0
58	Y6	1	0	0	0	0
58	Y9	1	0	0	0	0
58	YY	1	0	0	0	0
All	All	295575	0	199664	5812	1

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 12.

All (5812) 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)
4:QD:119:GLN:CG	4:QD:119:GLN:CB	1.78	1.55
25:YA:2755:C:H42	55:Y9:1:MET:HG2	1.08	1.16
25:RA:2747:G:N2	25:RA:2757:A:H62	1.43	1.15
25:YA:2742:C:H1'	55:Y9:26:ILE:HA	1.33	1.10
25:RA:2747:G:H21	25:RA:2757:A:N6	1.52	1.05
10:QJ:26:ALA:HB1	10:QJ:84:GLN:HE21	1.19	1.04
27:RD:35:LYS:HB3	27:RD:36:PRO:HD2	1.42	1.02
25:YA:2867:G:HO2'	25:YA:2868:A:H8	1.05	1.02
25:YA:2743:C:O5'	55:Y9:26:ILE:N	1.94	1.00
27:YD:35:LYS:HB3	27:YD:36:PRO:HD2	1.42	0.98
25:YA:2755:C:N4	55:Y9:1:MET:HG2	1.80	0.97
25:YA:2524:G:N2	55:Y9:29:ASN:OD1	1.99	0.96
22:XW:35:C:N4	23:XX:14:A:C6	2.34	0.94
10:QJ:26:ALA:HB1	10:QJ:84:GLN:NE2	1.85	0.91
25:RA:2701:C:H3'	25:RA:2702:U:H5"	1.52	0.90
25:YA:1568:G:H5"	27:YD:61:LEU:HD23	1.53	0.90
22:XW:35:C:N4	23:XX:14:A:N6	2.20	0.90
25:YA:2525:G:H21	55:Y9:28:GLU:HG3	1.37	0.90
25:YA:2526:G:H1	25:YA:2537:U:H3	0.94	0.89
27:YD:17:THR:HB	27:YD:205:VAL:H	1.38	0.89
22:QW:20:G:O6	25:RA:2112:G:N1	2.06	0.89
3:QC:20:SER:HB2	3:QC:40:ARG:HH22	1.36	0.87
31:RH:8:PRO:HG2	31:RH:69:ARG:HE	1.38	0.87
5:XE:50:GLU:HG3	5:XE:52:PRO:HD2	1.54	0.87
3:XC:20:SER:HB2	3:XC:40:ARG:HH22	1.40	0.87
1:QA:1422:G:H5"	34:RO:48:PRO:HB3	1.58	0.86
25:YA:888:C:H3'	25:YA:889:C:H4'	1.55	0.86
1:QA:827:U:O2	1:QA:874:G:N2	2.09	0.85
4:QD:119:GLN:CB	4:QD:119:GLN:CD	2.48	0.85
1:XA:689:C:H3'	1:XA:690:G:H21	1.41	0.85
25:RA:1111:A:H5'	31:RH:3:ARG:HH21	1.39	0.85
47:R1:87:PRO:HA	47:R1:90:ILE:HG22	1.59	0.84
31:YH:87:LEU:HA	55:Y9:18:ARG:HH22	1.41	0.84
31:YH:8:PRO:HG2	31:YH:69:ARG:HE	1.41	0.84
25:RA:2049:G:N2	25:RA:2619:C:O2	2.09	0.83
25:YA:2539:C:O2	55:Y9:29:ASN:ND2	2.10	0.83
25:YA:996:A:OP2	40:YU:92:ARG:NH2	2.12	0.83
25:YA:2525:G:N3	55:Y9:28:GLU:HB2	1.92	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:2745:C:H4'	31:YH:142:GLY:HA3	1.61	0.82
25:YA:857:C:OP2	46:Y0:77:ARG:NH2	2.11	0.82
45:YZ:52:SER:O	45:YZ:54:HIS:N	2.12	0.82
19:QS:3:ARG:HE	19:QS:7:LYS:HE2	1.42	0.82
25:RA:2789:C:O2	25:RA:2894:G:N2	2.12	0.82
25:RA:2882:A:OP1	37:RR:96:ARG:NH1	2.13	0.82
26:RB:33:G:OP2	30:RG:96:ARG:NH2	2.12	0.82
45:RZ:52:SER:O	45:RZ:54:HIS:N	2.13	0.82
25:YA:2470:G:H5'	36:YQ:56:ARG:HH21	1.43	0.82
12:QL:117:ARG:HB2	12:QL:122:THR:HB	1.59	0.82
26:RB:75:G:HO2'	45:RZ:85:HIS:HE2	1.25	0.81
1:XA:403:C:OP2	4:XD:74:GLN:NE2	2.13	0.81
1:XA:1130:A:O2'	9:XI:3:GLN:NE2	2.13	0.81
25:RA:2789:C:N3	25:RA:2894:G:N1	2.25	0.81
30:RG:29:TRP:O	30:RG:33:ARG:NH1	2.14	0.81
25:YA:460:A:H62	25:YA:469:G:H21	1.29	0.81
1:QA:687:A:N6	1:QA:703:G:N2	2.29	0.81
2:XB:185:ILE:HG22	2:XB:199:TYR:HB2	1.62	0.81
45:YZ:7:ALA:HB2	45:YZ:59:LEU:HB3	1.63	0.81
45:RZ:166:SER:HB2	45:RZ:168:GLU:N	1.96	0.80
16:XP:4:ILE:HG12	16:XP:21:VAL:HG12	1.61	0.80
25:RA:1030:G:O6	25:RA:1125:G:N2	2.14	0.80
30:YG:29:TRP:O	30:YG:33:ARG:NH1	2.14	0.80
33:RN:133:GLN:HG2	33:RN:135:PRO:HD3	1.63	0.80
1:QA:687:A:H62	1:QA:703:G:N2	1.80	0.79
25:YA:2755:C:N4	55:Y9:2:LYS:O	2.15	0.79
54:R8:29:LYS:HG3	54:R8:30:ARG:H	1.47	0.79
54:Y8:29:LYS:HG3	54:Y8:30:ARG:H	1.48	0.79
1:XA:1304:G:N2	1:XA:1334:G:O6	2.16	0.79
1:XA:376:G:H5"	16:XP:5:ARG:HB2	1.64	0.79
45:YZ:166:SER:HB2	45:YZ:168:GLU:N	1.98	0.79
28:RE:17:ASP:O	28:RE:19:ARG:N	2.16	0.79
40:YU:92:ARG:HD2	41:YV:11:GLN:HB2	1.64	0.79
19:QS:18:LYS:HG2	19:QS:31:ILE:HD12	1.65	0.79
27:RD:17:THR:HB	27:RD:205:VAL:H	1.46	0.79
25:YA:67:U:H3	25:YA:74:A:H2	1.31	0.79
1:XA:950:U:H3	1:XA:1231:G:H1	1.30	0.78
1:QA:1351:U:H3	1:QA:1371:G:H1	1.30	0.78
25:YA:2746:U:O4	25:YA:2755:C:O2'	2.01	0.78
25:YA:2882:A:OP1	37:YR:96:ARG:NH1	2.17	0.78
34:YO:104:ARG:HH21	39:YT:34:VAL:HG21	1.48	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:QP:4:ILE:HG12	16:QP:21:VAL:HG12	1.64	0.78
28:YE:17:ASP:O	28:YE:19:ARG:N	2.16	0.78
1:QA:618:C:H5'	1:QA:619:U:H5"	1.64	0.78
1:XA:1086:U:H3	1:XA:1099:G:H22	1.31	0.78
35:YP:95:VAL:HG13	35:YP:100:LEU:HD21	1.66	0.78
40:RU:92:ARG:HD2	41:RV:11:GLN:HB2	1.67	0.77
45:RZ:7:ALA:HB2	45:RZ:59:LEU:HB3	1.66	0.77
6:QF:37:VAL:HA	6:QF:65:VAL:HG12	1.66	0.77
1:XA:27:G:H4'	4:XD:209:ARG:HG3	1.66	0.77
11:XK:83:ILE:HG12	11:XK:109:VAL:HB	1.67	0.77
32:RI:88:ILE:HB	32:RI:121:LYS:HG3	1.66	0.77
1:XA:1492:A:H5"	12:XL:47:LYS:HB3	1.66	0.77
33:YN:133:GLN:HG2	33:YN:135:PRO:HD3	1.67	0.77
25:RA:2527:C:H4'	55:R9:4:ARG:HD3	1.66	0.77
35:RP:95:VAL:HG13	35:RP:100:LEU:HD21	1.66	0.77
25:YA:2495:G:H5"	36:YQ:81:VAL:HG12	1.67	0.77
26:YB:9:G:OP1	38:YS:15:ARG:NH1	2.16	0.77
25:RA:631:A:OP1	54:R8:46:ARG:NH2	2.18	0.77
38:RS:85:VAL:HG22	38:RS:110:LEU:HD22	1.66	0.77
25:YA:2741:A:H2'	55:Y9:29:ASN:CG	2.09	0.77
1:XA:380:G:N2	1:XA:383:A:OP2	2.19	0.76
39:YT:62:THR:HG22	39:YT:75:ILE:HG12	1.67	0.76
39:YT:50:ILE:HD11	39:YT:100:TYR:HA	1.67	0.76
27:RD:13:ARG:NH1	27:RD:16:MET:SD	2.58	0.76
25:YA:2741:A:C4	55:Y9:30:PRO:HD2	2.20	0.76
26:YB:33:G:H5'	30:YG:2:PRO:HG3	1.66	0.76
1:QA:954:G:H21	1:QA:1227:A:H62	1.31	0.76
12:QL:104:VAL:HG12	12:QL:105:TYR:H	1.50	0.76
36:RQ:81:VAL:O	36:RQ:82:ARG:NE	2.19	0.76
25:YA:958:U:OP2	36:YQ:14:ARG:NH1	2.18	0.76
27:YD:8:PRO:HB3	27:YD:14:ARG:HB3	1.67	0.76
36:YQ:60:ARG:HH11	45:YZ:113:ALA:HB3	1.51	0.76
28:RE:5:LEU:HG	28:RE:49:LEU:HD23	1.68	0.76
25:YA:2741:A:O3'	55:Y9:31:LYS:HB2	1.85	0.76
25:YA:879:G:N2	25:YA:898:C:O2	2.13	0.75
1:XA:8:A:N6	4:XD:205:GLU:O	2.20	0.75
25:YA:2744:G:H5"	55:Y9:24:TYR:HB2	1.69	0.75
1:QA:689:C:H3'	1:QA:690:G:H21	1.51	0.75
55:Y9:1:MET:HG3	55:Y9:33:LYS:HD2	1.67	0.75
25:YA:2526:G:H1'	55:Y9:28:GLU:HB3	1.67	0.75
5:QE:50:GLU:HG3	5:QE:52:PRO:HD2	1.66	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:1309:G:H4'	53:R7:7:PRO:HB2	1.67	0.75
25:YA:2068:U:H3	25:YA:2430:A:H2	1.32	0.75
31:RH:164:TYR:HB2	31:RH:167:GLU:HB2	1.69	0.75
31:YH:89:ILE:HA	31:YH:162:ILE:HG23	1.69	0.75
25:RA:1980:G:O2'	25:RA:1982:C:OP2	2.05	0.75
1:XA:1356:G:H2'	1:XA:1357:A:H8	1.52	0.75
22:XW:35:C:C4	23:XX:14:A:N6	2.55	0.75
25:RA:2115:G:N2	25:RA:2165:G:N7	2.33	0.74
1:XA:1159:U:O2'	1:XA:1160:G:N7	2.20	0.74
25:YA:589:C:H2'	25:YA:590:A:H8	1.51	0.74
41:YV:43:GLU:HG3	41:YV:44:LYS:H	1.51	0.74
30:RG:47:LYS:HD3	30:RG:81:LYS:HB2	1.67	0.74
25:YA:1359:A:H62	25:YA:1372:U:H3	1.34	0.74
27:RD:31:LYS:HB3	27:RD:35:LYS:HG3	1.70	0.74
27:YD:13:ARG:NH1	27:YD:16:MET:SD	2.60	0.74
1:QA:664:G:H22	1:QA:741:G:H1	1.34	0.74
25:RA:1649:G:O2'	37:RR:107:ASP:OD1	2.05	0.74
1:QA:842:C:O2'	1:QA:848:C:N4	2.20	0.74
31:YH:149:ARG:HE	55:Y9:20:HIS:H	1.33	0.74
50:Y4:56:VAL:HG23	50:Y4:58:ARG:HG3	1.69	0.74
1:XA:1123:A:H4'	10:XJ:36:GLY:HA3	1.66	0.74
27:RD:8:PRO:HB3	27:RD:14:ARG:HB3	1.70	0.74
11:QK:58:PRO:HB2	11:QK:93:GLN:HG3	1.67	0.73
43:YX:54:VAL:HG22	43:YX:81:VAL:HG23	1.70	0.73
25:RA:1165:U:H3	25:RA:1184:G:H1	1.33	0.73
25:RA:2328:A:H2'	25:RA:2329:G:C8	2.24	0.73
28:RE:10:GLY:HA3	39:RT:8:LYS:HD3	1.69	0.73
2:QB:185:ILE:HG22	2:QB:199:TYR:HB2	1.69	0.73
27:RD:71:ASP:HB2	27:RD:103:ARG:HH12	1.51	0.73
27:RD:182:LEU:H	27:RD:272:ALA:HB3	1.54	0.73
22:XW:8:U:N3	22:XW:14:A:C8	2.57	0.73
25:YA:2701:C:H3'	25:YA:2702:U:H5"	1.68	0.73
55:Y9:1:MET:HG3	55:Y9:33:LYS:HB3	1.71	0.73
41:RV:43:GLU:HG3	41:RV:44:LYS:H	1.53	0.73
34:YO:104:ARG:NH2	39:YT:43:GLN:OE1	2.21	0.73
1:XA:674:G:H2'	1:XA:675:A:H8	1.53	0.73
25:YA:2755:C:C5	55:Y9:35:ARG:HB3	2.24	0.73
1:QA:1238:A:OP1	1:QA:1335:C:O2'	2.07	0.73
38:YS:85:VAL:HG22	38:YS:110:LEU:HD22	1.68	0.73
1:QA:1492:A:H5"	12:QL:47:LYS:HB3	1.69	0.73
22:QW:8:U:N3	22:QW:14:A:C8	2.56	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:2744:G:N2	31:YH:143:GLN:OE1	2.22	0.73
28:YE:76:ARG:HD3	28:YE:195:LEU:HD22	1.71	0.73
19:XS:40:ILE:HG13	19:XS:44:MET:HE3	1.69	0.72
25:YA:2246:G:H2'	25:YA:2247:A:H8	1.54	0.72
25:RA:593:G:H4'	54:R8:61:LEU:HD13	1.70	0.72
1:QA:452:A:H62	1:QA:480:U:H3	1.35	0.72
25:YA:1309:G:H4'	53:Y7:7:PRO:HB2	1.71	0.72
25:YA:2742:C:C2	55:Y9:30:PRO:HA	2.25	0.72
31:YH:46:GLU:OE1	31:YH:51:ARG:NH1	2.21	0.72
47:Y1:80:LEU:HD12	47:Y1:81:LYS:HG2	1.71	0.72
25:RA:17:G:H4'	40:RU:25:TRP:HE1	1.55	0.72
1:XA:1422:G:H5"	34:YO:48:PRO:HB3	1.71	0.72
1:QA:687:A:N6	1:QA:703:G:H21	1.87	0.72
1:QA:953:G:H5'	1:QA:965:A:H61	1.55	0.72
35:RP:101:VAL:HB	35:RP:106:LEU:HB2	1.71	0.72
39:RT:39:ARG:HH22	39:RT:41:ARG:HD3	1.54	0.72
25:YA:2572:A:H2'	28:YE:144:ARG:HD3	1.71	0.72
25:YA:2784:C:O2'	28:YE:37:ARG:NH1	2.21	0.72
39:RT:50:ILE:HD11	39:RT:100:TYR:HA	1.69	0.72
25:RA:2784:C:O2'	28:RE:37:ARG:NH1	2.23	0.72
25:YA:2739:U:H2'	25:YA:2740:A:C8	2.24	0.72
25:YA:1403:C:H5"	25:YA:1471:A:H1'	1.71	0.72
25:RA:2502:G:H5"	25:RA:2503:A:H5"	1.72	0.72
31:YH:86:GLU:HG3	31:YH:164:TYR:HD1	1.55	0.72
39:RT:66:VAL:HA	39:RT:71:GLY:HA2	1.72	0.71
1:XA:1348:U:H3	1:XA:1374:A:H2	1.37	0.71
25:YA:17:G:H4'	40:YU:25:TRP:HE1	1.53	0.71
1:XA:278:G:OP2	17:XQ:92:ARG:NH2	2.23	0.71
1:XA:448:A:OP2	1:XA:485:G:N2	2.22	0.71
1:XA:1137:C:O2'	1:XA:1138:G:N2	2.22	0.71
1:XA:1227:A:OP1	19:XS:80:TYR:OH	2.07	0.71
1:QA:713:G:H2'	1:QA:714:G:C8	2.26	0.71
25:RA:1600:C:OP1	43:RX:58:HIS:NE2	2.19	0.71
28:RE:9:VAL:HB	28:RE:25:VAL:HG23	1.72	0.71
22:QV:59:A:O2'	22:QV:61:U:OP2	2.07	0.71
22:QW:20:G:O6	25:RA:2112:G:N2	2.24	0.71
25:RA:993:G:OP1	40:RU:50:ARG:NH2	2.23	0.71
45:RZ:163:LEU:HD13	45:RZ:167:PRO:HD3	1.72	0.71
25:YA:2743:C:O2'	25:YA:2744:G:H5"	1.91	0.71
27:RD:151:LYS:O	27:RD:154:LYS:NZ	2.23	0.71
25:YA:265:A:N6	25:YA:427:U:O2'	2.23	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:2328:A:H2'	25:YA:2329:G:C8	2.25	0.71
32:YI:88:ILE:HB	32:YI:121:LYS:HG3	1.72	0.71
35:YP:135:LEU:HG	35:YP:139:LYS:HE2	1.71	0.71
36:YQ:81:VAL:O	36:YQ:82:ARG:NE	2.23	0.71
1:QA:1249:C:O2'	9:QI:73:GLN:NE2	2.24	0.71
1:QA:1266:G:N2	1:QA:1269:A:OP2	2.24	0.71
25:YA:2540:C:H1'	25:YA:2741:A:N3	2.05	0.71
1:QA:714:G:H2'	1:QA:715:A:C8	2.25	0.71
25:RA:1800:C:OP2	27:RD:183:ARG:NH1	2.22	0.71
27:YD:36:PRO:HA	27:YD:62:TYR:O	1.90	0.71
28:YE:31:CYS:HB3	28:YE:49:LEU:HG	1.71	0.71
4:QD:62:GLN:HE22	4:QD:65:ARG:HH21	1.38	0.71
7:QG:84:ASN:ND2	22:QW:34:U:OP1	2.23	0.71
28:RE:31:CYS:HB3	28:RE:49:LEU:HG	1.73	0.71
54:Y8:29:LYS:O	54:Y8:31:HIS:N	2.24	0.71
2:QB:80:ILE:HD11	2:QB:208:ILE:HG23	1.72	0.71
25:YA:2525:G:H4'	55:Y9:28:GLU:HA	1.71	0.71
27:YD:31:LYS:HB3	27:YD:35:LYS:HG3	1.71	0.71
27:RD:132:PRO:HG3	27:RD:190:TYR:HE1	1.56	0.70
39:RT:62:THR:HG22	39:RT:75:ILE:HG12	1.72	0.70
25:RA:996:A:OP2	40:RU:92:ARG:NH2	2.23	0.70
34:RO:104:ARG:HH21	39:RT:34:VAL:HG21	1.54	0.70
1:XA:714:G:H2'	1:XA:715:A:C8	2.26	0.70
27:RD:24:ILE:HD11	27:RD:91:ARG:HD2	1.72	0.70
25:YA:2526:G:O6	25:YA:2537:U:O4	2.09	0.70
31:RH:46:GLU:OE1	31:RH:51:ARG:NH1	2.25	0.70
25:YA:2666:C:O2	31:YH:152:ARG:NH1	2.24	0.70
55:Y9:22:ARG:HB2	55:Y9:24:TYR:HE2	1.57	0.70
34:RO:104:ARG:NH2	39:RT:43:GLN:OE1	2.25	0.70
1:XA:842:C:O2'	1:XA:848:C:N4	2.25	0.70
1:XA:1347:G:N2	1:XA:1374:A:OP2	2.24	0.70
2:XB:80:ILE:HD11	2:XB:208:ILE:HG23	1.74	0.70
25:YA:574:C:N3	28:YE:145:LYS:NZ	2.33	0.70
48:R2:22:GLU:OE2	48:R2:68:ARG:NH2	2.25	0.70
1:XA:544:G:OP1	4:XD:59:ARG:NH2	2.24	0.70
1:XA:673:G:H2'	1:XA:674:G:C8	2.27	0.70
25:YA:1817:G:OP1	27:YD:88:ARG:NH2	2.24	0.70
1:QA:8:A:N6	4:QD:205:GLU:O	2.25	0.70
4:QD:30:LYS:HG2	4:QD:35:ARG:HH21	1.56	0.70
10:QJ:49:VAL:HG13	14:QN:41:ARG:HB2	1.74	0.70
18:QR:86:VAL:HG12	18:QR:87:ARG:HG2	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1023:G:H3'	1:XA:1024:G:H5"	1.73	0.70
27:YD:168:ARG:HG2	27:YD:173:VAL:HG12	1.74	0.70
33:YN:54:VAL:HB	33:YN:122:VAL:HG22	1.73	0.70
38:YS:20:ARG:NH1	46:Y0:48:GLY:O	2.25	0.70
6:QF:68:PRO:HG3	6:QF:71:ARG:HH21	1.57	0.69
45:RZ:4:ARG:HG2	45:RZ:58:VAL:HB	1.72	0.69
1:XA:31:G:O2'	1:XA:48:C:N4	2.24	0.69
1:XA:992:U:H3	1:XA:1044:A:H62	1.39	0.69
28:YE:5:LEU:HG	28:YE:49:LEU:HD23	1.71	0.69
1:QA:1306:A:N6	1:QA:1331:G:O2'	2.25	0.69
54:R8:29:LYS:O	54:R8:31:HIS:N	2.24	0.69
47:Y1:87:PRO:HA	47:Y1:90:ILE:HG22	1.75	0.69
53:Y7:10:ARG:HE	53:Y7:14:LYS:HD2	1.57	0.69
1:QA:1356:G:H2'	1:QA:1357:A:C8	2.27	0.69
22:QW:20:G:O6	25:RA:2112:G:C2	2.45	0.69
41:RV:24:LYS:HA	41:RV:92:THR:HG23	1.75	0.69
46:R0:27:GLU:HG3	46:R0:68:GLU:HA	1.74	0.69
18:XR:86:VAL:HG12	18:XR:87:ARG:HG2	1.72	0.69
25:YA:2743:C:O2	55:Y9:19:ARG:NH1	2.25	0.69
45:RZ:5:LEU:H	45:RZ:59:LEU:HA	1.56	0.69
10:XJ:38:ILE:HD11	10:XJ:71:LEU:HD23	1.75	0.69
25:YA:2742:C:C5	55:Y9:33:LYS:HB2	2.27	0.69
35:YP:101:VAL:HG21	35:YP:108:LYS:HD2	1.74	0.69
40:YU:85:LYS:NZ	40:YU:117:GLN:OE1	2.26	0.69
1:QA:1130:A:O2'	9:QI:3:GLN:NE2	2.26	0.69
4:QD:119:GLN:CG	4:QD:119:GLN:CA	2.69	0.69
25:RA:1857:G:H21	25:RA:1886:C:H42	1.40	0.69
25:RA:2584:U:H2'	25:RA:2585:U:H2'	1.73	0.69
1:XA:811:C:O2'	1:XA:901:A:N1	2.25	0.69
45:YZ:163:LEU:HD13	45:YZ:167:PRO:HD3	1.74	0.69
48:Y2:22:GLU:OE2	48:Y2:68:ARG:NH2	2.26	0.69
1:QA:1009:G:H1	1:QA:1020:U:H3	1.41	0.69
2:QB:84:GLU:HB3	2:QB:219:VAL:HG21	1.75	0.69
25:RA:2308:G:H22	25:RA:2311:A:H2	1.40	0.69
30:RG:3:LEU:HD11	50:R4:25:TYR:HE2	1.58	0.69
37:RR:104:ARG:HG3	37:RR:107:ASP:HB3	1.75	0.69
47:R1:80:LEU:HD12	47:R1:81:LYS:HG2	1.74	0.69
25:YA:2023:G:H5'	25:YA:2617:C:H4'	1.74	0.69
27:YD:132:PRO:HG3	27:YD:190:TYR:HE1	1.58	0.69
28:YE:9:VAL:HB	28:YE:25:VAL:HG23	1.74	0.69
30:YG:5:VAL:HG11	30:YG:100:TRP:HB3	1.75	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:YX:53:LYS:NZ	43:YX:55:ASN:OD1	2.26	0.69
45:YZ:4:ARG:HG2	45:YZ:58:VAL:HB	1.74	0.69
1:QA:1023:G:H3'	1:QA:1024:G:H5"	1.75	0.69
3:QC:150:LYS:HE3	3:QC:167:TRP:HE1	1.58	0.69
25:RA:141:A:H8	25:RA:1595:G:H21	1.41	0.69
25:RA:1678:G:H22	25:RA:1989:G:H22	1.38	0.69
1:QA:1347:G:N2	1:QA:1374:A:OP2	2.23	0.69
47:R1:76:ARG:HH11	47:R1:94:LEU:HD13	1.58	0.69
4:XD:13:ARG:HH21	4:XD:40:PRO:HB3	1.58	0.69
25:RA:252:G:OP2	35:RP:50:ARG:NH1	2.26	0.68
1:XA:80:G:H1	1:XA:89:U:H3	1.38	0.68
1:XA:789:U:H1'	1:XA:792:A:H2	1.57	0.68
25:YA:630:G:N2	25:YA:633:A:OP2	2.22	0.68
45:YZ:53:ILE:HG22	45:YZ:71:VAL:HG13	1.75	0.68
19:QS:12:ASP:OD2	19:QS:35:SER:OG	2.11	0.68
25:RA:911:A:H2'	36:RQ:9:TYR:HE2	1.58	0.68
25:RA:2701:C:H3'	25:RA:2702:U:C5'	2.22	0.68
29:RF:63:LYS:HE2	29:RF:67:GLN:HB2	1.73	0.68
1:XA:377:G:H2'	1:XA:378:G:C8	2.27	0.68
25:YA:259:G:HO2'	25:YA:621:A:HO2'	1.40	0.68
25:YA:577:G:O2'	25:YA:1254:A:OP1	2.12	0.68
25:YA:820:A:N3	25:YA:943:U:O2'	2.26	0.68
39:YT:39:ARG:HH22	39:YT:41:ARG:HD3	1.57	0.68
1:QA:806:C:H2'	1:QA:807:A:H8	1.58	0.68
1:XA:1356:G:H2'	1:XA:1357:A:C8	2.28	0.68
10:XJ:49:VAL:HG23	14:XN:41:ARG:HB2	1.74	0.68
25:YA:1992:G:H5'	25:YA:1994:C:H41	1.58	0.68
25:YA:2246:G:H2'	25:YA:2247:A:C8	2.27	0.68
36:YQ:43:THR:HG22	36:YQ:94:VAL:HG12	1.74	0.68
55:Y9:28:GLU:HG2	55:Y9:29:ASN:HB2	1.75	0.68
1:QA:1347:G:O6	9:QI:10:ARG:NH2	2.27	0.68
36:RQ:137:TYR:HB3	45:RZ:76:LEU:HD11	1.76	0.68
1:XA:1287:A:H2'	1:XA:1288:A:C8	2.28	0.68
54:Y8:26:LYS:HD2	54:Y8:47:LYS:HD3	1.75	0.68
1:QA:448:A:OP2	1:QA:485:G:N2	2.27	0.68
31:RH:121:ILE:HG13	31:RH:144:VAL:HG21	1.76	0.68
45:RZ:166:SER:HB2	45:RZ:168:GLU:H	1.57	0.68
25:YA:288:C:H2'	25:YA:289:A:H8	1.59	0.68
25:YA:581:C:H2'	25:YA:582:G:H8	1.59	0.68
25:YA:2111:C:N3	25:YA:2118:U:O2'	2.27	0.68
25:RA:2328:A:H2'	25:RA:2329:G:H8	1.56	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:RH:52:VAL:O	31:RH:65:HIS:NE2	2.26	0.68
1:XA:1316:G:N2	1:XA:1319:A:OP2	2.26	0.68
6:XF:37:VAL:HA	6:XF:65:VAL:HG12	1.74	0.68
25:YA:1021:A:H61	25:YA:1142(A):A:H61	1.41	0.68
25:YA:1230:C:H2'	25:YA:1231:G:H8	1.59	0.68
25:YA:1657:C:H2'	25:YA:1658:C:H6	1.58	0.68
25:YA:2328:A:H2'	25:YA:2329:G:H8	1.58	0.68
1:QA:191:G:O2'	20:QT:101:GLY:O	2.11	0.68
17:XQ:9:VAL:HG22	17:XQ:56:VAL:HG22	1.76	0.68
30:YG:47:LYS:HD3	30:YG:81:LYS:HB2	1.75	0.68
25:RA:1059:G:O6	25:RA:1079:C:N4	2.26	0.68
26:RB:9:G:OP1	38:RS:15:ARG:NH1	2.23	0.68
36:YQ:66:ILE:HA	36:YQ:104:PHE:HA	1.76	0.68
47:Y1:18:ILE:HG12	47:Y1:37:ILE:HG12	1.76	0.68
1:QA:1055:A:N7	1:QA:1200:C:N4	2.42	0.67
13:QM:93:ARG:NH1	25:RA:888:C:OP1	2.28	0.67
25:RA:270:A:OP2	25:RA:270(Y):G:N1	2.27	0.67
25:RA:1365:A:O2'	47:R1:11:ARG:NH2	2.26	0.67
36:RQ:75:THR:HG21	36:RQ:85:LYS:HE3	1.75	0.67
1:XA:269:C:H2'	1:XA:270:A:H8	1.58	0.67
25:YA:1116:C:H2'	25:YA:1117:G:H8	1.59	0.67
25:YA:1860:G:H1	25:YA:1882:C:H42	1.43	0.67
1:QA:851:G:H2'	1:QA:852:G:H8	1.60	0.67
9:QI:112:LYS:HA	9:QI:119:ALA:HB2	1.77	0.67
1:XA:578:C:O2'	1:XA:728:A:N3	2.26	0.67
40:YU:91:ASP:HA	40:YU:95:LEU:HB2	1.76	0.67
45:YZ:5:LEU:H	45:YZ:59:LEU:HA	1.59	0.67
1:QA:1162:C:H42	1:QA:1174:G:H1	1.42	0.67
38:YS:30:ARG:HD2	38:YS:97:ARG:HD3	1.77	0.67
30:RG:18:GLU:OE2	30:RG:21:ARG:NH2	2.25	0.67
33:RN:54:VAL:HB	33:RN:122:VAL:HG22	1.74	0.67
1:XA:1178:G:N2	1:XA:1181:G:N7	2.43	0.67
1:XA:1298:C:H2'	7:XG:114:ARG:HH12	1.59	0.67
16:XP:4:ILE:HB	16:XP:66:PRO:HB3	1.75	0.67
25:YA:2199:A:OP1	47:Y1:50:ARG:NH2	2.27	0.67
25:YA:2743:C:H3'	55:Y9:24:TYR:C	2.19	0.67
1:QA:28:G:OP1	4:QD:76:ARG:NH1	2.24	0.67
1:QA:619:U:N3	4:QD:134:ASP:OD1	2.23	0.67
1:XA:639:G:H2'	1:XA:640:A:H8	1.60	0.67
25:YA:1068:G:O2'	25:YA:1096:A:N3	2.28	0.67
1:QA:685:G:H21	1:QA:706:A:N6	1.93	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:814:C:H1'	25:RA:1226:G:H21	1.59	0.67
45:RZ:13:GLU:HB3	45:RZ:18:LEU:HD11	1.76	0.67
25:YA:83:G:H1	25:YA:102:G:HO2'	1.38	0.67
25:YA:2526:G:H2'	25:YA:2527:C:C5	2.30	0.67
1:QA:972:C:H4'	10:QJ:57:LYS:HB2	1.77	0.67
29:RF:154:VAL:HG22	29:RF:191:ARG:HB3	1.77	0.67
25:YA:1651:G:OP1	37:YR:40:LYS:NZ	2.25	0.67
29:YF:32:LEU:HD11	29:YF:105:VAL:HG13	1.76	0.67
31:YH:149:ARG:NE	55:Y9:20:HIS:H	1.93	0.67
36:YQ:24:GLY:H	36:YQ:101:ARG:HD2	1.60	0.67
48:Y2:41:ILE:HD11	48:Y2:44:LEU:HB2	1.77	0.67
27:RD:94:LEU:HD13	27:RD:104:TYR:HE1	1.59	0.67
31:YH:164:TYR:HB2	31:YH:167:GLU:HB2	1.76	0.67
46:Y0:27:GLU:HG3	46:Y0:68:GLU:HA	1.75	0.67
1:QA:973:G:H4'	14:QN:41:ARG:HH22	1.60	0.67
25:RA:1817:G:OP1	27:RD:88:ARG:NH2	2.27	0.67
45:RZ:128:VAL:HG22	45:RZ:129:SER:H	1.60	0.67
1:XA:1002:G:H2'	1:XA:1003:G:H8	1.59	0.67
3:XC:150:LYS:HE3	3:XC:167:TRP:HE1	1.60	0.67
25:YA:2646:C:OP2	25:YA:2732:G:O2'	2.11	0.67
45:YZ:166:SER:HB2	45:YZ:168:GLU:H	1.59	0.67
1:QA:1043:C:H2'	1:QA:1044:A:H8	1.60	0.67
18:QR:32:ARG:HA	18:QR:69:THR:HG21	1.76	0.67
25:RA:958:U:OP2	36:RQ:14:ARG:NH1	2.28	0.67
27:RD:36:PRO:HA	27:RD:62:TYR:O	1.95	0.67
25:YA:259:G:O2'	25:YA:621:A:O2'	2.11	0.67
27:YD:69:ARG:NH2	27:YD:128:GLY:O	2.24	0.67
30:YG:18:GLU:OE2	30:YG:21:ARG:NH2	2.27	0.67
43:YX:26:TYR:HD2	43:YX:89:ILE:HD12	1.58	0.67
1:QA:335:C:H2'	1:QA:336:C:H6	1.58	0.66
45:RZ:53:ILE:HG22	45:RZ:71:VAL:HG13	1.76	0.66
25:YA:460:A:H62	25:YA:469:G:N2	1.91	0.66
25:YA:1111:A:OP1	31:YH:3:ARG:NH2	2.28	0.66
25:RA:819:A:OP2	25:RA:1187:G:N2	2.26	0.66
25:YA:662:G:OP1	35:YP:15:ARG:NH1	2.27	0.66
25:YA:1800:C:OP2	27:YD:183:ARG:NH1	2.20	0.66
1:QA:544:G:OP1	4:QD:59:ARG:NH2	2.27	0.66
1:XA:1129:C:OP1	9:XI:62:TYR:OH	2.13	0.66
25:YA:2185:C:H2'	25:YA:2186:G:H8	1.60	0.66
25:RA:1341:U:OP2	25:RA:1394:U:O2'	2.12	0.66
25:RA:1478:G:H2'	25:RA:1479:G:H8	1.59	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:2109:U:H2'	25:RA:2110:G:C8	2.31	0.66
36:RQ:24:GLY:H	36:RQ:101:ARG:HD2	1.59	0.66
11:XK:86:GLY:O	11:XK:91:ARG:NH1	2.26	0.66
12:XL:77:LEU:HD21	12:XL:107:ALA:HB2	1.78	0.66
31:YH:52:VAL:O	31:YH:65:HIS:NE2	2.28	0.66
1:QA:545:C:H5'	4:QD:72:GLU:HG3	1.75	0.66
1:QA:978:A:OP2	1:QA:1362(A):C:N4	2.27	0.66
1:QA:1356:G:H2'	1:QA:1357:A:H8	1.59	0.66
19:QS:40:ILE:HG13	19:QS:44:MET:HG3	1.78	0.66
25:RA:1542:G:O6	25:RA:1543:A:N6	2.29	0.66
25:RA:1902:C:OP1	27:RD:242:ARG:NH2	2.28	0.66
28:RE:201:THR:HG22	28:RE:203:LYS:H	1.60	0.66
25:YA:1657:C:H2'	25:YA:1658:C:C6	2.30	0.66
1:XA:279:A:OP2	17:XQ:95:TYR:OH	2.12	0.66
1:XA:636:U:H2'	1:XA:637:G:H8	1.60	0.66
1:XA:643:C:H2'	1:XA:644:G:H8	1.61	0.66
1:QA:266:G:O2'	1:QA:267:C:OP2	2.12	0.66
11:QK:18:ARG:HG2	11:QK:81:ASP:HB2	1.77	0.66
33:RN:99:LEU:HD12	33:RN:122:VAL:HG21	1.78	0.66
1:XA:972:C:OP2	10:XJ:57:LYS:NZ	2.29	0.66
25:YA:28:A:N6	25:YA:512:G:O2'	2.28	0.66
31:YH:162:ILE:HG22	55:Y9:18:ARG:HH12	1.61	0.66
50:R4:16:CYS:SG	50:R4:17:GLY:N	2.68	0.66
25:YA:2755:C:H5'	55:Y9:3:VAL:HG13	1.76	0.66
40:YU:61:TRP:HB3	40:YU:93:LYS:O	1.95	0.66
1:QA:323:U:OP1	20:QT:26:ASN:ND2	2.28	0.66
25:RA:587:C:OP2	35:RP:21:ARG:NH1	2.29	0.66
28:RE:104:VAL:HG11	28:RE:188:VAL:HG23	1.78	0.66
1:XA:713:G:H2'	1:XA:714:G:C8	2.30	0.66
1:QA:1071:C:H2'	1:QA:1072:G:H8	1.60	0.66
2:QB:20:GLU:HG3	2:QB:191:ASP:HB2	1.77	0.66
19:QS:41:VAL:HG11	19:QS:67:VAL:HA	1.78	0.66
25:RA:818:G:N1	25:RA:1188:U:OP2	2.19	0.66
1:XA:266:G:O2'	1:XA:267:C:OP2	2.14	0.66
1:XA:715:A:H2'	1:XA:716:A:C8	2.30	0.66
1:QA:537:G:H5"	12:QL:113:ARG:HH12	1.61	0.65
1:XA:426:G:OP1	4:XD:38:TYR:OH	2.12	0.65
11:XK:54:ARG:NH2	22:XW:40:C:O2'	2.29	0.65
25:RA:1568:G:H5"	27:RD:61:LEU:HD23	1.78	0.65
1:XA:545:C:H5'	4:XD:72:GLU:HG3	1.78	0.65
22:XV:35:C:H2'	22:XV:36:A:H8	1.60	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:2525:G:O2'	25:YA:2526:G:O4'	2.14	0.65
41:YV:24:LYS:HA	41:YV:92:THR:HG23	1.78	0.65
15:QO:87:ILE:HG22	15:QO:88:ARG:H	1.61	0.65
1:XA:1095:U:OP1	1:XA:1108:G:N2	2.23	0.65
2:XB:47:THR:HA	2:XB:202:PRO:HG2	1.78	0.65
25:YA:2739:U:H2'	25:YA:2740:A:H8	1.58	0.65
1:QA:1348:U:H4'	9:QI:120:ARG:HD2	1.79	0.65
25:RA:662:G:OP1	35:RP:15:ARG:NH1	2.30	0.65
35:YP:65:ARG:O	35:YP:68:GLN:NE2	2.29	0.65
1:QA:976:G:N2	1:QA:1362(A):C:OP2	2.23	0.65
1:QA:1192:C:O2	5:QE:25:ARG:NH2	2.30	0.65
25:RA:1497:U:H5"	25:RA:1498:C:H5	1.61	0.65
25:RA:2495:G:H5"	36:RQ:81:VAL:HG12	1.79	0.65
25:YA:2788:C:O2'	25:YA:2809:A:N3	2.28	0.65
43:RX:26:TYR:HD2	43:RX:89:ILE:HD12	1.61	0.65
7:XG:84:ASN:ND2	22:XW:34:U:OP1	2.26	0.65
1:QA:1245:A:OP2	21:QU:9:ARG:NH2	2.28	0.65
25:RA:195:A:H61	25:RA:198:C:H3'	1.62	0.65
25:RA:2030:A:H4'	25:RA:2031:A:H8	1.61	0.65
25:RA:2729:G:H1'	28:RE:187:ALA:HB2	1.77	0.65
25:YA:2705:A:O2'	25:YA:2852:G:OP1	2.14	0.65
36:YQ:65:PHE:HB2	36:YQ:105:GLU:HB3	1.77	0.65
45:YZ:128:VAL:HG22	45:YZ:129:SER:H	1.61	0.65
1:QA:1355:G:H2'	1:QA:1356:G:C8	2.32	0.65
34:RO:68:GLU:HG3	34:RO:78:ARG:HD3	1.77	0.65
2:QB:109:SER:O	2:QB:113:HIS:ND1	2.30	0.65
25:YA:2747:G:N1	25:YA:2755:C:OP2	2.29	0.65
55:Y9:4:ARG:HB2	55:Y9:34:GLN:HB3	1.78	0.65
27:RD:168:ARG:HG2	27:RD:173:VAL:HG12	1.79	0.65
8:XH:10:LEU:HD22	8:XH:83:ILE:HD11	1.78	0.65
25:YA:24:G:O2'	42:YW:78:GLU:O	2.15	0.65
52:Y6:10:LEU:HG	52:Y6:54:ILE:HD12	1.79	0.65
1:QA:1225:A:H4'	19:QS:78:ARG:HE	1.62	0.64
25:RA:2466:C:OP1	55:R9:22:ARG:NH1	2.29	0.64
25:RA:2572:A:H2'	28:RE:144:ARG:HD3	1.78	0.64
25:RA:2731:G:OP1	28:RE:169:ASN:ND2	2.27	0.64
27:RD:123:ALA:HB3	27:RD:131:LEU:HG	1.79	0.64
25:YA:586:A:H4'	29:YF:89:VAL:HG11	1.79	0.64
25:YA:2744:G:OP2	55:Y9:19:ARG:N	2.30	0.64
1:QA:684:A:O2'	11:QK:39:PRO:O	2.14	0.64
1:QA:1073:U:O2	2:QB:104:ASN:ND2	2.29	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:RR:103:ARG:NH1	42:RW:40:ASN:OD1	2.28	0.64
25:YA:1084:A:N1	25:YA:1085:A:N6	2.45	0.64
31:YH:150:ALA:HA	55:Y9:19:ARG:HB3	1.78	0.64
1:QA:1355:G:H2'	1:QA:1356:G:H8	1.62	0.64
18:QR:74:ARG:HG2	18:QR:81:PHE:CE1	2.32	0.64
25:RA:270(T):G:H5"	47:R1:97:LEU:HD22	1.79	0.64
40:RU:85:LYS:NZ	40:RU:117:GLN:OE1	2.29	0.64
25:YA:819:A:OP2	25:YA:1187:G:N2	2.30	0.64
25:RA:2512:C:O2'	28:RE:154:LYS:NZ	2.25	0.64
2:XB:32:ILE:HD11	2:XB:40:HIS:HB3	1.78	0.64
4:XD:62:GLN:HE22	4:XD:65:ARG:HH21	1.45	0.64
25:YA:848:G:H2'	25:YA:849:A:H8	1.61	0.64
7:QG:86:GLN:NE2	22:QW:33:C:O2'	2.30	0.64
11:QK:54:ARG:HH12	22:QW:40:C:H4'	1.61	0.64
30:RG:107:LEU:HD23	30:RG:111:LEU:HD12	1.78	0.64
25:YA:589:C:H2'	25:YA:590:A:C8	2.31	0.64
1:QA:297:G:N2	1:QA:300:A:OP2	2.27	0.64
3:QC:157:ILE:HD13	3:QC:166:GLU:HG2	1.79	0.64
5:QE:81:GLU:HG2	5:QE:90:VAL:HG22	1.79	0.64
25:RA:675:A:N3	25:RA:2443:C:O2'	2.30	0.64
25:RA:1405:U:H2'	25:RA:1406:U:H6	1.62	0.64
25:RA:1426:G:OP2	25:RA:1427:A:O2'	2.15	0.64
36:RQ:66:ILE:HA	36:RQ:104:PHE:HA	1.80	0.64
38:RS:26:LEU:HB3	38:RS:87:PHE:HA	1.80	0.64
1:XA:134:A:H61	16:XP:25:ARG:HH12	1.46	0.64
22:QW:59:A:O2'	22:QW:60:A:OP1	2.15	0.64
35:RP:62:LEU:HD23	35:RP:62:LEU:H	1.62	0.64
43:RX:54:VAL:HG22	43:RX:81:VAL:HG23	1.79	0.64
27:YD:35:LYS:HB3	27:YD:36:PRO:CD	2.25	0.64
31:YH:154:PRO:HG3	55:Y9:18:ARG:O	1.97	0.64
19:QS:10:PHE:HE2	19:QS:16:LEU:HB2	1.63	0.64
13:XM:3:ARG:HA	13:XM:9:ILE:HG21	1.78	0.64
25:YA:20:C:O2	25:YA:520:G:N2	2.20	0.64
25:YA:2743:C:C6	55:Y9:26:ILE:HG23	2.33	0.64
30:YG:16:ARG:NH2	30:YG:28:VAL:O	2.31	0.64
33:YN:39:ARG:HH11	33:YN:48:MET:HE2	1.63	0.64
1:QA:429:U:OP2	4:QD:36:ARG:NH2	2.30	0.64
25:RA:630:G:N2	25:RA:633:A:OP2	2.31	0.64
17:XQ:6:LEU:HD13	17:XQ:23:VAL:HG11	1.80	0.64
25:YA:566:U:H5"	35:YP:29:LYS:HD2	1.80	0.64
1:QA:689:C:OP1	11:QK:27:ASN:ND2	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:QH:10:LEU:HD22	8:QH:83:ILE:HD11	1.78	0.64
25:RA:2347:C:OP1	52:R6:38:LYS:NZ	2.27	0.64
33:RN:6:PRO:HG3	33:RN:41:ASP:HB2	1.80	0.64
1:XA:1432:G:O2'	1:XA:1468:A:N6	2.31	0.64
1:QA:954:G:O6	13:QM:104:ARG:NH1	2.30	0.63
25:RA:768:G:O2'	25:RA:1379:A:N6	2.29	0.63
1:XA:686:U:H1'	11:XK:42:TRP:HE1	1.62	0.63
50:Y4:16:CYS:SG	50:Y4:17:GLY:N	2.71	0.63
1:QA:606:G:H22	1:QA:631:G:H5'	1.62	0.63
1:QA:715:A:H2'	1:QA:716:A:C8	2.33	0.63
22:XV:44:A:H2'	22:XV:45:A:C8	2.33	0.63
25:YA:1042:G:H1	25:YA:1113:U:H3	1.45	0.63
27:YD:148:GLU:HB2	27:YD:151:LYS:HD2	1.80	0.63
40:YU:92:ARG:C	40:YU:94:ASN:H	2.05	0.63
3:QC:108:ASN:HD21	3:QC:144:SER:HB2	1.63	0.63
10:QJ:45:ARG:HB3	10:QJ:65:LEU:HB3	1.80	0.63
25:RA:676:A:H8	25:RA:2069:G:H21	1.46	0.63
29:RF:192:LEU:HD21	29:RF:194:MET:HE3	1.80	0.63
40:RU:92:ARG:C	40:RU:94:ASN:H	2.06	0.63
25:YA:2743:C:C5'	55:Y9:26:ILE:H	2.11	0.63
25:RA:259:G:H21	25:RA:621:A:H8	1.47	0.63
25:RA:574:C:N3	28:RE:145:LYS:NZ	2.38	0.63
1:XA:1175:G:H2'	1:XA:1176:A:C8	2.33	0.63
3:XC:172:ARG:HG2	3:XC:174:PRO:HD3	1.80	0.63
25:YA:2680:C:H5'	28:YE:189:PRO:HA	1.79	0.63
1:QA:624:C:H2'	1:QA:625:G:H8	1.64	0.63
1:XA:191(A):G:H2'	1:XA:191(B):G:C8	2.34	0.63
25:YA:300:A:OP1	44:YY:86:ARG:NH2	2.32	0.63
27:YD:35:LYS:NZ	27:YD:64:ILE:O	2.29	0.63
1:QA:1160:G:H1	1:QA:1177:G:H22	1.44	0.63
2:QB:32:ILE:HD11	2:QB:40:HIS:HB3	1.81	0.63
10:QJ:42:THR:HG21	10:QJ:66:ARG:HG3	1.79	0.63
25:RA:1021:A:H61	25:RA:1142(A):A:H61	1.47	0.63
25:RA:1857:G:H21	25:RA:1886:C:N4	1.97	0.63
36:YQ:29:PHE:N	36:YQ:105:GLU:OE2	2.28	0.63
1:QA:563:A:H2'	1:QA:567:G:C8	2.34	0.63
25:RA:2354:G:H4'	46:R0:35:ASN:HD22	1.62	0.63
37:RR:51:LEU:HD22	37:RR:66:VAL:HG13	1.80	0.63
28:RE:24:THR:HG21	28:RE:188:VAL:HG11	1.79	0.63
33:RN:39:ARG:HH11	33:RN:48:MET:HE2	1.63	0.63
41:RV:28:GLU:HB3	41:RV:31:ALA:HB2	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:390:C:H2'	1:XA:391:G:C8	2.34	0.63
1:XA:1003:G:H21	1:XA:1005:A:H5'	1.62	0.63
19:QS:40:ILE:O	19:QS:41:VAL:HG13	1.99	0.63
1:XA:346:G:O2'	1:XA:347:G:O4'	2.17	0.63
1:XA:559:A:OP1	5:XE:126:ARG:NH2	2.29	0.63
6:XF:9:VAL:HB	6:XF:87:ARG:HB2	1.80	0.63
25:YA:674:G:H1'	29:YF:74:ARG:HD3	1.80	0.63
25:YA:998:C:OP2	40:YU:58:ARG:NH1	2.32	0.63
1:QA:1224:G:O2'	1:QA:1322:C:OP2	2.15	0.62
25:RA:1033:U:OP1	55:R9:19:ARG:NE	2.32	0.62
25:RA:2376:A:H61	38:RS:89:ARG:HD3	1.64	0.62
50:R4:14:ILE:HB	50:R4:22:ILE:HB	1.79	0.62
39:YT:111:ARG:C	39:YT:113:LYS:H	2.07	0.62
25:RA:673:C:OP1	29:RF:54:ARG:NH1	2.31	0.62
25:RA:1329:U:H5"	25:RA:1330:C:H5	1.64	0.62
31:RH:89:ILE:HG22	31:RH:162:ILE:HG12	1.81	0.62
1:XA:1479:C:H2'	1:XA:1480:G:H8	1.64	0.62
25:YA:1061:U:H3'	25:YA:1062:G:H5"	1.80	0.62
31:YH:146:ALA:HA	55:Y9:20:HIS:O	1.98	0.62
1:QA:745:C:H2'	1:QA:746:A:H8	1.63	0.62
1:XA:1329:A:N7	21:XU:7:ARG:NH2	2.47	0.62
25:YA:2616:C:H2'	25:YA:2617:C:H6	1.63	0.62
25:YA:2743:C:C2	55:Y9:26:ILE:HG12	2.34	0.62
25:RA:2867:G:OP2	39:RT:119:LYS:NZ	2.25	0.62
29:RF:143:ALA:HB1	29:RF:148:LEU:HB2	1.82	0.62
1:XA:877:C:H2'	1:XA:878:G:H8	1.64	0.62
1:XA:1266:G:N2	1:XA:1269:A:OP2	2.29	0.62
7:XG:15:ASP:HB3	7:XG:19:GLY:H	1.63	0.62
25:YA:1607:C:N4	25:YA:1622:G:OP2	2.25	0.62
25:YA:1678:G:N2	25:YA:1989:G:H22	1.98	0.62
25:YA:1930:G:N2	25:YA:1969:A:OP2	2.25	0.62
45:YZ:48:PHE:HA	45:YZ:51:ALA:HB3	1.81	0.62
25:RA:144:C:H2'	25:RA:145:G:H8	1.64	0.62
40:RU:90:VAL:HG22	41:RV:39:LEU:HD23	1.82	0.62
45:RZ:102:LEU:HD11	45:RZ:124:ILE:HG13	1.80	0.62
8:XH:112:LEU:HD23	8:XH:133:LEU:HA	1.81	0.62
25:YA:879:G:N1	25:YA:898:C:N3	2.34	0.62
27:YD:123:ALA:HB3	27:YD:131:LEU:HG	1.82	0.62
45:YZ:13:GLU:HB3	45:YZ:18:LEU:HD11	1.82	0.62
1:QA:1119:C:H2'	1:QA:1120:G:H8	1.65	0.62
25:RA:589:C:H2'	25:RA:590:A:H8	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:1668:A:N3	25:RA:1670:C:N4	2.48	0.62
35:RP:61:ARG:HG3	54:R8:13:ARG:HD3	1.81	0.62
38:YS:20:ARG:NH2	46:Y0:51:VAL:O	2.33	0.62
13:QM:99:ARG:HB2	13:QM:101:GLN:HE22	1.64	0.62
25:RA:297:C:OP1	44:RY:87:LYS:NZ	2.32	0.62
25:RA:946:G:O6	25:RA:972:G:N2	2.33	0.62
25:RA:1607:C:N4	25:RA:1622:G:OP2	2.32	0.62
25:RA:1693:U:O2	27:RD:14:ARG:NH1	2.33	0.62
25:RA:2086:U:H2'	25:RA:2087:G:C8	2.34	0.62
22:XW:59:A:O2'	22:XW:60:A:OP1	2.15	0.62
29:YF:63:LYS:NZ	29:YF:75:HIS:O	2.30	0.62
41:YV:1:MET:HE2	41:YV:43:GLU:HB2	1.82	0.62
1:QA:890:G:O2'	1:QA:906:G:O6	2.17	0.62
1:XA:191:G:O2'	20:XT:101:GLY:O	2.18	0.62
25:YA:2742:C:O4'	55:Y9:29:ASN:O	2.17	0.62
22:QW:34:U:H3'	22:QW:35:C:H5"	1.81	0.62
25:RA:1518:C:H2'	25:RA:1519:G:H8	1.63	0.62
28:RE:52:LEU:O	28:RE:74:PRO:HA	1.99	0.62
30:RG:3:LEU:HD11	50:R4:25:TYR:CE2	2.35	0.62
25:YA:2539:C:H1'	55:Y9:29:ASN:HD21	1.65	0.62
1:QA:1061:G:OP1	10:QJ:59:SER:OG	2.18	0.61
9:QI:63:ILE:HG21	9:QI:77:ILE:HG12	1.81	0.61
27:RD:16:MET:HE3	27:RD:211:ARG:HD2	1.82	0.61
1:XA:675:A:H1'	11:XK:116:HIS:CD2	2.33	0.61
1:XA:738:C:H5"	6:XF:69:GLU:HB2	1.82	0.61
25:YA:2438:U:O3'	25:YA:2439:A:H3'	2.00	0.61
40:YU:90:VAL:HG22	41:YV:39:LEU:HD23	1.82	0.61
25:RA:184:C:O2'	25:RA:217:G:N3	2.32	0.61
25:RA:2503:A:O2'	25:RA:2505:G:OP2	2.16	0.61
27:RD:148:GLU:HB2	27:RD:151:LYS:HD2	1.81	0.61
37:RR:55:ALA:HA	37:RR:80:PHE:CE1	2.35	0.61
25:YA:221:A:H4'	25:YA:222:A:O5'	2.00	0.61
25:YA:1980:G:O2'	25:YA:1982:C:OP2	2.15	0.61
25:YA:2737:G:H2'	25:YA:2738:A:C8	2.36	0.61
25:YA:2742:C:O2'	55:Y9:25:VAL:O	2.18	0.61
27:YD:94:LEU:HD13	27:YD:104:TYR:HE1	1.65	0.61
1:QA:346:G:H1'	1:QA:347:G:H5'	1.82	0.61
54:R8:56:GLU:HA	54:R8:59:LYS:HZ2	1.65	0.61
1:XA:1287:A:H2	1:XA:1353:G:H1'	1.65	0.61
25:YA:460:A:N6	25:YA:469:G:H21	1.97	0.61
25:YA:2514:U:H2'	25:YA:2515:C:H6	1.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:1206:G:H1	25:RA:1240:U:H3	1.49	0.61
47:R1:18:ILE:HG12	47:R1:37:ILE:HG12	1.81	0.61
2:XB:5:ILE:HB	2:XB:221:LEU:HD23	1.81	0.61
5:XE:34:VAL:HG11	5:XE:63:ARG:HE	1.64	0.61
25:YA:2314:C:H2'	25:YA:2315:G:H8	1.64	0.61
55:Y9:24:TYR:O	55:Y9:25:VAL:HG13	2.01	0.61
1:QA:26:A:O2'	4:QD:209:ARG:NH2	2.31	0.61
25:RA:2527:C:OP1	55:R9:2:LYS:NZ	2.31	0.61
28:RE:76:ARG:HD3	28:RE:195:LEU:HD22	1.83	0.61
30:RG:35:GLU:HA	30:RG:99:MET:HE1	1.82	0.61
18:XR:74:ARG:HG2	18:XR:81:PHE:CE1	2.35	0.61
25:YA:2473:U:OP1	25:YA:2529:G:N2	2.33	0.61
25:YA:2743:C:H3'	55:Y9:25:VAL:HA	1.83	0.61
28:YE:52:LEU:O	28:YE:74:PRO:HA	2.00	0.61
31:YH:10:PRO:HG3	31:YH:69:ARG:HH12	1.66	0.61
31:YH:142:GLY:O	31:YH:146:ALA:HB2	2.00	0.61
1:QA:1510:U:H2'	1:QA:1511:G:C8	2.36	0.61
19:QS:50:ALA:HB1	19:QS:57:HIS:HB3	1.82	0.61
25:RA:1105:U:H2'	25:RA:1106:G:H8	1.65	0.61
25:RA:1678:G:H22	25:RA:1989:G:N2	1.98	0.61
29:RF:32:LEU:HD11	29:RF:105:VAL:HG13	1.82	0.61
45:RZ:145:GLU:HG3	45:RZ:146:ILE:H	1.65	0.61
26:YB:33:G:OP2	30:YG:96:ARG:NH2	2.32	0.61
27:YD:17:THR:O	27:YD:211:ARG:NH1	2.33	0.61
29:YF:182:ASN:O	29:YF:186:ILE:HG12	2.01	0.61
55:Y9:24:TYR:CZ	55:Y9:35:ARG:HG3	2.35	0.61
12:QL:53:ARG:HH12	12:QL:92:ASP:HB2	1.66	0.61
25:RA:746:A:O2'	25:RA:2611:U:O2'	2.19	0.61
17:XQ:66:SER:O	17:XQ:70:ARG:NH1	2.33	0.61
25:YA:2327:A:H2'	25:YA:2328:A:C8	2.35	0.61
27:YD:31:LYS:HG3	27:YD:32:SER:H	1.64	0.61
25:RA:372:G:N2	25:RA:401:A:OP2	2.33	0.61
25:RA:2747:G:H21	25:RA:2757:A:H62	0.71	0.61
29:RF:182:ASN:O	29:RF:186:ILE:HG12	2.00	0.61
36:RQ:43:THR:HG22	36:RQ:94:VAL:HG12	1.81	0.61
1:XA:1513:A:H2'	1:XA:1514:C:C6	2.36	0.61
28:YE:78:LEU:HG	28:YE:79:ARG:HG2	1.82	0.61
32:YI:30:LEU:HB3	32:YI:36:ALA:HB3	1.81	0.61
45:YZ:30:ASN:OD1	45:YZ:33:LEU:N	2.31	0.61
1:QA:134:A:N6	16:QP:25:ARG:HH12	1.99	0.61
10:QJ:3:LYS:N	10:QJ:74:ILE:O	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:321:G:O2'	25:RA:340:A:N3	2.34	0.61
25:RA:2469:A:H5"	25:RA:2470:G:C8	2.35	0.61
1:XA:1291:G:O2'	9:XI:38:GLN:OE1	2.19	0.61
3:XC:70:VAL:HG12	3:XC:72:LYS:H	1.66	0.61
4:XD:19:LEU:HD13	4:XD:67:ILE:HA	1.82	0.61
25:YA:679:C:H2'	25:YA:680:G:H8	1.66	0.61
29:YF:117:ARG:HH21	29:YF:187:VAL:HA	1.66	0.61
30:YG:80:PHE:HE2	30:YG:82:LEU:HD12	1.66	0.61
40:YU:91:ASP:O	40:YU:95:LEU:N	2.33	0.61
1:QA:1309:G:N7	13:QM:99:ARG:NH2	2.48	0.61
11:QK:86:GLY:O	11:QK:91:ARG:NH1	2.34	0.61
1:XA:264:U:O2'	17:XQ:64:PRO:O	2.17	0.61
25:YA:813:U:H2'	25:YA:814:C:C6	2.36	0.61
25:YA:2526:G:C1'	55:Y9:28:GLU:HB3	2.31	0.61
31:YH:28:GLY:HA3	31:YH:79:VAL:HB	1.81	0.61
1:QA:1367:C:H4'	10:QJ:48:THR:HG21	1.83	0.60
6:QF:9:VAL:HB	6:QF:87:ARG:HB2	1.82	0.60
10:QJ:38:ILE:HD11	10:QJ:71:LEU:HD23	1.83	0.60
25:RA:764:A:H5'	27:RD:210:GLY:HA2	1.83	0.60
25:RA:1754:C:OP1	39:RT:96:ARG:NH1	2.34	0.60
25:RA:2438:U:O3'	25:RA:2439:A:H3'	2.01	0.60
37:RR:24:GLN:HG3	37:RR:44:LEU:HD13	1.83	0.60
55:R9:1:MET:HE1	55:R9:35:ARG:HB2	1.83	0.60
1:XA:80:G:O6	1:XA:89:U:O4	2.18	0.60
1:XA:407:G:H2'	1:XA:408:A:H8	1.66	0.60
13:XM:99:ARG:HB2	13:XM:101:GLN:HE22	1.65	0.60
26:YB:43:C:H4'	30:YG:98:ARG:HH22	1.66	0.60
3:QC:95:THR:HG22	3:QC:97:LYS:H	1.66	0.60
17:QQ:66:SER:O	17:QQ:70:ARG:NH1	2.33	0.60
22:QW:15:G:H2'	22:QW:60:A:N1	2.16	0.60
25:RA:665:C:H2'	25:RA:666:G:H8	1.65	0.60
25:RA:749:C:H5'	25:RA:1271:G:H1'	1.83	0.60
27:RD:17:THR:O	27:RD:211:ARG:NH1	2.34	0.60
41:RV:1:MET:HE2	41:RV:43:GLU:HB2	1.82	0.60
1:XA:745:C:H2'	1:XA:746:A:H8	1.65	0.60
27:YD:43:ARG:HH11	27:YD:49:ILE:HD12	1.66	0.60
30:YG:125:PHE:HE2	30:YG:170:ARG:HB2	1.64	0.60
37:YR:17:ARG:HG2	37:YR:21:TYR:CE2	2.36	0.60
47:Y1:17:SER:HB2	47:Y1:40:ARG:HD2	1.83	0.60
1:QA:20:U:O2'	1:QA:573:A:N6	2.35	0.60
1:QA:985:C:H2'	1:QA:986:A:H8	1.65	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:2296:U:OP2	38:RS:9:ARG:NH1	2.35	0.60
1:XA:1291:G:H5"	7:XG:41:ARG:HH21	1.66	0.60
4:XD:98:GLU:HG2	4:XD:189:PRO:HG3	1.83	0.60
25:YA:299:A:N1	25:YA:322:A:O2'	2.27	0.60
28:YE:10:GLY:HA3	39:YT:8:LYS:HD3	1.83	0.60
35:YP:101:VAL:HB	35:YP:106:LEU:HB2	1.82	0.60
37:YR:74:LYS:C	37:YR:76:VAL:H	2.09	0.60
25:RA:1266:G:O2'	25:RA:2012:G:O6	2.19	0.60
25:RA:1348:G:H2'	25:RA:1349:A:H5"	1.83	0.60
6:XF:68:PRO:HG3	6:XF:71:ARG:HH21	1.65	0.60
13:XM:14:ARG:HH12	13:XM:42:ALA:HA	1.66	0.60
25:YA:259:G:H21	25:YA:621:A:H8	1.48	0.60
25:YA:918:A:N3	26:YB:80:U:O2'	2.34	0.60
25:YA:1430:C:H2'	25:YA:1431:U:C6	2.37	0.60
1:QA:1314:C:H2'	1:QA:1315:U:H6	1.67	0.60
25:RA:514:A:N3	25:RA:581:C:O2'	2.33	0.60
25:RA:1011:G:H1	25:RA:1150:C:H42	1.47	0.60
1:XA:477:G:H2'	1:XA:478:A:H8	1.66	0.60
28:YE:201:THR:HG22	28:YE:203:LYS:H	1.64	0.60
33:YN:99:LEU:HD12	33:YN:122:VAL:HG21	1.82	0.60
2:QB:115:LEU:HD13	2:QB:145:LEU:HB3	1.83	0.60
4:QD:19:LEU:HD12	4:QD:21:LEU:HG	1.83	0.60
25:RA:674:G:H1'	29:RF:74:ARG:HD3	1.81	0.60
42:RW:86:LEU:HD22	42:RW:96:ILE:HD11	1.83	0.60
1:XA:439:A:OP2	1:XA:493:G:N1	2.34	0.60
13:XM:14:ARG:NH2	13:XM:16:ASP:OD2	2.34	0.60
25:YA:2746:U:OP2	55:Y9:35:ARG:NH2	2.35	0.60
25:RA:2010:G:H5"	42:RW:42:ARG:HB2	1.82	0.60
27:RD:85:ASP:OD2	27:RD:88:ARG:NH1	2.31	0.60
25:YA:1728:G:N1	25:YA:1730:U:OP2	2.34	0.60
25:YA:2126:A:H4'	25:YA:2127:G:O5'	2.01	0.60
1:QA:712:A:H2'	1:QA:713:G:C8	2.37	0.60
7:QG:116:ALA:HA	7:QG:119:ARG:HE	1.66	0.60
10:QJ:39:PRO:HB3	10:QJ:70:ARG:NH1	2.17	0.60
13:QM:3:ARG:HA	13:QM:9:ILE:HG21	1.84	0.60
25:RA:1363:C:O2'	25:RA:1809:A:N3	2.31	0.60
1:XA:514:C:H2'	1:XA:515:G:H8	1.67	0.60
25:YA:1195:G:O6	35:YP:16:ARG:NH2	2.32	0.60
28:YE:55:ASN:ND2	28:YE:75:VAL:HG22	2.17	0.60
29:YF:31:HIS:NE2	29:YF:35:GLU:OE2	2.34	0.60
35:YP:50:ARG:HB2	54:Y8:59:LYS:HD3	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:2021:C:OP1	51:R5:12:SER:OG	2.13	0.60
45:RZ:48:PHE:HA	45:RZ:51:ALA:HB3	1.83	0.60
25:RA:1636:C:H2'	25:RA:1637:A:C8	2.37	0.60
14:XN:21:TYR:OH	14:XN:23:ARG:NH2	2.32	0.60
25:YA:890:A:H2'	25:YA:892:G:H8	1.67	0.60
25:YA:1348:G:H2'	25:YA:1349:A:H5"	1.83	0.60
31:YH:149:ARG:C	31:YH:151:ILE:H	2.09	0.60
46:Y0:23:VAL:HG13	46:Y0:38:VAL:HG22	1.83	0.60
1:QA:339:C:OP2	34:RO:97:ARG:NH1	2.35	0.59
15:QO:39:LEU:HD11	15:QO:52:SER:HB3	1.84	0.59
25:RA:2561:A:H4'	34:RO:40:VAL:HG11	1.84	0.59
1:XA:34:C:H2'	1:XA:35:G:H8	1.67	0.59
1:XA:1151:A:O2'	10:XJ:70:ARG:NH2	2.35	0.59
11:XK:34:ASP:OD1	11:XK:38:ASN:N	2.35	0.59
45:YZ:163:LEU:HD22	45:YZ:167:PRO:HG3	1.84	0.59
25:RA:288:C:H2'	25:RA:289:A:H8	1.67	0.59
28:RE:114:ALA:HB3	28:RE:160:TYR:HB3	1.84	0.59
35:RP:106:LEU:HD21	35:RP:112:LEU:HD13	1.84	0.59
44:RY:52:SER:HB2	44:RY:53:PRO:HD2	1.84	0.59
1:XA:674:G:O6	1:XA:716:A:N1	2.34	0.59
14:XN:29:ARG:HD3	14:XN:40:CYS:HB2	1.84	0.59
18:XR:32:ARG:HA	18:XR:69:THR:HG21	1.83	0.59
25:YA:2514:U:H2'	25:YA:2515:C:C6	2.37	0.59
35:YP:62:LEU:HD23	35:YP:62:LEU:H	1.66	0.59
55:Y9:21:GLY:C	55:Y9:22:ARG:HD2	2.26	0.59
1:QA:562:C:H1'	12:QL:15:ARG:HD2	1.83	0.59
1:QA:1433:A:OP2	1:QA:1467:G:N1	2.33	0.59
13:QM:57:ARG:O	13:QM:61:GLU:HG2	2.02	0.59
22:QV:44:A:H2'	22:QV:45:A:C8	2.37	0.59
25:RA:1853:A:N3	25:RA:2233:U:O2'	2.30	0.59
31:RH:87:LEU:HD22	31:RH:149:ARG:HD3	1.84	0.59
35:RP:101:VAL:HG21	35:RP:108:LYS:HD2	1.84	0.59
53:R7:10:ARG:HE	53:R7:14:LYS:HD2	1.67	0.59
1:XA:1286:A:H2'	1:XA:1287:A:H4'	1.84	0.59
25:YA:848:G:H2'	25:YA:849:A:C8	2.37	0.59
25:YA:1359:A:N6	25:YA:1372:U:H3	2.00	0.59
25:YA:2525:G:N2	55:Y9:28:GLU:HG3	2.12	0.59
25:YA:2538:C:H2'	25:YA:2539:C:C6	2.37	0.59
28:YE:131:ALA:O	28:YE:134:ILE:HG13	2.03	0.59
48:Y2:18:PRO:HA	48:Y2:21:LEU:HD12	1.85	0.59
2:QB:68:ILE:HG12	2:QB:161:ALA:HB3	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:274:G:N2	25:RA:363:G:O6	2.35	0.59
25:RA:566:U:H5"	35:RP:29:LYS:HD2	1.84	0.59
25:RA:2466:C:H2'	25:RA:2467:C:C6	2.36	0.59
30:RG:82:LEU:HD21	30:RG:88:ILE:HG12	1.84	0.59
32:RI:27:ARG:HB2	47:R1:71:TYR:HE2	1.66	0.59
2:XB:74:LYS:NZ	2:XB:206:ASP:OD1	2.28	0.59
25:YA:993:G:OP1	40:YU:50:ARG:NH2	2.30	0.59
25:YA:2291:U:H2'	25:YA:2292:C:C6	2.37	0.59
39:YT:51:ARG:HG2	39:YT:98:LYS:HE3	1.82	0.59
1:QA:708:C:OP1	11:QK:85:ARG:NH2	2.28	0.59
2:QB:47:THR:HA	2:QB:202:PRO:HG2	1.85	0.59
4:QD:19:LEU:HD13	4:QD:67:ILE:HA	1.83	0.59
25:RA:84:A:N7	25:RA:99:U:N3	2.50	0.59
25:RA:2111:C:N3	25:RA:2118:U:O2'	2.33	0.59
1:XA:427:U:OP2	1:XA:428:G:O2'	2.19	0.59
25:YA:618:G:H5'	29:YF:205:ARG:HH21	1.66	0.59
25:YA:864:G:H1'	25:YA:914:C:H42	1.66	0.59
27:YD:39:LYS:NZ	27:YD:87:ASN:OD1	2.28	0.59
37:YR:86:ARG:NH2	37:YR:118:GLU:OXT	2.36	0.59
1:QA:806:C:H2'	1:QA:807:A:C8	2.37	0.59
2:QB:67:THR:HG21	2:QB:155:LEU:HD11	1.85	0.59
25:RA:883:G:H22	25:RA:892:G:H22	1.51	0.59
31:RH:8:PRO:HG2	31:RH:69:ARG:NE	2.14	0.59
4:XD:10:ARG:HG3	4:XD:40:PRO:HG3	1.83	0.59
22:XW:15:G:H2'	22:XW:60:A:N1	2.17	0.59
26:YB:48:A:OP2	38:YS:30:ARG:NH2	2.36	0.59
1:QA:235:C:H2'	1:QA:236:G:H8	1.68	0.59
1:QA:827:U:H5	1:QA:870:U:C2	2.21	0.59
1:QA:851:G:H2'	1:QA:852:G:C8	2.37	0.59
25:RA:918:A:N3	26:RB:80:U:O2'	2.35	0.59
1:XA:157:G:H1	1:XA:164:U:H3	1.49	0.59
1:XA:452:A:O2'	16:XP:72:ARG:NH1	2.36	0.59
25:YA:1141:U:H1'	25:YA:1142(A):A:C6	2.38	0.59
28:YE:114:ALA:HB3	28:YE:160:TYR:HB3	1.84	0.59
54:Y8:29:LYS:HB2	54:Y8:33:ASN:ND2	2.18	0.59
10:QJ:51:ARG:O	14:QN:45:ARG:NH1	2.36	0.59
22:QV:35:C:H2'	22:QV:36:A:H8	1.68	0.59
25:RA:569:U:O2'	25:RA:983:A:N1	2.31	0.59
25:RA:1006:C:H5'	33:RN:28:THR:HG23	1.84	0.59
25:RA:1026:U:H4'	25:RA:1027:A:OP1	2.03	0.59
25:RA:2392:A:H2	25:RA:2424:C:H42	1.50	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:R2:18:PRO:HA	48:R2:21:LEU:HD12	1.85	0.59
53:R7:35:ARG:HE	53:R7:42:LEU:HD13	1.67	0.59
1:XA:1250:A:N3	1:XA:1370:G:O2'	2.32	0.59
25:YA:414:C:H2'	25:YA:415:A:H8	1.68	0.59
25:YA:514:A:N3	25:YA:581:C:O2'	2.33	0.59
25:YA:2746:U:H5	55:Y9:35:ARG:HH12	1.50	0.59
36:YQ:81:VAL:HG23	36:YQ:82:ARG:H	1.66	0.59
38:YS:15:ARG:HG3	38:YS:19:LYS:HE2	1.84	0.59
12:XL:70:ILE:HG12	12:XL:100:ILE:HD12	1.83	0.59
25:YA:1266:G:O5'	42:YW:15:ARG:NH2	2.35	0.59
26:YB:24:G:O6	26:YB:56:G:O2'	2.19	0.59
28:YE:24:THR:HG21	28:YE:188:VAL:HG11	1.85	0.59
36:YQ:31:ASP:OD1	36:YQ:134:ARG:NH1	2.36	0.59
1:QA:17:U:H2'	1:QA:18:C:C6	2.38	0.59
25:RA:185:U:H5'	25:RA:217:G:H21	1.68	0.59
25:RA:576:U:H2'	25:RA:577:G:C8	2.38	0.59
25:RA:1399:C:H2'	25:RA:1400:G:H8	1.67	0.59
29:RF:181:LEU:HD11	29:RF:186:ILE:HD11	1.84	0.59
1:XA:243:A:H4'	1:XA:244:U:H3'	1.84	0.59
1:XA:827:U:O2	1:XA:874:G:N2	2.36	0.59
15:XO:79:ARG:HA	15:XO:82:ILE:HG12	1.85	0.59
25:YA:345:A:N3	25:YA:347:A:N6	2.51	0.59
25:YA:814:C:H1'	25:YA:1226:G:H21	1.68	0.59
25:YA:911:A:H2'	36:YQ:9:TYR:HE2	1.68	0.59
25:YA:1316:U:H2'	25:YA:1317:A:C8	2.37	0.59
25:YA:2630:G:H2'	25:YA:2631:G:H8	1.67	0.59
43:YX:55:ASN:HB2	43:YX:80:ILE:HG23	1.84	0.59
47:Y1:90:ILE:HD12	47:Y1:94:LEU:HD12	1.85	0.59
4:QD:4:TYR:OH	4:QD:10:ARG:NH2	2.36	0.58
22:QW:17:C:OP1	22:QW:61:U:O2'	2.21	0.58
25:RA:782:A:O2'	27:RD:225:ALA:O	2.19	0.58
25:RA:2086:U:H2'	25:RA:2087:G:H8	1.68	0.58
30:RG:5:VAL:HG11	30:RG:100:TRP:HB3	1.85	0.58
25:YA:517:C:OP1	51:Y5:16:ARG:NH2	2.35	0.58
25:YA:554:U:H2'	25:YA:556:G:C8	2.38	0.58
25:YA:780:G:H21	25:YA:783:A:H62	1.51	0.58
25:YA:864:G:H1'	25:YA:914:C:N4	2.17	0.58
25:YA:2526:G:H21	55:Y9:13:LYS:NZ	2.01	0.58
25:YA:2741:A:H3'	55:Y9:30:PRO:C	2.27	0.58
29:YF:65:TRP:NE1	29:YF:73:ALA:O	2.29	0.58
30:YG:9:ARG:O	30:YG:13:GLU:HG2	2.02	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1002:G:H2'	1:XA:1003:G:C8	2.38	0.58
25:YA:414:C:H2'	25:YA:415:A:C8	2.38	0.58
30:YG:65:GLY:HA3	50:Y4:9:LEU:HD21	1.85	0.58
18:QR:53:ARG:HH21	18:QR:59:SER:HA	1.67	0.58
25:RA:24:G:O2'	42:RW:78:GLU:O	2.21	0.58
30:RG:32:PRO:HB3	30:RG:163:ALA:HB2	1.83	0.58
15:XO:17:ARG:HH12	15:XO:77:ARG:HH11	1.50	0.58
25:YA:593:G:H4'	54:Y8:61:LEU:HD13	1.84	0.58
25:YA:1270:C:H5"	25:YA:1271:G:H5'	1.84	0.58
43:YX:12:VAL:HB	43:YX:27:THR:HG23	1.85	0.58
2:QB:25:ASN:ND2	2:QB:193:ASP:HB3	2.18	0.58
4:QD:100:ARG:NH2	4:QD:136:PRO:O	2.37	0.58
25:RA:414:C:O2	25:RA:1864:U:O2'	2.21	0.58
25:RA:577:G:O2'	25:RA:1254:A:OP1	2.21	0.58
25:RA:1812:A:H4'	27:RD:46:GLN:HE22	1.67	0.58
1:XA:1305:G:OP1	21:XU:2:GLY:N	2.36	0.58
24:XY:37:A:O2'	25:YA:1913:A:N1	2.35	0.58
25:YA:1819:A:H5"	27:YD:161:THR:HG21	1.85	0.58
25:YA:2313:C:H5"	30:YG:91:ARG:HD3	1.85	0.58
29:YF:63:LYS:HE2	29:YF:67:GLN:HB2	1.84	0.58
39:YT:50:ILE:HG13	39:YT:99:LEU:HD12	1.85	0.58
41:YV:28:GLU:HB3	41:YV:31:ALA:HB2	1.85	0.58
1:QA:581:G:OP1	15:QO:65:ARG:NH1	2.34	0.58
1:QA:1469:G:H2'	1:QA:1470:G:H8	1.69	0.58
3:QC:150:LYS:HE2	3:QC:152:ILE:HD11	1.85	0.58
3:QC:172:ARG:HG2	3:QC:174:PRO:HD3	1.86	0.58
25:RA:363(F):A:H1'	25:RA:364:C:H5	1.69	0.58
25:RA:1859:A:N6	25:RA:1883:G:O2'	2.36	0.58
1:XA:196:A:OP1	20:XT:68:LYS:NZ	2.35	0.58
1:XA:1330:U:H4'	13:XM:23:TYR:CE1	2.39	0.58
4:XD:19:LEU:HD12	4:XD:21:LEU:HG	1.86	0.58
16:XP:3:LYS:HG3	16:XP:65:GLN:O	2.02	0.58
25:YA:587:C:OP2	35:YP:21:ARG:NH1	2.32	0.58
25:YA:2867:G:OP2	39:YT:119:LYS:NZ	2.30	0.58
1:QA:673:G:H2'	1:QA:674:G:C8	2.39	0.58
25:RA:582:G:H2'	25:RA:583:G:C8	2.39	0.58
1:XA:1305:G:N2	1:XA:1332:A:OP2	2.37	0.58
25:YA:2521:C:O2'	25:YA:2564:A:N3	2.34	0.58
25:YA:2742:C:H1'	55:Y9:26:ILE:CA	2.21	0.58
37:YR:55:ALA:HA	37:YR:80:PHE:CE1	2.38	0.58
45:YZ:145:GLU:HG3	45:YZ:146:ILE:H	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1366:C:O2'	10:QJ:60:ARG:NH1	2.32	0.58
25:RA:2752:C:H3'	25:RA:2753:A:H8	1.68	0.58
42:RW:22:ASP:OD1	42:RW:25:ARG:NH1	2.34	0.58
8:XH:17:THR:O	8:XH:78:GLN:NE2	2.37	0.58
22:XW:8:U:C2	22:XW:14:A:N7	2.72	0.58
26:YB:8:U:H3	26:YB:112:G:H1	1.52	0.58
29:YF:39:TRP:NE1	29:YF:99:TYR:O	2.32	0.58
49:Y3:39:ASP:OD1	49:Y3:44:ARG:NH2	2.35	0.58
25:RA:270(S):G:H5'	47:R1:76:ARG:HG2	1.86	0.58
25:RA:1819:A:H5"	27:RD:161:THR:HG21	1.85	0.58
40:RU:91:ASP:O	40:RU:95:LEU:N	2.35	0.58
1:XA:1141:C:H2'	1:XA:1142:G:H8	1.69	0.58
25:YA:813:U:H2'	25:YA:814:C:H6	1.68	0.58
25:YA:2743:C:N1	55:Y9:26:ILE:HG12	2.19	0.58
28:YE:24:THR:OG1	28:YE:186:GLY:HA2	2.03	0.58
1:QA:714:G:H2'	1:QA:715:A:H8	1.66	0.58
25:RA:1656:C:H2'	25:RA:1657:C:H6	1.69	0.58
1:XA:17:U:H2'	1:XA:18:C:C6	2.39	0.58
1:XA:582:U:H5"	15:XO:64:ARG:HH12	1.69	0.58
5:XE:81:GLU:HG2	5:XE:90:VAL:HG22	1.86	0.58
13:XM:23:TYR:N	13:XM:67:GLU:OE2	2.34	0.58
22:XV:59:A:O2'	22:XV:61:U:OP2	2.12	0.58
25:YA:458:G:O2'	25:YA:469:G:O6	2.22	0.58
25:YA:1613:G:O2'	53:Y7:3:ARG:NE	2.31	0.58
25:YA:2526:G:H21	55:Y9:13:LYS:HZ3	1.51	0.58
29:YF:116:ASP:OD2	35:YP:1:MET:N	2.36	0.58
45:YZ:102:LEU:HD23	45:YZ:137:ILE:HB	1.85	0.58
1:QA:181:G:O2'	1:QA:182:U:O5'	2.21	0.58
25:RA:900:A:H3'	25:RA:901:A:H8	1.68	0.58
25:RA:1138:G:H21	33:RN:106:MET:HE3	1.67	0.58
25:RA:1403:C:H5"	25:RA:1471:A:H1'	1.85	0.58
28:RE:37:ARG:HD3	28:RE:42:ASP:OD2	2.03	0.58
20:XT:26:ASN:HB2	20:XT:71:THR:HG23	1.86	0.58
25:YA:2761:G:C2	25:YA:2762:G:H1'	2.39	0.58
29:YF:156:LEU:HD21	29:YF:163:VAL:HG12	1.84	0.58
31:YH:164:TYR:HD2	31:YH:167:GLU:HB2	1.68	0.58
1:QA:17:U:H2'	1:QA:18:C:H6	1.69	0.57
1:QA:1126:U:H1'	1:QA:1280:A:N7	2.19	0.57
1:QA:1352:C:OP1	21:QU:3:LYS:NZ	2.33	0.57
22:QV:15:G:H1	22:QV:49:C:H5	1.52	0.57
27:RD:31:LYS:HG3	27:RD:32:SER:H	1.67	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:RI:4:ILE:HG12	32:RI:18:VAL:HG22	1.86	0.57
36:RQ:36:ALA:HB2	36:RQ:103:MET:HE2	1.86	0.57
1:XA:269:C:H2'	1:XA:270:A:C8	2.39	0.57
1:XA:1137:C:HO2'	1:XA:1138:G:N2	2.01	0.57
4:XD:127:THR:HA	4:XD:132:ARG:HA	1.85	0.57
8:XH:34:GLU:OE1	8:XH:37:ARG:NH2	2.37	0.57
12:XL:84:LEU:HB2	12:XL:105:TYR:CD2	2.39	0.57
25:YA:521:G:H2'	25:YA:522:G:H8	1.68	0.57
25:YA:1416:G:H2'	25:YA:1417:C:C6	2.39	0.57
11:QK:62:GLN:HG3	11:QK:97:ALA:HB2	1.86	0.57
29:RF:63:LYS:NZ	29:RF:75:HIS:O	2.30	0.57
37:RR:96:ARG:HH21	37:RR:117:VAL:HG23	1.69	0.57
12:XL:27:LEU:HD13	12:XL:62:SER:HB3	1.85	0.57
13:XM:3:ARG:HH12	30:YG:113:ARG:NH2	2.01	0.57
25:YA:775:G:H4'	25:YA:776:G:H5'	1.85	0.57
25:YA:1173:G:N2	25:YA:1175:U:O4	2.37	0.57
25:YA:2046:G:H5'	51:Y5:19:ARG:HG3	1.87	0.57
25:YA:2102:U:H2'	25:YA:2103:C:H6	1.69	0.57
33:YN:6:PRO:HG3	33:YN:41:ASP:HB2	1.86	0.57
55:Y9:35:ARG:NH1	55:Y9:37:GLY:O	2.36	0.57
6:QF:95:GLU:O	18:QR:32:ARG:NH1	2.37	0.57
20:QT:26:ASN:HA	20:QT:29:LYS:HG2	1.86	0.57
25:RA:71:A:H62	25:RA:114:U:H1'	1.68	0.57
25:RA:662:G:H2'	25:RA:663:G:H8	1.70	0.57
25:RA:971:C:H2'	25:RA:972:G:O4'	2.04	0.57
40:RU:61:TRP:HB3	40:RU:93:LYS:O	2.03	0.57
45:RZ:114:GLY:HA3	45:RZ:177:PRO:HG3	1.86	0.57
48:R2:41:ILE:HD11	48:R2:44:LEU:HB2	1.86	0.57
1:XA:62:U:H2'	1:XA:63:C:C6	2.38	0.57
1:XA:261:U:OP2	20:XT:79:ARG:NH2	2.37	0.57
1:XA:976:G:OP2	1:XA:1358:U:O2'	2.22	0.57
8:XH:106:GLY:O	8:XH:122:ARG:NH2	2.36	0.57
25:YA:307:G:N2	25:YA:310:A:OP2	2.37	0.57
25:YA:629:G:N3	25:YA:639:U:O2'	2.37	0.57
25:YA:1310:G:OP2	53:Y7:9:ARG:NE	2.30	0.57
25:YA:2577:A:H5'	51:Y5:3:LYS:HZ2	1.69	0.57
25:YA:2743:C:C5'	55:Y9:25:VAL:HA	2.35	0.57
47:Y1:85:LEU:HD12	47:Y1:88:LYS:HE3	1.84	0.57
1:QA:737:A:H2'	1:QA:738:C:C6	2.39	0.57
11:QK:33:THR:HG22	11:QK:39:PRO:HA	1.86	0.57
22:QW:8:U:C2	22:QW:14:A:N7	2.71	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:855:G:H1	25:RA:922:U:H3	1.50	0.57
25:RA:1518:C:H2'	25:RA:1519:G:C8	2.38	0.57
25:RA:2250:G:C4	36:RQ:82:ARG:HG3	2.39	0.57
32:RI:80:PRO:HB2	32:RI:146:ALA:HB2	1.86	0.57
40:RU:91:ASP:O	40:RU:93:LYS:N	2.38	0.57
1:XA:363:A:OP1	12:XL:34:ARG:N	2.28	0.57
1:XA:1213:A:N6	1:XA:1215:G:N3	2.52	0.57
1:XA:1224:G:O2'	1:XA:1322:C:OP2	2.22	0.57
25:YA:1165:U:H2'	25:YA:1166:C:C6	2.39	0.57
25:YA:1791:A:H3'	25:YA:1792:G:H8	1.69	0.57
25:YA:2743:C:H3'	55:Y9:24:TYR:O	2.03	0.57
45:YZ:102:LEU:HD11	45:YZ:124:ILE:HG13	1.85	0.57
1:QA:1218:C:H2'	1:QA:1219:U:C6	2.39	0.57
25:RA:220:G:H21	25:RA:429:A:H62	1.50	0.57
25:RA:1262:A:OP1	42:RW:99:ARG:NH1	2.33	0.57
39:RT:51:ARG:HG2	39:RT:98:LYS:HE3	1.85	0.57
13:XM:52:GLU:HG2	13:XM:55:ARG:HH21	1.68	0.57
22:XW:17:C:OP1	22:XW:61:U:O2'	2.20	0.57
25:YA:1333:C:H2'	25:YA:1334:G:H8	1.70	0.57
32:YI:121:LYS:HG2	32:YI:122:GLU:H	1.70	0.57
1:QA:1507:A:H2'	1:QA:1508:G:C8	2.39	0.57
22:XV:44:A:H2'	22:XV:45:A:H8	1.70	0.57
27:YD:231:HIS:CD2	27:YD:249:PRO:HG3	2.39	0.57
1:QA:501:C:H2'	1:QA:502:G:H8	1.69	0.57
1:QA:1321:C:H3'	1:QA:1322:C:H5"	1.85	0.57
1:QA:1342:C:H2'	1:QA:1343:G:C8	2.39	0.57
25:RA:1796:U:H2'	25:RA:1797:C:H6	1.69	0.57
25:RA:2752:C:H3'	25:RA:2753:A:C8	2.40	0.57
25:RA:2836:U:H2'	25:RA:2837:G:C8	2.38	0.57
1:XA:243:A:H4'	1:XA:244:U:O5'	2.03	0.57
25:YA:414:C:O2	25:YA:1864:U:O2'	2.22	0.57
25:YA:823:G:H2'	25:YA:824:A:H8	1.68	0.57
25:YA:1116:C:H2'	25:YA:1117:G:C8	2.38	0.57
25:YA:1353:A:H2'	25:YA:1354:A:C8	2.40	0.57
25:YA:2747:G:C6	25:YA:2755:C:H4'	2.40	0.57
36:YQ:32:TYR:CE1	36:YQ:133:ARG:HG3	2.39	0.57
9:QI:17:VAL:HG11	9:QI:81:ILE:HD13	1.87	0.57
32:RI:27:ARG:HB2	47:R1:71:TYR:CE2	2.39	0.57
34:RO:23:ARG:NH2	34:RO:28:SER:O	2.37	0.57
46:R0:23:VAL:HG13	46:R0:38:VAL:HG22	1.86	0.57
9:XI:17:VAL:HG11	9:XI:81:ILE:HD13	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:XQ:28:PRO:HA	17:XQ:35:VAL:HA	1.85	0.57
25:YA:1796:U:H2'	25:YA:1797:C:H6	1.68	0.57
25:YA:2103:C:H2'	25:YA:2104:G:C8	2.39	0.57
35:YP:63:PRO:HB3	54:Y8:13:ARG:HB3	1.85	0.57
35:YP:106:LEU:HD21	35:YP:112:LEU:HD13	1.87	0.57
1:QA:34:C:H2'	1:QA:35:G:H8	1.70	0.57
1:QA:316:G:OP2	1:QA:351:G:O2'	2.21	0.57
7:QG:144:MET:HE2	22:QW:31:G:H21	1.70	0.57
25:RA:994:C:H3'	40:RU:54:LYS:HE3	1.86	0.57
25:RA:1169:G:H1	25:RA:1180:C:H42	1.53	0.57
25:RA:1266:G:O6	42:RW:13:SER:OG	2.15	0.57
27:RD:34:VAL:O	27:RD:35:LYS:HG2	2.05	0.57
36:RQ:81:VAL:HG23	36:RQ:82:ARG:H	1.69	0.57
1:XA:22:G:H4'	1:XA:885:G:C8	2.40	0.57
1:XA:191:G:C4	20:XT:105:SER:HB3	2.39	0.57
1:XA:701:C:O2	1:XA:703:G:N1	2.38	0.57
1:XA:1336:C:O2	1:XA:1337:G:N1	2.38	0.57
22:XW:8:U:H4'	22:XW:9:G:OP1	2.05	0.57
25:YA:309:G:N3	25:YA:329:G:O2'	2.38	0.57
25:YA:1508:A:O2'	25:YA:1509:C:O4'	2.23	0.57
25:YA:1999:C:OP1	25:YA:2723:C:O2'	2.22	0.57
42:YW:86:LEU:HD22	42:YW:96:ILE:HD11	1.85	0.57
1:QA:1064:G:H1'	1:QA:1066:C:C6	2.40	0.57
1:QA:1314:C:H2'	1:QA:1315:U:C6	2.40	0.57
25:RA:1316:U:H2'	25:RA:1317:A:H8	1.70	0.57
33:RN:70:LYS:HD3	33:RN:87:LEU:HD12	1.86	0.57
35:RP:84:ASN:HA	35:RP:115:LEU:O	2.05	0.57
50:R4:56:VAL:HG23	50:R4:58:ARG:HG3	1.86	0.57
1:XA:410:G:H2'	1:XA:429:U:C5	2.40	0.57
9:XI:10:ARG:HE	9:XI:105:ASP:HB2	1.70	0.57
25:YA:581:C:H2'	25:YA:582:G:C8	2.40	0.57
25:YA:1081:U:H3'	25:YA:1082:U:H4'	1.87	0.57
47:Y1:50:ARG:HD2	47:Y1:57:GLU:OE2	2.05	0.57
1:QA:1123:A:H4'	10:QJ:36:GLY:HA3	1.87	0.56
45:RZ:163:LEU:HD22	45:RZ:167:PRO:HG3	1.87	0.56
1:XA:35:G:O2'	12:XL:118:SER:O	2.17	0.56
1:XA:692:U:OP1	11:XK:124:LYS:NZ	2.31	0.56
2:XB:77:ALA:HB2	2:XB:211:ILE:HD13	1.87	0.56
9:XI:5:TYR:CE1	9:XI:16:ARG:HB2	2.40	0.56
25:YA:1525:G:H2'	25:YA:1526:G:H8	1.70	0.56
27:YD:231:HIS:HD2	27:YD:249:PRO:HG3	1.69	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:YI:88:ILE:HG22	32:YI:90:GLY:H	1.69	0.56
36:YQ:63:LYS:HD2	45:YZ:175:VAL:HG21	1.86	0.56
1:QA:335:C:H2'	1:QA:336:C:C6	2.40	0.56
1:QA:745:C:H2'	1:QA:746:A:C8	2.39	0.56
3:QC:5:ILE:HD12	10:QJ:51:ARG:HH12	1.70	0.56
8:QH:17:THR:O	8:QH:78:GLN:NE2	2.38	0.56
25:RA:586:A:N1	25:RA:809:G:O2'	2.37	0.56
35:RP:96:THR:HG22	35:RP:126:VAL:HB	1.88	0.56
39:RT:3:ARG:HG3	39:RT:7:ILE:HG12	1.86	0.56
1:XA:618:C:H5'	1:XA:619:U:H5"	1.86	0.56
25:YA:212:G:H2'	25:YA:213:A:C8	2.41	0.56
27:YD:44:ASN:HB3	27:YD:49:ILE:HA	1.86	0.56
28:YE:19:ARG:HG3	34:YO:72:PRO:HB2	1.88	0.56
32:YI:82:ARG:HA	32:YI:145:VAL:HG12	1.87	0.56
37:YR:79:LEU:HD12	37:YR:83:ILE:HB	1.86	0.56
1:QA:352:C:O2'	1:QA:354:G:OP1	2.18	0.56
1:QA:418:C:H2'	1:QA:419:C:C6	2.40	0.56
1:QA:769:G:H4'	1:QA:1513:A:H4'	1.86	0.56
1:QA:1100:C:P	2:QB:96:ARG:HD3	2.45	0.56
4:QD:13:ARG:HH21	4:QD:40:PRO:HB3	1.69	0.56
25:RA:38:A:H2'	25:RA:39:C:C6	2.39	0.56
25:RA:617:G:OP1	29:RF:40:GLN:HG3	2.06	0.56
25:RA:848:G:H2'	25:RA:849:A:C8	2.41	0.56
25:RA:969:U:H2'	25:RA:970:C:C6	2.40	0.56
25:RA:1198:U:H2'	25:RA:1199:U:H6	1.70	0.56
25:RA:1224:G:OP2	41:RV:66:ARG:NH1	2.36	0.56
25:RA:1438:U:H2'	25:RA:1439:A:H8	1.69	0.56
25:RA:1509:C:H3'	25:RA:1510:A:H5"	1.87	0.56
25:RA:1796:U:H2'	25:RA:1797:C:C6	2.40	0.56
25:RA:2126:A:N6	25:RA:2163:C:O2'	2.37	0.56
25:RA:2368:C:H2'	25:RA:2369:A:H8	1.69	0.56
35:RP:97:PRO:O	35:RP:98:GLU:HG2	2.05	0.56
37:RR:100:LEU:HD11	37:RR:113:LEU:HB2	1.87	0.56
43:RX:12:VAL:HB	43:RX:27:THR:HG23	1.87	0.56
1:XA:250:A:H4'	1:XA:251:G:O5'	2.05	0.56
1:XA:1077:G:N2	1:XA:1080:A:OP2	2.27	0.56
1:XA:1235:U:H5"	21:XU:3:LYS:HD2	1.87	0.56
1:XA:1446:A:O2'	1:XA:1447:G:O5'	2.22	0.56
27:YD:62:TYR:HA	27:YD:87:ASN:ND2	2.19	0.56
27:YD:142:VAL:HG23	27:YD:193:VAL:HA	1.88	0.56
30:YG:142:PRO:HB2	50:Y4:31:ILE:HG21	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:YH:8:PRO:CG	31:YH:69:ARG:HE	2.17	0.56
31:YH:43:VAL:HG22	31:YH:52:VAL:HG22	1.87	0.56
31:YH:83:TYR:CE2	31:YH:138:LYS:HD2	2.41	0.56
54:Y8:29:LYS:HB2	54:Y8:33:ASN:HD21	1.70	0.56
1:QA:156:G:H2'	1:QA:157:G:H8	1.71	0.56
1:QA:718:G:N2	18:QR:49:LYS:HG2	2.20	0.56
1:QA:750:G:N3	15:QO:23:GLY:HA3	2.20	0.56
12:QL:86:ARG:HB2	12:QL:101:VAL:HG23	1.87	0.56
25:RA:1103:A:H5"	25:RA:1104:C:H5	1.71	0.56
25:RA:2246:G:H2'	25:RA:2247:A:C8	2.40	0.56
1:XA:339:C:OP1	34:YO:13:ASN:ND2	2.34	0.56
1:XA:963:G:H21	10:XJ:55:LYS:HD3	1.69	0.56
11:XK:41:THR:HG21	11:XK:71:LYS:HB3	1.86	0.56
25:YA:270(I):G:H1	25:YA:270(Q):C:H42	1.54	0.56
25:YA:372:G:N2	25:YA:401:A:OP2	2.39	0.56
25:YA:547:A:H2'	25:YA:548:A:C8	2.40	0.56
25:YA:1417:C:H2'	25:YA:1418:G:O4'	2.06	0.56
25:YA:2822:G:O2'	25:YA:2825:C:N4	2.35	0.56
27:YD:146:GLU:HB2	27:YD:189:CYS:HB3	1.88	0.56
1:QA:337:C:H2'	1:QA:338:A:H8	1.70	0.56
25:RA:1005:C:O2'	33:RN:28:THR:HG21	2.05	0.56
25:RA:1535:U:H5"	25:RA:1537:C:N3	2.20	0.56
25:RA:2219:G:OP1	27:RD:172:TYR:OH	2.19	0.56
25:RA:2355:C:H4'	46:R0:24:LYS:HG3	1.87	0.56
3:XC:95:THR:HG22	3:XC:97:LYS:H	1.71	0.56
25:YA:226:G:H2'	25:YA:227:A:C8	2.41	0.56
25:YA:1571:A:H2'	25:YA:1572:A:H8	1.70	0.56
25:YA:2037:G:H2'	25:YA:2038:G:C8	2.40	0.56
1:QA:119:A:H4'	1:QA:120:A:O5'	2.04	0.56
25:RA:2394:C:OP1	35:RP:63:PRO:HD2	2.06	0.56
49:R3:15:TYR:HE2	49:R3:53:LEU:HD21	1.69	0.56
1:XA:599:C:O2'	8:XH:129:VAL:O	2.22	0.56
3:XC:150:LYS:HE2	3:XC:152:ILE:HD11	1.88	0.56
25:YA:483:A:O2'	44:YY:49:VAL:O	2.22	0.56
25:YA:949:C:H2'	25:YA:950:G:H8	1.71	0.56
25:YA:2741:A:N7	55:Y9:30:PRO:HB2	2.21	0.56
27:YD:85:ASP:OD2	27:YD:88:ARG:NH1	2.35	0.56
29:YF:192:LEU:HD21	29:YF:194:MET:HE3	1.88	0.56
1:QA:406:G:H2'	1:QA:407:G:H8	1.71	0.56
1:QA:437:U:H2'	1:QA:438:G:O4'	2.06	0.56
1:QA:689:C:OP2	11:QK:55:LYS:NZ	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1292:U:H2'	1:QA:1293:G:H8	1.71	0.56
13:QM:49:THR:HG22	13:QM:51:ALA:H	1.70	0.56
25:RA:50:U:H3'	25:RA:51:G:H5'	1.86	0.56
25:RA:1490:A:O2'	27:RD:99:ASP:OD1	2.24	0.56
25:RA:2197:U:H1'	25:RA:2198:A:C8	2.40	0.56
25:RA:2241:A:H2'	25:RA:2242:G:C8	2.40	0.56
44:RY:14:LEU:HB2	44:RY:75:ILE:HD11	1.87	0.56
2:XB:24:TRP:CZ3	2:XB:26:PRO:HA	2.40	0.56
19:XS:32:LYS:HA	19:XS:50:ALA:HB3	1.88	0.56
25:YA:2747:G:H4'	31:YH:70:THR:HB	1.88	0.56
25:YA:2837:G:H2'	25:YA:2838:G:H8	1.71	0.56
27:YD:260:ARG:NH2	27:YD:264:LYS:HD3	2.20	0.56
28:YE:23:VAL:HG12	28:YE:173:VAL:HG21	1.88	0.56
33:YN:12:ARG:HH11	33:YN:14:VAL:HG22	1.71	0.56
40:YU:81:HIS:NE2	40:YU:85:LYS:HE3	2.21	0.56
14:QN:29:ARG:HD3	14:QN:40:CYS:HB2	1.86	0.56
25:RA:37:C:H2'	25:RA:38:A:C8	2.41	0.56
25:RA:574:C:N4	25:RA:2034:U:OP1	2.38	0.56
25:RA:822:U:H2'	25:RA:823:G:H8	1.70	0.56
27:RD:133:LEU:HB3	27:RD:173:VAL:HG21	1.88	0.56
1:XA:56:U:H2'	1:XA:57:G:C8	2.41	0.56
1:XA:736:C:H2'	1:XA:737:A:H8	1.71	0.56
7:XG:116:ALA:HA	7:XG:119:ARG:HE	1.71	0.56
9:XI:5:TYR:HE1	9:XI:16:ARG:HB2	1.71	0.56
12:XL:83:VAL:HG13	12:XL:100:ILE:HG23	1.88	0.56
25:YA:836:G:H2'	25:YA:837:C:C6	2.41	0.56
25:YA:2469:A:H5"	25:YA:2470:G:C8	2.41	0.56
30:YG:173:LEU:HD22	30:YG:178:PHE:CE2	2.41	0.56
37:YR:51:LEU:HD22	37:YR:66:VAL:HG13	1.88	0.56
44:YY:52:SER:HB2	44:YY:53:PRO:HD2	1.87	0.56
1:QA:80:G:H1	1:QA:89:U:H3	1.54	0.56
13:QM:15:VAL:HG22	13:QM:45:VAL:HB	1.87	0.56
25:RA:2028:U:H2'	25:RA:2029:G:C8	2.41	0.56
25:RA:2103:C:H2'	25:RA:2104:G:C8	2.41	0.56
27:RD:62:TYR:HA	27:RD:87:ASN:ND2	2.20	0.56
30:RG:161:THR:HG22	30:RG:163:ALA:H	1.69	0.56
1:XA:21:G:H2'	1:XA:22:G:C8	2.40	0.56
1:XA:1321:C:H3'	1:XA:1322:C:H5"	1.87	0.56
25:YA:2638:G:OP1	28:YE:82:ARG:NH2	2.39	0.56
25:YA:2853:C:H2'	25:YA:2854:G:H8	1.70	0.56
40:YU:36:ARG:HG2	40:YU:40:PHE:CE2	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:985:C:H2'	1:QA:986:A:C8	2.41	0.56
25:RA:65:C:H1'	25:RA:456:C:H42	1.71	0.56
25:RA:270(N):G:OP1	32:RI:57:ARG:NH1	2.39	0.56
25:RA:2064:C:H2'	25:RA:2065:C:C6	2.40	0.56
25:RA:2852:G:H1	25:RA:2865:U:H3	1.53	0.56
27:RD:32:SER:HA	27:RD:35:LYS:HB2	1.88	0.56
28:RE:55:ASN:ND2	28:RE:75:VAL:HG22	2.21	0.56
33:RN:34:LEU:O	33:RN:49:GLY:HA3	2.06	0.56
1:XA:452:A:H62	1:XA:480:U:H3	1.54	0.56
1:XA:1296:C:H1'	1:XA:1302:U:H5	1.70	0.56
4:XD:50:ARG:HD2	4:XD:51:PRO:HD2	1.88	0.56
15:XO:15:PHE:HE2	15:XO:85:LEU:HD21	1.71	0.56
25:YA:249:C:O2	54:Y8:12:LYS:NZ	2.37	0.56
25:YA:567:A:O3'	35:YP:36:LYS:NZ	2.39	0.56
25:YA:593:G:H2'	25:YA:594:U:C6	2.41	0.56
25:YA:1203:G:H3'	25:YA:1204:A:H5"	1.88	0.56
25:YA:1571:A:H2'	25:YA:1572:A:C8	2.41	0.56
25:YA:2740:A:N6	25:YA:2764:A:N7	2.53	0.56
28:YE:36:ARG:HH12	28:YE:86:PRO:HD2	1.71	0.56
34:YO:68:GLU:HG3	34:YO:78:ARG:HD3	1.88	0.56
1:QA:337:C:H2'	1:QA:338:A:C8	2.39	0.55
1:QA:362:G:N2	1:QA:365:U:OP2	2.39	0.55
1:QA:501:C:H2'	1:QA:502:G:C8	2.41	0.55
11:QK:83:ILE:HG12	11:QK:109:VAL:HG22	1.87	0.55
11:QK:109:VAL:HG12	18:QR:86:VAL:HA	1.87	0.55
25:RA:582:G:H2'	25:RA:583:G:H8	1.71	0.55
28:RE:23:VAL:HG21	28:RE:183:LEU:HD23	1.88	0.55
36:RQ:29:PHE:N	36:RQ:105:GLU:OE2	2.27	0.55
4:XD:54:TYR:HE1	4:XD:209:ARG:HH12	1.53	0.55
22:XV:35:C:H2'	22:XV:36:A:C8	2.41	0.55
25:YA:588:U:H2'	25:YA:589:C:C6	2.41	0.55
25:YA:679:C:H2'	25:YA:680:G:C8	2.41	0.55
25:YA:1652:A:OP1	37:YR:8:ARG:NH1	2.37	0.55
29:YF:70:THR:HG23	29:YF:72:ARG:H	1.71	0.55
1:QA:344:A:O2'	1:QA:346:G:O6	2.24	0.55
1:QA:891:U:H2'	1:QA:892:A:H8	1.70	0.55
1:QA:1279:A:O2'	1:QA:1282:C:N4	2.39	0.55
16:QP:4:ILE:HB	16:QP:66:PRO:HB3	1.88	0.55
25:RA:996:A:H4'	40:RU:92:ARG:HG2	1.88	0.55
25:RA:2591:C:H2'	25:RA:2592:G:C8	2.41	0.55
31:RH:107:VAL:HB	31:RH:153:LYS:NZ	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:RT:123:GLN:O	39:RT:126:ALA:N	2.38	0.55
1:XA:993:G:O2'	1:XA:994:A:N7	2.40	0.55
1:XA:1516:G:N2	1:XA:1519:A:OP2	2.34	0.55
25:YA:336:C:H4'	44:YY:6:HIS:CD2	2.41	0.55
25:YA:994:C:OP1	40:YU:53:ARG:NH2	2.39	0.55
25:YA:2052:G:H4'	28:YE:143:ASN:O	2.06	0.55
33:YN:39:ARG:HB2	33:YN:48:MET:HE1	1.88	0.55
35:YP:30:THR:O	35:YP:33:ARG:HG2	2.05	0.55
1:QA:674:G:H2'	1:QA:675:A:H8	1.69	0.55
25:RA:247:G:H4'	25:RA:386:G:C5	2.40	0.55
25:RA:709:U:H2'	25:RA:710:G:H8	1.70	0.55
25:RA:2789:C:N4	25:RA:2894:G:O6	2.38	0.55
30:RG:19:LEU:HD11	30:RG:172:LEU:HD13	1.88	0.55
1:XA:885:G:H2'	1:XA:886:G:H8	1.71	0.55
25:YA:1423:G:H5"	27:YD:33:LEU:HD11	1.87	0.55
25:YA:2241:A:H2'	25:YA:2242:G:C8	2.42	0.55
25:YA:2502:G:H5"	25:YA:2503:A:H5"	1.88	0.55
31:YH:88:LEU:HA	31:YH:130:ARG:HA	1.88	0.55
1:QA:45:U:H2'	1:QA:46:G:C8	2.41	0.55
1:QA:55:A:N6	1:QA:356:A:N1	2.53	0.55
1:QA:737:A:H2'	1:QA:738:C:H6	1.72	0.55
25:RA:184:C:H2'	25:RA:185:U:C6	2.41	0.55
25:RA:856:C:O2'	25:RA:857:C:OP1	2.21	0.55
25:RA:1543:A:O2'	25:RA:1544:C:H3'	2.06	0.55
25:RA:2076:U:OP2	25:RA:2238:G:N2	2.39	0.55
25:RA:2392:A:H1'	35:RP:60:MET:HE3	1.88	0.55
30:RG:145:THR:OG1	30:RG:147:ASP:OD1	2.18	0.55
30:RG:170:ARG:NH2	30:RG:182:LYS:O	2.38	0.55
1:XA:309:G:H2'	1:XA:310:G:H8	1.71	0.55
1:XA:674:G:H2'	1:XA:675:A:C8	2.40	0.55
1:XA:708:C:H2'	1:XA:709:G:H8	1.70	0.55
1:XA:1244:C:H2'	1:XA:1245:A:C8	2.41	0.55
1:XA:1314:C:OP1	19:XS:6:LYS:HE3	2.07	0.55
1:XA:1414:U:H2'	1:XA:1415:G:H8	1.71	0.55
11:XK:29:ILE:HG13	11:XK:44:SER:HB3	1.89	0.55
25:YA:305:U:H2'	25:YA:306:U:C6	2.42	0.55
25:YA:1155:A:OP1	40:YU:55:ARG:HD2	2.06	0.55
25:YA:1196:C:HO2'	25:YA:1228:G:HO2'	1.46	0.55
25:YA:1264:G:OP1	51:Y5:19:ARG:NH2	2.38	0.55
25:YA:1438:U:H2'	25:YA:1439:A:H8	1.71	0.55
25:YA:2020:A:H5'	51:Y5:12:SER:HB3	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:2123:G:H2'	25:YA:2124:G:H8	1.71	0.55
39:YT:121:ILE:O	39:YT:125:ARG:HG2	2.06	0.55
2:QB:51:LEU:HD23	2:QB:201:ILE:HD12	1.88	0.55
25:RA:2298:A:H62	25:RA:2318:G:H8	1.53	0.55
25:RA:2845:G:OP1	39:RT:56:GLY:N	2.39	0.55
32:RI:100:ALA:O	32:RI:104:GLN:HB3	2.05	0.55
48:R2:14:ARG:NH1	48:R2:66:GLU:OE1	2.40	0.55
1:XA:45:U:H2'	1:XA:46:G:C8	2.42	0.55
1:XA:1435:G:H2'	1:XA:1436:U:C6	2.41	0.55
12:XL:33:ARG:H	12:XL:85:ILE:HG22	1.69	0.55
22:XW:5:G:H2'	22:XW:6:G:H8	1.72	0.55
25:YA:208:C:H2'	25:YA:209:C:H6	1.72	0.55
25:YA:1902:C:H5'	27:YD:246:PRO:HD3	1.87	0.55
34:YO:2:ILE:HB	34:YO:33:ALA:HB3	1.88	0.55
39:YT:123:GLN:O	39:YT:125:ARG:N	2.40	0.55
1:QA:707:C:H4'	11:QK:20:TYR:CD2	2.42	0.55
1:QA:864:A:H2'	1:QA:865:A:C8	2.41	0.55
22:QW:8:U:H4'	22:QW:9:G:OP1	2.06	0.55
25:RA:392:C:H5"	25:RA:409:C:H5"	1.88	0.55
25:RA:589:C:H2'	25:RA:590:A:C8	2.41	0.55
25:RA:2258:C:O2'	25:RA:2427:C:OP2	2.23	0.55
39:RT:101:PHE:HD2	39:RT:105:LEU:HD21	1.71	0.55
1:XA:712:A:H2'	1:XA:713:G:C8	2.41	0.55
1:XA:890:G:O2'	1:XA:906:G:O6	2.20	0.55
3:XC:19:GLU:HG2	3:XC:54:ARG:HE	1.71	0.55
25:YA:151:C:H2'	25:YA:152:G:H8	1.71	0.55
26:YB:28:C:H2'	26:YB:29:A:C8	2.42	0.55
53:Y7:5:TRP:NE1	53:Y7:7:PRO:HG3	2.22	0.55
1:QA:581:G:O3'	15:QO:64:ARG:NH2	2.39	0.55
1:QA:1013:G:N2	1:QA:1016:A:OP2	2.32	0.55
2:QB:58:ILE:HD11	2:QB:185:ILE:HD13	1.88	0.55
25:RA:1080:C:N4	25:RA:1088:A:OP2	2.30	0.55
25:RA:2618:G:H21	28:RE:150:VAL:HG21	1.70	0.55
39:RT:111:ARG:C	39:RT:113:LYS:H	2.14	0.55
1:XA:1412:C:H2'	1:XA:1413:A:C8	2.41	0.55
2:XB:51:LEU:HD23	2:XB:201:ILE:HD12	1.88	0.55
13:XM:49:THR:HG22	13:XM:51:ALA:H	1.71	0.55
19:XS:15:LEU:HD23	19:XS:15:LEU:H	1.71	0.55
25:YA:278:A:H2'	25:YA:279:C:C6	2.41	0.55
25:YA:1649:G:O2'	37:YR:107:ASP:OD1	2.17	0.55
25:YA:2535:G:H2'	25:YA:2536:G:H8	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:2591:C:H2'	25:YA:2592:G:C8	2.42	0.55
30:YG:161:THR:HG22	30:YG:163:ALA:H	1.72	0.55
39:YT:19:LEU:HD22	39:YT:86:ILE:HG22	1.89	0.55
50:Y4:14:ILE:HB	50:Y4:22:ILE:HB	1.88	0.55
53:Y7:12:ARG:NH2	53:Y7:44:PRO:HB3	2.22	0.55
1:QA:360:A:H2'	1:QA:361:G:C8	2.42	0.55
25:RA:774:A:OP1	27:RD:48:ARG:NH2	2.40	0.55
27:RD:69:ARG:NH2	27:RD:128:GLY:O	2.29	0.55
38:RS:15:ARG:HG3	38:RS:19:LYS:HE2	1.89	0.55
49:R3:39:ASP:OD1	49:R3:44:ARG:NH2	2.38	0.55
8:XH:82:HIS:HB3	8:XH:138:TRP:CE2	2.42	0.55
22:XW:40:C:H2'	22:XW:41:C:H6	1.72	0.55
25:YA:2081:C:H2'	25:YA:2082:A:H8	1.71	0.55
25:YA:2814:C:O2'	51:Y5:29:THR:OG1	2.16	0.55
31:YH:106:THR:HG22	31:YH:112:PRO:HB3	1.88	0.55
32:YI:14:ASP:C	32:YI:16:GLY:H	2.14	0.55
1:QA:405:U:O4	4:QD:2:GLY:N	2.40	0.55
1:QA:407:G:H2'	1:QA:408:A:H8	1.72	0.55
1:QA:1497:G:H1'	1:QA:1518:A:H2	1.70	0.55
11:QK:21:ILE:HB	11:QK:84:VAL:HG12	1.87	0.55
32:RI:121:LYS:HG2	32:RI:122:GLU:H	1.70	0.55
42:RW:57:ASN:O	42:RW:61:ASN:HB2	2.07	0.55
47:R1:6:GLU:O	47:R1:91:LYS:HE3	2.07	0.55
50:R4:48:ARG:O	50:R4:52:THR:OG1	2.25	0.55
1:XA:346:G:O2'	1:XA:347:G:O5'	2.25	0.55
1:XA:587:G:N2	1:XA:754:C:OP2	2.40	0.55
22:XW:28:U:H2'	22:XW:29:C:H6	1.70	0.55
25:YA:768:G:O2'	25:YA:1379:A:N6	2.39	0.55
25:YA:1509:C:H3'	25:YA:1510:A:H5"	1.89	0.55
25:YA:2754:U:H5'	25:YA:2755:C:OP2	2.07	0.55
26:YB:114:G:HO2'	38:YS:50:SER:HG	1.53	0.55
27:YD:108:PRO:HB3	27:YD:143:HIS:CE1	2.42	0.55
1:QA:739:C:O2'	15:QO:42:HIS:ND1	2.37	0.55
1:QA:1096:C:H2'	1:QA:1097:C:H6	1.71	0.55
25:RA:1000:A:OP2	25:RA:1154:G:N1	2.35	0.55
25:RA:2746:U:H5"	31:RH:138:LYS:HE2	1.88	0.55
26:RB:32:C:N3	26:RB:51:G:N2	2.55	0.55
40:RU:90:VAL:HG12	40:RU:91:ASP:H	1.71	0.55
25:YA:557:U:H2'	25:YA:558:G:H8	1.71	0.55
35:YP:96:THR:HG22	35:YP:126:VAL:HB	1.89	0.55
36:YQ:116:GLU:OE2	36:YQ:119:ARG:NH2	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:YR:24:GLN:HG3	37:YR:44:LEU:HD13	1.89	0.55
40:YU:92:ARG:HE	41:YV:11:GLN:H	1.55	0.55
43:YX:25:LYS:HB3	43:YX:80:ILE:HD11	1.88	0.55
1:QA:1175:G:H2'	1:QA:1176:A:H8	1.72	0.54
8:QH:83:ILE:HG13	8:QH:137:VAL:HG22	1.89	0.54
9:QI:116:LYS:HD3	9:QI:120:ARG:HA	1.88	0.54
22:QV:15:G:H22	22:QV:49:C:H41	1.55	0.54
25:RA:521:G:H2'	25:RA:522:G:H8	1.71	0.54
25:RA:1140:C:OP1	33:RN:23:LEU:HB3	2.06	0.54
25:RA:1290:C:H2'	25:RA:1291:C:H6	1.72	0.54
25:RA:1681:G:O2'	25:RA:1762:A:O2'	2.20	0.54
30:RG:106:LEU:HD12	30:RG:110:ALA:HB3	1.88	0.54
30:RG:126:ASP:OD2	30:RG:130:ASN:HB2	2.08	0.54
34:RO:107:ARG:NH1	39:RT:36:GLU:OE1	2.40	0.54
35:RP:50:ARG:HB2	54:R8:59:LYS:HD3	1.88	0.54
1:XA:312:C:H2'	1:XA:313:A:H8	1.72	0.54
1:XA:390:C:H2'	1:XA:391:G:H8	1.72	0.54
8:XH:83:ILE:HG13	8:XH:137:VAL:HG22	1.89	0.54
25:YA:675:A:N3	25:YA:2443:C:O2'	2.38	0.54
25:YA:1055:G:H1	25:YA:1104:C:H42	1.53	0.54
26:YB:28:C:H2'	26:YB:29:A:H8	1.72	0.54
1:QA:1342:C:H2'	1:QA:1343:G:H8	1.70	0.54
13:QM:54:VAL:HG22	13:QM:57:ARG:HH21	1.73	0.54
25:RA:226:G:O2'	25:RA:228:A:N6	2.39	0.54
25:RA:2068:U:H3	25:RA:2430:A:H2	1.56	0.54
25:RA:2376:A:N6	38:RS:89:ARG:HD3	2.22	0.54
26:RB:28:C:H2'	26:RB:29:A:H8	1.72	0.54
27:RD:231:HIS:HD2	27:RD:249:PRO:HG3	1.71	0.54
30:RG:129:GLY:O	30:RG:161:THR:HB	2.07	0.54
36:RQ:32:TYR:CE1	36:RQ:133:ARG:HG3	2.41	0.54
1:XA:946:A:H2'	1:XA:947:G:C8	2.41	0.54
1:XA:1427:U:H2'	1:XA:1428:A:H8	1.72	0.54
19:XS:41:VAL:HG22	19:XS:44:MET:HE2	1.89	0.54
25:YA:172:C:H2'	25:YA:173:G:C8	2.43	0.54
25:YA:320:A:H2'	29:YF:136:THR:HG21	1.88	0.54
31:YH:107:VAL:HB	31:YH:153:LYS:HZ2	1.72	0.54
1:QA:139:G:H2'	1:QA:140:A:H8	1.73	0.54
4:QD:197:PRO:HD3	6:XF:16:GLN:OE1	2.07	0.54
25:RA:131:G:H2'	25:RA:132:G:H8	1.73	0.54
25:RA:242:G:H4'	25:RA:243:U:O5'	2.07	0.54
25:RA:439:G:H2'	25:RA:440:G:C8	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:581:C:H2'	25:RA:582:G:H8	1.72	0.54
25:RA:994:C:OP1	40:RU:53:ARG:NH2	2.41	0.54
25:RA:1264:G:OP1	51:R5:19:ARG:NH2	2.35	0.54
25:RA:2246:G:H2'	25:RA:2247:A:H8	1.72	0.54
35:RP:121:LYS:HD3	35:RP:122:PRO:HD2	1.89	0.54
39:RT:24:PRO:HA	39:RT:49:VAL:HG13	1.89	0.54
54:R8:26:LYS:HD2	54:R8:47:LYS:HD3	1.88	0.54
1:XA:56:U:H2'	1:XA:57:G:H8	1.71	0.54
3:XC:108:ASN:HD21	3:XC:144:SER:HB2	1.73	0.54
25:YA:1525:G:H2'	25:YA:1526:G:C8	2.42	0.54
25:YA:1791:A:H4'	27:YD:206:LEU:HB2	1.89	0.54
25:YA:2591:C:H2'	25:YA:2592:G:H8	1.73	0.54
27:YD:34:VAL:O	27:YD:35:LYS:HG2	2.07	0.54
29:YF:198:ALA:HA	29:YF:201:VAL:HG12	1.89	0.54
36:YQ:24:GLY:H	36:YQ:101:ARG:CD	2.20	0.54
37:YR:28:LEU:HD23	37:YR:48:VAL:HG21	1.89	0.54
50:Y4:48:ARG:O	50:Y4:52:THR:OG1	2.25	0.54
1:QA:436:C:H2'	1:QA:437:U:C6	2.42	0.54
20:QT:26:ASN:HB2	20:QT:71:THR:HG23	1.89	0.54
22:QW:28:U:H2'	22:QW:29:C:H6	1.72	0.54
25:RA:995:C:H5"	40:RU:54:LYS:HG2	1.88	0.54
25:RA:1936:A:H61	25:RA:1963:U:H3	1.55	0.54
45:RZ:30:ASN:OD1	45:RZ:33:LEU:N	2.35	0.54
1:XA:1469:G:H2'	1:XA:1470:G:H8	1.72	0.54
10:XJ:51:ARG:O	14:XN:45:ARG:NH1	2.40	0.54
25:YA:18:C:O2'	25:YA:553:U:OP1	2.25	0.54
25:YA:263:C:H2'	25:YA:264:C:O4'	2.07	0.54
25:YA:1334:G:H5"	43:YX:65:ARG:HH22	1.71	0.54
25:YA:1565:C:H5"	27:YD:18:VAL:HG11	1.90	0.54
25:YA:1939:U:OP1	25:YA:2604:U:O2'	2.23	0.54
25:YA:2151:G:H2'	25:YA:2152:G:H8	1.72	0.54
25:YA:2619:C:H5"	28:YE:152:LYS:HA	1.88	0.54
43:YX:35:THR:HG23	43:YX:38:GLU:H	1.72	0.54
1:QA:489:C:H2'	1:QA:490:G:H8	1.73	0.54
1:QA:738:C:H5"	6:QF:69:GLU:HB2	1.88	0.54
1:QA:1226:C:H42	13:QM:104:ARG:HH11	1.54	0.54
1:QA:1310:G:OP2	13:QM:88:ARG:NH2	2.41	0.54
1:QA:1466:C:H2'	1:QA:1467:G:O4'	2.08	0.54
22:QW:40:C:H2'	22:QW:41:C:H6	1.73	0.54
25:RA:1802:A:H2'	25:RA:1803:A:C8	2.43	0.54
26:RB:48:A:H2'	26:RB:49:C:C6	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:971:G:N2	1:XA:1363:A:OP2	2.41	0.54
1:XA:1117:G:H4'	9:XI:104:ARG:NH1	2.22	0.54
1:XA:1345:U:OP1	9:XI:120:ARG:NH1	2.41	0.54
25:YA:1079:C:H2'	25:YA:1080:C:C6	2.42	0.54
25:YA:1399:C:H2'	25:YA:1400:G:H8	1.73	0.54
25:YA:1728:G:H8	25:YA:1732:A:H62	1.54	0.54
25:YA:2758:A:C5	31:YH:67:LEU:HD21	2.43	0.54
26:YB:111:U:H2'	26:YB:112:G:H8	1.73	0.54
30:YG:82:LEU:HD21	30:YG:88:ILE:HG12	1.89	0.54
35:YP:122:PRO:HB3	35:YP:141:ALA:HB1	1.89	0.54
36:YQ:75:THR:HG21	36:YQ:85:LYS:HE3	1.88	0.54
1:QA:1120:G:H2'	1:QA:1121:U:C6	2.43	0.54
1:QA:1315:U:H2'	1:QA:1316:G:O4'	2.07	0.54
1:QA:1371:G:O3'	9:QI:69:GLY:HA3	2.08	0.54
2:QB:164:VAL:HG12	2:QB:166:ASP:H	1.71	0.54
22:QW:4:G:H2'	22:QW:5:G:C8	2.43	0.54
25:RA:2467:C:H5'	55:R9:18:ARG:HH21	1.72	0.54
25:RA:2753:A:H1'	55:R9:28:GLU:HB2	1.88	0.54
29:RF:53:THR:O	29:RF:57:VAL:HG23	2.07	0.54
32:RI:9:LEU:HD11	32:RI:12:LEU:HD22	1.90	0.54
1:XA:636:U:H2'	1:XA:637:G:C8	2.41	0.54
1:XA:1371:G:O3'	9:XI:69:GLY:HA3	2.08	0.54
25:YA:270(F):U:H2'	25:YA:270(G):C:C6	2.43	0.54
25:YA:1830:C:H2'	25:YA:1831:G:H8	1.73	0.54
25:YA:2243:U:H2'	25:YA:2244:U:C6	2.42	0.54
25:YA:2525:G:C4'	55:Y9:28:GLU:HA	2.36	0.54
25:YA:2741:A:C6	55:Y9:30:PRO:HG2	2.43	0.54
35:YP:68:GLN:HG2	54:Y8:12:LYS:HG2	1.89	0.54
1:QA:1432:G:O2'	1:QA:1468:A:N6	2.41	0.54
13:QM:3:ARG:HH22	30:RG:113:ARG:HH21	1.56	0.54
25:RA:1246:A:OP1	35:RP:15:ARG:NH2	2.35	0.54
25:RA:1538:G:H2'	25:RA:1539:G:H8	1.72	0.54
30:RG:80:PHE:HE2	30:RG:82:LEU:HD12	1.72	0.54
35:RP:135:LEU:HG	35:RP:139:LYS:HE2	1.89	0.54
36:RQ:65:PHE:HB2	36:RQ:105:GLU:HB3	1.89	0.54
45:RZ:102:LEU:HD23	45:RZ:137:ILE:HB	1.90	0.54
48:R2:16:LEU:HD21	48:R2:20:GLU:HG3	1.90	0.54
50:R4:45:GLY:C	50:R4:47:GLN:H	2.15	0.54
1:XA:192:U:O2'	20:XT:60:GLU:OE2	2.22	0.54
1:XA:545:C:O2'	1:XA:549:C:OP1	2.25	0.54
1:XA:1427:U:H2'	1:XA:1428:A:C8	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:XF:36:ARG:NH2	6:XF:66:GLU:OE1	2.41	0.54
22:XW:4:G:H2'	22:XW:5:G:H8	1.73	0.54
25:YA:184:C:H2'	25:YA:185:U:C6	2.43	0.54
25:YA:214:G:N3	25:YA:216:A:O2'	2.37	0.54
25:YA:2443:C:H2'	25:YA:2444:G:H8	1.73	0.54
25:YA:2535:G:H2'	25:YA:2536:G:C8	2.42	0.54
25:YA:2599:G:H8	27:YD:236:GLY:HA2	1.72	0.54
25:YA:2740:A:N6	25:YA:2764:A:C8	2.76	0.54
35:YP:61:ARG:HG3	54:Y8:13:ARG:HD3	1.89	0.54
45:YZ:70:LEU:HG	45:YZ:91:LEU:HD21	1.90	0.54
55:Y9:2:LYS:HD2	55:Y9:31:LYS:HG2	1.90	0.54
1:QA:186:C:O2'	20:QT:85:MET:SD	2.61	0.54
1:QA:486:U:H2'	1:QA:487:A:H8	1.72	0.54
1:QA:514:C:H2'	1:QA:515:G:C8	2.43	0.54
5:QE:34:VAL:HG11	5:QE:63:ARG:HE	1.72	0.54
25:RA:65:C:H2'	25:RA:66:C:H6	1.72	0.54
25:RA:2753:A:O2'	55:R9:28:GLU:O	2.25	0.54
28:RE:170:LEU:HD21	28:RE:187:ALA:HB3	1.90	0.54
1:XA:312:C:H2'	1:XA:313:A:C8	2.43	0.54
1:XA:662:G:H2'	1:XA:663:A:C8	2.42	0.54
1:XA:707:C:H4'	11:XK:20:TYR:HD2	1.73	0.54
1:XA:918:A:H2'	1:XA:919:A:C8	2.43	0.54
25:YA:1946:U:H2'	25:YA:1947:C:C6	2.43	0.54
25:YA:2303:G:N3	30:YG:132:ASN:ND2	2.55	0.54
25:YA:2527:C:H1'	55:Y9:12:ASP:O	2.07	0.54
25:YA:2764:A:N6	25:YA:2766:G:N3	2.56	0.54
30:YG:40:ASN:ND2	30:YG:90:LEU:O	2.41	0.54
36:YQ:24:GLY:HA2	36:YQ:67:ARG:HH21	1.73	0.54
37:YR:88:ARG:NH2	37:YR:89:ASP:OD1	2.41	0.54
43:YX:11:PRO:HD3	48:Y2:37:PHE:CD1	2.42	0.54
1:QA:789:U:H1'	1:QA:792:A:H2	1.72	0.54
4:QD:50:ARG:HD2	4:QD:51:PRO:HD2	1.90	0.54
10:QJ:78:ASN:O	10:QJ:81:THR:OG1	2.26	0.54
32:RI:72:LEU:HD11	32:RI:101:LEU:HD11	1.89	0.54
36:RQ:24:GLY:HA2	36:RQ:67:ARG:HH21	1.73	0.54
37:RR:74:LYS:C	37:RR:76:VAL:H	2.15	0.54
1:XA:1469:G:H2'	1:XA:1470:G:C8	2.43	0.54
25:YA:397:G:O2'	25:YA:2230:G:N2	2.38	0.54
25:YA:1186:G:H2'	25:YA:1187:G:O4'	2.08	0.54
25:YA:1510:A:O2'	25:YA:1512:G:N7	2.40	0.54
25:YA:1796:U:H2'	25:YA:1797:C:C6	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:2126:A:N6	25:YA:2163:C:O2'	2.28	0.54
25:YA:2525:G:O2'	25:YA:2526:G:H8	1.91	0.54
45:YZ:114:GLY:HA3	45:YZ:177:PRO:HG3	1.88	0.54
1:QA:707:C:H4'	11:QK:20:TYR:HD2	1.73	0.54
15:QO:15:PHE:HD2	15:QO:30:ALA:HB2	1.73	0.54
25:RA:92:G:H2'	25:RA:93:C:H6	1.73	0.54
25:RA:184:C:H2'	25:RA:185:U:H6	1.73	0.54
25:RA:2805:G:H2'	25:RA:2807:G:C8	2.42	0.54
28:RE:23:VAL:HG12	28:RE:173:VAL:HG21	1.90	0.54
25:YA:2193:G:H2'	25:YA:2194:G:H8	1.72	0.54
25:YA:2785:C:H2'	25:YA:2786:U:C6	2.43	0.54
29:YF:53:THR:O	29:YF:57:VAL:HG23	2.08	0.54
1:QA:1004:A:C2	1:QA:1025:U:H1'	2.43	0.53
2:QB:19:HIS:CD2	2:QB:206:ASP:HB2	2.43	0.53
25:RA:1166:C:H2'	25:RA:1167:U:C6	2.42	0.53
25:RA:2567:G:H2'	25:RA:2568:C:C6	2.44	0.53
25:RA:2688:U:OP1	25:RA:2713:A:N6	2.41	0.53
28:RE:154:LYS:HG2	28:RE:156:MET:HE3	1.91	0.53
35:RP:64:LYS:HB2	54:R8:25:MET:HG3	1.90	0.53
1:XA:316:G:OP2	1:XA:351:G:O2'	2.16	0.53
1:XA:359:U:H2'	1:XA:360:A:H8	1.72	0.53
1:XA:1105:A:H2'	1:XA:1106:G:H8	1.72	0.53
1:XA:1210:C:O2'	1:XA:1213:A:O2'	2.26	0.53
9:XI:49:PRO:HB2	9:XI:85:LEU:HD21	1.90	0.53
25:YA:439:G:H2'	25:YA:440:G:H8	1.73	0.53
25:YA:729:G:P	27:YD:13:ARG:HD3	2.48	0.53
25:YA:1184:G:P	49:Y3:29:ARG:HH12	2.31	0.53
25:YA:2311:A:C8	30:YG:82:LEU:HD11	2.43	0.53
25:YA:2755:C:C6	55:Y9:35:ARG:HB3	2.42	0.53
31:YH:149:ARG:C	55:Y9:20:HIS:HB2	2.34	0.53
45:YZ:56:VAL:HG22	45:YZ:70:LEU:HD21	1.89	0.53
1:QA:946:A:O2'	1:QA:1333:A:N3	2.35	0.53
1:QA:1218:C:H2'	1:QA:1219:U:H6	1.73	0.53
2:QB:213:LEU:HD11	2:QB:217:ARG:HE	1.73	0.53
25:RA:30:G:H2'	25:RA:31:C:H6	1.73	0.53
25:RA:270(D):C:H2'	25:RA:270(E):G:H8	1.74	0.53
25:RA:1417:C:H2'	25:RA:1418:G:O4'	2.08	0.53
28:RE:60:ASN:CG	28:RE:62:PRO:HD2	2.33	0.53
43:RX:53:LYS:NZ	43:RX:55:ASN:OD1	2.41	0.53
1:XA:17:U:H2'	1:XA:18:C:H6	1.71	0.53
1:XA:974:A:H5"	14:XN:31:ARG:HD3	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:XI:47:LEU:HD12	9:XI:50:LEU:HD12	1.90	0.53
13:XM:15:VAL:HG22	13:XM:45:VAL:HB	1.88	0.53
25:YA:30:G:O2'	25:YA:1214:A:N3	2.33	0.53
25:YA:2315:G:H2'	25:YA:2316:C:C6	2.43	0.53
25:YA:2749:A:OP1	31:YH:4:ILE:HG23	2.08	0.53
29:YF:184:TYR:CE2	29:YF:188:ARG:HD2	2.43	0.53
48:Y2:66:GLU:HG2	48:Y2:69:ARG:HH21	1.74	0.53
52:Y6:10:LEU:HD23	52:Y6:22:ALA:HB2	1.89	0.53
1:QA:269:C:H2'	1:QA:270:A:H8	1.74	0.53
2:QB:61:LEU:HG	2:QB:66:GLY:HA3	1.90	0.53
25:RA:513:A:O2'	25:RA:1217:C:OP1	2.26	0.53
27:RD:44:ASN:HB2	27:RD:48:ARG:O	2.08	0.53
28:RE:24:THR:OG1	28:RE:186:GLY:HA2	2.08	0.53
31:RH:69:ARG:NH1	31:RH:73:ALA:HB2	2.23	0.53
1:XA:700:G:H4'	1:XA:704:A:H1'	1.90	0.53
1:XA:1351:U:H3	1:XA:1371:G:H1	1.56	0.53
2:XB:130:ARG:NE	2:XB:134:GLU:OE1	2.36	0.53
25:YA:2306:C:N4	30:YG:42:GLY:O	2.42	0.53
39:YT:20:PRO:HD2	39:YT:86:ILE:HG23	1.89	0.53
1:QA:272:C:H2'	1:QA:273:A:H8	1.73	0.53
1:QA:422:C:O2'	1:QA:423:G:N2	2.42	0.53
1:QA:1095:U:OP1	1:QA:1108:G:N2	2.34	0.53
2:QB:178:ARG:NH2	2:QB:196:LEU:O	2.40	0.53
9:QI:48:GLU:HB2	9:QI:78:LYS:HE3	1.89	0.53
25:RA:997:G:OP1	40:RU:93:LYS:HB2	2.08	0.53
25:RA:1020:A:N1	25:RA:1141:U:H2'	2.23	0.53
25:RA:1140:C:OP2	33:RN:66:LYS:NZ	2.31	0.53
25:RA:2146:C:H4'	25:RA:2147:G:C8	2.44	0.53
25:RA:2197:U:H1'	25:RA:2198:A:H8	1.74	0.53
30:RG:173:LEU:HD22	30:RG:178:PHE:CE2	2.43	0.53
37:RR:17:ARG:HG2	37:RR:21:TYR:CE2	2.44	0.53
1:XA:908:A:H2'	1:XA:909:A:H8	1.73	0.53
1:XA:1244:C:H2'	1:XA:1245:A:H8	1.72	0.53
25:YA:1048:A:OP2	25:YA:1110:G:N2	2.42	0.53
25:YA:1600:C:OP1	43:YX:58:HIS:NE2	2.23	0.53
25:YA:2032:G:OP2	25:YA:2454:G:O2'	2.19	0.53
25:YA:2695:C:H2'	25:YA:2696:U:C6	2.43	0.53
25:YA:2742:C:OP1	55:Y9:29:ASN:HB3	2.08	0.53
27:YD:52:ARG:NH1	27:YD:249:PRO:HG2	2.24	0.53
34:YO:102:VAL:HB	34:YO:106:LEU:HD12	1.89	0.53
41:YV:55:ALA:HA	41:YV:101:GLY:HA2	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:YY:8:LYS:HD3	44:YY:97:ARG:HH21	1.73	0.53
19:QS:10:PHE:CD1	19:QS:38:SER:HB2	2.43	0.53
19:QS:65:ASN:HA	50:R4:58:ARG:HD2	1.90	0.53
25:RA:1252:G:N2	40:RU:33:ARG:HB3	2.24	0.53
25:RA:2674:G:H5"	34:RO:26:LYS:HE2	1.91	0.53
35:RP:64:LYS:C	35:RP:66:GLY:H	2.17	0.53
1:XA:824:C:H2'	1:XA:825:G:C8	2.43	0.53
1:XA:1003:G:N2	1:XA:1005:A:H5'	2.22	0.53
2:XB:174:VAL:HG13	2:XB:184:VAL:HG11	1.91	0.53
5:XE:42:GLY:HA3	5:XE:66:MET:HG2	1.91	0.53
25:YA:270(H):C:H2'	25:YA:270(I):G:C8	2.44	0.53
25:YA:321:G:OP2	29:YF:135:LYS:HD3	2.09	0.53
25:YA:676:A:H8	25:YA:2070:G:H1'	1.74	0.53
25:YA:1946:U:H2'	25:YA:1947:C:H6	1.73	0.53
25:YA:2134:A:OP2	25:YA:2157:G:N2	2.41	0.53
35:YP:57:THR:C	35:YP:59:LEU:H	2.17	0.53
35:YP:115:LEU:HA	35:YP:134:ALA:HB2	1.91	0.53
45:YZ:45:ASP:OD1	45:YZ:49:ARG:NE	2.41	0.53
1:QA:5:U:O4	4:QD:87:GLY:N	2.34	0.53
1:QA:19:C:H2'	1:QA:20:U:C6	2.44	0.53
1:QA:501:C:H1'	1:QA:549:C:H1'	1.90	0.53
1:QA:1392:G:N2	1:QA:1502:A:H8	2.06	0.53
3:QC:130:VAL:HG21	3:QC:157:ILE:HG23	1.91	0.53
20:QT:69:GLY:O	20:QT:73:HIS:HB2	2.07	0.53
25:RA:30:G:O2'	25:RA:1214:A:N3	2.36	0.53
25:RA:709:U:H2'	25:RA:710:G:C8	2.44	0.53
30:RG:16:ARG:NH2	30:RG:28:VAL:O	2.41	0.53
39:RT:28:VAL:HG23	39:RT:88:ILE:HA	1.91	0.53
1:XA:343:U:O2	1:XA:346:G:N1	2.41	0.53
2:XB:118:LEU:HB3	2:XB:142:LEU:HD12	1.91	0.53
3:XC:138:VAL:HG13	3:XC:149:ALA:HB3	1.90	0.53
9:XI:125:TYR:HE2	9:XI:127:LYS:HE3	1.72	0.53
17:XQ:45:HIS:CD2	17:XQ:47:PRO:HG3	2.43	0.53
25:YA:2626:C:H2'	25:YA:2627:G:C8	2.44	0.53
25:YA:2746:U:H5	55:Y9:35:ARG:NH1	2.05	0.53
27:YD:24:ILE:HD11	27:YD:91:ARG:HD2	1.89	0.53
25:RA:1184:G:P	49:R3:29:ARG:HH12	2.31	0.53
25:RA:1651:G:H5'	37:RR:39:PRO:HG2	1.91	0.53
25:RA:2375:G:N2	25:RA:2378:A:OP2	2.39	0.53
28:RE:36:ARG:HH12	28:RE:86:PRO:HD2	1.73	0.53
30:RG:107:LEU:HD21	30:RG:178:PHE:CD1	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:RU:90:VAL:HG22	41:RV:39:LEU:HB3	1.91	0.53
1:XA:158:G:H2'	1:XA:159:G:C8	2.44	0.53
1:XA:405:U:O4	4:XD:2:GLY:N	2.42	0.53
1:XA:1004:A:OP1	1:XA:1025:U:N3	2.42	0.53
20:XT:26:ASN:HA	20:XT:29:LYS:HG2	1.90	0.53
22:XW:4:G:H2'	22:XW:5:G:C8	2.43	0.53
25:YA:570:G:H1'	25:YA:983:A:N6	2.24	0.53
25:YA:852:G:H2'	25:YA:853:G:H8	1.72	0.53
25:YA:1689:A:H2'	25:YA:1690:A:H8	1.73	0.53
25:YA:2816:C:O2	25:YA:2883:A:O2'	2.26	0.53
29:YF:143:ALA:HB1	29:YF:148:LEU:HB2	1.90	0.53
42:YW:76:VAL:HG22	42:YW:103:ILE:HA	1.91	0.53
1:QA:21:G:H2'	1:QA:22:G:C8	2.44	0.53
1:QA:674:G:H2'	1:QA:675:A:C8	2.43	0.53
1:QA:816:A:OP1	1:QA:1526:G:O2'	2.23	0.53
1:QA:838:G:C6	1:QA:842:C:H1'	2.44	0.53
4:QD:98:GLU:HG2	4:QD:189:PRO:HG3	1.90	0.53
9:QI:8:GLY:HA2	9:QI:79:LEU:HD12	1.91	0.53
25:RA:38:A:H2'	25:RA:39:C:H6	1.74	0.53
25:RA:1425:G:H2'	25:RA:1426:G:C8	2.44	0.53
25:RA:2030:A:H4'	25:RA:2031:A:C8	2.42	0.53
25:RA:2224:G:OP1	27:RD:268:ARG:NH1	2.39	0.53
27:RD:132:PRO:HG3	27:RD:190:TYR:CE1	2.41	0.53
1:XA:464:G:C6	1:XA:466:C:H5'	2.44	0.53
3:XC:130:VAL:HG21	3:XC:157:ILE:HG23	1.90	0.53
6:XF:6:VAL:HB	6:XF:63:TYR:HB2	1.91	0.53
11:XK:91:ARG:O	11:XK:95:ILE:HG12	2.09	0.53
25:YA:439:G:H2'	25:YA:440:G:C8	2.44	0.53
25:YA:1108:U:H2'	25:YA:1109:C:C6	2.42	0.53
25:YA:1568:G:P	27:YD:63:ARG:HH22	2.32	0.53
25:YA:2099:U:H3	25:YA:2190:G:H1	1.54	0.53
25:YA:2648:C:H2'	25:YA:2649:U:C6	2.44	0.53
25:YA:2848:G:O2'	25:YA:2867:G:N2	2.39	0.53
28:YE:48:GLN:OE1	28:YE:64:LYS:NZ	2.40	0.53
34:YO:25:LEU:HB2	34:YO:38:VAL:HG13	1.90	0.53
36:YQ:137:TYR:HB3	45:YZ:76:LEU:HD11	1.91	0.53
39:YT:77:PRO:HB2	39:YT:80:SER:HB2	1.89	0.53
48:Y2:16:LEU:HD21	48:Y2:20:GLU:HG3	1.91	0.53
49:Y3:3:ARG:NH2	49:Y3:60:GLU:OXT	2.42	0.53
1:QA:49:U:H4'	12:QL:28:LYS:NZ	2.24	0.53
1:QA:399:G:H2'	1:QA:400:C:C6	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:946:A:H2'	1:QA:947:G:C8	2.43	0.53
1:QA:1522:U:H2'	1:QA:1523:G:H8	1.74	0.53
2:QB:130:ARG:NE	2:QB:134:GLU:OE1	2.42	0.53
3:QC:9:GLY:HA2	3:QC:12:LEU:HG	1.90	0.53
3:QC:11:ARG:NH2	3:QC:175:LEU:O	2.41	0.53
22:QW:1:C:H42	22:QW:73:A:H61	1.56	0.53
25:RA:320:A:H2'	29:RF:136:THR:HG21	1.90	0.53
25:RA:754:C:H2'	25:RA:755:C:H6	1.74	0.53
25:RA:1224:G:N2	25:RA:1227:A:OP2	2.34	0.53
1:XA:1060:C:H2'	1:XA:1061:G:H8	1.74	0.53
1:XA:1286:A:H5"	21:XU:26:LYS:HD2	1.91	0.53
2:XB:72:GLY:HA3	2:XB:81:VAL:HG21	1.91	0.53
4:XD:31:CYS:C	4:XD:33:MET:H	2.17	0.53
25:YA:806:C:O2	25:YA:2444:G:O2'	2.26	0.53
25:YA:2022:U:O2'	25:YA:2617:C:H5'	2.08	0.53
25:YA:2627:G:O2'	25:YA:2781:A:N1	2.37	0.53
28:YE:36:ARG:HG3	28:YE:47:VAL:HG12	1.90	0.53
40:YU:91:ASP:O	40:YU:93:LYS:N	2.42	0.53
49:Y3:6:VAL:HB	49:Y3:54:VAL:HG21	1.90	0.53
1:QA:254:G:O2'	17:QQ:16:GLN:O	2.27	0.53
25:RA:1085:A:O2'	25:RA:1086:A:O5'	2.27	0.53
25:RA:1336:A:H2'	25:RA:1337:G:C8	2.43	0.53
25:RA:1882:C:H3'	25:RA:1883:G:H8	1.73	0.53
27:RD:231:HIS:CD2	27:RD:249:PRO:HG3	2.44	0.53
2:XB:42:ILE:HD11	2:XB:202:PRO:HB2	1.91	0.53
7:XG:15:ASP:OD1	7:XG:16:LEU:N	2.42	0.53
22:XV:57:C:N4	30:YG:83:ARG:HH12	2.06	0.53
25:YA:685:A:OP1	25:YA:686:G:N2	2.38	0.53
25:YA:1791:A:N6	25:YA:1828:G:O2'	2.42	0.53
25:YA:2741:A:C5	55:Y9:30:PRO:HD2	2.44	0.53
55:Y9:21:GLY:O	55:Y9:22:ARG:HD2	2.08	0.53
1:QA:736:C:H2'	1:QA:737:A:H8	1.73	0.52
1:QA:973:G:O6	1:QA:974:A:N6	2.43	0.52
1:QA:1068:G:OP1	1:QA:1387:G:O2'	2.26	0.52
1:QA:1250:A:H4'	9:QI:67:GLY:HA2	1.92	0.52
1:QA:1343:G:H2'	1:QA:1344:C:C6	2.44	0.52
22:QW:8:U:O2	22:QW:14:A:N7	2.42	0.52
25:RA:270(Q):C:H5'	32:RI:46:ALA:HB2	1.91	0.52
25:RA:1107:G:H2'	25:RA:1108:U:C6	2.44	0.52
25:RA:2287:A:H62	25:RA:2344:U:H3	1.57	0.52
26:RB:24:G:O6	26:RB:56:G:O2'	2.21	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:RG:179:PRO:HB3	50:R4:43:TYR:HE1	1.74	0.52
39:RT:77:PRO:HB2	39:RT:80:SER:HB2	1.91	0.52
1:XA:45:U:H2'	1:XA:46:G:H8	1.74	0.52
1:XA:1121:U:H2'	1:XA:1122:U:C6	2.44	0.52
1:XA:1494:G:O2'	25:YA:1912:A:O2'	2.25	0.52
1:XA:1510:U:H2'	1:XA:1511:G:C8	2.44	0.52
25:YA:1641:A:H2'	25:YA:1642:G:O4'	2.09	0.52
25:YA:1991:U:H2'	25:YA:1992:G:H5"	1.90	0.52
25:YA:2010:G:H5"	42:YW:42:ARG:HB2	1.91	0.52
25:YA:2741:A:C2	55:Y9:30:PRO:HD2	2.43	0.52
30:YG:65:GLY:HA2	50:Y4:7:PRO:HG2	1.91	0.52
31:YH:107:VAL:HB	31:YH:153:LYS:NZ	2.23	0.52
32:YI:78:THR:HG22	32:YI:141:LYS:HE3	1.91	0.52
42:YW:24:ILE:HD13	42:YW:36:LEU:HD11	1.90	0.52
45:YZ:54:HIS:HB3	45:YZ:101:PRO:HD3	1.91	0.52
1:QA:407:G:H2'	1:QA:408:A:C8	2.44	0.52
1:QA:1151:A:H2'	1:QA:1152:A:C8	2.44	0.52
3:QC:19:GLU:HG2	3:QC:54:ARG:HE	1.74	0.52
11:QK:57:THR:HG22	11:QK:59:TYR:H	1.74	0.52
25:RA:512:G:H4'	25:RA:513:A:O5'	2.08	0.52
32:RI:14:ASP:C	32:RI:16:GLY:H	2.17	0.52
37:RR:21:TYR:HE1	37:RR:43:GLU:HB3	1.74	0.52
46:R0:32:ARG:N	46:R0:35:ASN:OD1	2.42	0.52
1:XA:662:G:O2'	1:XA:836:G:OP1	2.28	0.52
25:YA:2185:C:H2'	25:YA:2186:G:C8	2.41	0.52
25:YA:2543:G:H2'	25:YA:2544:G:C8	2.44	0.52
27:YD:36:PRO:CB	27:YD:61:LEU:HB3	2.39	0.52
28:YE:37:ARG:HD3	28:YE:42:ASP:OD2	2.09	0.52
30:YG:19:LEU:HD11	30:YG:172:LEU:HD13	1.91	0.52
34:YO:104:ARG:NH1	34:YO:121:VAL:O	2.42	0.52
1:QA:483:C:OP2	1:QA:484:G:O2'	2.22	0.52
1:QA:662:G:H2'	1:QA:663:A:C8	2.45	0.52
25:RA:1000:A:H2'	25:RA:1001:A:C8	2.44	0.52
31:RH:130:ARG:NH1	31:RH:132:ARG:HE	2.06	0.52
32:RI:30:LEU:HB3	32:RI:36:ALA:HB3	1.91	0.52
36:RQ:31:ASP:OD1	36:RQ:134:ARG:NH1	2.43	0.52
1:XA:828:A:N3	2:XB:26:PRO:HG2	2.24	0.52
22:XW:8:U:O2	22:XW:14:A:N7	2.43	0.52
25:YA:665:C:H2'	25:YA:666:G:H8	1.75	0.52
25:YA:2355:C:H1'	46:Y0:39:ARG:HH21	1.75	0.52
25:YA:2744:G:OP1	55:Y9:19:ARG:HB2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:2755:C:O4'	55:Y9:35:ARG:NH1	2.41	0.52
25:YA:2787:C:H1'	28:YE:62:PRO:HG3	1.91	0.52
29:YF:78:ILE:HA	29:YF:83:PHE:CD2	2.45	0.52
29:YF:107:LYS:HB3	29:YF:206:ILE:HD12	1.91	0.52
30:YG:121:ASN:HA	30:YG:181:ARG:HH21	1.74	0.52
32:YI:9:LEU:HD11	32:YI:12:LEU:HD22	1.90	0.52
4:QD:15:GLU:OE2	4:QD:59:ARG:NH1	2.42	0.52
4:QD:31:CYS:C	4:QD:33:MET:H	2.17	0.52
25:RA:1028:A:H2'	25:RA:1029:A:C8	2.44	0.52
25:RA:1032:A:O2'	25:RA:1033:U:OP1	2.27	0.52
25:RA:1124:C:H2'	25:RA:1125:G:O4'	2.09	0.52
25:RA:1839:G:C2	25:RA:1840:G:C8	2.97	0.52
25:RA:2051:A:H5'	25:RA:2578:G:O4'	2.10	0.52
25:RA:2477:C:O2	55:R9:36:GLN:NE2	2.42	0.52
25:RA:2597:G:H5'	27:RD:243:GLY:HA3	1.91	0.52
25:RA:2832:U:H4'	25:RA:2833:G:H5"	1.92	0.52
27:RD:43:ARG:NH1	27:RD:49:ILE:HB	2.24	0.52
33:RN:12:ARG:HH11	33:RN:14:VAL:HG22	1.74	0.52
33:RN:95:PRO:C	33:RN:97:ARG:H	2.17	0.52
50:R4:28:LYS:HB2	50:R4:31:ILE:HD11	1.91	0.52
1:XA:89:U:O2'	1:XA:90:C:OP1	2.24	0.52
2:XB:16:HIS:HD2	2:XB:210:SER:HA	1.74	0.52
9:XI:19:LEU:HD23	9:XI:61:ALA:HB2	1.91	0.52
25:YA:793:A:OP2	25:YA:2071:A:O2'	2.26	0.52
25:YA:2291:U:H2'	25:YA:2292:C:H6	1.75	0.52
25:YA:2492:U:H2'	25:YA:2493:U:C6	2.44	0.52
25:YA:2743:C:C3'	55:Y9:25:VAL:HA	2.39	0.52
26:YB:113:C:HO2'	38:YS:47:THR:H	1.55	0.52
31:YH:145:ALA:C	55:Y9:20:HIS:CD2	2.87	0.52
34:YO:78:ARG:HH21	39:YT:103:ARG:NH2	2.08	0.52
39:YT:24:PRO:HA	39:YT:49:VAL:HG13	1.91	0.52
1:QA:279:A:OP2	17:QQ:95:TYR:OH	2.19	0.52
8:QH:112:LEU:HD23	8:QH:133:LEU:HA	1.91	0.52
17:QQ:15:MET:HE1	17:QQ:43:LEU:HD22	1.90	0.52
25:RA:226:G:N2	25:RA:230:U:O4	2.43	0.52
25:RA:1292:U:H2'	25:RA:1293:C:H6	1.74	0.52
25:RA:1941:C:N4	25:RA:1965:C:O4'	2.42	0.52
1:XA:574:A:N3	1:XA:883:C:H1'	2.23	0.52
1:XA:652:U:O4	1:XA:752:G:O2'	2.22	0.52
6:XF:44:GLY:HA2	6:XF:59:TYR:CE1	2.45	0.52
25:YA:127:A:H5"	25:YA:128:C:C6	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:1754:C:OP1	39:YT:96:ARG:NH1	2.42	0.52
25:YA:1889:A:N3	25:YA:2086:U:O2'	2.40	0.52
50:Y4:45:GLY:C	50:Y4:47:GLN:H	2.16	0.52
1:QA:186(C):G:H1	1:QA:191(D):U:H3	1.57	0.52
1:QA:243:A:H4'	1:QA:244:U:O5'	2.09	0.52
1:QA:824:C:H2'	1:QA:825:G:H8	1.74	0.52
1:QA:1213:A:N6	1:QA:1215:G:N3	2.58	0.52
17:QQ:51:TYR:CE2	17:QQ:73:VAL:HG11	2.44	0.52
22:QV:29:C:H2'	22:QV:30:G:H8	1.74	0.52
25:RA:458:G:O2'	25:RA:469:G:O6	2.26	0.52
25:RA:1416:G:H2'	25:RA:1417:C:C6	2.45	0.52
25:RA:1996:C:OP1	34:RO:31:LYS:NZ	2.43	0.52
25:RA:2306:C:H2'	25:RA:2307:G:N2	2.24	0.52
26:RB:28:C:H2'	26:RB:29:A:C8	2.44	0.52
43:RX:35:THR:HG23	43:RX:38:GLU:H	1.73	0.52
1:XA:209:U:H1'	1:XA:216:G:C6	2.45	0.52
1:XA:272:C:H2'	1:XA:273:A:H8	1.73	0.52
1:XA:1314:C:H2'	1:XA:1315:U:C6	2.45	0.52
13:XM:80:ARG:HD2	50:Y4:58:ARG:HD3	1.92	0.52
25:YA:997:G:OP1	40:YU:93:LYS:HB2	2.10	0.52
25:YA:2154:G:H2'	25:YA:2155:G:H8	1.74	0.52
25:YA:2742:C:O2'	55:Y9:25:VAL:HB	2.10	0.52
25:YA:2742:C:P	55:Y9:29:ASN:HB3	2.49	0.52
25:YA:2744:G:OP2	55:Y9:17:ILE:HG13	2.09	0.52
25:YA:2755:C:O2'	25:YA:2756:U:H5	1.92	0.52
40:YU:97:ASP:OD1	40:YU:101:ARG:NH1	2.43	0.52
1:QA:563:A:H2'	1:QA:567:G:H8	1.74	0.52
1:QA:1412:C:H2'	1:QA:1413:A:C8	2.45	0.52
22:QW:5:G:H2'	22:QW:6:G:H8	1.75	0.52
25:RA:185:U:C2	25:RA:212:G:N2	2.78	0.52
25:RA:1292:U:H2'	25:RA:1293:C:C6	2.45	0.52
25:RA:2183:C:H2'	25:RA:2184:G:H8	1.74	0.52
27:RD:108:PRO:HB3	27:RD:143:HIS:CE1	2.44	0.52
41:RV:62:LEU:HD11	41:RV:95:LEU:HB2	1.91	0.52
1:XA:922:G:H2'	1:XA:923:A:C8	2.44	0.52
3:XC:58:GLU:HB2	3:XC:65:ALA:HB3	1.91	0.52
25:YA:458:G:H22	25:YA:469:G:H3'	1.75	0.52
25:YA:807:U:H2'	25:YA:808:G:H8	1.74	0.52
33:YN:73:THR:HB	33:YN:82:LEU:HD11	1.92	0.52
49:Y3:8:LEU:HG	49:Y3:28:LEU:HD13	1.91	0.52
1:QA:537:G:H5"	12:QL:113:ARG:NH1	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:777:A:H2'	25:RA:778:G:H8	1.75	0.52
25:RA:849:A:N1	49:R3:25:ALA:HB2	2.24	0.52
25:RA:1636:C:H2'	25:RA:1637:A:H8	1.73	0.52
25:RA:1818:U:H2'	27:RD:157:ARG:HG2	1.91	0.52
25:RA:2183:C:H2'	25:RA:2184:G:C8	2.45	0.52
25:RA:2331:G:O2'	46:R0:43:THR:HG22	2.09	0.52
27:RD:264:LYS:HE2	27:RD:266:SER:HB3	1.92	0.52
34:RO:3:GLN:HB2	34:RO:4:PRO:HD2	1.91	0.52
36:RQ:77:LYS:NZ	36:RQ:84:GLY:O	2.37	0.52
36:RQ:116:GLU:OE2	36:RQ:119:ARG:NH2	2.33	0.52
39:RT:123:GLN:O	39:RT:125:ARG:N	2.42	0.52
42:RW:11:ARG:HH21	42:RW:98:LYS:HD3	1.75	0.52
1:XA:753:A:H4'	1:XA:754:C:O5'	2.10	0.52
12:XL:60:LEU:HD12	12:XL:62:SER:H	1.74	0.52
14:XN:24:CYS:HB3	14:XN:29:ARG:H	1.74	0.52
25:YA:1550:C:OP1	25:YA:1727:U:O2'	2.24	0.52
30:YG:145:THR:OG1	30:YG:147:ASP:OD1	2.19	0.52
35:YP:121:LYS:HD3	35:YP:122:PRO:HD2	1.91	0.52
1:QA:22:G:H4'	1:QA:885:G:C8	2.45	0.52
1:QA:677:U:H3	1:QA:713:G:H22	1.58	0.52
1:QA:688:G:H2'	1:QA:689:C:H6	1.74	0.52
1:QA:1251:A:H2'	1:QA:1252:A:C8	2.45	0.52
1:QA:1317:C:H2'	1:QA:1318:A:O4'	2.10	0.52
1:QA:1513:A:H2'	1:QA:1514:C:C6	2.45	0.52
12:QL:85:ILE:HG23	12:QL:98:TYR:HB3	1.91	0.52
25:RA:533:G:N2	40:RU:49:HIS:HE1	2.08	0.52
25:RA:2074:U:H2'	25:RA:2075:U:C6	2.45	0.52
38:RS:34:HIS:CD2	38:RS:54:LEU:HD12	2.45	0.52
39:RT:50:ILE:HG13	39:RT:99:LEU:HD12	1.91	0.52
54:R8:26:LYS:HD3	54:R8:47:LYS:HB3	1.91	0.52
1:XA:980:C:H5"	1:XA:981:U:C5	2.45	0.52
22:XV:15:G:H1	22:XV:49:C:H5	1.56	0.52
25:YA:1935:G:H1'	25:YA:1964:G:N2	2.24	0.52
25:YA:1990:C:H2'	25:YA:1991:U:C6	2.45	0.52
25:YA:2033:A:O2'	25:YA:2035:G:OP2	2.28	0.52
25:YA:2777:G:OP2	25:YA:2781:A:O2'	2.27	0.52
26:YB:44:G:H1'	26:YB:47:C:N4	2.25	0.52
27:YD:16:MET:HE3	27:YD:211:ARG:HD2	1.90	0.52
27:YD:52:ARG:HH21	27:YD:53:PHE:HE2	1.57	0.52
18:QR:31:LEU:HD23	18:QR:31:LEU:H	1.75	0.52
25:RA:689:A:H2'	25:RA:690:G:C8	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:793:A:OP2	25:RA:2071:A:O2'	2.25	0.52
25:RA:2696:U:H2'	25:RA:2697:G:C8	2.45	0.52
27:RD:72:LYS:HG3	27:RD:97:TYR:CE2	2.45	0.52
29:RF:124:LEU:HB3	29:RF:193:VAL:HG22	1.92	0.52
34:RO:102:VAL:HB	34:RO:106:LEU:HD12	1.91	0.52
35:RP:59:LEU:O	54:R8:13:ARG:NH1	2.43	0.52
47:R1:86:SER:N	47:R1:87:PRO:HD2	2.25	0.52
52:R6:10:LEU:HG	52:R6:54:ILE:HG13	1.92	0.52
1:XA:1241:G:H1	1:XA:1296:C:H42	1.58	0.52
5:XE:97:GLY:N	5:XE:117:ASP:OD2	2.40	0.52
22:XV:53:G:O2'	22:XV:54:G:OP1	2.27	0.52
25:YA:807:U:OP2	35:YP:41:ARG:NH1	2.43	0.52
25:YA:2074:U:H2'	25:YA:2075:U:C6	2.45	0.52
28:YE:104:VAL:HG22	28:YE:198:VAL:HG22	1.92	0.52
45:YZ:144:LEU:HD11	45:YZ:149:SER:HA	1.91	0.52
1:QA:970:C:H42	9:QI:128:ARG:C	2.18	0.51
3:QC:189:ALA:HB3	3:QC:196:LEU:H	1.76	0.51
12:QL:35:GLY:HA2	12:QL:60:LEU:HA	1.92	0.51
16:QP:3:LYS:HG3	16:QP:65:GLN:O	2.10	0.51
20:QT:81:LYS:O	20:QT:85:MET:HG2	2.10	0.51
25:RA:1050:A:H2'	25:RA:1051:G:O4'	2.10	0.51
25:RA:2065:C:H2'	25:RA:2066:C:H6	1.74	0.51
25:RA:2126:A:H4'	25:RA:2127:G:O5'	2.10	0.51
25:RA:2600:A:H2'	25:RA:2601:C:C6	2.45	0.51
31:RH:83:TYR:CE2	31:RH:138:LYS:HD2	2.46	0.51
31:RH:151:ILE:HG22	31:RH:153:LYS:HG2	1.92	0.51
43:RX:55:ASN:HB2	43:RX:80:ILE:HG23	1.91	0.51
1:XA:407:G:H2'	1:XA:408:A:C8	2.44	0.51
22:XW:11:A:H2'	22:XW:12:G:C8	2.45	0.51
25:YA:2836:U:H2'	25:YA:2837:G:C8	2.45	0.51
30:YG:107:LEU:HD21	30:YG:178:PHE:CD1	2.45	0.51
32:YI:144:VAL:HG22	32:YI:145:VAL:H	1.75	0.51
39:YT:24:PRO:HG3	39:YT:52:ILE:HD12	1.93	0.51
42:YW:110:LYS:HG3	42:YW:111:HIS:H	1.74	0.51
1:QA:376:G:H5"	16:QP:5:ARG:HB2	1.91	0.51
1:QA:403:C:H2'	1:QA:404:U:H6	1.75	0.51
1:QA:484:G:H4'	1:QA:485:G:O5'	2.11	0.51
1:QA:1321:C:O2'	19:QS:78:ARG:NH2	2.43	0.51
5:QE:107:ARG:O	5:QE:111:GLU:HB2	2.09	0.51
9:QI:5:TYR:HE1	9:QI:16:ARG:HB2	1.74	0.51
24:QY:27:A:H2'	24:QY:28:G:H8	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:37:C:H2'	25:RA:38:A:H8	1.74	0.51
25:RA:1351:C:O2'	25:RA:1571:A:N3	2.37	0.51
25:RA:2262:U:H2'	25:RA:2263:C:H6	1.76	0.51
27:RD:83:GLU:OE1	27:RD:104:TYR:OH	2.25	0.51
36:RQ:39:PRO:HB3	36:RQ:99:PRO:HD3	1.92	0.51
1:XA:188:U:H2'	1:XA:189:U:H5"	1.92	0.51
1:XA:345:C:H4'	1:XA:346:G:O5'	2.09	0.51
20:XT:69:GLY:O	20:XT:73:HIS:HB2	2.10	0.51
25:YA:2248:C:H2'	25:YA:2249:U:O4'	2.11	0.51
25:YA:2564:A:N7	25:YA:2647:U:O2'	2.43	0.51
25:YA:2741:A:O5'	25:YA:2741:A:H8	1.94	0.51
25:YA:2744:G:C5'	55:Y9:24:TYR:HB2	2.38	0.51
28:YE:23:VAL:HG21	28:YE:183:LEU:HD23	1.91	0.51
41:YV:62:LEU:HD11	41:YV:95:LEU:HB2	1.92	0.51
1:QA:110:C:O2'	16:QP:25:ARG:O	2.28	0.51
1:QA:1194:U:H4'	5:QE:22:GLY:O	2.10	0.51
2:QB:52:GLU:O	2:QB:56:ARG:HG2	2.10	0.51
25:RA:177:G:H3'	25:RA:178:G:H8	1.76	0.51
30:RG:63:ILE:HG22	30:RG:143:GLU:HB2	1.92	0.51
40:RU:95:LEU:HD13	41:RV:4:ILE:HD12	1.92	0.51
44:RY:35:TYR:CE2	44:RY:69:ALA:HB3	2.45	0.51
1:XA:392:G:HO2'	1:XA:483:C:HO2'	1.45	0.51
1:XA:606:G:H22	1:XA:631:G:H5"	1.75	0.51
1:XA:1108:G:H5'	3:XC:176:HIS:CD2	2.46	0.51
10:XJ:50:ILE:HD13	10:XJ:60:ARG:HE	1.75	0.51
25:YA:1427:A:H4'	25:YA:1428:C:O5'	2.10	0.51
25:YA:2354:G:H4'	46:Y0:35:ASN:HD22	1.74	0.51
25:YA:2776:A:H4'	25:YA:2777:G:O5'	2.10	0.51
31:YH:149:ARG:NH2	55:Y9:18:ARG:HG2	2.26	0.51
1:QA:368:U:OP1	32:YI:91:SER:OG	2.23	0.51
1:QA:768:A:H5'	1:QA:1524:C:H1'	1.93	0.51
4:QD:119:GLN:CB	4:QD:119:GLN:OE1	2.58	0.51
9:QI:113:LYS:H	9:QI:119:ALA:HA	1.75	0.51
25:RA:1204:A:H1'	25:RA:1206:G:C8	2.45	0.51
25:RA:1525:G:H2'	25:RA:1526:G:C8	2.46	0.51
25:RA:1907:G:O6	25:RA:1924:C:N4	2.44	0.51
25:RA:2102:U:H2'	25:RA:2103:C:C6	2.45	0.51
45:RZ:56:VAL:HG22	45:RZ:70:LEU:HD21	1.92	0.51
25:YA:270(S):G:H2'	25:YA:270(T):G:H8	1.76	0.51
25:YA:783:A:H8	25:YA:784:A:H4'	1.75	0.51
25:YA:1266:G:O2'	25:YA:2012:G:O6	2.27	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:2527:C:H2'	25:YA:2528:U:O4'	2.11	0.51
25:YA:2744:G:O2'	31:YH:146:ALA:HB1	2.11	0.51
30:YG:105:LYS:HD3	50:Y4:26:SER:HB2	1.91	0.51
31:YH:152:ARG:HA	55:Y9:19:ARG:HE	1.76	0.51
33:YN:89:LYS:O	33:YN:93:THR:HG22	2.10	0.51
55:Y9:27:CYS:HB3	55:Y9:28:GLU:OE1	2.11	0.51
13:QM:108:ARG:HE	13:QM:114:ARG:HD2	1.75	0.51
19:QS:3:ARG:NE	19:QS:7:LYS:HE2	2.19	0.51
25:RA:297:C:H2'	25:RA:298:G:O4'	2.10	0.51
25:RA:796:C:H2'	25:RA:797:C:C6	2.46	0.51
25:RA:1198:U:H2'	25:RA:1199:U:C6	2.45	0.51
25:RA:1310:G:OP2	53:R7:9:ARG:NE	2.36	0.51
25:RA:1990:C:H2'	25:RA:1991:U:C6	2.45	0.51
1:XA:5:U:O2'	1:XA:6:G:O5'	2.28	0.51
1:XA:414:A:OP2	1:XA:428:G:N2	2.43	0.51
1:XA:898:G:N2	1:XA:901:A:OP2	2.43	0.51
1:XA:1321:C:H5"	1:XA:1322:C:H5"	1.91	0.51
7:XG:69:VAL:HG21	7:XG:104:LEU:HD21	1.93	0.51
24:XY:27:A:H2'	24:XY:28:G:H8	1.74	0.51
25:YA:39:C:O2	29:YF:46:ARG:NH2	2.43	0.51
25:YA:1424:G:P	27:YD:33:LEU:HD12	2.51	0.51
25:YA:2102:U:H2'	25:YA:2103:C:C6	2.45	0.51
25:YA:2421:G:N7	54:Y8:31:HIS:NE2	2.59	0.51
27:YD:244:ARG:HB2	27:YD:245:PRO:HD2	1.93	0.51
39:YT:28:VAL:HG23	39:YT:88:ILE:HA	1.93	0.51
39:YT:53:ARG:O	39:YT:59:THR:HG23	2.11	0.51
1:QA:398:C:H2'	1:QA:399:G:H8	1.76	0.51
1:QA:684:A:H1'	11:QK:39:PRO:HD2	1.92	0.51
1:QA:1128:C:H1'	1:QA:1146:A:H61	1.75	0.51
22:QW:4:G:H2'	22:QW:5:G:H8	1.74	0.51
25:RA:638:G:H2'	25:RA:639:U:C6	2.46	0.51
25:RA:1113:U:H2'	25:RA:1114:G:C8	2.46	0.51
25:RA:2285:C:OP1	52:R6:29:ASN:ND2	2.44	0.51
25:RA:2314:C:H2'	25:RA:2315:G:H8	1.75	0.51
29:RF:34:TRP:CE3	35:RP:8:PRO:HB3	2.46	0.51
1:XA:1299:A:H2'	1:XA:1301:U:H1'	1.93	0.51
1:XA:1431:C:H2'	1:XA:1432:G:O4'	2.11	0.51
25:YA:38:A:H2'	25:YA:39:C:C6	2.46	0.51
25:YA:1045:A:O2'	25:YA:1046:A:OP2	2.24	0.51
25:YA:1844:C:H2'	25:YA:1845:G:H8	1.74	0.51
31:YH:8:PRO:HG2	31:YH:69:ARG:NE	2.17	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:YU:90:VAL:HG12	40:YU:91:ASP:H	1.74	0.51
50:Y4:56:VAL:CG2	50:Y4:58:ARG:HG3	2.40	0.51
1:QA:188:U:H2'	1:QA:189:U:H5"	1.93	0.51
1:QA:1438:G:OP2	20:QT:34:LYS:NZ	2.36	0.51
8:QH:110:ALA:HB3	8:QH:121:ASP:HB3	1.93	0.51
25:RA:2610:C:H4'	25:RA:2611:U:OP2	2.11	0.51
45:RZ:70:LEU:HG	45:RZ:91:LEU:HD21	1.92	0.51
1:XA:477:G:H2'	1:XA:478:A:C8	2.46	0.51
25:YA:2093:G:H2'	25:YA:2094:G:H8	1.75	0.51
25:YA:2308:G:H22	25:YA:2311:A:H2	1.58	0.51
32:YI:100:ALA:O	32:YI:104:GLN:HB3	2.10	0.51
35:YP:97:PRO:O	35:YP:98:GLU:HG2	2.11	0.51
38:YS:26:LEU:HB3	38:YS:87:PHE:HA	1.92	0.51
1:QA:620:C:H4'	4:QD:138:TYR:HD1	1.76	0.51
1:QA:908:A:H2'	1:QA:909:A:H8	1.76	0.51
1:QA:976:G:OP1	14:QN:32:SER:N	2.43	0.51
2:QB:74:LYS:NZ	2:QB:205:ASP:O	2.41	0.51
25:RA:270(S):G:H2'	25:RA:270(T):G:H8	1.76	0.51
25:RA:1468:C:H2'	25:RA:1469:A:C8	2.46	0.51
25:RA:1885:A:H5'	25:RA:1886:C:OP2	2.11	0.51
25:RA:2637:U:H5"	28:RE:82:ARG:NH1	2.25	0.51
27:RD:242:ARG:O	27:RD:244:ARG:HG2	2.11	0.51
30:RG:32:PRO:HB2	30:RG:172:LEU:HD22	1.91	0.51
33:RN:89:LYS:O	33:RN:93:THR:HG22	2.11	0.51
15:XO:7:GLU:OE2	15:XO:38:ARG:NH2	2.44	0.51
28:YE:52:LEU:HB2	28:YE:75:VAL:HB	1.93	0.51
31:YH:137:ASP:OD1	31:YH:138:LYS:N	2.38	0.51
44:YY:35:TYR:CE2	44:YY:69:ALA:HB3	2.46	0.51
1:QA:1120:G:H2'	1:QA:1121:U:H6	1.75	0.51
5:QE:97:GLY:N	5:QE:117:ASP:OD2	2.38	0.51
10:QJ:23:ILE:HG23	10:QJ:85:LEU:HD22	1.92	0.51
25:RA:530:G:C6	25:RA:2022:U:H5"	2.46	0.51
25:RA:792:G:N3	25:RA:2072:G:O2'	2.40	0.51
25:RA:2646:C:OP2	25:RA:2732:G:O2'	2.15	0.51
25:RA:2892:A:H2'	25:RA:2893:G:O4'	2.10	0.51
26:RB:29:A:H2'	26:RB:30:C:C6	2.46	0.51
36:RQ:4:PRO:HG3	36:RQ:69:PHE:HE2	1.76	0.51
36:RQ:32:TYR:OH	36:RQ:111:GLU:HB3	2.10	0.51
40:RU:36:ARG:HG2	40:RU:40:PHE:CE2	2.46	0.51
40:RU:91:ASP:C	40:RU:93:LYS:H	2.17	0.51
40:RU:97:ASP:OD1	40:RU:101:ARG:NH1	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:116:A:H61	1:XA:313:A:H1'	1.75	0.51
1:XA:437:U:H2'	1:XA:438:G:O4'	2.11	0.51
1:XA:1437:C:H2'	1:XA:1438:G:H8	1.75	0.51
19:XS:3:ARG:HH21	19:XS:7:LYS:HD2	1.76	0.51
19:XS:31:ILE:HG23	19:XS:49:ILE:HA	1.92	0.51
25:YA:172:C:H2'	25:YA:173:G:H8	1.74	0.51
25:YA:1263:U:H2'	25:YA:1264:G:C8	2.46	0.51
25:YA:1754:C:P	39:YT:96:ARG:HH12	2.34	0.51
25:YA:1779:U:OP2	25:YA:1784:A:N6	2.32	0.51
25:YA:2071:A:H2'	25:YA:2072:G:H8	1.75	0.51
25:YA:2331:G:O2'	46:Y0:43:THR:HG22	2.11	0.51
28:YE:115:GLY:HA2	28:YE:157:ALA:HB1	1.93	0.51
32:YI:4:ILE:HG12	32:YI:18:VAL:HG22	1.91	0.51
37:YR:104:ARG:HG3	37:YR:107:ASP:HB3	1.92	0.51
3:QC:20:SER:HG	3:QC:22:TRP:CD1	2.29	0.51
3:QC:70:VAL:HG12	3:QC:72:LYS:H	1.75	0.51
3:QC:150:LYS:HB3	3:QC:201:TYR:HB2	1.93	0.51
10:QJ:4:ILE:HG12	10:QJ:100:THR:HG22	1.92	0.51
13:QM:93:ARG:HD2	13:QM:94:ARG:NH1	2.26	0.51
22:QW:11:A:H2'	22:QW:12:G:C8	2.46	0.51
25:RA:811:U:H2'	35:RP:21:ARG:O	2.11	0.51
25:RA:1329:U:H5"	25:RA:1330:C:C5	2.45	0.51
25:RA:1465:G:H4'	25:RA:1528:A:H1'	1.93	0.51
25:RA:1508:A:O2'	25:RA:1509:C:O4'	2.23	0.51
25:RA:1972:A:H2'	25:RA:1973:G:H8	1.75	0.51
25:RA:2526:G:O2'	55:R9:3:VAL:HB	2.11	0.51
1:XA:78:G:H2'	1:XA:79:G:C8	2.46	0.51
1:XA:152:A:H62	1:XA:169:C:H42	1.58	0.51
1:XA:1437:C:H2'	1:XA:1438:G:C8	2.46	0.51
11:XK:33:THR:HG22	11:XK:39:PRO:HA	1.93	0.51
25:YA:222:A:H3'	25:YA:421:U:H5'	1.92	0.51
25:YA:662:G:H2'	25:YA:663:G:H8	1.75	0.51
25:YA:864:G:H2'	25:YA:865:C:C6	2.46	0.51
25:YA:968:G:H2'	25:YA:969:U:C6	2.46	0.51
25:YA:1570:A:H2'	25:YA:1571:A:C8	2.46	0.51
25:YA:2247:A:H2'	25:YA:2248:C:C6	2.46	0.51
27:YD:182:LEU:H	27:YD:272:ALA:HB3	1.75	0.51
31:YH:19:VAL:HA	31:YH:24:VAL:HG12	1.92	0.51
1:QA:624:C:H2'	1:QA:625:G:C8	2.45	0.50
1:QA:976:G:P	14:QN:32:SER:H	2.34	0.50
1:QA:1004:A:OP1	1:QA:1025:U:N3	2.40	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:QV:44:A:H2'	22:QV:45:A:H8	1.76	0.50
25:RA:78:A:H2'	25:RA:79:G:H8	1.75	0.50
25:RA:760:G:H2'	25:RA:761:A:O4'	2.10	0.50
25:RA:1464:C:O2'	25:RA:1528:A:H8	1.93	0.50
25:RA:1657:C:H5'	28:RE:137:HIS:HE1	1.76	0.50
25:RA:1664:A:H61	25:RA:1996:C:H42	1.58	0.50
25:RA:1794:U:H2'	25:RA:1795:C:H6	1.76	0.50
25:RA:1935:G:H1'	25:RA:1964:G:N2	2.26	0.50
25:RA:2626:C:H2'	25:RA:2627:G:C8	2.46	0.50
25:RA:2696:U:H2'	25:RA:2697:G:H8	1.75	0.50
25:RA:2820:A:O2'	25:RA:2821:A:OP1	2.28	0.50
26:RB:44:G:H1'	26:RB:47:C:N4	2.26	0.50
30:RG:108:ASN:HA	50:R4:37:SER:HB3	1.92	0.50
30:RG:124:SER:HB2	30:RG:131:TYR:CE1	2.45	0.50
1:XA:677:U:H3	1:XA:713:G:H22	1.57	0.50
1:XA:1073:U:O2	2:XB:104:ASN:ND2	2.43	0.50
11:XK:20:TYR:HE1	11:XK:83:ILE:HD12	1.75	0.50
25:YA:338:G:OP1	44:YY:4:LYS:NZ	2.43	0.50
25:YA:1230:C:H2'	25:YA:1231:G:C8	2.42	0.50
25:YA:2616:C:H2'	25:YA:2617:C:C6	2.44	0.50
27:YD:242:ARG:O	27:YD:244:ARG:HG2	2.11	0.50
28:YE:106:GLY:HA3	28:YE:196:VAL:HG12	1.92	0.50
1:QA:452:A:H2'	1:QA:453:A:H8	1.76	0.50
1:QA:1077:G:N2	1:QA:1080:A:OP2	2.38	0.50
1:QA:1133:G:H2'	1:QA:1134:G:H8	1.76	0.50
19:QS:45:VAL:HG13	19:QS:63:THR:HA	1.93	0.50
25:RA:151:C:H2'	25:RA:152:G:H8	1.75	0.50
25:RA:620:G:H4'	25:RA:621:A:H5"	1.94	0.50
25:RA:1570:A:H2'	25:RA:1571:A:C8	2.45	0.50
25:RA:1652:A:OP1	37:RR:8:ARG:NH1	2.43	0.50
25:RA:2471:C:H3'	25:RA:2472:G:H8	1.76	0.50
25:RA:2853:C:H2'	25:RA:2854:G:H8	1.76	0.50
27:RD:35:LYS:HE2	27:RD:35:LYS:HA	1.94	0.50
29:RF:116:ASP:OD2	35:RP:1:MET:N	2.40	0.50
31:RH:106:THR:HG22	31:RH:112:PRO:HB3	1.93	0.50
41:RV:60:GLU:HB2	41:RV:97:LYS:HE3	1.93	0.50
45:RZ:6:LYS:O	45:RZ:62:PRO:HD3	2.10	0.50
1:XA:509:A:H4'	1:XA:510:A:OP1	2.11	0.50
1:XA:911:U:H2'	1:XA:912:C:C6	2.46	0.50
1:XA:1192:C:O2	5:XE:25:ARG:NH2	2.42	0.50
1:XA:1312:G:H5'	19:XS:5:LEU:HD11	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:XB:19:HIS:CD2	2:XB:206:ASP:HB2	2.45	0.50
12:XL:45:PRO:HG3	12:XL:53:ARG:HD3	1.93	0.50
20:XT:29:LYS:O	20:XT:33:ILE:HG12	2.11	0.50
25:YA:1568:G:OP2	27:YD:63:ARG:NH2	2.45	0.50
25:YA:2308:G:H1	25:YA:2311:A:H2	1.58	0.50
25:YA:2472:G:O2'	25:YA:2478:A:N6	2.40	0.50
25:YA:2742:C:N3	55:Y9:33:LYS:NZ	2.59	0.50
26:YB:29:A:H2'	26:YB:30:C:C6	2.46	0.50
31:YH:69:ARG:NH1	31:YH:73:ALA:HB2	2.27	0.50
39:YT:91:ARG:HD2	39:YT:120:ARG:NH1	2.26	0.50
1:QA:456:C:H2'	1:QA:457:C:H6	1.77	0.50
1:QA:736:C:H2'	1:QA:737:A:C8	2.46	0.50
1:QA:1523:G:OP1	11:QK:123:LYS:NZ	2.44	0.50
25:RA:95:G:O2'	48:R2:48:HIS:ND1	2.35	0.50
25:RA:598:G:H4'	35:RP:11:GLY:HA3	1.93	0.50
25:RA:1264:G:H3'	25:RA:1265:A:H5"	1.93	0.50
25:RA:2243:U:H2'	25:RA:2244:U:C6	2.46	0.50
28:RE:45:THR:O	28:RE:83:ASP:N	2.43	0.50
37:RR:17:ARG:HG2	37:RR:21:TYR:HE2	1.75	0.50
50:R4:11:PRO:HA	50:R4:25:TYR:CD1	2.47	0.50
1:XA:539:A:H2'	1:XA:540:G:C8	2.46	0.50
4:XD:173:TRP:CD1	4:XD:174:LEU:HG	2.46	0.50
9:XI:42:ARG:HH22	9:XI:75:ASP:CG	2.19	0.50
12:XL:53:ARG:HB3	12:XL:69:TYR:HE1	1.76	0.50
25:YA:191:A:H2'	25:YA:192:C:H6	1.77	0.50
25:YA:304:G:H2'	25:YA:305:U:C6	2.47	0.50
25:YA:720:C:H2'	25:YA:721:C:H6	1.76	0.50
25:YA:2462:U:H2'	25:YA:2463:C:C6	2.44	0.50
2:QB:19:HIS:HB2	2:QB:204:ASN:OD1	2.11	0.50
13:QM:23:TYR:N	13:QM:67:GLU:OE2	2.38	0.50
16:QP:45:THR:HG22	16:QP:47:ASP:H	1.77	0.50
25:RA:270(U):C:H2'	25:RA:270(V):G:H8	1.76	0.50
25:RA:1353:A:H4'	27:RD:38:LYS:HE3	1.92	0.50
25:RA:1794:U:H2'	25:RA:1795:C:C6	2.47	0.50
25:RA:2311:A:C8	30:RG:82:LEU:HD11	2.47	0.50
25:RA:2689:U:H4'	25:RA:2690:C:O5'	2.10	0.50
25:RA:2747:G:N2	25:RA:2757:A:N6	2.28	0.50
26:RB:75:G:HO2'	45:RZ:85:HIS:CD2	2.28	0.50
32:RI:133:HIS:HB3	32:RI:134:PRO:HD3	1.93	0.50
1:XA:115:G:H4'	1:XA:116:A:O5'	2.11	0.50
1:XA:1245:A:OP2	21:XU:9:ARG:NH2	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:XC:17:ASP:O	3:XC:54:ARG:NH2	2.44	0.50
4:XD:18:LYS:HE2	4:XD:20:TYR:CZ	2.47	0.50
17:XQ:51:TYR:CE2	17:XQ:73:VAL:HG11	2.46	0.50
25:YA:747:U:O2	25:YA:2014:A:H1'	2.11	0.50
25:YA:923:C:H4'	46:Y0:29:GLN:HG3	1.93	0.50
25:YA:969:U:H2'	25:YA:970:C:C6	2.46	0.50
25:YA:2744:G:C5	25:YA:2761:G:C6	3.00	0.50
28:YE:60:ASN:CG	28:YE:62:PRO:HD2	2.36	0.50
32:YI:100:ALA:O	32:YI:104:GLN:CB	2.59	0.50
36:YQ:36:ALA:HB2	36:YQ:103:MET:HE2	1.93	0.50
36:YQ:55:VAL:HG13	45:YZ:178:GLU:HB3	1.93	0.50
1:QA:877:C:OP1	8:QH:88:LYS:HE3	2.11	0.50
6:QF:44:GLY:HA2	6:QF:59:TYR:CE1	2.45	0.50
8:QH:34:GLU:OE1	8:QH:37:ARG:NH2	2.45	0.50
11:QK:54:ARG:HH22	22:QW:40:C:H4'	1.76	0.50
16:QP:53:VAL:HG12	16:QP:79:VAL:HG22	1.93	0.50
25:RA:242:G:H3'	54:R8:6:THR:HG23	1.93	0.50
25:RA:1952:A:C5	34:RO:22:ILE:HD12	2.46	0.50
25:RA:2623:G:OP1	25:RA:2826:A:O2'	2.21	0.50
28:RE:115:GLY:HA2	28:RE:157:ALA:HB1	1.94	0.50
1:XA:191(E):G:H2'	1:XA:191(F):U:C6	2.47	0.50
1:XA:1071:C:H2'	1:XA:1072:G:H8	1.75	0.50
19:XS:10:PHE:HE2	19:XS:16:LEU:HD13	1.76	0.50
22:XW:10:G:H2'	22:XW:11:A:C8	2.47	0.50
25:YA:296:C:H2'	25:YA:297:C:H6	1.76	0.50
25:YA:387:U:P	47:Y1:20:ARG:HH12	2.34	0.50
25:YA:1490:A:O2'	27:YD:99:ASP:OD1	2.29	0.50
25:YA:2247:A:H2'	25:YA:2248:C:H6	1.77	0.50
25:YA:2701:C:H3'	25:YA:2702:U:C5'	2.38	0.50
46:Y0:69:PHE:HE1	46:Y0:79:VAL:HG13	1.76	0.50
49:Y3:18:ASP:OD1	49:Y3:19:GLN:N	2.44	0.50
1:QA:1372:U:H2'	1:QA:1373:G:O4'	2.11	0.50
4:QD:154:ASN:OD1	4:QD:155:LEU:N	2.40	0.50
16:QP:69:THR:O	16:QP:72:ARG:HG2	2.11	0.50
25:RA:995:C:O2	33:RN:3:THR:OG1	2.28	0.50
25:RA:1434:A:H61	25:RA:1558:A:H62	1.59	0.50
31:RH:9:ILE:HD13	31:RH:49:VAL:HG12	1.94	0.50
38:RS:20:ARG:HH22	46:R0:47:PRO:HB2	1.77	0.50
39:RT:91:ARG:HD2	39:RT:120:ARG:NH1	2.27	0.50
42:RW:111:HIS:CD2	42:RW:113:LYS:H	2.29	0.50
1:XA:481:G:O2'	1:XA:482:A:H8	1.95	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1336:C:H1'	1:XA:1337:G:C2	2.47	0.50
5:XE:15:ARG:HD2	5:XE:26:PHE:CD2	2.47	0.50
16:XP:45:THR:HG22	16:XP:47:ASP:H	1.76	0.50
25:YA:938:G:H2'	25:YA:939:G:H8	1.76	0.50
25:YA:1400:G:H2'	25:YA:1401:G:H8	1.76	0.50
25:YA:2741:A:N3	55:Y9:30:PRO:HD2	2.27	0.50
25:YA:2747:G:H1	25:YA:2755:C:P	2.35	0.50
27:YD:35:LYS:HE2	27:YD:35:LYS:HA	1.92	0.50
29:YF:197:ASP:C	29:YF:199:TRP:H	2.19	0.50
40:YU:108:GLU:HG3	41:YV:45:THR:OG1	2.11	0.50
43:YX:72:LYS:NZ	43:YX:75:ASP:OD1	2.44	0.50
1:QA:370:C:H2'	1:QA:371:G:C8	2.47	0.50
1:QA:528:C:H41	12:QL:49:ASN:CG	2.19	0.50
7:QG:22:LEU:HG	7:QG:62:PHE:HE2	1.76	0.50
8:QH:82:HIS:HB3	8:QH:138:TRP:CE2	2.46	0.50
25:RA:194:G:H2'	25:RA:195:A:O4'	2.11	0.50
25:RA:2046:G:H5'	51:R5:19:ARG:HG3	1.94	0.50
25:RA:2241:A:H2'	25:RA:2242:G:H8	1.76	0.50
25:RA:2630:G:H2'	25:RA:2631:G:H8	1.77	0.50
25:RA:2682:U:O2'	39:RT:58:ASN:ND2	2.45	0.50
1:XA:1236:A:H2'	1:XA:1237:C:C6	2.47	0.50
3:XC:130:VAL:O	3:XC:134:ILE:HG12	2.11	0.50
25:YA:2329:G:H2'	25:YA:2330:G:C8	2.46	0.50
8:QH:20:TYR:CE2	8:QH:75:ARG:HD2	2.47	0.50
13:QM:14:ARG:HH12	13:QM:42:ALA:HA	1.76	0.50
14:QN:26:ARG:HD3	14:QN:43:CYS:HB3	1.94	0.50
25:RA:2852:G:H2'	25:RA:2853:C:C6	2.46	0.50
27:RD:146:GLU:HB2	27:RD:189:CYS:HB3	1.92	0.50
29:RF:148:LEU:HD22	29:RF:154:VAL:HG21	1.93	0.50
36:RQ:83:MET:HE3	46:R0:7:LEU:HB2	1.93	0.50
38:RS:66:ALA:HA	38:RS:69:VAL:HG12	1.93	0.50
42:RW:82:LEU:HD23	42:RW:84:ARG:NH2	2.26	0.50
44:RY:9:LYS:HE2	44:RY:28:LYS:O	2.12	0.50
45:RZ:4:ARG:HA	45:RZ:59:LEU:H	1.77	0.50
1:XA:1095:U:P	1:XA:1108:G:H1	2.34	0.50
22:XV:35:C:O2'	22:XV:36:A:OP1	2.29	0.50
25:YA:23:G:OP1	25:YA:504:U:N3	2.40	0.50
25:YA:1022:G:N2	25:YA:1023:U:O4	2.44	0.50
25:YA:1408:C:H2'	25:YA:1409:C:C6	2.47	0.50
30:YG:15:VAL:HG21	30:YG:176:LEU:HD23	1.93	0.50
31:YH:130:ARG:NH1	31:YH:132:ARG:HE	2.09	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:YP:91:PHE:CE2	35:YP:95:VAL:HG22	2.47	0.50
1:QA:414:A:OP2	1:QA:428:G:N2	2.43	0.50
1:QA:690:G:H22	11:QK:55:LYS:HZ1	1.60	0.50
8:QH:12:ARG:HD2	8:QH:26:VAL:HG12	1.93	0.50
10:QJ:48:THR:HA	10:QJ:62:HIS:HB3	1.93	0.50
28:RE:101:ARG:NH1	28:RE:171:GLU:HB2	2.26	0.50
32:RI:69:LYS:HG3	32:RI:136:VAL:HG23	1.94	0.50
33:RN:47:ALA:HB2	33:RN:112:LEU:HD11	1.94	0.50
1:XA:920:U:H2'	1:XA:921:U:C6	2.46	0.50
1:XA:1062:U:H2'	1:XA:1063:C:C6	2.47	0.50
1:XA:1376:U:OP1	7:XG:98:SER:OG	2.25	0.50
4:XD:30:LYS:HG2	4:XD:35:ARG:HH21	1.76	0.50
12:XL:32:PHE:HE1	12:XL:86:ARG:HG3	1.77	0.50
19:XS:10:PHE:CD1	19:XS:38:SER:HB2	2.47	0.50
22:XV:37:U:H2'	22:XV:38:A:H8	1.77	0.50
25:YA:273:G:H2'	25:YA:273(A):G:H8	1.77	0.50
25:YA:582:G:H2'	25:YA:583:G:C8	2.47	0.50
25:YA:764:A:N3	27:YD:213:ARG:NH1	2.60	0.50
25:YA:823:G:H2'	25:YA:824:A:C8	2.45	0.50
25:YA:1167:U:H2'	25:YA:1168:G:C8	2.47	0.50
25:YA:2630:G:H2'	25:YA:2631:G:C8	2.47	0.50
25:YA:2747:G:H21	25:YA:2757:A:H62	1.58	0.50
27:YD:36:PRO:HD3	27:YD:63:ARG:HG3	1.94	0.50
31:YH:150:ALA:O	55:Y9:19:ARG:HD3	2.12	0.50
32:YI:133:HIS:HB3	32:YI:134:PRO:HD3	1.94	0.50
42:YW:45:TYR:CZ	42:YW:49:LYS:HD2	2.47	0.50
1:QA:272:C:H2'	1:QA:273:A:C8	2.47	0.49
1:QA:688:G:H2'	1:QA:689:C:C6	2.47	0.49
1:QA:1071:C:H2'	1:QA:1072:G:C8	2.45	0.49
1:QA:1169:A:H2'	1:QA:1170:A:C8	2.47	0.49
1:QA:1222:G:OP1	19:QS:78:ARG:NH1	2.34	0.49
1:QA:1346:A:N3	9:QI:107:ARG:NH2	2.59	0.49
1:QA:1527:C:H2'	1:QA:1528:U:C6	2.47	0.49
5:QE:91:LEU:HG	5:QE:120:THR:HG22	1.94	0.49
25:RA:144:C:H2'	25:RA:145:G:C8	2.46	0.49
25:RA:1791:A:H8	25:RA:1791:A:OP2	1.95	0.49
25:RA:1804:C:OP1	27:RD:259:THR:OG1	2.30	0.49
40:RU:83:LEU:HD12	40:RU:113:ALA:HB2	1.93	0.49
47:R1:44:PRO:HG2	47:R1:46:LEU:CD1	2.42	0.49
1:XA:482:A:H2'	1:XA:483:C:O4'	2.12	0.49
1:XA:923:A:O2'	1:XA:1399:C:OP2	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:227:A:C2	25:YA:2407:G:H1'	2.47	0.49
25:YA:676:A:C8	25:YA:2070:G:H1'	2.47	0.49
25:YA:1055:G:O2'	25:YA:1085:A:N1	2.28	0.49
25:YA:1453:A:N6	25:YA:2702:U:H1'	2.27	0.49
25:YA:1923:U:H2'	25:YA:1924:C:C6	2.47	0.49
25:YA:2692:C:H2'	25:YA:2693:A:H8	1.77	0.49
25:YA:2698:U:H2'	25:YA:2699:C:C6	2.47	0.49
25:YA:2868:A:H2'	25:YA:2869:G:C8	2.46	0.49
30:YG:106:LEU:HD12	30:YG:110:ALA:HB3	1.94	0.49
30:YG:107:LEU:HD23	30:YG:111:LEU:HD12	1.93	0.49
39:YT:26:ASP:HB3	39:YT:92:GLY:H	1.76	0.49
39:YT:123:GLN:O	39:YT:126:ALA:N	2.40	0.49
43:YX:57:LEU:HD11	43:YX:78:LYS:HD2	1.94	0.49
1:QA:936:C:C2	1:QA:937:A:C8	3.01	0.49
3:QC:138:VAL:HG13	3:QC:149:ALA:HB3	1.94	0.49
19:QS:23:ASN:OD1	19:QS:24:ALA:N	2.45	0.49
22:QW:71:G:H21	25:RA:1851:U:H4'	1.76	0.49
25:RA:271(B):G:H1	25:RA:404:C:H42	1.60	0.49
25:RA:322:A:OP2	29:RF:169:ASN:HB2	2.12	0.49
25:RA:1791:A:H5'	27:RD:206:LEU:HD12	1.93	0.49
25:RA:2059:A:H5'	25:RA:2060:A:OP2	2.13	0.49
25:RA:2403:C:C2	25:RA:2415:G:C2	2.99	0.49
25:RA:2478:A:H5"	55:R9:5:ALA:HB3	1.94	0.49
26:RB:111:U:H2'	26:RB:112:G:H8	1.77	0.49
32:RI:100:ALA:O	32:RI:104:GLN:CB	2.60	0.49
54:R8:29:LYS:HB2	54:R8:33:ASN:ND2	2.27	0.49
1:XA:244:U:H4'	1:XA:245:C:O5'	2.13	0.49
2:XB:212:GLN:HG3	2:XB:235:SER:HB2	1.93	0.49
13:XM:3:ARG:HD2	13:XM:9:ILE:HG12	1.94	0.49
25:YA:587:C:H4'	25:YA:588:U:O5'	2.12	0.49
25:YA:1076:C:H2'	25:YA:1077:A:H5"	1.94	0.49
25:YA:2115:G:N2	25:YA:2165:G:N7	2.45	0.49
25:YA:2133:G:O2'	25:YA:2158:A:N1	2.41	0.49
25:YA:2726:U:H5'	34:YO:32:TYR:HE2	1.77	0.49
27:YD:36:PRO:HB2	27:YD:61:LEU:HB3	1.94	0.49
30:YG:81:LYS:O	30:YG:82:LEU:HB2	2.12	0.49
43:YX:21:PHE:HA	43:YX:26:TYR:HE1	1.76	0.49
1:QA:972:C:OP2	10:QJ:57:LYS:HG2	2.12	0.49
1:QA:1402:C:H2'	1:QA:1403:C:O4'	2.12	0.49
5:QE:15:ARG:HG3	5:QE:28:PHE:HE1	1.77	0.49
19:QS:10:PHE:CE2	19:QS:16:LEU:HB2	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:242:G:H2'	54:R8:5:LYS:HA	1.95	0.49
25:RA:270(S):G:H21	47:R1:78:LYS:HE3	1.77	0.49
25:RA:1224:G:O6	41:RV:69:LYS:NZ	2.45	0.49
25:RA:1263:U:H2'	25:RA:1264:G:C8	2.48	0.49
25:RA:1543:A:H1'	25:RA:1545:A:O4'	2.12	0.49
31:RH:107:VAL:HB	31:RH:153:LYS:HZ2	1.77	0.49
31:RH:115:VAL:HB	31:RH:148:ILE:HD13	1.93	0.49
34:RO:104:ARG:HH11	34:RO:121:VAL:HG12	1.77	0.49
36:RQ:116:GLU:O	36:RQ:120:ILE:HG12	2.12	0.49
36:RQ:135:ASP:OD2	45:RZ:81:ARG:NH2	2.40	0.49
39:RT:121:ILE:O	39:RT:125:ARG:HG2	2.12	0.49
1:XA:489:C:H2'	1:XA:490:G:H8	1.76	0.49
1:XA:1308:U:H2'	1:XA:1309:G:H8	1.76	0.49
1:XA:1357:A:H61	1:XA:1365:G:H1	1.60	0.49
1:XA:1392:G:H21	1:XA:1502:A:H8	1.58	0.49
6:XF:12:PRO:HG3	6:XF:57:GLN:HG3	1.94	0.49
9:XI:112:LYS:HA	9:XI:119:ALA:HB2	1.94	0.49
17:XQ:15:MET:HE1	17:XQ:43:LEU:HD22	1.94	0.49
22:XW:8:U:H2'	22:XW:13:C:H41	1.77	0.49
25:YA:820:A:H4'	25:YA:836:G:N2	2.27	0.49
25:YA:1140:C:OP1	33:YN:23:LEU:HB3	2.12	0.49
25:YA:1184:G:OP1	49:Y3:30:ARG:HD2	2.12	0.49
25:YA:1204:A:O2'	25:YA:1205:U:H5"	2.11	0.49
25:YA:2025:C:H2'	25:YA:2026:C:C6	2.48	0.49
25:YA:2361:A:O5'	54:Y8:27:THR:OG1	2.29	0.49
25:YA:2742:C:H4'	55:Y9:27:CYS:HB2	1.93	0.49
33:YN:70:LYS:HD3	33:YN:87:LEU:HD12	1.94	0.49
36:YQ:48:GLU:OE2	36:YQ:51:ARG:NH2	2.44	0.49
45:YZ:94:GLU:HB2	45:YZ:95:PRO:HD3	1.94	0.49
47:Y1:86:SER:N	47:Y1:87:PRO:HD2	2.27	0.49
1:QA:129(A):G:N2	1:QA:188:U:O2'	2.45	0.49
11:QK:82:VAL:HB	11:QK:108:ILE:HG12	1.94	0.49
25:RA:30:G:H2'	25:RA:31:C:C6	2.48	0.49
25:RA:607:U:OP1	29:RF:102:PRO:HA	2.12	0.49
25:RA:1539:G:H2'	25:RA:1540:G:H8	1.78	0.49
25:RA:2074:U:H2'	25:RA:2075:U:H6	1.78	0.49
25:RA:2591:C:H2'	25:RA:2592:G:H8	1.75	0.49
25:RA:2693:A:H2'	25:RA:2694:G:H8	1.76	0.49
30:RG:67:LYS:HD2	30:RG:68:PRO:HD2	1.94	0.49
30:RG:120:LEU:HB2	30:RG:180:PHE:HD1	1.78	0.49
45:RZ:137:ILE:HG22	45:RZ:139:VAL:HG13	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:337:C:H2'	1:XA:338:A:C8	2.48	0.49
1:XA:559:A:H4'	1:XA:560:U:H3'	1.94	0.49
13:XM:91:ARG:HB2	13:XM:98:VAL:HG22	1.94	0.49
25:YA:2525:G:H1'	55:Y9:28:GLU:HB2	1.94	0.49
25:YA:2574:G:H2'	25:YA:2575:C:O4'	2.12	0.49
25:YA:2743:C:H1'	25:YA:2744:G:OP1	2.12	0.49
28:YE:50:GLY:HA2	28:YE:77:ILE:HA	1.94	0.49
1:QA:790:A:OP1	22:QV:39:A:O2'	2.26	0.49
1:QA:1453:G:C6	20:QT:55:ILE:HD11	2.47	0.49
8:QH:17:THR:HB	8:QH:78:GLN:OE1	2.12	0.49
20:QT:15:ARG:NH2	20:QT:18:GLN:OE1	2.46	0.49
25:RA:245:G:OP1	35:RP:69:GLY:HA3	2.13	0.49
25:RA:729:G:OP2	27:RD:13:ARG:HD3	2.13	0.49
25:RA:1667:G:O2'	25:RA:1991:U:O4	2.30	0.49
25:RA:2635:C:O2'	28:RE:80:GLU:OE2	2.30	0.49
30:RG:9:ARG:O	30:RG:13:GLU:HG2	2.13	0.49
32:RI:78:THR:HG22	32:RI:141:LYS:HE3	1.93	0.49
25:YA:831:G:N2	35:YP:53:GLY:O	2.45	0.49
25:YA:1636:C:H2'	25:YA:1637:A:H8	1.78	0.49
25:YA:1656:C:H2'	25:YA:1657:C:H6	1.78	0.49
25:YA:1668:A:N3	25:YA:1670:C:N4	2.60	0.49
25:YA:2001:A:H2'	25:YA:2002:G:C8	2.47	0.49
25:YA:2106:G:H2'	25:YA:2107:C:C6	2.47	0.49
25:YA:2306:C:H3'	25:YA:2307:G:H5"	1.93	0.49
25:YA:2743:C:O2'	25:YA:2744:G:P	2.70	0.49
25:YA:2747:G:H1'	31:YH:67:LEU:HD12	1.94	0.49
25:YA:2756:U:O4	25:YA:2758:A:C5	2.65	0.49
38:YS:3:ARG:HE	38:YS:4:LEU:HD13	1.77	0.49
49:Y3:11:SER:OG	49:Y3:13:ILE:HG12	2.13	0.49
1:QA:56:U:H2'	1:QA:57:G:H8	1.78	0.49
1:QA:743:U:H2'	1:QA:744:C:C6	2.47	0.49
1:QA:1104:G:H4'	2:QB:111:ARG:HD2	1.93	0.49
2:QB:118:LEU:HB3	2:QB:142:LEU:HD12	1.93	0.49
25:RA:270(J):G:H2'	25:RA:270(K):C:O4'	2.13	0.49
25:RA:1266:G:O5'	42:RW:15:ARG:NH2	2.45	0.49
25:RA:2303:G:O2'	30:RG:132:ASN:HB2	2.13	0.49
25:RA:2725:A:O2'	25:RA:2726:U:H5"	2.12	0.49
31:RH:8:PRO:CG	31:RH:69:ARG:HE	2.15	0.49
34:RO:47:ILE:HG13	34:RO:48:PRO:HD2	1.95	0.49
36:RQ:4:PRO:HG3	36:RQ:69:PHE:CE2	2.48	0.49
1:XA:360:A:H2'	1:XA:361:G:C8	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:485:G:H1'	1:XA:486:U:H5	1.77	0.49
1:XA:992:U:O2'	1:XA:993:G:OP2	2.27	0.49
25:YA:29:U:H2'	25:YA:30:G:H8	1.77	0.49
25:YA:92:G:H2'	25:YA:93:C:C6	2.47	0.49
25:YA:836:G:H2'	25:YA:837:C:H6	1.78	0.49
25:YA:1202:C:N4	25:YA:1203:G:C6	2.80	0.49
25:YA:1636:C:H2'	25:YA:1637:A:C8	2.47	0.49
25:YA:2575:C:H5'	28:YE:144:ARG:HG3	1.95	0.49
33:YN:47:ALA:O	33:YN:119:ARG:NH1	2.40	0.49
1:QA:560:U:H4'	1:QA:561:U:H5"	1.94	0.49
1:QA:1309:G:C6	1:QA:1329:A:N1	2.81	0.49
25:RA:39:C:O2	29:RF:46:ARG:NH2	2.44	0.49
25:RA:140:A:H8	25:RA:1408:C:O2'	1.95	0.49
25:RA:270(R):G:H2'	25:RA:270(S):G:C8	2.48	0.49
25:RA:546:C:H3'	25:RA:547:A:H8	1.77	0.49
25:RA:1113:U:H2'	25:RA:1114:G:H8	1.77	0.49
25:RA:1427:A:H4'	25:RA:1428:C:O5'	2.12	0.49
25:RA:1689:A:OP2	25:RA:1698:A:N6	2.41	0.49
25:RA:2341:G:H2'	25:RA:2342:C:C6	2.47	0.49
36:RQ:67:ARG:HD2	36:RQ:105:GLU:OE1	2.11	0.49
37:RR:88:ARG:NH2	37:RR:89:ASP:OD1	2.46	0.49
39:RT:39:ARG:HG2	39:RT:40:THR:H	1.78	0.49
55:R9:1:MET:HE2	55:R9:33:LYS:HG2	1.94	0.49
1:XA:254:G:O2'	17:XQ:16:GLN:O	2.28	0.49
1:XA:375:U:O2'	16:XP:6:LEU:O	2.31	0.49
1:XA:1096:C:H2'	1:XA:1097:C:H6	1.77	0.49
4:XD:108:LEU:HD21	4:XD:183:GLY:HA3	1.94	0.49
12:XL:24:VAL:HG13	12:XL:98:TYR:CE1	2.47	0.49
24:XY:30:G:C2	24:XY:31:A:C8	3.01	0.49
25:YA:590:A:H2'	25:YA:591:C:C6	2.48	0.49
25:YA:1062:G:N3	25:YA:1077:A:N6	2.61	0.49
25:YA:2037:G:H2'	25:YA:2038:G:H8	1.76	0.49
25:YA:2290:G:H2'	25:YA:2291:U:C6	2.47	0.49
25:YA:2512:C:H2'	25:YA:2513:G:O4'	2.12	0.49
27:YD:133:LEU:HB3	27:YD:173:VAL:HG21	1.94	0.49
29:YF:125:LEU:HA	29:YF:194:MET:O	2.12	0.49
31:YH:164:TYR:CD2	31:YH:167:GLU:HB2	2.47	0.49
32:YI:69:LYS:HG3	32:YI:136:VAL:HG23	1.95	0.49
32:YI:72:LEU:HD11	32:YI:101:LEU:HD11	1.95	0.49
33:YN:16:ILE:HG21	33:YN:26:LEU:HD11	1.95	0.49
36:YQ:39:PRO:HB3	36:YQ:99:PRO:HD3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:YU:92:ARG:CD	41:YV:11:GLN:HB2	2.40	0.49
1:QA:464:G:C6	1:QA:466:C:H5'	2.48	0.49
1:QA:911:U:H2'	1:QA:912:C:C6	2.48	0.49
1:QA:1399:C:C2	1:QA:1502:A:N6	2.81	0.49
1:QA:1414:U:H2'	1:QA:1415:G:H8	1.78	0.49
25:RA:856:C:H2'	25:RA:857:C:C6	2.48	0.49
25:RA:2210:G:H5'	25:RA:2211:G:C6	2.48	0.49
37:RR:79:LEU:HD12	37:RR:83:ILE:HB	1.95	0.49
42:RW:24:ILE:HD13	42:RW:36:LEU:HD11	1.94	0.49
1:XA:359:U:H2'	1:XA:360:A:C8	2.48	0.49
1:XA:736:C:H2'	1:XA:737:A:C8	2.46	0.49
1:XA:1522:U:H2'	1:XA:1523:G:H8	1.77	0.49
5:XE:50:GLU:HB3	5:XE:53:LEU:HD13	1.95	0.49
22:XW:34:U:H3'	22:XW:35:C:H5"	1.93	0.49
25:YA:588:U:O4	25:YA:670:A:H1'	2.13	0.49
25:YA:2064:C:H2'	25:YA:2065:C:C6	2.47	0.49
25:YA:2379:G:O2'	38:YS:17:ARG:NH2	2.35	0.49
29:YF:155:LEU:HB2	29:YF:189:THR:HG21	1.95	0.49
30:YG:179:PRO:HB3	50:Y4:43:TYR:CE1	2.48	0.49
45:YZ:10:ARG:NH2	45:YZ:37:VAL:O	2.46	0.49
55:Y9:27:CYS:C	55:Y9:29:ASN:H	2.20	0.49
1:QA:32:A:H1'	1:QA:48:C:H41	1.78	0.49
1:QA:64:G:H4'	1:QA:65:U:O5'	2.13	0.49
1:QA:108:G:H5"	1:QA:109:A:H5"	1.94	0.49
1:QA:110:C:H2'	1:QA:111:G:O4'	2.12	0.49
1:QA:130:A:H5"	1:QA:190:G:H2'	1.95	0.49
1:QA:385:C:H2'	1:QA:386:C:C6	2.47	0.49
1:QA:579:G:H2'	1:QA:580:U:C6	2.48	0.49
1:QA:1368:G:H4'	14:QN:61:TRP:HZ2	1.78	0.49
5:QE:50:GLU:HB3	5:QE:53:LEU:HD13	1.94	0.49
25:RA:52:A:H2'	25:RA:53:A:H8	1.78	0.49
25:RA:678:C:H2'	25:RA:679:C:C6	2.48	0.49
25:RA:690:G:H2'	25:RA:691:C:C6	2.48	0.49
25:RA:1078:U:O2'	25:RA:1079:C:O5'	2.30	0.49
25:RA:1164:G:H2'	25:RA:1165:U:C6	2.47	0.49
25:RA:1991:U:H2'	25:RA:1992:G:H5"	1.95	0.49
25:RA:2720:U:C2	25:RA:2721:A:C8	3.01	0.49
26:RB:48:A:OP2	38:RS:30:ARG:NH2	2.46	0.49
34:RO:104:ARG:NH1	34:RO:121:VAL:O	2.46	0.49
1:XA:20:U:H2'	1:XA:21:G:O4'	2.12	0.49
1:XA:555:C:H2'	1:XA:556:C:H6	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1322:C:H5'	13:XM:100:GLY:HA3	1.95	0.49
25:YA:398:G:H2'	25:YA:399:G:H8	1.78	0.49
25:YA:631:A:N3	25:YA:2415:G:O2'	2.45	0.49
25:YA:698:C:O2'	25:YA:734:A:N6	2.45	0.49
25:YA:2004:G:C5	25:YA:2005:A:C8	3.01	0.49
25:YA:2329:G:H2'	25:YA:2330:G:H8	1.78	0.49
25:YA:2455:G:H2'	25:YA:2456:C:C6	2.48	0.49
25:YA:2539:C:H1'	55:Y9:29:ASN:ND2	2.27	0.49
27:YD:44:ASN:CB	27:YD:49:ILE:HA	2.43	0.49
1:QA:1145:C:H4'	1:QA:1146:A:H8	1.78	0.49
22:QW:8:U:H2'	22:QW:13:C:H41	1.78	0.49
25:RA:278:A:H61	25:RA:362:U:H3	1.61	0.49
25:RA:459:U:H4'	53:R7:40:TRP:CZ3	2.48	0.49
25:RA:627:A:H4'	25:RA:628:G:H5'	1.93	0.49
25:RA:859:G:N2	25:RA:917:A:OP2	2.46	0.49
30:RG:114:ILE:HB	30:RG:117:PHE:HB2	1.95	0.49
54:R8:52:LYS:N	54:R8:53:PRO:CD	2.76	0.49
1:XA:501:C:H2'	1:XA:502:G:H8	1.78	0.49
1:XA:552:U:H2'	1:XA:553:A:C8	2.48	0.49
1:XA:728:A:H2'	1:XA:729:A:H8	1.76	0.49
5:XE:75:THR:HA	5:XE:115:VAL:HG13	1.94	0.49
6:XF:80:ARG:HD2	6:XF:88:VAL:HB	1.93	0.49
22:XW:5:G:H2'	22:XW:6:G:C8	2.47	0.49
25:YA:1109:C:O2'	25:YA:1110:G:OP1	2.28	0.49
25:YA:1800:C:H3'	27:YD:147:LEU:HD22	1.95	0.49
27:YD:77:ALA:HB3	27:YD:117:VAL:HG13	1.94	0.49
30:YG:170:ARG:NH2	30:YG:182:LYS:O	2.46	0.49
1:QA:685:G:H21	1:QA:706:A:H61	1.61	0.48
1:QA:1443:G:C6	39:RT:118:ARG:HB2	2.48	0.48
2:QB:160:ASP:O	2:QB:183:PRO:HD2	2.13	0.48
25:RA:679:C:H2'	25:RA:680:G:H8	1.78	0.48
25:RA:2306:C:H3'	25:RA:2307:G:H5"	1.95	0.48
25:RA:2361:A:O5'	54:R8:27:THR:OG1	2.31	0.48
25:RA:2698:U:H2'	25:RA:2699:C:C6	2.48	0.48
25:RA:2771:C:H2'	25:RA:2772:C:C6	2.48	0.48
28:RE:36:ARG:HG3	28:RE:47:VAL:HG12	1.95	0.48
34:RO:25:LEU:HB2	34:RO:38:VAL:HG13	1.95	0.48
38:RS:26:LEU:HD22	38:RS:87:PHE:HD1	1.78	0.48
41:RV:24:LYS:HD3	41:RV:90:PRO:HB2	1.93	0.48
1:XA:265:G:H2'	1:XA:266:G:H5"	1.95	0.48
1:XA:552:U:O2	12:XL:31:PRO:HB3	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:663:A:H5"	18:XR:61:LYS:HE3	1.94	0.48
1:XA:739:C:HO2'	15:XO:42:HIS:HD1	1.57	0.48
13:XM:87:TYR:O	13:XM:91:ARG:HG2	2.13	0.48
25:YA:413:C:H2'	25:YA:414:C:H6	1.76	0.48
25:YA:690:G:H4'	27:YD:218:ARG:HH22	1.77	0.48
25:YA:1638:C:O2	25:YA:2698:U:O2'	2.29	0.48
25:YA:1853:A:N3	25:YA:2233:U:O2'	2.40	0.48
27:YD:30:GLU:CD	27:YD:63:ARG:HE	2.21	0.48
31:YH:120:GLY:HA3	31:YH:140:LYS:NZ	2.28	0.48
31:YH:137:ASP:CG	31:YH:138:LYS:H	2.21	0.48
39:YT:26:ASP:HB2	39:YT:90:GLN:O	2.13	0.48
45:YZ:27:VAL:HG12	45:YZ:85:HIS:HE1	1.78	0.48
55:Y9:25:VAL:O	55:Y9:33:LYS:HA	2.13	0.48
1:QA:320:C:H2'	1:QA:321:A:C8	2.48	0.48
1:QA:1080:A:H5"	5:QE:16:THR:HG21	1.95	0.48
1:QA:1475:G:H4'	25:RA:1689:A:H4'	1.94	0.48
22:QV:24:C:H2'	22:QV:25:U:C6	2.48	0.48
25:RA:263:C:H2'	25:RA:264:C:O4'	2.13	0.48
25:RA:517:C:OP1	51:R5:16:ARG:NH2	2.46	0.48
25:RA:1389:G:H2'	25:RA:1390:U:C6	2.48	0.48
1:XA:1479:C:H2'	1:XA:1480:G:C8	2.44	0.48
2:XB:25:ASN:ND2	2:XB:193:ASP:HB3	2.28	0.48
9:XI:125:TYR:CE2	9:XI:127:LYS:HB2	2.48	0.48
15:XO:67:LEU:HB3	15:XO:78:TYR:HE1	1.78	0.48
25:YA:36:G:N3	25:YA:450:G:O2'	2.44	0.48
25:YA:607:U:C5	25:YA:620:G:C5	3.01	0.48
25:YA:672:C:OP2	35:YP:42:SER:OG	2.30	0.48
25:YA:755:C:H2'	25:YA:756:C:H6	1.77	0.48
25:YA:1689:A:H62	25:YA:1698:A:H2	1.61	0.48
35:YP:33:ARG:HD3	35:YP:40:SER:HA	1.94	0.48
47:Y1:5:CYS:HB3	47:Y1:10:LYS:H	1.77	0.48
1:QA:191(E):G:H2'	1:QA:191(F):U:C6	2.48	0.48
1:QA:1273:G:H3'	1:QA:1274:G:H8	1.78	0.48
1:QA:1307:U:H2'	1:QA:1308:U:C6	2.49	0.48
3:QC:17:ASP:O	3:QC:54:ARG:NH2	2.45	0.48
22:QW:5:G:H2'	22:QW:6:G:C8	2.49	0.48
25:RA:2250:G:C5	36:RQ:82:ARG:HG3	2.48	0.48
25:RA:2406:U:N3	35:RP:72:PRO:HB2	2.28	0.48
25:RA:2692:C:H2'	25:RA:2693:A:H8	1.79	0.48
35:RP:37:GLY:O	35:RP:41:ARG:HG2	2.14	0.48
1:XA:1086:U:H3	1:XA:1099:G:N2	2.07	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1126:U:H1'	1:XA:1280:A:C5	2.49	0.48
1:XA:1250:A:H2	1:XA:1370:G:H1'	1.77	0.48
25:YA:17:G:H4'	40:YU:25:TRP:NE1	2.25	0.48
25:YA:795:C:H2'	25:YA:796:C:C6	2.48	0.48
25:YA:1243:G:H4'	35:YP:7:ARG:HH21	1.78	0.48
25:YA:1858:G:O2'	25:YA:1884:A:N6	2.46	0.48
25:YA:2693:A:H2'	25:YA:2694:G:H8	1.78	0.48
25:YA:2741:A:O3'	55:Y9:31:LYS:CB	2.58	0.48
28:YE:74:PRO:HG2	28:YE:77:ILE:HG22	1.94	0.48
45:YZ:150:LEU:HB2	45:YZ:154:ASP:OD2	2.14	0.48
1:QA:674:G:OP1	6:QF:87:ARG:NH2	2.45	0.48
1:QA:1137:C:O2'	1:QA:1138:G:N3	2.46	0.48
1:QA:1152:A:H5"	10:QJ:13:HIS:CD2	2.48	0.48
6:QF:80:ARG:HD2	6:QF:88:VAL:HB	1.95	0.48
25:RA:634:C:H2'	25:RA:635:C:C6	2.48	0.48
25:RA:909:A:H2'	25:RA:912:C:H5	1.78	0.48
25:RA:2073:C:O2'	25:RA:2598:A:O2'	2.26	0.48
25:RA:2138:C:H42	25:RA:2153:G:H1	1.60	0.48
25:RA:2476:A:H2'	25:RA:2477:C:H6	1.78	0.48
25:RA:2627:G:O2'	25:RA:2781:A:N1	2.34	0.48
25:RA:2776:A:H4'	25:RA:2777:G:O5'	2.12	0.48
27:RD:61:LEU:O	27:RD:63:ARG:NH1	2.39	0.48
1:XA:737:A:H2'	1:XA:738:C:C6	2.48	0.48
1:XA:1350:A:O2'	7:XG:33:ASP:OD1	2.29	0.48
2:XB:7:VAL:HG21	2:XB:217:ARG:HH11	1.79	0.48
9:XI:81:ILE:HG22	9:XI:85:LEU:HD23	1.96	0.48
25:YA:1426:G:OP2	25:YA:1427:A:O2'	2.25	0.48
25:YA:2152:G:H2'	25:YA:2153:G:H8	1.77	0.48
25:YA:2363:C:O3'	46:Y0:55:ARG:NH2	2.46	0.48
25:YA:2805:G:H2'	25:YA:2807:G:C8	2.48	0.48
26:YB:15:A:H1'	26:YB:109:G:C8	2.49	0.48
26:YB:33:G:H5'	30:YG:2:PRO:CG	2.41	0.48
26:YB:52:A:O2'	26:YB:53:A:C8	2.66	0.48
28:YE:38:THR:OG1	28:YE:40:GLU:OE1	2.29	0.48
33:YN:34:LEU:O	33:YN:49:GLY:HA3	2.14	0.48
43:YX:28:PHE:CE1	43:YX:92:LEU:HD11	2.49	0.48
45:YZ:137:ILE:HG22	45:YZ:139:VAL:HG13	1.96	0.48
48:Y2:17:SER:OG	48:Y2:20:GLU:HG2	2.13	0.48
1:QA:399:G:H2'	1:QA:400:C:H6	1.77	0.48
1:QA:922:G:H2'	1:QA:923:A:C8	2.48	0.48
1:QA:1129:C:H4'	1:QA:1130:A:H8	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1200:C:O2'	1:QA:1201:A:OP2	2.28	0.48
2:QB:77:ALA:HB2	2:QB:211:ILE:HD13	1.96	0.48
13:QM:40:ASN:HB3	13:QM:43:THR:HG23	1.95	0.48
25:RA:1568:G:P	27:RD:63:ARG:HH22	2.36	0.48
25:RA:2419:U:H2'	25:RA:2420:C:C6	2.48	0.48
25:RA:2465:C:H2'	25:RA:2466:C:H5'	1.96	0.48
26:RB:43:C:H4'	30:RG:98:ARG:HH22	1.78	0.48
29:RF:117:ARG:HH21	29:RF:187:VAL:HA	1.79	0.48
40:RU:44:ASN:HD21	41:RV:75:PHE:HB3	1.77	0.48
43:RX:28:PHE:CE1	43:RX:92:LEU:HD11	2.48	0.48
54:R8:29:LYS:C	54:R8:31:HIS:H	2.21	0.48
1:XA:137:C:O2'	16:XP:61:SER:O	2.31	0.48
1:XA:1024:G:OP1	1:XA:1024:G:H4'	2.13	0.48
1:XA:1189:C:P	10:XJ:51:ARG:HH22	2.36	0.48
1:XA:1287:A:H2'	1:XA:1288:A:H8	1.76	0.48
1:XA:1343:G:H1'	9:XI:121:ARG:NH1	2.28	0.48
1:XA:1343:G:H2'	1:XA:1344:C:C6	2.48	0.48
1:XA:1521:G:H2'	1:XA:1522:U:C6	2.49	0.48
2:XB:167:PRO:HG2	2:XB:192:SER:HB3	1.95	0.48
18:XR:31:LEU:HD23	18:XR:31:LEU:H	1.78	0.48
18:XR:74:ARG:HG2	18:XR:81:PHE:CD1	2.49	0.48
19:XS:65:ASN:O	50:Y4:58:ARG:HD2	2.13	0.48
22:XW:36:A:H2'	22:XW:37:U:C6	2.49	0.48
25:YA:963:U:H2'	25:YA:964:C:C6	2.49	0.48
25:YA:2153:G:H2'	25:YA:2154:G:C8	2.48	0.48
25:YA:2713:A:O2'	25:YA:2715:C:OP2	2.27	0.48
28:YE:13:ARG:HA	28:YE:22:PRO:HA	1.96	0.48
28:YE:74:PRO:HG2	28:YE:77:ILE:CG2	2.44	0.48
30:YG:55:LYS:NZ	30:YG:59:GLU:OE2	2.45	0.48
31:YH:142:GLY:O	31:YH:146:ALA:CB	2.61	0.48
31:YH:149:ARG:H	55:Y9:20:HIS:CD2	2.31	0.48
39:YT:120:ARG:O	39:YT:123:GLN:HB2	2.14	0.48
1:QA:359:U:H2'	1:QA:360:A:H8	1.78	0.48
1:QA:426:G:OP1	4:QD:38:TYR:OH	2.31	0.48
1:QA:464:G:O6	1:QA:466:C:H5'	2.14	0.48
1:QA:1258:G:H2'	1:QA:1259:C:C6	2.48	0.48
25:RA:49:A:N7	25:RA:120:U:H5	2.12	0.48
25:RA:67:U:H2'	25:RA:68:G:C8	2.49	0.48
25:RA:468:G:H4'	29:RF:62:ARG:HH12	1.77	0.48
25:RA:638:G:H2'	25:RA:639:U:H6	1.78	0.48
25:RA:1338:G:O2'	25:RA:1393:A:N1	2.41	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:2530:A:N7	31:RH:172:LYS:NZ	2.60	0.48
25:RA:2747:G:C2	25:RA:2757:A:N6	2.80	0.48
25:RA:2839:G:H1'	37:RR:93:GLY:H	1.78	0.48
43:RX:18:TYR:HA	43:RX:21:PHE:CD2	2.49	0.48
1:XA:322:C:H2'	1:XA:323:U:C6	2.49	0.48
1:XA:539:A:H2'	1:XA:540:G:H8	1.78	0.48
1:XA:975:A:N1	10:XJ:48:THR:HB	2.29	0.48
2:XB:82:ARG:NH1	2:XB:92:TYR:OH	2.47	0.48
4:XD:131:ARG:HD3	4:XD:132:ARG:O	2.14	0.48
25:YA:374:A:H1'	25:YA:401:A:N6	2.28	0.48
25:YA:857:C:OP1	46:Y0:69:PHE:HD2	1.96	0.48
25:YA:1405:U:H2'	25:YA:1406:U:H6	1.79	0.48
25:YA:2789:C:H1'	25:YA:2892:A:C2	2.49	0.48
30:YG:7:LEU:HD12	30:YG:10:LYS:HD2	1.96	0.48
36:YQ:32:TYR:OH	36:YQ:111:GLU:HB3	2.13	0.48
39:YT:3:ARG:HG3	39:YT:7:ILE:HG12	1.95	0.48
39:YT:66:VAL:HA	39:YT:71:GLY:HA2	1.95	0.48
47:Y1:83:GLU:HG2	47:Y1:85:LEU:H	1.78	0.48
49:Y3:11:SER:HB2	49:Y3:31:LEU:HD11	1.95	0.48
1:QA:920:U:H2'	1:QA:921:U:C6	2.48	0.48
1:QA:1144:G:H21	1:QA:1146:A:H62	1.62	0.48
1:QA:1292:U:H2'	1:QA:1293:G:C8	2.48	0.48
4:QD:85:LYS:HD2	4:QD:92:VAL:HG11	1.95	0.48
13:QM:83:ASP:H	13:QM:93:ARG:NH2	2.12	0.48
22:QW:36:A:H2'	22:QW:37:U:C6	2.49	0.48
25:RA:500:G:N1	25:RA:503:A:OP2	2.42	0.48
25:RA:1152:C:H4'	40:RU:77:SER:HA	1.96	0.48
25:RA:2037:G:H2'	25:RA:2038:G:C8	2.49	0.48
26:RB:32:C:C4	26:RB:51:G:N2	2.82	0.48
27:RD:43:ARG:HD2	27:RD:49:ILE:HD12	1.95	0.48
29:RF:107:LYS:HB3	29:RF:206:ILE:HD12	1.96	0.48
1:XA:707:C:H2'	1:XA:708:C:C6	2.49	0.48
22:XW:10:G:H2'	22:XW:11:A:H8	1.78	0.48
25:YA:220:G:O2'	25:YA:233:A:N3	2.43	0.48
25:YA:270(F):U:H2'	25:YA:270(G):C:H6	1.79	0.48
25:YA:1186:G:H8	25:YA:1186:G:O5'	1.96	0.48
25:YA:2809:A:H2'	25:YA:2810:A:C8	2.49	0.48
25:YA:2836:U:H2'	25:YA:2837:G:H8	1.78	0.48
1:QA:433:C:H2'	1:QA:434:U:H6	1.77	0.48
1:QA:778:G:O2'	11:QK:120:ARG:O	2.29	0.48
1:QA:1488:G:H2'	1:QA:1489:G:C8	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:QE:102:ALA:HB1	5:QE:106:PRO:HG2	1.96	0.48
13:QM:87:TYR:HB2	19:QS:73:GLU:HA	1.94	0.48
25:RA:974(A):C:H4'	25:RA:975:G:C5'	2.43	0.48
25:RA:1296:G:OP1	25:RA:2709:G:O2'	2.27	0.48
25:RA:1709:U:H2'	25:RA:1710:C:C6	2.49	0.48
25:RA:2064:C:H2'	25:RA:2065:C:H6	1.79	0.48
26:RB:109:G:H2'	26:RB:110:G:H8	1.78	0.48
40:RU:92:ARG:CD	41:RV:11:GLN:HB2	2.39	0.48
41:RV:61:VAL:HG12	41:RV:63:GLY:H	1.77	0.48
1:XA:324:G:N2	1:XA:327:A:OP2	2.46	0.48
1:XA:1055:A:N6	1:XA:1206:G:N7	2.62	0.48
1:XA:1314:C:H2'	1:XA:1315:U:H6	1.79	0.48
13:XM:64:TRP:HD1	13:XM:65:LYS:O	1.97	0.48
25:YA:1332:G:N2	25:YA:1610:A:N7	2.59	0.48
25:YA:2744:G:O6	55:Y9:1:MET:SD	2.71	0.48
25:YA:2764:A:N7	25:YA:2766:G:C5	2.82	0.48
25:YA:2795:G:H3'	25:YA:2797:U:C5'	2.43	0.48
28:YE:170:LEU:HD21	28:YE:187:ALA:HB3	1.96	0.48
30:YG:137:GLU:HB2	30:YG:152:LEU:HD22	1.96	0.48
31:YH:149:ARG:HE	55:Y9:20:HIS:N	2.06	0.48
37:YR:45:ARG:HA	37:YR:95:THR:HG21	1.96	0.48
40:YU:74:LEU:HD12	40:YU:110:VAL:HG13	1.95	0.48
54:Y8:52:LYS:N	54:Y8:53:PRO:CD	2.77	0.48
1:QA:514:C:H2'	1:QA:515:G:H8	1.76	0.48
1:QA:981:U:H2'	1:QA:982:U:C5	2.48	0.48
1:QA:1329:A:N7	21:QU:7:ARG:NH2	2.49	0.48
1:QA:1488:G:H2'	1:QA:1489:G:H8	1.79	0.48
17:QQ:83:ASP:OD1	17:QQ:84:LEU:N	2.45	0.48
25:RA:922:U:H2'	25:RA:923:C:C6	2.49	0.48
25:RA:1065:U:O2	25:RA:1074:G:N1	2.47	0.48
25:RA:1336:A:H2'	25:RA:1337:G:H8	1.79	0.48
25:RA:1869:G:H5'	25:RA:1870:C:OP2	2.14	0.48
45:RZ:182:LYS:O	45:RZ:182:LYS:HD3	2.14	0.48
1:XA:1036:G:H5'	1:XA:1037:C:OP2	2.14	0.48
5:XE:15:ARG:HG3	5:XE:28:PHE:HE1	1.78	0.48
13:XM:14:ARG:HG2	13:XM:44:ARG:NH1	2.28	0.48
20:XT:89:ARG:HH21	20:XT:104:LEU:HD21	1.77	0.48
22:XW:1:C:H42	22:XW:73:A:H61	1.62	0.48
25:YA:401:A:H2'	25:YA:402:A:C8	2.49	0.48
25:YA:755:C:H2'	25:YA:756:C:C6	2.49	0.48
25:YA:783:A:H2'	25:YA:784:A:H4'	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:1804:C:OP1	27:YD:259:THR:OG1	2.32	0.48
25:YA:1818:U:H2'	27:YD:157:ARG:HG2	1.96	0.48
25:YA:2437:U:H2'	25:YA:2438:U:C6	2.48	0.48
25:YA:2462:U:H2'	25:YA:2463:C:H6	1.78	0.48
28:YE:35:GLN:HE21	28:YE:37:ARG:CZ	2.26	0.48
29:YF:110:LEU:HD11	29:YF:181:LEU:HG	1.96	0.48
31:YH:91:GLY:HA3	31:YH:94:TYR:CD2	2.49	0.48
43:YX:18:TYR:HA	43:YX:21:PHE:CD2	2.49	0.48
55:Y9:24:TYR:OH	55:Y9:35:ARG:NE	2.44	0.48
1:QA:664:G:N2	1:QA:741:G:H1	2.08	0.48
1:QA:687:A:H2	1:QA:704:A:C6	2.32	0.48
1:QA:973:G:C4	10:QJ:55:LYS:HE3	2.49	0.48
1:QA:1298:C:H4'	1:QA:1299:A:C8	2.49	0.48
9:QI:69:GLY:O	9:QI:73:GLN:HG3	2.13	0.48
25:RA:690:G:H21	27:RD:43:ARG:NH2	2.12	0.48
25:RA:710:G:H2'	25:RA:711:G:H8	1.78	0.48
25:RA:970:C:H2'	25:RA:971:C:C6	2.49	0.48
25:RA:1031:G:C2	55:R9:20:HIS:ND1	2.82	0.48
25:RA:1201:C:H2'	25:RA:1202:C:H6	1.78	0.48
25:RA:2233:U:H2'	25:RA:2234:G:C8	2.49	0.48
30:RG:60:LEU:HD21	30:RG:92:VAL:HG11	1.96	0.48
34:RO:107:ARG:HG3	34:RO:112:MET:HE1	1.95	0.48
40:RU:91:ASP:C	40:RU:93:LYS:N	2.72	0.48
1:XA:21:G:H2'	1:XA:22:G:H8	1.78	0.48
1:XA:114:U:H2'	1:XA:115:G:C8	2.49	0.48
1:XA:138:G:H2'	1:XA:139:G:C8	2.49	0.48
1:XA:411:A:N6	1:XA:413:G:H21	2.12	0.48
1:XA:1148:U:H2'	1:XA:1149:C:O4'	2.13	0.48
10:XJ:24:VAL:HG21	10:XJ:37:PRO:HG3	1.96	0.48
12:XL:45:PRO:HB3	12:XL:92:ASP:HB3	1.95	0.48
16:XP:69:THR:O	16:XP:72:ARG:HG2	2.13	0.48
25:YA:566:U:OP1	35:YP:29:LYS:NZ	2.44	0.48
25:YA:1165:U:H2'	25:YA:1166:C:H6	1.79	0.48
25:YA:1301:A:C8	25:YA:1303:G:C8	3.01	0.48
25:YA:1688:U:H5'	25:YA:1689:A:OP1	2.14	0.48
25:YA:2146:C:H4'	25:YA:2147:G:C8	2.48	0.48
25:YA:2364:C:H2'	25:YA:2365:G:O4'	2.13	0.48
25:YA:2528:U:H2'	25:YA:2530:A:O5'	2.14	0.48
25:YA:2745:C:O2'	31:YH:139:GLN:HA	2.14	0.48
31:YH:152:ARG:HD2	31:YH:152:ARG:C	2.39	0.48
44:YY:9:LYS:HE2	44:YY:28:LYS:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:Y1:52:ARG:HH11	47:Y1:57:GLU:HB2	1.79	0.48
1:QA:67:C:O2'	1:QA:171:A:N3	2.41	0.47
1:QA:570:G:H2'	1:QA:571:U:C6	2.49	0.47
1:QA:1301:U:O2'	1:QA:1302:U:OP1	2.32	0.47
25:RA:579:G:H2'	25:RA:580:C:C6	2.49	0.47
25:RA:953:A:OP2	36:RQ:16:ARG:HD3	2.14	0.47
25:RA:1423:G:H5"	27:RD:33:LEU:HD11	1.96	0.47
29:RF:125:LEU:HA	29:RF:194:MET:O	2.14	0.47
36:RQ:13:GLN:O	36:RQ:72:LYS:NZ	2.39	0.47
36:RQ:19:GLY:O	36:RQ:98:LYS:HD3	2.13	0.47
1:XA:389:A:H3'	1:XA:390:C:C6	2.48	0.47
1:XA:481:G:O2'	1:XA:482:A:O5'	2.32	0.47
1:XA:946:A:H2'	1:XA:947:G:H8	1.79	0.47
11:XK:110:ASP:HB2	18:XR:88:LYS:HD2	1.95	0.47
20:XT:20:LEU:O	20:XT:23:ARG:HG2	2.14	0.47
25:YA:458:G:N2	25:YA:470:A:OP2	2.47	0.47
25:YA:764:A:H5'	27:YD:210:GLY:HA2	1.96	0.47
25:YA:1204:A:H1'	25:YA:1206:G:C8	2.49	0.47
25:YA:1290:C:H2'	25:YA:1291:C:H6	1.79	0.47
25:YA:2547:U:H2'	25:YA:2548:G:H8	1.79	0.47
25:YA:2646:C:H2'	25:YA:2647:U:O4'	2.14	0.47
26:YB:32:C:N3	26:YB:51:G:N2	2.62	0.47
30:YG:35:GLU:HA	30:YG:99:MET:HE1	1.95	0.47
30:YG:37:VAL:HG22	30:YG:159:VAL:HG12	1.95	0.47
35:YP:84:ASN:HA	35:YP:115:LEU:O	2.15	0.47
45:YZ:182:LYS:O	45:YZ:182:LYS:HD3	2.14	0.47
1:QA:246:A:C2	1:QA:282:A:C5	3.02	0.47
1:QA:260:G:H2'	1:QA:261:U:C6	2.49	0.47
1:QA:667:G:H2'	1:QA:668:G:C8	2.49	0.47
4:QD:155:LEU:O	4:QD:158:ILE:N	2.47	0.47
13:QM:14:ARG:NH1	13:QM:42:ALA:HA	2.28	0.47
25:RA:65:C:O2'	25:RA:456:C:N3	2.46	0.47
25:RA:181:A:H1'	25:RA:435:C:H5'	1.96	0.47
25:RA:570:G:H2'	25:RA:2030:A:C6	2.48	0.47
25:RA:2836:U:H2'	25:RA:2837:G:H8	1.78	0.47
25:RA:2859:G:H2'	25:RA:2860:A:C8	2.49	0.47
26:RB:11:C:OP1	46:R0:72:ARG:NE	2.47	0.47
34:RO:8:LEU:HB2	34:RO:19:ILE:HG13	1.96	0.47
38:RS:42:ASP:C	38:RS:44:LYS:H	2.21	0.47
1:XA:412:A:H4'	1:XA:413:G:O5'	2.13	0.47
1:XA:707:C:H4'	11:XK:20:TYR:CD2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1384:C:H2'	1:XA:1385:G:H8	1.80	0.47
1:XA:1422:G:H2'	1:XA:1423:G:H8	1.78	0.47
1:XA:1486:G:H2'	1:XA:1487:G:C8	2.49	0.47
1:XA:1518:A:H2'	1:XA:1519:A:C8	2.48	0.47
2:XB:69:LEU:HB3	2:XB:162:ILE:HG22	1.95	0.47
2:XB:205:ASP:OD1	2:XB:206:ASP:N	2.46	0.47
13:XM:117:VAL:HG22	13:XM:118:ALA:H	1.79	0.47
14:XN:4:LYS:HA	14:XN:7:ILE:HG12	1.96	0.47
25:YA:603:A:N1	25:YA:625:G:O2'	2.44	0.47
25:YA:971:C:H2'	25:YA:972:G:O4'	2.13	0.47
25:YA:1210:A:H4'	25:YA:1211:U:O5'	2.14	0.47
25:YA:1399:C:H2'	25:YA:1400:G:C8	2.48	0.47
25:YA:1429:G:H2'	25:YA:1430:C:C6	2.49	0.47
25:YA:1475:G:H2'	25:YA:1476:C:C6	2.49	0.47
25:YA:2740:A:C2	25:YA:2741:A:C6	3.02	0.47
25:YA:2755:C:C4	55:Y9:1:MET:HG2	2.47	0.47
26:YB:31:C:N4	26:YB:51:G:H1	2.12	0.47
28:YE:104:VAL:HG11	28:YE:188:VAL:HG23	1.96	0.47
31:YH:121:ILE:HG13	31:YH:144:VAL:HG21	1.97	0.47
38:YS:66:ALA:HA	38:YS:69:VAL:HG12	1.95	0.47
1:QA:1002:G:H2'	1:QA:1003:G:H8	1.78	0.47
1:QA:1112:C:H1'	3:QC:179:ARG:HH11	1.79	0.47
1:QA:1264:C:H2'	1:QA:1265:G:C8	2.49	0.47
1:QA:1354:C:H2'	1:QA:1355:G:H8	1.79	0.47
10:QJ:13:HIS:HB3	10:QJ:68:HIS:CD2	2.49	0.47
20:QT:29:LYS:O	20:QT:33:ILE:HG12	2.14	0.47
20:QT:90:GLN:O	20:QT:93:GLU:HG2	2.14	0.47
22:QW:9:G:H5"	22:QW:10:G:OP2	2.15	0.47
25:RA:575:A:OP2	25:RA:2499:C:O2'	2.27	0.47
25:RA:2292:C:H2'	25:RA:2293:C:H6	1.80	0.47
27:RD:35:LYS:NZ	27:RD:64:ILE:O	2.44	0.47
39:RT:53:ARG:O	39:RT:59:THR:HG23	2.14	0.47
48:R2:10:LEU:HD21	48:R2:59:ARG:HD2	1.97	0.47
49:R3:15:TYR:CE2	49:R3:53:LEU:HD21	2.47	0.47
1:XA:34:C:H2'	1:XA:35:G:C8	2.48	0.47
1:XA:1425:U:H2'	1:XA:1426:C:C6	2.49	0.47
8:XH:20:TYR:CE2	8:XH:75:ARG:HD2	2.49	0.47
15:XO:15:PHE:HD2	15:XO:30:ALA:HB2	1.78	0.47
25:YA:26:G:O2'	25:YA:514:A:N6	2.44	0.47
25:YA:690:G:H2'	25:YA:691:C:C6	2.48	0.47
25:YA:1338:G:N7	43:YX:62:LYS:NZ	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:1430:C:H2'	25:YA:1431:U:H6	1.76	0.47
25:YA:1662:C:H1'	25:YA:2687:U:H5"	1.97	0.47
25:YA:2233:U:H2'	25:YA:2234:G:C8	2.49	0.47
25:YA:2648:C:H2'	25:YA:2649:U:H6	1.79	0.47
35:YP:97:PRO:C	35:YP:99:LEU:H	2.22	0.47
1:QA:295:C:H2'	1:QA:296:U:O4'	2.14	0.47
1:QA:370:C:H2'	1:QA:371:G:H8	1.78	0.47
1:QA:1159:U:O2'	1:QA:1181:G:N2	2.45	0.47
8:QH:104:ARG:HD2	8:QH:138:TRP:CD2	2.50	0.47
12:QL:30:ALA:HB3	12:QL:33:ARG:HD3	1.95	0.47
13:QM:58:GLU:O	13:QM:62:ASN:HB2	2.13	0.47
25:RA:39:C:H2'	25:RA:40:C:C6	2.49	0.47
25:RA:968:G:H2'	25:RA:969:U:C6	2.49	0.47
25:RA:1291:C:H2'	25:RA:1292:U:H6	1.80	0.47
25:RA:1709:U:H2'	25:RA:1710:C:H6	1.78	0.47
25:RA:2443:C:H2'	25:RA:2444:G:H8	1.79	0.47
25:RA:2455:G:H2'	25:RA:2456:C:C6	2.50	0.47
29:RF:198:ALA:HA	29:RF:201:VAL:HG12	1.96	0.47
41:RV:22:VAL:HG12	41:RV:23:GLU:H	1.78	0.47
45:RZ:94:GLU:HB2	45:RZ:95:PRO:HD3	1.95	0.47
49:R3:6:VAL:HB	49:R3:54:VAL:HG21	1.95	0.47
55:R9:14:CYS:HA	55:R9:27:CYS:SG	2.54	0.47
1:XA:739:C:O2'	15:XO:42:HIS:ND1	2.47	0.47
25:YA:64:A:O3'	43:YX:71:GLY:HA3	2.15	0.47
25:YA:949:C:H2'	25:YA:950:G:C8	2.50	0.47
25:YA:1138:G:H21	33:YN:106:MET:HE3	1.80	0.47
25:YA:1216:G:OP1	40:YU:11:ARG:NH2	2.36	0.47
25:YA:1539:G:H2'	25:YA:1540:G:H8	1.79	0.47
25:YA:1562:A:H2'	25:YA:1563:G:C8	2.49	0.47
25:YA:2047:U:H2'	25:YA:2048:G:H8	1.77	0.47
25:YA:2752:C:C4	25:YA:2753:A:C6	3.02	0.47
34:YO:2:ILE:N	34:YO:33:ALA:O	2.43	0.47
45:YZ:112:ARG:HG3	45:YZ:113:ALA:N	2.29	0.47
1:QA:420:U:N3	1:QA:422:C:O2	2.48	0.47
1:QA:436:C:H2'	1:QA:437:U:H6	1.78	0.47
22:QV:24:C:H2'	22:QV:25:U:H6	1.78	0.47
22:QV:35:C:H2'	22:QV:36:A:C8	2.48	0.47
22:QV:53:G:O2'	22:QV:54:G:OP1	2.29	0.47
25:RA:593:G:H2'	25:RA:594:U:C6	2.50	0.47
25:RA:598:G:C4'	35:RP:11:GLY:HA3	2.44	0.47
25:RA:1265:A:H8	25:RA:1265:A:OP1	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:2131:G:H4'	25:RA:2132:U:H4'	1.95	0.47
25:RA:2643:G:H2'	25:RA:2644:G:O4'	2.14	0.47
31:RH:12:PRO:HG3	31:RH:48:GLY:HA2	1.96	0.47
45:RZ:68:PRO:HG2	45:RZ:91:LEU:HB2	1.96	0.47
1:XA:501:C:H1'	1:XA:549:C:H1'	1.96	0.47
1:XA:807:A:H2'	1:XA:808:C:C6	2.50	0.47
1:XA:1308:U:H2'	1:XA:1309:G:C8	2.48	0.47
1:XA:1507:A:H2'	1:XA:1508:G:C8	2.49	0.47
9:XI:114:TYR:HE2	10:XJ:59:SER:HA	1.80	0.47
25:YA:49:A:N7	25:YA:120:U:H5	2.12	0.47
25:YA:691:C:H2'	25:YA:692:C:H6	1.78	0.47
25:YA:752:A:H4'	25:YA:753:C:O5'	2.14	0.47
25:YA:2080:G:H5'	47:Y1:19:GLN:HG3	1.96	0.47
30:YG:95:ARG:O	30:YG:99:MET:HG2	2.14	0.47
30:YG:125:PHE:CE2	30:YG:170:ARG:HB2	2.48	0.47
1:QA:359:U:OP1	32:YI:87:LYS:NZ	2.45	0.47
1:QA:690:G:H2'	1:QA:691:G:O4'	2.15	0.47
1:QA:861:G:O6	1:QA:869:G:N2	2.47	0.47
2:QB:237:ALA:O	2:QB:239:VAL:N	2.47	0.47
14:QN:4:LYS:HA	14:QN:7:ILE:HG12	1.95	0.47
16:QP:18:ARG:HA	16:QP:38:TYR:HA	1.97	0.47
25:RA:270(Y):G:H2'	25:RA:270(Z):U:C6	2.50	0.47
25:RA:439:G:H2'	25:RA:440:G:H8	1.79	0.47
25:RA:639:U:H2'	25:RA:640:C:C6	2.50	0.47
25:RA:729:G:O2'	25:RA:763:G:H4'	2.14	0.47
25:RA:2212:A:H1'	25:RA:2215:G:C5	2.50	0.47
25:RA:2542:A:H5'	25:RA:2543:G:OP1	2.13	0.47
27:RD:77:ALA:HB3	27:RD:117:VAL:HG13	1.97	0.47
35:RP:63:PRO:HB3	54:R8:13:ARG:HB3	1.95	0.47
36:RQ:66:ILE:HA	36:RQ:104:PHE:HD1	1.80	0.47
44:RY:20:TYR:CE2	44:RY:43:ASN:HA	2.49	0.47
45:RZ:150:LEU:HB2	45:RZ:154:ASP:OD2	2.15	0.47
1:XA:177:C:H2'	1:XA:178:C:H6	1.80	0.47
1:XA:868:C:H2'	1:XA:869:G:O4'	2.13	0.47
1:XA:891:U:H2'	1:XA:892:A:H8	1.80	0.47
1:XA:1095:U:H5"	1:XA:1109:C:O2	2.15	0.47
1:XA:1327:C:H2'	1:XA:1328:C:H6	1.79	0.47
1:XA:1446:A:H5'	39:YT:122:ASP:OD1	2.15	0.47
3:XC:43:LEU:O	3:XC:47:LEU:HB2	2.15	0.47
5:XE:99:GLY:N	5:XE:117:ASP:OD1	2.41	0.47
8:XH:104:ARG:HD2	8:XH:138:TRP:CD2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:24:G:C6	25:YA:25:U:C4	3.02	0.47
25:YA:27:G:H1'	25:YA:513:A:H62	1.79	0.47
25:YA:141:A:C8	25:YA:1408:C:H1'	2.49	0.47
25:YA:1535:U:N3	25:YA:1537:C:H1'	2.30	0.47
25:YA:1590:U:H2'	25:YA:1591:G:C8	2.48	0.47
25:YA:1729:A:H2'	25:YA:1730:U:H5"	1.96	0.47
25:YA:2851:A:O2'	37:YR:64:ARG:NH2	2.47	0.47
25:YA:2853:C:H2'	25:YA:2854:G:C8	2.48	0.47
27:YD:153:ALA:O	27:YD:157:ARG:NH1	2.47	0.47
29:YF:32:LEU:HB3	29:YF:112:MET:HE1	1.96	0.47
49:Y3:6:VAL:HG12	49:Y3:56:VAL:HG22	1.96	0.47
1:QA:20:U:H2'	1:QA:21:G:O4'	2.14	0.47
1:QA:481:G:O2'	1:QA:482:A:O5'	2.33	0.47
1:QA:503:C:OP2	12:QL:116:SER:OG	2.24	0.47
1:QA:575:G:O2'	1:QA:821:G:H5'	2.14	0.47
1:QA:687:A:N6	1:QA:703:G:C2	2.82	0.47
1:QA:1255:G:OP2	10:QJ:45:ARG:NH2	2.47	0.47
1:QA:1288:A:N1	1:QA:1371:G:H1'	2.30	0.47
1:QA:1298:C:H4'	1:QA:1299:A:C4	2.50	0.47
1:QA:1300:G:H1'	1:QA:1303:C:H42	1.80	0.47
1:QA:1525:G:H2'	1:QA:1526:G:H8	1.79	0.47
7:QG:15:ASP:HB3	7:QG:19:GLY:H	1.79	0.47
7:QG:46:ALA:O	7:QG:50:ILE:HG12	2.15	0.47
7:QG:69:VAL:HG21	7:QG:104:LEU:HD21	1.97	0.47
7:QG:111:ARG:HG2	7:QG:113:GLU:OE1	2.14	0.47
13:QM:117:VAL:HG22	13:QM:118:ALA:H	1.79	0.47
22:QV:35:C:O2'	22:QV:36:A:OP1	2.26	0.47
22:QW:2:G:H2'	22:QW:3:C:C6	2.50	0.47
25:RA:270(V):G:H2'	25:RA:270(W):G:H8	1.80	0.47
25:RA:274:G:H2'	25:RA:275:G:O4'	2.15	0.47
25:RA:483:A:O2'	44:RY:49:VAL:O	2.24	0.47
25:RA:776:G:N7	25:RA:793:A:O2'	2.48	0.47
25:RA:1155:A:OP1	40:RU:55:ARG:HD2	2.15	0.47
25:RA:1266:G:N7	42:RW:15:ARG:HD2	2.30	0.47
25:RA:2025:C:H2'	25:RA:2026:C:C6	2.50	0.47
25:RA:2680:C:H5'	28:RE:189:PRO:HA	1.96	0.47
27:RD:122:ASP:CG	27:RD:123:ALA:H	2.22	0.47
27:RD:201:HIS:O	27:RD:204:ILE:HG12	2.14	0.47
29:RF:184:TYR:CE2	29:RF:188:ARG:HD2	2.50	0.47
30:RG:41:GLN:HE21	30:RG:153:ARG:HB3	1.80	0.47
40:RU:94:ASN:C	40:RU:96:ALA:H	2.23	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:RV:4:ILE:HG13	41:RV:40:LEU:HD12	1.96	0.47
45:RZ:40:ASP:HB3	45:RZ:43:GLU:HB2	1.95	0.47
46:R0:53:MET:HB3	46:R0:59:LEU:HD23	1.96	0.47
55:R9:24:TYR:CE1	55:R9:35:ARG:HG3	2.50	0.47
1:XA:227:G:N2	16:XP:62:VAL:O	2.41	0.47
1:XA:299:A:H2'	1:XA:300:A:C8	2.50	0.47
1:XA:664:G:H22	1:XA:741:G:H1	1.63	0.47
1:XA:728:A:H2'	1:XA:729:A:C8	2.49	0.47
1:XA:921:U:O2	5:XE:19:MET:HB2	2.15	0.47
1:XA:1028(B):C:N4	1:XA:1029:G:H1'	2.30	0.47
1:XA:1443:G:H5'	1:XA:1446:A:OP2	2.14	0.47
6:XF:12:PRO:HD3	6:XF:58:GLY:HA2	1.97	0.47
7:XG:22:LEU:HG	7:XG:62:PHE:HE2	1.79	0.47
11:XK:27:ASN:OD1	11:XK:28:THR:N	2.47	0.47
25:YA:273(C):C:H2'	25:YA:273(D):C:H6	1.80	0.47
25:YA:533:G:N2	40:YU:49:HIS:HE1	2.13	0.47
25:YA:740:U:H2'	25:YA:741:G:C8	2.50	0.47
25:YA:1191:G:H2'	25:YA:1192:G:O4'	2.15	0.47
25:YA:1505:C:H2'	25:YA:1506:C:C6	2.49	0.47
25:YA:1689:A:H2'	25:YA:1690:A:C8	2.49	0.47
25:YA:2059:A:H5'	25:YA:2060:A:OP2	2.15	0.47
25:YA:2416:C:C2	25:YA:2417:C:C5	3.03	0.47
25:YA:2755:C:N4	55:Y9:2:LYS:C	2.73	0.47
29:YF:34:TRP:CE3	35:YP:8:PRO:HB3	2.49	0.47
30:YG:32:PRO:HB3	30:YG:163:ALA:HB2	1.97	0.47
32:YI:14:ASP:O	32:YI:16:GLY:N	2.45	0.47
34:YO:107:ARG:NH1	39:YT:36:GLU:OE1	2.48	0.47
40:YU:92:ARG:HB2	41:YV:11:GLN:OE1	2.15	0.47
41:YV:22:VAL:HG12	41:YV:23:GLU:H	1.79	0.47
46:Y0:32:ARG:N	46:Y0:35:ASN:OD1	2.42	0.47
1:QA:35:G:O2'	12:QL:118:SER:O	2.26	0.47
1:QA:152:A:H62	1:QA:169:C:H42	1.63	0.47
1:QA:538:G:H2'	1:QA:539:A:H8	1.80	0.47
1:QA:948:C:H2'	1:QA:949:A:H8	1.79	0.47
1:QA:1192:C:P	3:QC:4:LYS:HZ1	2.35	0.47
1:QA:1223:C:P	1:QA:1224:G:H2'	2.55	0.47
1:QA:1250:A:H2	1:QA:1370:G:H1'	1.80	0.47
25:RA:310:A:H1'	25:RA:311:A:H2'	1.97	0.47
25:RA:321:G:OP2	29:RF:135:LYS:HD3	2.15	0.47
25:RA:389:G:H1	35:RP:70:GLN:HB3	1.80	0.47
25:RA:598:G:O2'	35:RP:9:ASN:ND2	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:635:C:O2'	25:RA:639:U:OP1	2.33	0.47
25:RA:1482:U:H5'	25:RA:1483:G:OP2	2.15	0.47
27:RD:122:ASP:OD1	27:RD:123:ALA:N	2.43	0.47
33:RN:12:ARG:NH1	33:RN:14:VAL:HG22	2.29	0.47
34:RO:78:ARG:HH21	39:RT:103:ARG:NH2	2.13	0.47
38:RS:110:LEU:O	38:RS:112:PHE:HD1	1.98	0.47
1:XA:27:G:H5'	4:XD:209:ARG:HE	1.80	0.47
1:XA:1227:A:OP2	13:XM:111:LYS:HE3	2.15	0.47
2:XB:93:VAL:HG11	2:XB:97:TRP:HD1	1.80	0.47
21:XU:6:ARG:HE	21:XU:15:ARG:HH21	1.63	0.47
25:YA:208:C:H2'	25:YA:209:C:C6	2.49	0.47
25:YA:373:U:H1'	25:YA:423:A:N3	2.30	0.47
25:YA:598:G:O3'	35:YP:9:ASN:ND2	2.48	0.47
25:YA:856:C:O2'	25:YA:857:C:OP1	2.33	0.47
25:YA:960:A:C8	25:YA:962:G:C8	3.03	0.47
1:QA:46:G:O2'	1:QA:365:U:O2'	2.14	0.47
1:QA:439:A:OP2	1:QA:493:G:N1	2.48	0.47
1:QA:1160:G:H1	1:QA:1177:G:N2	2.12	0.47
5:QE:35:GLY:HA3	5:QE:112:LEU:HB3	1.97	0.47
13:QM:92:HIS:CD2	13:QM:98:VAL:HG21	2.50	0.47
25:RA:640:C:H2'	25:RA:641:C:C6	2.50	0.47
25:RA:1070:A:N7	25:RA:1096:A:H2'	2.30	0.47
25:RA:1157:G:O2'	49:R3:31:LEU:HD12	2.15	0.47
25:RA:2581:G:N2	25:RA:2581:G:OP2	2.48	0.47
25:RA:2870:C:H2'	25:RA:2871:C:O4'	2.14	0.47
26:RB:60:C:H2'	26:RB:61:G:H8	1.80	0.47
34:RO:76:ALA:HB3	39:RT:75:ILE:HD12	1.97	0.47
41:RV:5:VAL:HG11	41:RV:57:VAL:HG21	1.97	0.47
1:XA:636:U:H5'	17:XQ:2:PRO:HG3	1.97	0.47
1:XA:1287:A:C2	1:XA:1353:G:H1'	2.48	0.47
1:XA:1321:C:OP2	1:XA:1322:C:H2'	2.15	0.47
1:XA:1348:U:H4'	9:XI:120:ARG:HD2	1.96	0.47
2:XB:30:ARG:H	2:XB:30:ARG:HD3	1.79	0.47
13:XM:83:ASP:H	13:XM:93:ARG:HH21	1.62	0.47
25:YA:86:C:H4'	25:YA:104:U:H1'	1.97	0.47
25:YA:375:C:H2'	25:YA:376:C:H6	1.80	0.47
25:YA:579:G:H2'	25:YA:580:C:C6	2.50	0.47
25:YA:1062:G:H2'	25:YA:1063:G:C8	2.49	0.47
25:YA:1290:C:H2'	25:YA:1291:C:C6	2.50	0.47
25:YA:1689:A:OP2	25:YA:1698:A:N6	2.43	0.47
25:YA:2359:C:H2'	25:YA:2360:A:O4'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:2746:U:H4'	31:YH:138:LYS:HD3	1.96	0.47
35:YP:57:THR:C	35:YP:59:LEU:N	2.71	0.47
36:YQ:13:GLN:O	36:YQ:72:LYS:NZ	2.46	0.47
39:YT:25:GLY:H	39:YT:49:VAL:HG13	1.78	0.47
40:YU:21:ALA:HA	40:YU:24:TYR:CE2	2.49	0.47
1:QA:560:U:H5'	1:QA:566:G:N2	2.30	0.47
1:QA:946:A:H2'	1:QA:947:G:H8	1.80	0.47
1:QA:978:A:C4	1:QA:1319:A:C2	3.03	0.47
1:QA:1160:G:N3	1:QA:1160:G:H2'	2.30	0.47
1:QA:1216:G:H5"	14:QN:5:ALA:HB2	1.95	0.47
1:QA:1305:G:O2'	1:QA:1306:A:H8	1.97	0.47
4:QD:173:TRP:CD1	4:QD:174:LEU:HG	2.50	0.47
11:QK:91:ARG:O	11:QK:95:ILE:HG12	2.15	0.47
17:QQ:51:TYR:HE2	17:QQ:73:VAL:HG11	1.79	0.47
19:QS:67:VAL:HG11	50:R4:58:ARG:O	2.15	0.47
25:RA:191:A:H2'	25:RA:192:C:C6	2.49	0.47
25:RA:2626:C:H2'	25:RA:2627:G:H8	1.80	0.47
27:RD:93:ALA:HB2	27:RD:107:ALA:HB2	1.96	0.47
27:RD:244:ARG:HB2	27:RD:245:PRO:HD2	1.96	0.47
28:RE:52:LEU:HD21	39:RT:1:MET:HE3	1.95	0.47
31:RH:149:ARG:NH2	31:RH:164:TYR:OH	2.47	0.47
40:RU:90:VAL:HG12	40:RU:91:ASP:N	2.29	0.47
45:RZ:112:ARG:HG3	45:RZ:113:ALA:N	2.30	0.47
1:XA:186:C:O2'	20:XT:85:MET:SD	2.63	0.47
1:XA:320:C:H2'	1:XA:321:A:C8	2.50	0.47
1:XA:369:C:OP2	1:XA:388:G:N2	2.47	0.47
1:XA:452:A:H2'	1:XA:453:A:O4'	2.14	0.47
1:XA:600:C:H5'	8:XH:129:VAL:O	2.15	0.47
1:XA:986:A:H2'	1:XA:987:G:C8	2.50	0.47
1:XA:1108:G:H5'	3:XC:176:HIS:HD2	1.80	0.47
1:XA:1386:G:H2'	1:XA:1387:G:H8	1.80	0.47
4:XD:166:LYS:HB2	4:XD:178:VAL:HG11	1.96	0.47
6:XF:67:MET:HB2	6:XF:68:PRO:HD2	1.97	0.47
22:XW:32:G:H3'	22:XW:33:C:O4'	2.15	0.47
22:XW:49:C:N3	22:XW:60:A:H1'	2.29	0.47
25:YA:270(G):C:H2'	25:YA:270(H):C:C6	2.50	0.47
25:YA:643:A:N1	25:YA:2369:A:O2'	2.37	0.47
25:YA:1520:U:H2'	25:YA:1521:G:O4'	2.15	0.47
25:YA:1899:G:H21	25:YA:1902:C:N4	2.13	0.47
25:YA:2564:A:C6	25:YA:2647:U:H4'	2.49	0.47
25:YA:2635:C:H5"	28:YE:78:LEU:HA	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:2756:U:C4	25:YA:2759:G:C8	3.02	0.47
26:YB:22:U:H3	26:YB:61:G:H1	1.63	0.47
27:YD:31:LYS:HE3	27:YD:102:LYS:HD3	1.95	0.47
27:YD:79:VAL:HA	27:YD:95:LEU:HD23	1.97	0.47
39:YT:120:ARG:HA	39:YT:123:GLN:HB2	1.95	0.47
49:Y3:15:TYR:HE2	49:Y3:53:LEU:HD21	1.80	0.47
1:QA:328:C:H1'	1:QA:329:A:OP2	2.15	0.46
1:QA:674:G:H1'	18:QR:81:PHE:HE2	1.80	0.46
1:QA:790:A:H2'	1:QA:791:G:C8	2.50	0.46
1:QA:864:A:O2'	1:QA:1078:U:O4	2.20	0.46
1:QA:1124:G:H3'	1:QA:1145:C:N4	2.30	0.46
1:QA:1486:G:H2'	1:QA:1487:G:C8	2.49	0.46
3:QC:20:SER:OG	3:QC:22:TRP:NE1	2.48	0.46
10:QJ:28:ARG:NH2	10:QJ:34:VAL:O	2.48	0.46
25:RA:559:G:H22	40:RU:49:HIS:CE1	2.33	0.46
25:RA:839:U:H1'	25:RA:1191:G:H1'	1.96	0.46
25:RA:2251:G:C8	25:RA:2450:A:H4'	2.50	0.46
25:RA:2685:G:P	39:RT:51:ARG:HH22	2.38	0.46
25:RA:2697:G:H2'	25:RA:2698:U:C6	2.50	0.46
31:RH:120:GLY:HA3	31:RH:140:LYS:NZ	2.30	0.46
45:RZ:99:TYR:CE1	45:RZ:125:LEU:HB2	2.50	0.46
1:XA:335:C:H2'	1:XA:336:C:C6	2.50	0.46
1:XA:363:A:C2	12:XL:31:PRO:HD2	2.50	0.46
1:XA:422:C:O2'	1:XA:423:G:N2	2.49	0.46
13:XM:16:ASP:OD1	13:XM:17:VAL:N	2.45	0.46
18:XR:51:LEU:HD22	18:XR:55:ARG:HD2	1.97	0.46
25:YA:87:C:H5"	25:YA:88:G:H5'	1.97	0.46
25:YA:247:G:H4'	25:YA:386:G:C5	2.50	0.46
25:YA:638:G:H2'	25:YA:639:U:C6	2.50	0.46
25:YA:1257:C:H4'	29:YF:83:PHE:CE1	2.49	0.46
25:YA:1478:G:H1'	25:YA:1557:C:O2'	2.15	0.46
25:YA:1539:G:H2'	25:YA:1540:G:C8	2.50	0.46
25:YA:2212:A:H1'	25:YA:2215:G:C5	2.51	0.46
25:YA:2665:A:H2'	25:YA:2666:C:O4'	2.14	0.46
27:YD:122:ASP:CG	27:YD:123:ALA:H	2.21	0.46
33:YN:22:THR:HA	33:YN:61:ARG:O	2.15	0.46
34:YO:23:ARG:NH2	34:YO:28:SER:O	2.47	0.46
38:YS:34:HIS:CE1	38:YS:54:LEU:HD12	2.50	0.46
42:YW:111:HIS:HD2	42:YW:113:LYS:H	1.62	0.46
46:Y0:46:LYS:HD2	46:Y0:78:TYR:HE1	1.79	0.46
49:Y3:15:TYR:O	49:Y3:20:LYS:NZ	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:401:C:H2'	1:QA:402:G:H8	1.80	0.46
1:QA:771:G:H2'	1:QA:772:U:C6	2.50	0.46
1:QA:877:C:H2'	1:QA:878:G:H8	1.80	0.46
1:QA:1066:C:H3'	1:QA:1067:A:H8	1.81	0.46
6:QF:21:LEU:O	6:QF:25:ILE:HG12	2.14	0.46
9:QI:22:GLY:HA3	9:QI:60:ASP:OD2	2.15	0.46
20:QT:89:ARG:HH21	20:QT:104:LEU:HD21	1.80	0.46
24:QY:30:G:C2	24:QY:31:A:C8	3.03	0.46
25:RA:442:G:H1'	29:RF:48:THR:HG21	1.96	0.46
25:RA:822:U:H2'	25:RA:823:G:C8	2.49	0.46
25:RA:1687:G:N2	25:RA:1702:G:O6	2.48	0.46
25:RA:2187:G:H2'	25:RA:2188:C:C6	2.49	0.46
25:RA:2785:C:H2'	25:RA:2786:U:C6	2.51	0.46
26:RB:13:A:N1	26:RB:69:G:O2'	2.44	0.46
29:RF:73:ALA:HB3	29:RF:75:HIS:CE1	2.50	0.46
29:RF:133:ASN:H	29:RF:162:LEU:HD13	1.80	0.46
30:RG:81:LYS:O	30:RG:82:LEU:HB2	2.14	0.46
35:RP:94:GLU:O	35:RP:96:THR:HG23	2.15	0.46
53:R7:12:ARG:NH2	53:R7:44:PRO:HB3	2.31	0.46
1:XA:22:G:H2'	1:XA:23:C:C6	2.50	0.46
1:XA:411:A:H62	1:XA:413:G:H21	1.62	0.46
1:XA:768:A:H4'	1:XA:1523:G:H21	1.80	0.46
4:XD:57:ARG:HB3	4:XD:206:PHE:CD1	2.51	0.46
9:XI:32:ASP:OD1	9:XI:33:PHE:N	2.48	0.46
25:YA:26:G:H1'	25:YA:515:A:H61	1.80	0.46
25:YA:598:G:H5'	35:YP:11:GLY:HA3	1.97	0.46
25:YA:1265:A:H8	25:YA:1265:A:OP1	1.98	0.46
25:YA:1338:G:O2'	25:YA:1393:A:N1	2.43	0.46
25:YA:2742:C:O2'	55:Y9:25:VAL:C	2.57	0.46
25:YA:2745:C:OP1	55:Y9:22:ARG:HB2	2.15	0.46
25:YA:2823:A:OP1	28:YE:113:PHE:HB2	2.14	0.46
26:YB:95:U:H2'	26:YB:96:G:H8	1.81	0.46
36:YQ:67:ARG:HD2	36:YQ:105:GLU:OE1	2.15	0.46
41:YV:22:VAL:HG12	41:YV:23:GLU:N	2.30	0.46
45:YZ:5:LEU:HD11	45:YZ:44:PHE:HA	1.98	0.46
1:QA:1009:G:C2	1:QA:1010:G:C8	3.03	0.46
1:QA:1111:A:H2'	1:QA:1112:C:C6	2.50	0.46
1:QA:1175:G:H2'	1:QA:1176:A:C8	2.50	0.46
1:QA:1305:G:N2	1:QA:1332:A:OP2	2.49	0.46
1:QA:1502:A:H2	1:QA:1505:G:H1	1.63	0.46
5:QE:115:VAL:HG11	5:QE:118:ILE:HB	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:QH:102:ARG:NH1	8:QH:105:ARG:HH12	2.13	0.46
13:QM:12:ASN:O	13:QM:13:LYS:HB2	2.14	0.46
25:RA:84:A:C2	25:RA:103:A:C5	3.04	0.46
25:RA:729:G:P	27:RD:13:ARG:HD3	2.55	0.46
25:RA:1769:G:O2'	25:RA:1958:C:OP1	2.30	0.46
25:RA:2627:G:N2	25:RA:2777:G:OP1	2.43	0.46
25:RA:2648:C:H2'	25:RA:2649:U:H6	1.80	0.46
27:RD:30:GLU:CD	27:RD:63:ARG:HE	2.23	0.46
27:RD:35:LYS:HB3	27:RD:36:PRO:CD	2.24	0.46
28:RE:50:GLY:HA2	28:RE:77:ILE:HA	1.97	0.46
45:RZ:151:HIS:CB	45:RZ:170:THR:HA	2.46	0.46
1:XA:337:C:H2'	1:XA:338:A:H8	1.80	0.46
1:XA:399:G:H2'	1:XA:400:C:C6	2.51	0.46
1:XA:678:U:H2'	1:XA:679:C:C6	2.49	0.46
1:XA:953:G:H5"	1:XA:965:A:H61	1.81	0.46
1:XA:1372:U:H2'	1:XA:1373:G:O4'	2.15	0.46
3:XC:150:LYS:HG3	3:XC:169:ALA:HB2	1.97	0.46
6:XF:30:LEU:HD23	6:XF:75:LEU:HD21	1.98	0.46
8:XH:51:VAL:HG11	8:XH:60:ARG:HH11	1.79	0.46
22:XW:52:C:H2'	22:XW:53:G:C8	2.50	0.46
25:YA:92:G:H2'	25:YA:93:C:H6	1.81	0.46
25:YA:1394:U:H4'	25:YA:1603:A:H4'	1.96	0.46
25:YA:2789:C:H1'	25:YA:2892:A:H2	1.80	0.46
1:QA:186:C:H5'	20:QT:78:ALA:HB1	1.98	0.46
1:QA:281:G:H8	1:QA:281:G:OP2	1.99	0.46
1:QA:406:G:H2'	1:QA:407:G:C8	2.50	0.46
1:QA:501:C:OP1	12:QL:117:ARG:NH2	2.47	0.46
1:QA:610:G:C4	1:QA:611:A:C8	3.03	0.46
1:QA:1004:A:P	1:QA:1025:U:H3	2.37	0.46
13:QM:86:CYS:SG	13:QM:87:TYR:N	2.88	0.46
20:QT:30:LYS:HZ2	20:QT:80:ARG:NH1	2.13	0.46
25:RA:52:A:H2'	25:RA:53:A:C8	2.49	0.46
25:RA:177:G:H5'	25:RA:178:G:C8	2.50	0.46
25:RA:299:A:N3	25:RA:319:C:O2'	2.42	0.46
25:RA:694:U:OP1	27:RD:59:LYS:NZ	2.36	0.46
25:RA:839:U:H2'	25:RA:840:C:C6	2.50	0.46
25:RA:974(A):C:H4'	25:RA:975:G:O5'	2.15	0.46
25:RA:1278:A:H2'	25:RA:1279:G:C8	2.50	0.46
25:RA:1339:G:H5"	43:RX:16:LYS:HD3	1.97	0.46
25:RA:2712:U:O2'	25:RA:2712(A):A:H8	1.98	0.46
25:RA:2849:U:H5	39:RT:93:ARG:HH12	1.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:RD:206:LEU:HA	27:RD:211:ARG:HD3	1.97	0.46
29:RF:73:ALA:HB3	29:RF:75:HIS:HE1	1.79	0.46
35:RP:144:GLU:O	35:RP:144:GLU:HG2	2.16	0.46
37:RR:45:ARG:HA	37:RR:95:THR:HG21	1.97	0.46
1:XA:89:U:HO2'	1:XA:90:C:P	2.37	0.46
1:XA:385:C:H2'	1:XA:386:C:C6	2.50	0.46
1:XA:410:G:H4'	1:XA:411:A:OP1	2.16	0.46
1:XA:789:U:H1'	1:XA:792:A:C2	2.43	0.46
1:XA:940:C:H2'	1:XA:941:G:C8	2.51	0.46
1:XA:1325:C:H4'	21:XU:17:THR:HG21	1.97	0.46
3:XC:9:GLY:HA2	3:XC:12:LEU:HG	1.97	0.46
3:XC:153:VAL:HG22	3:XC:198:VAL:HG22	1.98	0.46
18:XR:58:LEU:HD23	18:XR:62:GLU:HB3	1.96	0.46
22:XW:20:G:H3'	22:XW:21:U:C5	2.50	0.46
25:YA:81:G:H2'	25:YA:82:G:O4'	2.15	0.46
25:YA:277:C:H3'	25:YA:278:A:C5'	2.46	0.46
25:YA:319:C:H2'	25:YA:320:A:C8	2.50	0.46
25:YA:413:C:H2'	25:YA:414:C:C6	2.50	0.46
25:YA:503:A:H4'	25:YA:504:U:H5'	1.97	0.46
25:YA:631:A:OP1	54:Y8:46:ARG:NH2	2.49	0.46
25:YA:1843:C:H2'	25:YA:1844:C:C6	2.50	0.46
25:YA:2752:C:H3'	25:YA:2753:A:C8	2.50	0.46
25:YA:2837:G:H2'	25:YA:2838:G:C8	2.50	0.46
26:YB:13:A:N1	26:YB:69:G:O2'	2.45	0.46
38:YS:42:ASP:C	38:YS:44:LYS:H	2.23	0.46
40:YU:90:VAL:HG12	40:YU:91:ASP:N	2.30	0.46
53:Y7:26:GLY:O	53:Y7:30:VAL:HG23	2.15	0.46
55:Y9:25:VAL:O	55:Y9:33:LYS:HG3	2.15	0.46
55:Y9:32:HIS:C	55:Y9:34:GLN:H	2.23	0.46
1:QA:643:C:C2	1:QA:644:G:C8	3.04	0.46
1:QA:922:G:H4'	5:QE:20:GLN:HA	1.97	0.46
1:QA:1002:G:H2'	1:QA:1003:G:C8	2.51	0.46
1:QA:1351:U:O2	1:QA:1371:G:N2	2.44	0.46
25:RA:38:A:N3	29:RF:48:THR:OG1	2.48	0.46
25:RA:863:A:H2'	25:RA:864:G:H8	1.81	0.46
25:RA:968:G:H2'	25:RA:969:U:H6	1.80	0.46
25:RA:1045:A:O2'	25:RA:1046:A:OP2	2.25	0.46
25:RA:1316:U:H2'	25:RA:1317:A:C8	2.49	0.46
25:RA:1433:U:H3	25:RA:1560:G:H1	1.64	0.46
25:RA:1453:A:N6	25:RA:2702:U:H1'	2.31	0.46
25:RA:2379:G:H2'	25:RA:2380:C:C6	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:2705:A:O2'	25:RA:2852:G:OP1	2.28	0.46
25:RA:2749:A:OP1	31:RH:4:ILE:HG23	2.15	0.46
30:RG:125:PHE:HE2	30:RG:170:ARG:HB2	1.81	0.46
32:RI:5:LEU:HD21	32:RI:12:LEU:HB3	1.97	0.46
32:RI:13:GLY:HA3	32:RI:17:GLN:HB3	1.96	0.46
34:RO:97:ARG:O	34:RO:97:ARG:HD3	2.15	0.46
1:XA:272:C:H2'	1:XA:273:A:C8	2.51	0.46
1:XA:484:G:H4'	1:XA:485:G:O5'	2.15	0.46
1:XA:719:C:O2'	18:XR:49:LYS:HB3	2.15	0.46
1:XA:782:A:H62	1:XA:800:G:H21	1.64	0.46
1:XA:892:A:O2'	1:XA:1415:G:H4'	2.16	0.46
1:XA:1190:G:H5'	3:XC:176:HIS:HE1	1.81	0.46
1:XA:1504:G:OP1	1:XA:1507:A:H4'	2.15	0.46
5:XE:115:VAL:HG11	5:XE:118:ILE:HB	1.97	0.46
15:XO:15:PHE:CE2	15:XO:85:LEU:HD21	2.50	0.46
15:XO:39:LEU:HD11	15:XO:52:SER:HB3	1.98	0.46
19:XS:50:ALA:HB1	19:XS:57:HIS:HB3	1.98	0.46
25:YA:466:A:N3	25:YA:683:C:H1'	2.31	0.46
25:YA:1167:U:H2'	25:YA:1168:G:H8	1.80	0.46
25:YA:1518:C:H2'	25:YA:1519:G:H8	1.80	0.46
25:YA:1766:U:H2'	25:YA:1767:C:H6	1.81	0.46
25:YA:2291:U:H3	25:YA:2341:G:H1	1.64	0.46
25:YA:2306:C:H2'	25:YA:2307:G:N2	2.30	0.46
27:YD:143:HIS:ND1	27:YD:194:GLY:O	2.38	0.46
37:YR:3:HIS:O	37:YR:5:LYS:N	2.49	0.46
37:YR:100:LEU:HD11	37:YR:113:LEU:HB2	1.98	0.46
1:QA:865:A:H2'	1:QA:866:C:C6	2.51	0.46
1:QA:921:U:O2'	5:QE:19:MET:O	2.32	0.46
1:QA:1225:A:H2'	1:QA:1225:A:N3	2.31	0.46
1:QA:1226:C:N4	13:QM:104:ARG:HH11	2.13	0.46
13:QM:108:ARG:NE	13:QM:114:ARG:HD2	2.31	0.46
17:QQ:45:HIS:CD2	17:QQ:47:PRO:HG3	2.51	0.46
25:RA:336:C:O2'	44:RY:35:TYR:OH	2.34	0.46
25:RA:579:G:C2	25:RA:1262:A:C5	3.04	0.46
25:RA:1137:G:H2'	25:RA:1138:G:H8	1.80	0.46
25:RA:1408:C:H2'	25:RA:1409:C:C6	2.49	0.46
25:RA:1441:G:H2'	25:RA:1442:G:H8	1.81	0.46
25:RA:2115:G:N1	25:RA:2164:C:OP2	2.49	0.46
25:RA:2844:G:H3'	25:RA:2845:G:H8	1.81	0.46
29:RF:126:VAL:H	29:RF:195:ASP:HA	1.80	0.46
1:XA:57:G:N2	1:XA:388:G:C6	2.84	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:427:U:OP1	4:XD:13:ARG:NH2	2.49	0.46
1:XA:1218:C:H2'	1:XA:1219:U:C6	2.50	0.46
25:YA:1109:C:H2'	25:YA:1110:G:O4'	2.15	0.46
25:YA:1499:C:H2'	25:YA:1500:G:H8	1.81	0.46
25:YA:2123:G:H2'	25:YA:2124:G:C8	2.51	0.46
25:YA:2755:C:C4	55:Y9:1:MET:HE2	2.50	0.46
25:YA:2762:G:H1	55:Y9:33:LYS:HZ3	1.64	0.46
27:YD:201:HIS:O	27:YD:204:ILE:HG12	2.16	0.46
1:QA:28:G:O2'	1:QA:296:U:OP1	2.34	0.46
1:QA:552:U:H2'	1:QA:553:A:H8	1.81	0.46
1:QA:1401:G:O6	1:QA:1504:G:N2	2.48	0.46
8:QH:106:GLY:O	8:QH:122:ARG:NH2	2.48	0.46
25:RA:92:G:H2'	25:RA:93:C:C6	2.50	0.46
25:RA:251:A:C5	25:RA:252:G:H1'	2.50	0.46
25:RA:911:A:H2'	36:RQ:9:TYR:CE2	2.46	0.46
25:RA:1303:G:H1'	25:RA:1641:A:N1	2.31	0.46
25:RA:2038:G:H2'	25:RA:2039:C:C6	2.51	0.46
30:RG:125:PHE:CE2	30:RG:170:ARG:HB2	2.51	0.46
35:RP:101:VAL:CB	35:RP:106:LEU:HB2	2.43	0.46
38:RS:30:ARG:HD2	38:RS:97:ARG:HD3	1.97	0.46
40:RU:81:HIS:NE2	40:RU:85:LYS:HE3	2.30	0.46
1:XA:323:U:OP1	20:XT:26:ASN:ND2	2.48	0.46
1:XA:777:A:H2'	1:XA:778:G:H8	1.81	0.46
1:XA:1229:A:OP2	13:XM:114:ARG:NH1	2.47	0.46
1:XA:1410:G:H2'	1:XA:1411:C:C6	2.51	0.46
2:XB:101:MET:HA	2:XB:108:ILE:HG13	1.97	0.46
8:XH:17:THR:HB	8:XH:78:GLN:OE1	2.16	0.46
17:XQ:83:ASP:OD1	17:XQ:84:LEU:N	2.49	0.46
18:XR:50:ILE:HG13	18:XR:74:ARG:HH22	1.80	0.46
25:YA:363(F):A:H4'	25:YA:364:C:H5'	1.98	0.46
25:YA:381:G:C6	25:YA:394:A:N1	2.84	0.46
25:YA:521:G:H2'	25:YA:522:G:C8	2.51	0.46
25:YA:587:C:N3	35:YP:33:ARG:NH2	2.62	0.46
25:YA:639:U:H2'	25:YA:640:C:H6	1.81	0.46
25:YA:2689:U:H5'	25:YA:2713:A:H2	1.81	0.46
26:YB:44:G:H1'	26:YB:47:C:H41	1.80	0.46
28:YE:36:ARG:NH1	28:YE:85:ASN:OD1	2.49	0.46
30:YG:143:GLU:OE2	50:Y4:26:SER:OG	2.23	0.46
31:YH:149:ARG:NH2	55:Y9:20:HIS:H	2.13	0.46
31:YH:149:ARG:CZ	55:Y9:20:HIS:H	2.29	0.46
36:YQ:30:GLY:HA2	36:YQ:107:ALA:HB2	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:YT:101:PHE:HD2	39:YT:105:LEU:HD21	1.80	0.46
55:Y9:4:ARG:HG3	55:Y9:34:GLN:HG2	1.98	0.46
1:QA:113:G:H2'	1:QA:114:U:C6	2.51	0.46
1:QA:868:C:H2'	1:QA:869:G:O4'	2.15	0.46
8:QH:121:ASP:OD1	8:QH:122:ARG:N	2.49	0.46
13:QM:4:ILE:HA	13:QM:57:ARG:HG2	1.97	0.46
25:RA:327:G:H2'	25:RA:328:U:C6	2.50	0.46
25:RA:2313:C:H5"	30:RG:91:ARG:HD3	1.97	0.46
41:RV:64:HIS:ND1	41:RV:92:THR:HG22	2.31	0.46
43:RX:11:PRO:HD3	48:R2:37:PHE:CD1	2.50	0.46
54:R8:29:LYS:HB2	54:R8:33:ASN:HD21	1.81	0.46
1:XA:74:C:H2'	1:XA:75:C:C6	2.50	0.46
1:XA:619:U:N3	4:XD:134:ASP:OD1	2.44	0.46
1:XA:650:G:H2'	1:XA:651:C:C6	2.50	0.46
1:XA:1221:G:O3'	19:XS:77:THR:HG21	2.16	0.46
1:XA:1293:G:H2'	1:XA:1294:G:C8	2.51	0.46
5:XE:87:SER:HB3	5:XE:131:ILE:HD13	1.97	0.46
11:XK:87:THR:HA	11:XK:91:ARG:HD2	1.98	0.46
25:YA:296:C:H2'	25:YA:297:C:C6	2.51	0.46
25:YA:639:U:H2'	25:YA:640:C:C6	2.51	0.46
25:YA:2093:G:H2'	25:YA:2094:G:C8	2.51	0.46
25:YA:2099:U:H2'	25:YA:2100:G:H8	1.80	0.46
25:YA:2299:G:OP1	30:YG:75:LYS:NZ	2.43	0.46
25:YA:2471:C:H3'	25:YA:2472:G:H8	1.80	0.46
25:YA:2577:A:H5'	51:Y5:3:LYS:NZ	2.30	0.46
29:YF:148:LEU:HD22	29:YF:154:VAL:HG21	1.98	0.46
30:YG:3:LEU:HD11	50:Y4:25:TYR:HE2	1.81	0.46
30:YG:40:ASN:HD22	30:YG:41:GLN:H	1.64	0.46
33:YN:96:GLU:HB2	33:YN:122:VAL:HG12	1.97	0.46
34:YO:76:ALA:HB3	39:YT:75:ILE:HD12	1.96	0.46
36:YQ:4:PRO:HG3	36:YQ:69:PHE:HE2	1.80	0.46
36:YQ:30:GLY:CA	36:YQ:107:ALA:HB2	2.45	0.46
40:YU:91:ASP:C	40:YU:93:LYS:H	2.24	0.46
1:QA:1512:U:H2'	1:QA:1513:A:H8	1.81	0.46
6:QF:12:PRO:HG3	6:QF:57:GLN:HG3	1.98	0.46
6:QF:97:PHE:CD2	18:QR:31:LEU:HD21	2.51	0.46
22:QW:49:C:N3	22:QW:60:A:H1'	2.30	0.46
25:RA:815:C:OP2	41:RV:83:ARG:NH1	2.49	0.46
25:RA:1448:G:H5'	25:RA:1449:A:OP1	2.15	0.46
25:RA:1449:A:C4	25:RA:1529:A:H2	2.34	0.46
25:RA:1539:G:H2'	25:RA:1540:G:C8	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:1689:A:H62	25:RA:1698:A:H2	1.64	0.46
25:RA:1791:A:H3'	25:RA:1792:G:H8	1.81	0.46
25:RA:2532:G:H2'	25:RA:2533:A:C8	2.51	0.46
25:RA:2556:C:H2'	25:RA:2557:G:O4'	2.16	0.46
30:RG:15:VAL:HG21	30:RG:176:LEU:HD23	1.98	0.46
1:XA:78:G:C6	1:XA:92:G:C6	3.04	0.46
1:XA:939:G:H2'	1:XA:940:C:C6	2.51	0.46
1:XA:1307:U:O4	1:XA:1331:G:N2	2.49	0.46
4:XD:155:LEU:O	4:XD:158:ILE:N	2.48	0.46
10:XJ:51:ARG:HG3	10:XJ:60:ARG:HA	1.97	0.46
13:XM:87:TYR:O	13:XM:90:LEU:HG	2.16	0.46
15:XO:26:GLU:HG3	15:XO:81:LEU:HD22	1.98	0.46
25:YA:363(B):G:H2'	25:YA:363(C):G:C8	2.51	0.46
25:YA:583:G:OP2	40:YU:10:ARG:HD2	2.16	0.46
25:YA:907:U:O2'	36:YQ:101:ARG:NH2	2.49	0.46
25:YA:1026:U:H1'	25:YA:1027:A:O5'	2.16	0.46
25:YA:1042:G:H2'	25:YA:1043:C:C6	2.51	0.46
25:YA:1113:U:H2'	25:YA:1114:G:C8	2.51	0.46
25:YA:1541:U:H2'	25:YA:1542:G:O4'	2.15	0.46
25:YA:1831:G:H2'	25:YA:1832:C:C6	2.51	0.46
25:YA:2526:G:H4'	55:Y9:27:CYS:SG	2.56	0.46
25:YA:2563:U:H1'	25:YA:2566:A:N6	2.31	0.46
29:YF:9:ILE:HG12	29:YF:123:LEU:HD23	1.97	0.46
36:YQ:4:PRO:HG3	36:YQ:69:PHE:CE2	2.51	0.46
54:Y8:29:LYS:C	54:Y8:31:HIS:H	2.22	0.46
1:QA:728:A:H2'	1:QA:729:A:H8	1.81	0.46
2:QB:21:ARG:HG3	2:QB:38:GLY:C	2.41	0.46
4:QD:10:ARG:HG3	4:QD:40:PRO:HG3	1.98	0.46
7:QG:66:VAL:HG12	7:QG:70:LYS:HE3	1.98	0.46
22:QW:52:C:H2'	22:QW:53:G:C8	2.51	0.46
25:RA:127:A:H5"	25:RA:128:C:C6	2.51	0.46
25:RA:492:A:H2'	25:RA:493:G:O4'	2.15	0.46
25:RA:910:A:C5	36:RQ:13:GLN:HG3	2.50	0.46
25:RA:1210:A:H4'	25:RA:1211:U:O5'	2.16	0.46
25:RA:1268:A:H2'	25:RA:1269:A:O4'	2.15	0.46
25:RA:1281:G:H2'	25:RA:1282:U:C6	2.50	0.46
25:RA:2150:U:H2'	25:RA:2151:G:H8	1.81	0.46
25:RA:2712:U:HO2'	25:RA:2712(A):A:P	2.39	0.46
34:RO:22:ILE:HG12	34:RO:41:ALA:HA	1.98	0.46
43:RX:26:TYR:CD2	43:RX:89:ILE:HD12	2.48	0.46
55:R9:2:LYS:HD3	55:R9:32:HIS:HA	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:769:G:H4'	1:XA:1513:A:H4'	1.98	0.46
1:XA:1107:C:C4	1:XA:1108:G:C8	3.04	0.46
6:XF:47:ARG:NH2	6:XF:57:GLN:OE1	2.49	0.46
7:XG:152:ALA:O	7:XG:155:ARG:HG3	2.16	0.46
22:XW:2:G:H2'	22:XW:3:C:C6	2.51	0.46
25:YA:623:G:H2'	25:YA:624:C:C6	2.51	0.46
25:YA:773:U:H4'	27:YD:47:GLY:HA2	1.97	0.46
25:YA:968:G:H2'	25:YA:969:U:H6	1.81	0.46
25:YA:1196:C:C2	25:YA:1197:G:C8	3.04	0.46
25:YA:1231:G:H2'	25:YA:1232:G:H8	1.79	0.46
25:YA:2028:U:H2'	25:YA:2029:G:C8	2.51	0.46
25:YA:2050:C:H2'	25:YA:2051:A:C8	2.51	0.46
27:YD:206:LEU:HA	27:YD:211:ARG:HD3	1.97	0.46
38:YS:110:LEU:HB3	38:YS:112:PHE:CE1	2.51	0.46
39:YT:26:ASP:O	39:YT:49:VAL:HG12	2.16	0.46
42:YW:110:LYS:HG3	42:YW:111:HIS:ND1	2.31	0.46
1:QA:580:U:H2'	1:QA:581:G:O4'	2.16	0.45
1:QA:645:C:H2'	1:QA:646:U:H6	1.81	0.45
1:QA:1004:A:N1	1:QA:1025:U:H1'	2.31	0.45
1:QA:1391:U:H2'	1:QA:1392:G:C8	2.51	0.45
2:QB:30:ARG:HH21	2:QB:194:PRO:HG2	1.81	0.45
4:QD:167:GLY:HA2	27:YD:135:PHE:CZ	2.51	0.45
10:QJ:51:ARG:NH2	10:QJ:61:GLU:HB3	2.31	0.45
12:QL:33:ARG:NH2	12:QL:61:THR:OG1	2.49	0.45
25:RA:94:G:H21	48:R2:47:ASN:HD22	1.64	0.45
25:RA:678:C:H2'	25:RA:679:C:H6	1.81	0.45
25:RA:834:C:C2	25:RA:835:A:C8	3.04	0.45
25:RA:851:U:H2'	25:RA:852:G:H8	1.81	0.45
25:RA:1541:U:H2'	25:RA:1542:G:O4'	2.16	0.45
25:RA:1704:G:H2'	25:RA:1705:G:H8	1.81	0.45
25:RA:2235:G:H2'	25:RA:2236:C:C6	2.51	0.45
25:RA:2795:G:H3'	25:RA:2797:U:C5'	2.46	0.45
26:RB:42:C:O2	30:RG:93:THR:N	2.42	0.45
44:RY:83:THR:HG21	44:RY:99:CYS:SG	2.56	0.45
45:RZ:45:ASP:OD1	45:RZ:49:ARG:NE	2.49	0.45
1:XA:165:C:H2'	1:XA:166:G:H8	1.80	0.45
1:XA:1120:G:H2'	1:XA:1121:U:C6	2.52	0.45
1:XA:1315:U:H2'	1:XA:1316:G:O4'	2.17	0.45
25:YA:118:A:N3	25:YA:178:G:H1'	2.31	0.45
25:YA:270(Y):G:O2'	25:YA:270(Z):U:O4'	2.28	0.45
25:YA:742:G:H2'	25:YA:743:G:H8	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:870:A:H2'	25:YA:871:U:O4'	2.16	0.45
25:YA:1028:A:H2'	25:YA:1029:A:C8	2.50	0.45
25:YA:1065:U:O2	25:YA:1074:G:N1	2.49	0.45
25:YA:2119:A:H61	25:YA:2168:G:N2	2.14	0.45
25:YA:2446:G:N2	25:YA:2449:U:O2	2.48	0.45
27:YD:32:SER:HA	27:YD:35:LYS:HB2	1.98	0.45
38:YS:89:ARG:HD2	38:YS:94:TYR:HB2	1.96	0.45
41:YV:77:ALA:O	41:YV:79:VAL:HG23	2.16	0.45
55:Y9:26:ILE:CG2	55:Y9:33:LYS:HE3	2.45	0.45
1:QA:639:G:H2'	1:QA:640:A:H8	1.82	0.45
1:QA:726:C:H2'	1:QA:727:G:H8	1.80	0.45
1:QA:1229:A:H2'	1:QA:1230:C:C6	2.51	0.45
1:QA:1372:U:H5"	9:QI:71:SER:HB3	1.98	0.45
2:QB:163:PHE:HD1	2:QB:185:ILE:HG13	1.82	0.45
11:QK:27:ASN:OD1	11:QK:28:THR:N	2.48	0.45
22:QV:36:A:H2'	22:QV:37:U:C6	2.52	0.45
25:RA:147:U:H2'	25:RA:148:C:C6	2.52	0.45
25:RA:743:G:O2'	25:RA:1659:U:OP1	2.32	0.45
25:RA:1149:G:H2'	25:RA:1150:C:C6	2.51	0.45
25:RA:1164:G:H2'	25:RA:1165:U:H6	1.79	0.45
25:RA:2119:A:N6	25:RA:2170:A:N7	2.62	0.45
26:RB:8:U:H3	26:RB:112:G:H1	1.65	0.45
31:RH:8:PRO:HG2	31:RH:69:ARG:HH21	1.82	0.45
38:RS:14:VAL:HG11	38:RS:90:GLY:O	2.16	0.45
49:R3:16:PRO:HB2	49:R3:18:ASP:OD1	2.17	0.45
1:XA:64:G:H5"	1:XA:65:U:OP1	2.16	0.45
1:XA:97:U:H2'	1:XA:99:C:C6	2.52	0.45
1:XA:132:C:H4'	1:XA:262:A:H1'	1.97	0.45
1:XA:678:U:H2'	1:XA:679:C:H6	1.81	0.45
3:XC:5:ILE:HD11	14:XN:49:HIS:HE1	1.80	0.45
22:XV:29:C:H2'	22:XV:30:G:H8	1.81	0.45
25:YA:288:C:H2'	25:YA:289:A:C8	2.45	0.45
25:YA:1771:C:H2'	25:YA:1772:G:C8	2.51	0.45
25:YA:2062:A:H2'	25:YA:2062:A:N3	2.29	0.45
25:YA:2567:G:H2'	25:YA:2568:C:C6	2.51	0.45
30:YG:71:THR:N	30:YG:89:GLY:O	2.49	0.45
31:YH:149:ARG:HH21	55:Y9:20:HIS:H	1.63	0.45
39:YT:111:ARG:C	39:YT:113:LYS:N	2.73	0.45
48:Y2:10:LEU:HD21	48:Y2:59:ARG:HD2	1.98	0.45
1:QA:166:G:H2'	1:QA:167:G:H8	1.81	0.45
7:QG:15:ASP:OD1	7:QG:16:LEU:N	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:QM:16:ASP:OD1	13:QM:17:VAL:N	2.49	0.45
25:RA:639:U:H2'	25:RA:640:C:H6	1.80	0.45
25:RA:1257:C:H2'	25:RA:1258:C:C6	2.51	0.45
25:RA:2563:U:H1'	25:RA:2566:A:N6	2.31	0.45
27:RD:25:THR:HG22	27:RD:82:ILE:H	1.82	0.45
28:RE:38:THR:OG1	28:RE:40:GLU:OE1	2.34	0.45
28:RE:48:GLN:OE1	28:RE:64:LYS:NZ	2.46	0.45
32:RI:115:ALA:HB2	32:RI:131:LYS:HE2	1.98	0.45
32:RI:144:VAL:HG22	32:RI:145:VAL:H	1.80	0.45
39:RT:65:LYS:O	39:RT:72:VAL:N	2.43	0.45
39:RT:120:ARG:HA	39:RT:123:GLN:HB2	1.98	0.45
46:R0:48:GLY:HA3	46:R0:80:HIS:CE1	2.51	0.45
1:XA:363:A:N1	12:XL:31:PRO:HD2	2.31	0.45
1:XA:468:A:H5"	16:XP:80:PHE:HB3	1.99	0.45
1:XA:981:U:H2'	1:XA:982:U:C5	2.52	0.45
1:XA:1226:C:O2'	13:XM:111:LYS:NZ	2.48	0.45
1:XA:1435:G:H2'	1:XA:1436:U:H6	1.81	0.45
10:XJ:39:PRO:HA	10:XJ:70:ARG:HD3	1.98	0.45
11:XK:43:SER:HB3	11:XK:68:ALA:HB2	1.98	0.45
21:XU:6:ARG:HE	21:XU:15:ARG:NH2	2.13	0.45
25:YA:1216:G:OP1	40:YU:8:VAL:HG23	2.16	0.45
25:YA:1308:A:H3'	25:YA:1309:G:H8	1.80	0.45
25:YA:1365:A:O2'	47:Y1:11:ARG:NH2	2.39	0.45
25:YA:1694:C:H4'	25:YA:1695:G:O5'	2.15	0.45
25:YA:1790:C:H5"	25:YA:1791:A:OP1	2.16	0.45
25:YA:2074:U:H2'	25:YA:2075:U:H6	1.82	0.45
25:YA:2292:C:H2'	25:YA:2293:C:H6	1.80	0.45
25:YA:2392:A:H2	25:YA:2424:C:H42	1.64	0.45
27:YD:9:TYR:HD2	27:YD:10:THR:HG23	1.81	0.45
28:YE:14:ILE:HG13	39:YT:14:TYR:HE2	1.82	0.45
34:YO:97:ARG:O	34:YO:97:ARG:HD3	2.16	0.45
36:YQ:54:MET:HE1	36:YQ:104:PHE:HB3	1.97	0.45
42:YW:111:HIS:CD2	42:YW:113:LYS:H	2.34	0.45
46:Y0:23:VAL:HB	46:Y0:26:TYR:HE1	1.80	0.45
49:Y3:15:TYR:CE2	49:Y3:53:LEU:HD21	2.51	0.45
1:QA:114:U:H2'	1:QA:115:G:C8	2.52	0.45
1:QA:139:G:H2'	1:QA:140:A:C8	2.51	0.45
1:QA:410:G:H4'	1:QA:411:A:OP1	2.16	0.45
1:QA:541:G:H2'	1:QA:542:G:H8	1.82	0.45
1:QA:1004:A:H1'	1:QA:1036:G:H22	1.80	0.45
2:QB:74:LYS:O	2:QB:78:GLN:HG3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:QO:78:TYR:CZ	15:QO:82:ILE:HD11	2.51	0.45
18:QR:51:LEU:HD22	18:QR:55:ARG:HD2	1.98	0.45
25:RA:17:G:H4'	40:RU:25:TRP:NE1	2.27	0.45
25:RA:26:G:H1'	25:RA:515:A:H61	1.80	0.45
25:RA:519:U:H2'	25:RA:520:G:H8	1.81	0.45
25:RA:1031:G:N2	55:R9:20:HIS:ND1	2.64	0.45
25:RA:2680:C:O2'	28:RE:11:MET:SD	2.74	0.45
25:RA:2841:C:H2'	25:RA:2842:G:H8	1.82	0.45
27:RD:108:PRO:HD2	27:RD:111:LEU:HD22	1.98	0.45
28:RE:36:ARG:NH1	28:RE:85:ASN:OD1	2.50	0.45
28:RE:131:ALA:O	28:RE:134:ILE:HG13	2.16	0.45
41:RV:22:VAL:HG12	41:RV:23:GLU:N	2.30	0.45
1:XA:389:A:H3'	1:XA:390:C:H6	1.81	0.45
1:XA:1213:A:N1	1:XA:1215:G:H1'	2.31	0.45
1:XA:1399:C:C2	1:XA:1502:A:N6	2.85	0.45
25:YA:195:A:H5"	25:YA:196:A:O5'	2.16	0.45
25:YA:465:G:N2	25:YA:684:G:H1'	2.31	0.45
25:YA:528:A:C2	25:YA:2042:A:H2'	2.51	0.45
25:YA:1062:G:C8	25:YA:1088:A:C4	3.04	0.45
25:YA:1363:C:O2'	25:YA:1809:A:N3	2.47	0.45
25:YA:1423:G:H2'	25:YA:1424:G:H8	1.82	0.45
25:YA:1853:A:N6	25:YA:1889:A:N7	2.64	0.45
25:YA:2040:C:H2'	25:YA:2041:U:C6	2.51	0.45
25:YA:2131:G:H1'	25:YA:2158:A:N6	2.31	0.45
25:YA:2528:U:O3'	25:YA:2529:G:H8	2.00	0.45
29:YF:78:ILE:HA	29:YF:83:PHE:HD2	1.80	0.45
29:YF:155:LEU:HD12	29:YF:174:VAL:O	2.17	0.45
44:YY:5:MET:HE2	44:YY:30:VAL:HG13	1.97	0.45
46:Y0:46:LYS:HB2	46:Y0:78:TYR:CD1	2.52	0.45
1:QA:513:C:H2'	1:QA:514:C:C6	2.51	0.45
1:QA:1060:C:H5"	10:QJ:51:ARG:HG2	1.98	0.45
1:QA:1336:C:H1'	1:QA:1337:G:C2	2.51	0.45
13:QM:84:ILE:HD13	19:QS:65:ASN:HD21	1.81	0.45
25:RA:687:C:H2'	25:RA:688:U:O4'	2.15	0.45
25:RA:1771:C:H2'	25:RA:1772:G:C8	2.50	0.45
25:RA:2461:C:C2	25:RA:2462:U:C5	3.05	0.45
30:RG:60:LEU:HD22	30:RG:68:PRO:HB3	1.98	0.45
55:R9:13:LYS:HD2	55:R9:28:GLU:OE2	2.15	0.45
1:XA:501:C:H2'	1:XA:502:G:C8	2.51	0.45
1:XA:1241:G:H2'	1:XA:1242:C:C6	2.51	0.45
21:XU:10:ARG:HA	21:XU:13:ILE:HD12	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:34:C:H5'	25:YA:35:G:OP2	2.17	0.45
25:YA:749:C:H5'	25:YA:1271:G:H1'	1.98	0.45
25:YA:1000:A:OP2	25:YA:1154:G:N1	2.42	0.45
25:YA:1069:A:H2'	25:YA:1073:A:N7	2.31	0.45
25:YA:1588:C:H2'	25:YA:1589:C:H6	1.82	0.45
25:YA:1727:U:H2'	25:YA:1728:G:O4'	2.17	0.45
25:YA:2756:U:O5'	55:Y9:3:VAL:HG21	2.16	0.45
25:YA:2803:C:H2'	25:YA:2804:C:C6	2.51	0.45
29:YF:89:VAL:HG12	29:YF:90:PHE:CD2	2.51	0.45
32:YI:27:ARG:HB2	47:Y1:71:TYR:CE2	2.51	0.45
1:QA:1270:C:H2'	1:QA:1271:G:H8	1.82	0.45
2:QB:207:ALA:O	2:QB:209:ARG:N	2.49	0.45
12:QL:66:VAL:HG21	12:QL:98:TYR:CE2	2.51	0.45
13:QM:87:TYR:O	13:QM:90:LEU:HG	2.17	0.45
13:QM:88:ARG:HD3	19:QS:69:HIS:HE1	1.81	0.45
20:QT:20:LEU:O	20:QT:23:ARG:HG2	2.17	0.45
25:RA:288:C:H2'	25:RA:289:A:C8	2.51	0.45
25:RA:813:U:C5	35:RP:25:SER:HB3	2.52	0.45
25:RA:940:G:H2'	25:RA:941:A:O4'	2.17	0.45
25:RA:1209:G:O2'	25:RA:1237:A:N1	2.37	0.45
25:RA:1327:C:O2'	37:RR:105:ARG:NH1	2.46	0.45
25:RA:1444(A):A:H4'	25:RA:1460:A:O2'	2.16	0.45
25:RA:1535:U:H2'	25:RA:1536:A:C8	2.52	0.45
25:RA:2561:A:H5"	34:RO:57:VAL:HG11	1.99	0.45
49:R3:40:THR:HB	49:R3:43:ILE:HG12	1.98	0.45
1:XA:287:U:H2'	1:XA:288:A:H8	1.81	0.45
1:XA:413:G:OP2	1:XA:413:G:H8	1.99	0.45
1:XA:554:C:H2'	1:XA:555:C:H6	1.82	0.45
1:XA:1206:G:C4	1:XA:1207:G:C8	3.05	0.45
2:XB:134:GLU:HA	2:XB:137:ARG:HG2	1.98	0.45
6:XF:21:LEU:O	6:XF:25:ILE:HG12	2.16	0.45
25:YA:620:G:H4'	25:YA:621:A:H5"	1.98	0.45
25:YA:1142(A):A:C4	25:YA:1144:G:C8	3.04	0.45
25:YA:1262:A:OP2	42:YW:97:LYS:NZ	2.48	0.45
25:YA:1869:G:N1	25:YA:1872:A:OP2	2.39	0.45
25:YA:2755:C:C5'	55:Y9:3:VAL:HG13	2.46	0.45
28:YE:45:THR:O	28:YE:83:ASP:N	2.49	0.45
29:YF:116:ASP:OD1	29:YF:119:ARG:NH2	2.48	0.45
36:YQ:58:PHE:HD2	36:YQ:61:GLY:HA3	1.81	0.45
45:YZ:145:GLU:HG3	45:YZ:146:ILE:HG12	1.98	0.45
50:Y4:47:GLN:O	50:Y4:48:ARG:C	2.60	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:939:G:H2'	1:QA:940:C:C6	2.51	0.45
2:QB:97:TRP:HZ3	2:QB:172:ILE:HG22	1.82	0.45
4:QD:190:ASP:OD1	4:QD:191:ARG:N	2.44	0.45
25:RA:265:A:N6	25:RA:428:A:C8	2.84	0.45
25:RA:270(S):G:H2'	25:RA:270(T):G:C8	2.51	0.45
25:RA:271(B):G:H1'	25:RA:271(C):U:OP2	2.17	0.45
25:RA:307:G:H21	25:RA:330:A:H62	1.65	0.45
25:RA:414:C:H2'	25:RA:415:A:H8	1.82	0.45
25:RA:581:C:H2'	25:RA:582:G:C8	2.51	0.45
25:RA:729:G:H5'	25:RA:730:C:H5"	1.98	0.45
25:RA:1131:G:OP1	33:RN:80:GLY:N	2.42	0.45
25:RA:1438:U:H2'	25:RA:1439:A:C8	2.50	0.45
26:RB:109:G:H2'	26:RB:110:G:C8	2.51	0.45
28:RE:116:VAL:HG23	28:RE:157:ALA:HB2	1.98	0.45
1:XA:595:G:H21	1:XA:596:C:N4	2.15	0.45
15:XO:36:ILE:HG23	15:XO:56:LEU:HD11	1.98	0.45
25:YA:177:G:H3'	25:YA:178:G:H8	1.82	0.45
25:YA:265:A:N6	25:YA:428:A:C8	2.85	0.45
25:YA:557:U:H2'	25:YA:558:G:C8	2.51	0.45
25:YA:1216:G:P	40:YU:11:ARG:HH21	2.40	0.45
25:YA:1264:G:H3'	25:YA:1265:A:H5"	1.99	0.45
25:YA:1921:G:H2'	25:YA:1922:G:H8	1.82	0.45
25:YA:2004:G:C4	25:YA:2005:A:C8	3.04	0.45
25:YA:2065:C:H2'	25:YA:2066:C:H6	1.82	0.45
25:YA:2349:G:C6	25:YA:2369:A:C6	3.04	0.45
25:YA:2540:C:H2'	25:YA:2541:A:O4'	2.17	0.45
27:YD:18:VAL:HA	27:YD:211:ARG:HH22	1.82	0.45
47:Y1:89:GLU:O	47:Y1:93:GLU:HB2	2.17	0.45
1:QA:556:C:H2'	1:QA:557:G:H8	1.81	0.45
3:QC:23:TYR:HB3	10:QJ:93:GLY:O	2.16	0.45
16:QP:19:ILE:N	16:QP:37:GLY:O	2.50	0.45
25:RA:270(D):C:H2'	25:RA:270(E):G:C8	2.50	0.45
25:RA:458:G:N2	25:RA:470:A:OP2	2.50	0.45
25:RA:550:G:O2'	25:RA:1220:A:N3	2.47	0.45
25:RA:580:C:H2'	25:RA:581:C:C6	2.52	0.45
25:RA:754:C:H2'	25:RA:755:C:C6	2.52	0.45
25:RA:2108:C:O2	25:RA:2181:G:N2	2.35	0.45
25:RA:2857:G:N2	25:RA:2860:A:OP2	2.33	0.45
25:RA:2880:C:O3'	37:RR:90:ARG:NH1	2.50	0.45
33:RN:91:LEU:HD21	33:RN:98:VAL:HG11	1.98	0.45
42:RW:111:HIS:HD2	42:RW:113:LYS:H	1.63	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:R7:5:TRP:NE1	53:R7:7:PRO:HG3	2.31	0.45
1:XA:1236:A:H4'	1:XA:1304:G:H4'	1.99	0.45
1:XA:1301:U:H2'	1:XA:1301:U:O2	2.17	0.45
2:XB:84:GLU:OE2	2:XB:233:SER:OG	2.32	0.45
11:XK:57:THR:HG22	11:XK:59:TYR:H	1.82	0.45
17:XQ:40:LYS:HE2	17:XQ:42:TYR:HE1	1.82	0.45
25:YA:71:A:N6	25:YA:114:U:H1'	2.30	0.45
25:YA:550:G:O2'	25:YA:1220:A:N3	2.46	0.45
25:YA:659:C:H2'	25:YA:660:G:H8	1.82	0.45
25:YA:814:C:H1'	25:YA:1226:G:N2	2.31	0.45
25:YA:1675:C:H2'	25:YA:1676:A:O4'	2.17	0.45
25:YA:1790:C:H2'	25:YA:1791:A:C4	2.52	0.45
25:YA:2314:C:H2'	25:YA:2315:G:C8	2.47	0.45
25:YA:2443:C:H2'	25:YA:2444:G:C8	2.51	0.45
31:YH:9:ILE:HD13	31:YH:49:VAL:HG12	1.98	0.45
37:YR:26:LYS:HE2	37:YR:70:LEU:O	2.16	0.45
38:YS:110:LEU:O	38:YS:112:PHE:HD1	1.99	0.45
40:YU:92:ARG:NE	41:YV:11:GLN:H	2.14	0.45
45:YZ:6:LYS:O	45:YZ:62:PRO:HD3	2.16	0.45
1:QA:488:C:H2'	1:QA:489:C:C6	2.51	0.45
1:QA:1060:C:C5	3:QC:2:GLY:HA2	2.52	0.45
1:QA:1099:G:H5"	2:QB:96:ARG:CZ	2.46	0.45
1:QA:1121:U:H2'	1:QA:1122:U:C6	2.51	0.45
1:QA:1253:G:H2'	1:QA:1254:C:H6	1.82	0.45
1:QA:1320:C:C2	19:QS:72:GLY:HA3	2.51	0.45
3:QC:23:TYR:CD2	10:QJ:95:GLU:HB2	2.52	0.45
17:QQ:6:LEU:HD13	17:QQ:23:VAL:HG11	1.99	0.45
25:RA:541:C:H2'	25:RA:542:C:H6	1.82	0.45
25:RA:1799:G:H4'	25:RA:1800:C:O5'	2.17	0.45
25:RA:1952:A:N3	25:RA:2560:C:O2'	2.40	0.45
25:RA:2306:C:H2'	25:RA:2307:G:H21	1.81	0.45
25:RA:2630:G:H2'	25:RA:2631:G:C8	2.52	0.45
25:RA:2774:C:H2'	25:RA:2775:A:O4'	2.16	0.45
28:RE:74:PRO:HG2	28:RE:77:ILE:CG2	2.47	0.45
28:RE:78:LEU:HG	28:RE:79:ARG:HG2	1.98	0.45
1:XA:178:C:C2	1:XA:179:A:C8	3.05	0.45
25:YA:273(C):C:H2'	25:YA:273(D):C:C6	2.52	0.45
25:YA:534:U:H2'	25:YA:535:C:C6	2.52	0.45
25:YA:709:U:H2'	25:YA:710:G:C8	2.52	0.45
25:YA:724:U:H2'	25:YA:725:G:O4'	2.17	0.45
25:YA:874:G:H2'	25:YA:875:G:H8	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:1537:C:H2'	25:YA:1538:G:C8	2.52	0.45
25:YA:1952:A:C6	34:YO:22:ILE:HD12	2.52	0.45
25:YA:2698:U:H2'	25:YA:2699:C:H6	1.82	0.45
27:YD:143:HIS:HB2	27:YD:156:ALA:O	2.17	0.45
27:YD:151:LYS:O	27:YD:154:LYS:NZ	2.50	0.45
31:YH:155:SER:OG	55:Y9:17:ILE:HG21	2.17	0.45
31:YH:162:ILE:HG22	55:Y9:18:ARG:NH1	2.29	0.45
35:YP:47:ASP:OD1	35:YP:49:ARG:HG2	2.16	0.45
40:YU:92:ARG:C	40:YU:94:ASN:N	2.72	0.45
42:YW:57:ASN:O	42:YW:61:ASN:HB2	2.17	0.45
46:Y0:21:LEU:HD23	46:Y0:39:ARG:HG3	1.99	0.45
1:QA:608:A:H4'	16:QP:32:TYR:OH	2.17	0.45
1:QA:1133:G:H2'	1:QA:1134:G:C8	2.52	0.45
1:QA:1225:A:H5"	1:QA:1226:C:OP2	2.16	0.45
1:QA:1253:G:H2'	1:QA:1254:C:C6	2.52	0.45
1:QA:1288:A:H2'	1:QA:1289:A:C8	2.52	0.45
1:QA:1318:A:O2'	19:QS:37:ARG:HD3	2.17	0.45
1:QA:1330:U:H4'	13:QM:23:TYR:CE1	2.52	0.45
6:QF:67:MET:HB2	6:QF:68:PRO:HD2	1.99	0.45
22:QW:32:G:H3'	22:QW:33:C:O4'	2.16	0.45
25:RA:172:C:H2'	25:RA:173:G:C8	2.52	0.45
25:RA:521:G:H2'	25:RA:522:G:C8	2.51	0.45
25:RA:586:A:H4'	29:RF:89:VAL:HG11	1.99	0.45
25:RA:995:C:O4'	40:RU:57:PHE:HD2	2.00	0.45
25:RA:2405:G:O2'	25:RA:2406:U:OP2	2.32	0.45
25:RA:2845:G:H2'	25:RA:2846:G:C8	2.51	0.45
26:RB:60:C:H2'	26:RB:61:G:C8	2.52	0.45
29:RF:70:THR:HG23	29:RF:72:ARG:H	1.80	0.45
30:RG:173:LEU:HB3	30:RG:178:PHE:CD2	2.52	0.45
1:XA:323:U:H5"	20:XT:26:ASN:HD21	1.80	0.45
1:XA:592:G:C6	1:XA:648:A:C6	3.04	0.45
1:XA:667:G:H4'	15:XO:51:HIS:CE1	2.52	0.45
1:XA:707:C:OP1	11:XK:85:ARG:NH1	2.50	0.45
1:XA:714:G:H2'	1:XA:715:A:H8	1.78	0.45
1:XA:1404:C:H2'	1:XA:1405:G:C8	2.52	0.45
4:XD:112:VAL:HG12	4:XD:116:GLN:OE1	2.17	0.45
12:XL:84:LEU:HB2	12:XL:105:TYR:CE2	2.52	0.45
25:YA:218:A:C2	25:YA:235:U:H4'	2.52	0.45
25:YA:363(B):G:H2'	25:YA:363(C):G:H8	1.82	0.45
25:YA:796:C:H2'	25:YA:797:C:C6	2.52	0.45
25:YA:911:A:H2'	36:YQ:9:TYR:CE2	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:1467:C:C5	25:YA:1546:C:H2'	2.51	0.45
25:YA:2071:A:H2'	25:YA:2072:G:C8	2.52	0.45
27:YD:96:HIS:ND1	27:YD:102:LYS:HG2	2.32	0.45
1:QA:384:G:H2'	1:QA:385:C:C6	2.52	0.44
1:QA:908:A:H2'	1:QA:909:A:C8	2.52	0.44
1:QA:1000:A:H2'	1:QA:1001:G:H8	1.81	0.44
1:QA:1090:U:H2'	1:QA:1091:U:C6	2.53	0.44
1:QA:1469:G:H2'	1:QA:1470:G:C8	2.49	0.44
5:QE:87:SER:HB3	5:QE:131:ILE:HD13	1.99	0.44
8:QH:104:ARG:HD2	8:QH:138:TRP:CE3	2.52	0.44
13:QM:14:ARG:HG2	13:QM:44:ARG:NH1	2.31	0.44
25:RA:319:C:H2'	25:RA:320:A:C8	2.51	0.44
25:RA:503:A:H4'	25:RA:504:U:O5'	2.17	0.44
25:RA:523:C:O2	25:RA:553:U:O2'	2.34	0.44
25:RA:586:A:H5'	29:RF:89:VAL:HG21	1.99	0.44
25:RA:1657:C:H2'	25:RA:1658:C:C6	2.52	0.44
25:RA:2294:C:H2'	25:RA:2295:C:H6	1.82	0.44
26:RB:32:C:C2	26:RB:51:G:N2	2.85	0.44
32:RI:14:ASP:O	32:RI:16:GLY:N	2.49	0.44
42:RW:110:LYS:HG3	42:RW:111:HIS:ND1	2.32	0.44
50:R4:61:ARG:HG2	50:R4:61:ARG:O	2.16	0.44
1:XA:163:C:H2'	1:XA:164:U:C6	2.52	0.44
1:XA:966:G:C2	22:XV:35:C:H5'	2.52	0.44
1:XA:1028(B):C:C4	1:XA:1029:G:H1'	2.52	0.44
2:XB:141:GLU:O	2:XB:144:ARG:HG3	2.17	0.44
4:XD:85:LYS:HD2	4:XD:92:VAL:HG11	1.99	0.44
25:YA:30:G:H2'	25:YA:31:C:H6	1.82	0.44
25:YA:1628:G:H2'	25:YA:1629:U:C6	2.52	0.44
25:YA:2564:A:C8	25:YA:2648:C:H5'	2.52	0.44
25:YA:2683:C:O2	34:YO:70:LYS:HE3	2.17	0.44
25:YA:2692:C:H2'	25:YA:2693:A:C8	2.52	0.44
28:YE:11:MET:HG2	28:YE:24:THR:OG1	2.17	0.44
29:YF:73:ALA:HB3	29:YF:75:HIS:CE1	2.53	0.44
32:YI:80:PRO:HB2	32:YI:146:ALA:HB2	2.00	0.44
33:YN:12:ARG:NH1	33:YN:14:VAL:HG22	2.32	0.44
41:YV:75:PHE:HE1	41:YV:82:ARG:HE	1.64	0.44
1:QA:867:G:O2'	1:QA:873:A:N6	2.50	0.44
1:QA:1070:U:H2'	1:QA:1071:C:C6	2.53	0.44
1:QA:1203:C:H2'	1:QA:1204:A:H8	1.81	0.44
1:QA:1267:C:O2	21:QU:20:LYS:HD2	2.17	0.44
1:QA:1286:A:H2'	1:QA:1287:A:H4'	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1301:U:O2	1:QA:1301:U:H2'	2.17	0.44
1:QA:1367:C:H5'	10:QJ:60:ARG:NH1	2.32	0.44
7:QG:75:VAL:HG12	7:QG:88:PRO:HB3	2.00	0.44
13:QM:49:THR:HB	13:QM:52:GLU:HG3	1.98	0.44
25:RA:270(F):U:H2'	25:RA:270(G):C:C6	2.53	0.44
25:RA:519:U:H2'	25:RA:520:G:C8	2.52	0.44
25:RA:588:U:H2'	25:RA:589:C:C6	2.52	0.44
25:RA:1062:G:OP1	25:RA:1070:A:H4'	2.17	0.44
25:RA:1141:U:O2'	25:RA:1142(A):A:N7	2.50	0.44
25:RA:1811:G:H2'	25:RA:1812:A:C8	2.51	0.44
25:RA:1825:A:H2'	25:RA:1826:G:C8	2.52	0.44
25:RA:1946:U:H2'	25:RA:1947:C:H6	1.83	0.44
25:RA:2224:G:OP1	27:RD:268:ARG:HD3	2.17	0.44
25:RA:2730:C:O2'	28:RE:168:MET:O	2.30	0.44
25:RA:2790:A:H2'	25:RA:2791:C:H5"	1.99	0.44
27:RD:247:ALA:HA	27:RD:253:GLN:HA	1.99	0.44
28:RE:13:ARG:HA	28:RE:22:PRO:HA	1.97	0.44
36:RQ:30:GLY:HA3	36:RQ:107:ALA:HB2	1.99	0.44
42:RW:64:MET:HB3	42:RW:69:LEU:HD21	1.99	0.44
50:R4:47:GLN:O	50:R4:48:ARG:C	2.60	0.44
1:XA:129(A):G:N1	1:XA:188:U:H4'	2.33	0.44
1:XA:150:C:H2'	1:XA:151:A:O4'	2.17	0.44
1:XA:160:A:H2'	1:XA:161:A:O4'	2.18	0.44
1:XA:688:G:H2'	1:XA:689:C:H6	1.82	0.44
1:XA:1355:G:H2'	1:XA:1356:G:H8	1.82	0.44
7:XG:87:VAL:HG13	7:XG:152:ALA:HA	2.00	0.44
9:XI:85:LEU:HD11	9:XI:96:LEU:HD21	1.99	0.44
20:XT:72:LEU:HD23	20:XT:72:LEU:O	2.17	0.44
25:YA:210:C:H2'	25:YA:211:A:H8	1.83	0.44
25:YA:524:U:H2'	25:YA:525:U:C6	2.52	0.44
25:YA:638:G:H2'	25:YA:639:U:H6	1.81	0.44
25:YA:1527:G:H22	25:YA:1545:A:H3'	1.81	0.44
25:YA:2712:U:C5	25:YA:2713:A:H5"	2.52	0.44
25:YA:2743:C:O5'	55:Y9:25:VAL:HA	2.17	0.44
25:YA:2755:C:C5	55:Y9:3:VAL:HA	2.52	0.44
26:YB:43:C:O2'	30:YG:98:ARG:NH2	2.49	0.44
30:YG:27:ASN:OD1	30:YG:28:VAL:N	2.50	0.44
33:YN:123:TYR:HE2	33:YN:129:PRO:HD2	1.82	0.44
37:YR:103:ARG:NH1	42:YW:40:ASN:OD1	2.41	0.44
38:YS:39:ILE:HB	38:YS:49:VAL:HB	1.99	0.44
1:QA:113:G:H2'	1:QA:114:U:H6	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:115:G:H4'	1:QA:116:A:O5'	2.17	0.44
1:QA:189:U:O2	17:QQ:63:ARG:NH2	2.50	0.44
1:QA:1238:A:H62	1:QA:1299:A:N6	2.15	0.44
16:QP:2:VAL:HG13	16:QP:64:ALA:HA	2.00	0.44
17:QQ:28:PRO:HA	17:QQ:35:VAL:HA	1.99	0.44
25:RA:1212:G:H1'	25:RA:1237:A:N6	2.32	0.44
25:RA:1278:A:H2'	25:RA:1279:G:H8	1.81	0.44
25:RA:2231:C:H2'	25:RA:2232:U:O4'	2.17	0.44
25:RA:2702:U:H3	25:RA:2705:A:H61	1.66	0.44
25:RA:2845:G:H2'	25:RA:2846:G:H8	1.83	0.44
35:RP:97:PRO:C	35:RP:99:LEU:H	2.25	0.44
1:XA:67:C:H2'	1:XA:68:G:C8	2.53	0.44
1:XA:135:C:H2'	1:XA:136:C:H5'	1.99	0.44
1:XA:575:G:O2'	1:XA:821:G:H5'	2.17	0.44
1:XA:908:A:H2'	1:XA:909:A:C8	2.52	0.44
1:XA:913:A:OP1	12:XL:46:LYS:NZ	2.51	0.44
8:XH:20:TYR:HE2	8:XH:75:ARG:HD2	1.82	0.44
25:YA:29:U:H2'	25:YA:30:G:C8	2.52	0.44
25:YA:571:A:O2'	41:YV:78:LYS:HE2	2.17	0.44
25:YA:898:C:H3'	25:YA:899:A:H8	1.81	0.44
25:YA:974(A):C:H4'	25:YA:975:G:O5'	2.16	0.44
25:YA:1252:G:N2	40:YU:33:ARG:HB3	2.32	0.44
25:YA:1297:C:H2'	25:YA:1298:C:H6	1.81	0.44
25:YA:1317:A:H2'	25:YA:1318:C:C6	2.52	0.44
25:YA:1657:C:H4'	28:YE:133:LYS:HB3	1.99	0.44
25:YA:1971:A:C8	27:YD:241:PRO:HB3	2.53	0.44
25:YA:2133:G:H1'	25:YA:2158:A:H61	1.82	0.44
25:YA:2742:C:C2	55:Y9:26:ILE:HG22	2.52	0.44
25:YA:2744:G:H5'	55:Y9:24:TYR:CD2	2.52	0.44
26:YB:30:C:H2'	26:YB:31:C:O4'	2.17	0.44
30:YG:173:LEU:HB3	30:YG:178:PHE:CD2	2.53	0.44
36:YQ:73:PRO:HA	36:YQ:93:TYR:CD1	2.52	0.44
51:Y5:20:ARG:HA	51:Y5:23:HIS:ND1	2.33	0.44
55:Y9:27:CYS:HB3	55:Y9:28:GLU:H	1.59	0.44
1:QA:422:C:HO2'	1:QA:423:G:N2	2.16	0.44
1:QA:1427:U:H2'	1:QA:1428:A:C8	2.53	0.44
1:QA:1496:C:H2'	1:QA:1497:G:C8	2.52	0.44
1:QA:1512:U:H2'	1:QA:1513:A:C8	2.52	0.44
4:QD:93:PHE:CE2	4:QD:97:LEU:HD11	2.53	0.44
13:QM:86:CYS:SG	13:QM:88:ARG:HG2	2.58	0.44
25:RA:414:C:H2'	25:RA:415:A:C8	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:554:U:H2'	25:RA:556:G:C8	2.52	0.44
25:RA:618(A):C:OP2	29:RF:103:LYS:HE3	2.16	0.44
25:RA:924:C:H2'	25:RA:925:C:C6	2.52	0.44
25:RA:1321:A:C4	25:RA:1322:A:C8	3.05	0.44
25:RA:1853:A:N6	25:RA:1889:A:N7	2.66	0.44
25:RA:2336:A:H61	46:R0:43:THR:HG21	1.83	0.44
25:RA:2567:G:H2'	25:RA:2568:C:H6	1.82	0.44
25:RA:2784:C:H2'	25:RA:2785:C:C6	2.51	0.44
27:RD:69:ARG:HH21	27:RD:130:ALA:N	2.16	0.44
29:RF:8:GLN:HG2	29:RF:8:GLN:O	2.17	0.44
36:RQ:58:PHE:HD2	36:RQ:61:GLY:HA3	1.83	0.44
40:RU:108:GLU:HG3	41:RV:45:THR:OG1	2.17	0.44
43:RX:21:PHE:HE1	43:RX:92:LEU:HB3	1.81	0.44
49:R3:10:LYS:HB3	49:R3:53:LEU:HD23	1.98	0.44
1:XA:156:G:H2'	1:XA:157:G:H8	1.82	0.44
1:XA:262:A:H2'	1:XA:263:A:C8	2.52	0.44
1:XA:397:A:H5'	1:XA:398:C:OP1	2.18	0.44
1:XA:877:C:H2'	1:XA:878:G:C8	2.49	0.44
1:XA:1064:G:H21	1:XA:1190:G:H2'	1.82	0.44
1:XA:1127:G:H1'	1:XA:1147:C:H42	1.82	0.44
2:XB:163:PHE:HA	2:XB:185:ILE:O	2.18	0.44
9:XI:8:GLY:HA2	9:XI:79:LEU:HD12	1.99	0.44
11:XK:109:VAL:HG11	18:XR:84:LYS:HD2	2.00	0.44
13:XM:4:ILE:H	13:XM:9:ILE:HG22	1.82	0.44
13:XM:49:THR:HB	13:XM:52:GLU:HG3	2.00	0.44
14:XN:26:ARG:HD3	14:XN:43:CYS:HB3	1.99	0.44
17:XQ:12:SER:HB3	17:XQ:20:THR:HB	2.00	0.44
22:XW:9:G:H5"	22:XW:10:G:OP2	2.17	0.44
25:YA:395:U:H2'	25:YA:396:G:C8	2.52	0.44
25:YA:635:C:O2'	25:YA:639:U:OP1	2.35	0.44
25:YA:753:C:H2'	25:YA:754:C:H6	1.82	0.44
25:YA:857:C:H4'	46:Y0:23:VAL:HG21	2.00	0.44
25:YA:934:G:H2'	25:YA:935:C:H6	1.83	0.44
25:YA:1048:A:P	25:YA:1110:G:H22	2.41	0.44
25:YA:1345:C:H2'	25:YA:1346:G:H8	1.81	0.44
25:YA:1562:A:H2'	25:YA:1563:G:H8	1.83	0.44
25:YA:1756:G:H4'	25:YA:1758:G:O4'	2.18	0.44
25:YA:1790:C:H2'	25:YA:1791:A:C5	2.52	0.44
25:YA:2743:C:OP2	55:Y9:25:VAL:HB	2.17	0.44
27:YD:69:ARG:HH21	27:YD:130:ALA:HB2	1.82	0.44
33:YN:95:PRO:C	33:YN:97:ARG:H	2.26	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:YT:36:GLU:HG3	39:YT:41:ARG:HE	1.81	0.44
1:QA:1095:U:P	1:QA:1108:G:H1	2.40	0.44
1:QA:1348:U:C4	1:QA:1374:A:H2	2.35	0.44
4:QD:22:LYS:HD3	57:QD:301:SF4:S3	2.58	0.44
11:QK:20:TYR:HE1	11:QK:83:ILE:HD12	1.81	0.44
12:QL:32:PHE:HB3	12:QL:84:LEU:HD11	1.98	0.44
19:QS:22:LEU:HD21	19:QS:29:ARG:N	2.32	0.44
25:RA:1542:G:H5"	25:RA:1543:A:OP2	2.18	0.44
25:RA:1657:C:H2'	25:RA:1658:C:H6	1.82	0.44
25:RA:2531:A:N7	31:RH:175:LYS:HD2	2.33	0.44
27:RD:142:VAL:HG23	27:RD:193:VAL:HA	1.98	0.44
29:RF:156:LEU:HD21	29:RF:163:VAL:HG12	1.99	0.44
33:RN:35:ARG:HB2	33:RN:42:TRP:HH2	1.82	0.44
35:RP:85:LEU:HD23	35:RP:88:LEU:HD21	1.99	0.44
40:RU:91:ASP:HA	40:RU:95:LEU:HB2	1.99	0.44
47:R1:53:VAL:C	47:R1:55:GLY:H	2.26	0.44
53:R7:30:VAL:HG22	53:R7:33:ARG:HH21	1.82	0.44
1:XA:163:C:H2'	1:XA:164:U:H6	1.81	0.44
1:XA:246:A:C2	1:XA:282:A:C5	3.05	0.44
1:XA:481:G:HO2'	1:XA:482:A:P	2.41	0.44
1:XA:674:G:H1'	18:XR:81:PHE:HE2	1.83	0.44
1:XA:925:G:C2	1:XA:927:G:C8	3.06	0.44
1:XA:1320:C:H2'	1:XA:1321:C:C6	2.52	0.44
1:XA:1329:A:H5"	13:XM:26:GLY:N	2.32	0.44
1:XA:1347:G:HO2'	1:XA:1348:U:H5	1.63	0.44
1:XA:1499:A:H1'	1:XA:1520:G:H5'	1.98	0.44
9:XI:42:ARG:NH2	9:XI:75:ASP:OD1	2.43	0.44
12:XL:53:ARG:HH12	12:XL:92:ASP:HB2	1.82	0.44
13:XM:108:ARG:NH2	13:XM:111:LYS:HD3	2.32	0.44
17:XQ:51:TYR:HE2	17:XQ:73:VAL:HG11	1.81	0.44
25:YA:20:C:N3	25:YA:520:G:N1	2.38	0.44
25:YA:363(A):A:H2'	25:YA:363(B):G:H8	1.82	0.44
25:YA:616:A:H4'	29:YF:182:ASN:ND2	2.31	0.44
25:YA:851:U:H2'	25:YA:852:G:H8	1.82	0.44
25:YA:870:A:OP1	36:YQ:6:ARG:NH2	2.40	0.44
25:YA:983:A:H2'	25:YA:984:A:C8	2.52	0.44
25:YA:2525:G:H21	55:Y9:28:GLU:CG	2.17	0.44
25:YA:2527:C:C4	25:YA:2528:U:C4	3.06	0.44
30:YG:5:VAL:HG12	30:YG:8:LYS:H	1.82	0.44
30:YG:60:LEU:HD22	30:YG:68:PRO:HB3	2.00	0.44
30:YG:126:ASP:OD2	30:YG:130:ASN:HB2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:YH:149:ARG:C	31:YH:151:ILE:N	2.75	0.44
34:YO:64:ARG:HH12	39:YT:70:VAL:HG21	1.82	0.44
37:YR:91:GLN:HG2	37:YR:91:GLN:O	2.16	0.44
41:YV:4:ILE:HG13	41:YV:40:LEU:HD12	1.99	0.44
1:QA:686:U:H1'	11:QK:42:TRP:HE1	1.82	0.44
1:QA:1121:U:C2	1:QA:1122:U:C5	3.05	0.44
1:QA:1422:G:H2'	1:QA:1423:G:H8	1.83	0.44
1:QA:1511:G:H2'	1:QA:1512:U:O4'	2.16	0.44
2:QB:88:ALA:HB2	2:QB:219:VAL:HG13	2.00	0.44
4:QD:142:PRO:HA	4:QD:185:PHE:HD2	1.81	0.44
5:QE:15:ARG:HD2	5:QE:26:PHE:CD2	2.52	0.44
8:QH:33:GLU:CD	8:QH:50:ARG:HH21	2.24	0.44
25:RA:520:G:H2'	25:RA:521:G:C8	2.52	0.44
25:RA:1811:G:H2'	25:RA:1812:A:H8	1.83	0.44
25:RA:2494:G:OP1	46:R0:3:HIS:N	2.50	0.44
38:RS:11:LYS:O	38:RS:15:ARG:HB2	2.18	0.44
1:XA:110:C:O2'	16:XP:25:ARG:O	2.35	0.44
1:XA:560:U:H5'	1:XA:566:G:N2	2.33	0.44
1:XA:1219:U:OP1	14:XN:19:ARG:NH2	2.40	0.44
5:XE:153:LYS:HG3	5:XE:155:GLU:H	1.83	0.44
17:XQ:42:TYR:HD2	17:XQ:59:ILE:HD11	1.82	0.44
25:YA:704:G:H1'	25:YA:727:A:H61	1.83	0.44
25:YA:760:G:H2'	25:YA:761:A:O4'	2.16	0.44
25:YA:834:C:H2'	25:YA:835:A:H8	1.82	0.44
25:YA:1252:G:N2	40:YU:37:GLU:OE2	2.42	0.44
25:YA:1412:A:H2'	25:YA:1413:G:C8	2.52	0.44
25:YA:1907:G:O6	25:YA:1924:C:N4	2.51	0.44
25:YA:2507:C:H2'	25:YA:2508:G:O4'	2.18	0.44
25:YA:2532:G:N2	25:YA:2663:G:O2'	2.50	0.44
25:YA:2712:U:H5	25:YA:2713:A:H5"	1.82	0.44
36:YQ:36:ALA:HB1	36:YQ:127:ILE:HD12	1.99	0.44
40:YU:91:ASP:C	40:YU:93:LYS:N	2.75	0.44
48:Y2:25:VAL:O	48:Y2:29:LYS:HG2	2.17	0.44
1:QA:221:C:C2	1:QA:222:U:C5	3.06	0.44
1:QA:269:C:H2'	1:QA:270:A:C8	2.52	0.44
1:QA:593:G:H1	1:QA:646:U:H3	1.66	0.44
1:QA:998(A):C:H2'	1:QA:999:U:C6	2.53	0.44
1:QA:1145:C:H4'	1:QA:1146:A:C8	2.52	0.44
1:QA:1313:U:H2'	1:QA:1314:C:C6	2.53	0.44
6:QF:97:PHE:HD2	18:QR:31:LEU:HD21	1.83	0.44
21:QU:6:ARG:HE	21:QU:15:ARG:NH2	2.15	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:996:A:H4'	40:RU:92:ARG:CG	2.48	0.44
25:RA:1499:C:H2'	25:RA:1500:G:H8	1.83	0.44
25:RA:2557:G:H2'	25:RA:2558:C:C6	2.52	0.44
25:RA:2574:G:H2'	25:RA:2575:C:O4'	2.17	0.44
25:RA:2648:C:H2'	25:RA:2649:U:C6	2.53	0.44
25:RA:2649:U:H2'	25:RA:2650:U:C6	2.52	0.44
25:RA:2777:G:OP2	25:RA:2781:A:O2'	2.25	0.44
25:RA:2788:C:O2'	25:RA:2809:A:N3	2.46	0.44
27:RD:94:LEU:HD13	27:RD:104:TYR:CE1	2.47	0.44
29:RF:113:ALA:HB1	29:RF:186:ILE:HG21	1.98	0.44
30:RG:109:VAL:C	30:RG:112:PRO:HD2	2.43	0.44
39:RT:120:ARG:O	39:RT:123:GLN:HB2	2.17	0.44
40:RU:92:ARG:NE	41:RV:11:GLN:H	2.16	0.44
1:XA:279:A:OP1	1:XA:280:C:O2'	2.26	0.44
1:XA:505:G:H2'	1:XA:506:G:C8	2.53	0.44
18:XR:53:ARG:HH21	18:XR:59:SER:HA	1.82	0.44
25:YA:775:G:C5	25:YA:794:G:C8	3.05	0.44
25:YA:845:G:H8	25:YA:845:G:OP2	1.99	0.44
25:YA:1782:C:H1'	25:YA:2609:U:H5"	2.00	0.44
25:YA:2018:G:H2'	25:YA:2019:A:H8	1.83	0.44
25:YA:2290:G:H2'	25:YA:2291:U:H6	1.83	0.44
25:YA:2695:C:H2'	25:YA:2696:U:H6	1.82	0.44
25:YA:2838:G:C4	25:YA:2839:G:C8	3.06	0.44
26:YB:40:U:H1'	26:YB:45:A:H61	1.82	0.44
28:YE:61:ARG:C	28:YE:63:LEU:H	2.25	0.44
28:YE:152:LYS:HG3	33:YN:78:TYR:CE1	2.53	0.44
37:YR:74:LYS:C	37:YR:76:VAL:N	2.76	0.44
50:Y4:51:ASP:OD1	50:Y4:52:THR:N	2.46	0.44
1:QA:9:G:N7	1:QA:558:G:O2'	2.50	0.44
1:QA:264:U:H2'	1:QA:265:G:O4'	2.18	0.44
1:QA:328:C:H4'	1:QA:329:A:O5'	2.18	0.44
1:QA:770:C:H2'	1:QA:771:G:H8	1.81	0.44
1:QA:1201:A:HO2'	1:QA:1202:G:P	2.41	0.44
1:QA:1391:U:H2'	1:QA:1392:G:H8	1.83	0.44
1:QA:1427:U:H2'	1:QA:1428:A:H8	1.82	0.44
2:QB:24:TRP:HB2	2:QB:190:THR:HB	2.00	0.44
8:QH:14:ARG:O	8:QH:18:ARG:HG2	2.17	0.44
13:QM:87:TYR:O	13:QM:91:ARG:HG2	2.18	0.44
25:RA:78:A:H2'	25:RA:79:G:C8	2.51	0.44
25:RA:553:U:H2'	25:RA:554:U:O4'	2.18	0.44
25:RA:606:U:H4'	25:RA:658:C:H4'	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:823:G:H2'	25:RA:824:A:H8	1.83	0.44
25:RA:1059:G:OP2	25:RA:1060:U:H5"	2.18	0.44
25:RA:1628:G:H2'	25:RA:1629:U:C6	2.52	0.44
25:RA:1856:G:N1	25:RA:1887:C:N3	2.65	0.44
25:RA:2364:C:H2'	25:RA:2365:G:O4'	2.17	0.44
25:RA:2596:U:H2'	25:RA:2597:G:O4'	2.18	0.44
25:RA:2695:C:H2'	25:RA:2696:U:C6	2.53	0.44
27:RD:124:PRO:O	27:RD:129:ASN:ND2	2.51	0.44
28:RE:32:PRO:HA	28:RE:90:THR:HA	1.99	0.44
1:XA:152:A:H62	1:XA:169:C:N4	2.16	0.44
1:XA:186:C:H2'	1:XA:186(A):C:C6	2.52	0.44
1:XA:271:C:H2'	1:XA:272:C:H6	1.83	0.44
1:XA:402:G:OP1	4:XD:74:GLN:HG2	2.18	0.44
1:XA:893:C:C2	1:XA:894:G:C8	3.06	0.44
1:XA:1318:A:O2'	19:XS:37:ARG:HD2	2.17	0.44
1:XA:1352:C:H2'	1:XA:1353:G:C8	2.53	0.44
9:XI:110:GLU:OE2	9:XI:113:LYS:NZ	2.50	0.44
12:XL:33:ARG:HG2	12:XL:60:LEU:HD13	2.00	0.44
25:YA:131:G:H2'	25:YA:132:G:H8	1.82	0.44
25:YA:1604:C:H2'	25:YA:1605:C:H6	1.83	0.44
25:YA:1761:C:H42	25:YA:1762:A:H62	1.66	0.44
25:YA:2174:C:H2'	25:YA:2175:C:C6	2.53	0.44
25:YA:2505:G:H2'	25:YA:2576:G:H1	1.83	0.44
25:YA:2785:C:H2'	25:YA:2786:U:H6	1.81	0.44
26:YB:32:C:C2	26:YB:51:G:N2	2.85	0.44
28:YE:120:TRP:CD1	28:YE:155:LYS:HB3	2.53	0.44
42:YW:22:ASP:OD1	42:YW:25:ARG:NH1	2.48	0.44
43:YX:5:TYR:CE2	48:Y2:30:ARG:HB2	2.53	0.44
1:QA:412:A:H4'	1:QA:413:G:O5'	2.16	0.44
1:QA:456:C:H2'	1:QA:457:C:C6	2.52	0.44
1:QA:539:A:H2'	1:QA:540:G:H8	1.82	0.44
1:QA:552:U:H2'	1:QA:553:A:C8	2.52	0.44
1:QA:1040:U:H2'	1:QA:1041:A:C8	2.53	0.44
1:QA:1200:C:H4'	1:QA:1201:A:H5'	2.00	0.44
1:QA:1291:G:H5"	7:QG:41:ARG:HH21	1.83	0.44
1:QA:1367:C:OP2	9:QI:112:LYS:NZ	2.51	0.44
1:QA:1461:G:H2'	1:QA:1462:G:H8	1.83	0.44
4:QD:57:ARG:HB3	4:QD:206:PHE:CD1	2.53	0.44
4:QD:105:VAL:HG13	4:QD:110:PHE:HB2	2.00	0.44
20:QT:72:LEU:O	20:QT:72:LEU:HD23	2.18	0.44
22:QW:10:G:H2'	22:QW:11:A:C8	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:305:U:H2'	25:RA:306:U:C6	2.53	0.44
25:RA:846:C:H42	25:RA:931:G:H1	1.65	0.44
25:RA:1137:G:H2'	25:RA:1138:G:C8	2.53	0.44
25:RA:1418:G:N2	25:RA:1581:G:O6	2.51	0.44
25:RA:1459:G:C5	25:RA:1461:G:C8	3.05	0.44
25:RA:1605:C:H2'	25:RA:1606:G:O4'	2.18	0.44
25:RA:1656:C:H2'	25:RA:1657:C:C6	2.51	0.44
25:RA:2355:C:H1'	46:R0:39:ARG:HH21	1.82	0.44
25:RA:2392:A:H8	35:RP:60:MET:HG2	1.81	0.44
36:RQ:79:LEU:HB3	46:R0:5:LYS:HD3	1.99	0.44
38:RS:3:ARG:HD3	38:RS:4:LEU:HD13	2.00	0.44
39:RT:108:ARG:HG3	39:RT:111:ARG:NH2	2.33	0.44
43:RX:40:LYS:HG3	43:RX:51:VAL:HG11	2.00	0.44
51:R5:20:ARG:HA	51:R5:23:HIS:ND1	2.33	0.44
1:XA:543:C:OP1	4:XD:14:ARG:HG3	2.18	0.44
1:XA:792:A:H1'	1:XA:794:A:N7	2.33	0.44
1:XA:857:C:H2'	1:XA:858:G:O4'	2.18	0.44
1:XA:1014:A:C2	1:XA:1219:U:H1'	2.53	0.44
1:XA:1267:C:O2	21:XU:20:LYS:HD2	2.18	0.44
2:XB:61:LEU:HG	2:XB:66:GLY:HA3	1.98	0.44
6:XF:49:ALA:HB1	18:XR:80:PRO:HB3	1.99	0.44
25:YA:184:C:H2'	25:YA:185:U:H6	1.83	0.44
25:YA:563:G:C6	25:YA:2018:G:C5	3.06	0.44
25:YA:852:G:H2'	25:YA:853:G:C8	2.51	0.44
25:YA:1059:G:OP2	25:YA:1060:U:H5"	2.17	0.44
25:YA:1084:A:H5'	25:YA:1085:A:OP2	2.18	0.44
25:YA:1400:G:H2'	25:YA:1401:G:C8	2.52	0.44
25:YA:1505:C:H2'	25:YA:1506:C:H6	1.82	0.44
25:YA:1534:G:H2'	25:YA:1534:G:N3	2.33	0.44
25:YA:1797:C:O2'	27:YD:259:THR:HG22	2.17	0.44
25:YA:2001:A:H2'	25:YA:2002:G:H8	1.82	0.44
25:YA:2023:G:H4'	25:YA:2617:C:O3'	2.18	0.44
25:YA:2292:C:H2'	25:YA:2293:C:C6	2.53	0.44
29:YF:40:GLN:HE22	29:YF:182:ASN:HB2	1.83	0.44
32:YI:109:ILE:HB	32:YI:130:TYR:CE1	2.53	0.44
1:QA:346:G:OP1	39:RT:41:ARG:NH1	2.51	0.43
1:QA:401:C:H2'	1:QA:402:G:C8	2.53	0.43
1:QA:620:C:H2'	1:QA:621:A:O4'	2.18	0.43
1:QA:981:U:H5'	14:QN:21:TYR:CZ	2.52	0.43
1:QA:1129:C:H4'	1:QA:1130:A:C8	2.52	0.43
15:QO:15:PHE:CE1	15:QO:84:LYS:HD3	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:QR:50:ILE:HG13	18:QR:74:ARG:HH22	1.82	0.43
25:RA:777:A:H2'	25:RA:778:G:C8	2.53	0.43
25:RA:1295:C:H2'	25:RA:1296:G:H8	1.82	0.43
25:RA:1812:A:C4'	27:RD:46:GLN:HE22	2.31	0.43
27:RD:12:SER:HB2	27:RD:208:LYS:HB3	2.00	0.43
28:RE:19:ARG:HG3	34:RO:72:PRO:HB2	2.00	0.43
31:RH:88:LEU:HA	31:RH:130:ARG:HA	2.00	0.43
36:RQ:62:GLY:HA2	45:RZ:116:VAL:HG21	2.00	0.43
45:RZ:97:GLU:HG2	45:RZ:125:LEU:HD11	2.00	0.43
49:R3:5:LYS:HD2	49:R3:34:GLU:OE2	2.18	0.43
1:XA:222:U:H2'	1:XA:223:U:H6	1.82	0.43
1:XA:925:G:H1'	1:XA:1502:A:C4	2.53	0.43
1:XA:1178:G:OP2	9:XI:93:ARG:NH2	2.50	0.43
6:XF:1:MET:HE1	6:XF:68:PRO:HD3	2.00	0.43
19:XS:10:PHE:CE2	19:XS:16:LEU:HB2	2.52	0.43
19:XS:26:GLY:C	19:XS:28:LYS:H	2.26	0.43
24:XY:41:C:H2'	24:XY:42:C:C6	2.53	0.43
25:YA:513:A:H2	25:YA:582:G:H4'	1.83	0.43
25:YA:942:G:H2'	25:YA:943:U:O4'	2.18	0.43
25:YA:1357:U:H2'	25:YA:1358:G:O4'	2.17	0.43
25:YA:1639:U:H2'	25:YA:1640:C:H5"	1.98	0.43
25:YA:1800:C:C6	25:YA:1802:A:H1'	2.53	0.43
25:YA:2142:C:H2'	25:YA:2143:C:C6	2.53	0.43
25:YA:2182:G:H2'	25:YA:2183:C:C6	2.53	0.43
29:YF:8:GLN:O	29:YF:8:GLN:HG2	2.18	0.43
34:YO:64:ARG:NH1	39:YT:70:VAL:HG21	2.33	0.43
1:QA:21:G:H21	1:QA:914:A:H62	1.66	0.43
1:QA:509:A:H4'	1:QA:510:A:OP1	2.18	0.43
1:QA:543:C:OP2	4:QD:10:ARG:NH1	2.51	0.43
1:QA:731:G:OP1	1:QA:766:A:H1'	2.18	0.43
1:QA:918:A:H2'	1:QA:919:A:C8	2.53	0.43
1:QA:966:G:H2'	1:QA:967:C:C6	2.53	0.43
1:QA:1112:C:H1'	3:QC:179:ARG:NH1	2.33	0.43
9:QI:5:TYR:CE1	9:QI:16:ARG:HB2	2.53	0.43
9:QI:104:ARG:NH1	9:QI:105:ASP:O	2.50	0.43
15:QO:87:ILE:HG22	15:QO:88:ARG:N	2.30	0.43
25:RA:1309:G:O2'	25:RA:1611:C:O2'	2.24	0.43
25:RA:1399:C:H2'	25:RA:1400:G:C8	2.52	0.43
25:RA:1630:G:H2'	25:RA:1630(A):C:C6	2.52	0.43
25:RA:2292:C:H2'	25:RA:2293:C:C6	2.53	0.43
25:RA:2677:G:C6	25:RA:2731:G:C6	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:RB:74:U:H2'	26:RB:75:G:O4'	2.17	0.43
27:RD:72:LYS:HG3	27:RD:97:TYR:HE2	1.80	0.43
29:RF:178:PRO:HB3	29:RF:198:ALA:HB2	2.00	0.43
35:RP:47:ASP:OD1	35:RP:49:ARG:HG2	2.17	0.43
35:RP:84:ASN:OD1	35:RP:116:GLY:HA3	2.18	0.43
52:R6:38:LYS:HB2	52:R6:49:HIS:CE1	2.53	0.43
54:R8:54:GLU:O	54:R8:58:ILE:HG12	2.18	0.43
1:XA:105:G:H2'	1:XA:106:C:C6	2.52	0.43
1:XA:790:A:H2'	1:XA:791:G:C8	2.53	0.43
3:XC:19:GLU:O	3:XC:40:ARG:NH2	2.51	0.43
4:XD:102:ASP:OD1	4:XD:103:ASN:N	2.51	0.43
9:XI:63:ILE:HG21	9:XI:77:ILE:HG12	2.00	0.43
9:XI:79:LEU:HD11	9:XI:83:ARG:HE	1.82	0.43
13:XM:40:ASN:HB3	13:XM:43:THR:HG23	1.99	0.43
25:YA:626:U:O4	35:YP:81:GLN:NE2	2.49	0.43
25:YA:742:G:H2'	25:YA:743:G:C8	2.52	0.43
25:YA:1019:U:OP1	25:YA:1035:U:O2'	2.32	0.43
25:YA:1530:G:O6	25:YA:1542:G:N2	2.51	0.43
25:YA:1803:A:H2	25:YA:1823:G:O4'	2.00	0.43
25:YA:2537:U:H2'	25:YA:2538:C:O4'	2.19	0.43
25:YA:2547:U:H2'	25:YA:2548:G:C8	2.53	0.43
25:YA:2761:G:C6	25:YA:2762:G:C4	3.06	0.43
26:YB:30:C:OP2	38:YS:32:LEU:HD11	2.18	0.43
31:YH:149:ARG:HB3	55:Y9:20:HIS:HB2	2.00	0.43
32:YI:118:LYS:O	32:YI:119:PRO:C	2.60	0.43
34:YO:47:ILE:HG13	34:YO:48:PRO:HD2	1.99	0.43
34:YO:64:ARG:HB2	34:YO:83:ALA:HB3	1.99	0.43
36:YQ:29:PHE:H	36:YQ:105:GLU:CD	2.21	0.43
36:YQ:116:GLU:O	36:YQ:120:ILE:HG12	2.18	0.43
41:YV:51:VAL:HG12	41:YV:53:GLU:H	1.83	0.43
43:YX:53:LYS:H	43:YX:82:GLN:HB3	1.82	0.43
44:YY:20:TYR:CE2	44:YY:43:ASN:HA	2.53	0.43
50:Y4:55:ARG:O	50:Y4:56:VAL:HG13	2.17	0.43
1:QA:538:G:H2'	1:QA:539:A:C8	2.53	0.43
25:RA:172:C:H2'	25:RA:173:G:H8	1.83	0.43
25:RA:189:G:H2'	25:RA:205:G:N2	2.33	0.43
25:RA:820:A:H4'	25:RA:836:G:N2	2.33	0.43
25:RA:846:C:N3	25:RA:930:U:N3	2.65	0.43
25:RA:923:C:H2'	25:RA:924:C:C6	2.53	0.43
25:RA:1401:G:H2'	25:RA:1402:C:C6	2.53	0.43
25:RA:1534:G:N3	25:RA:1534:G:H2'	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:1764:G:C6	25:RA:1989:G:N1	2.86	0.43
25:RA:2386:C:H2'	25:RA:2387:U:C6	2.52	0.43
25:RA:2432:A:H2'	25:RA:2433:A:C8	2.53	0.43
25:RA:2635:C:H5"	28:RE:78:LEU:HA	1.99	0.43
32:RI:118:LYS:O	32:RI:119:PRO:C	2.61	0.43
33:RN:67:LEU:O	33:RN:88:GLU:HB2	2.19	0.43
39:RT:93:ARG:N	39:RT:115:ARG:O	2.36	0.43
40:RU:8:VAL:HG22	40:RU:12:ARG:HG3	1.99	0.43
45:RZ:54:HIS:HB3	45:RZ:101:PRO:HD3	2.01	0.43
45:RZ:59:LEU:O	45:RZ:60:GLU:HG2	2.17	0.43
45:RZ:149:SER:HB2	45:RZ:172:ALA:O	2.17	0.43
47:R1:52:ARG:HH11	47:R1:57:GLU:HB2	1.82	0.43
50:R4:51:ASP:OD1	50:R4:52:THR:N	2.46	0.43
1:XA:173:U:H5"	1:XA:197:A:O4'	2.18	0.43
1:XA:757:U:H2'	1:XA:758:G:O4'	2.19	0.43
2:XB:115:LEU:HD13	2:XB:145:LEU:HB3	1.99	0.43
4:XD:142:PRO:HA	4:XD:185:PHE:HD2	1.82	0.43
8:XH:121:ASP:OD1	8:XH:122:ARG:N	2.51	0.43
25:YA:270(J):G:H2'	25:YA:270(K):C:O4'	2.19	0.43
25:YA:270(V):G:H2'	25:YA:270(W):G:H8	1.83	0.43
25:YA:637:A:H4'	25:YA:638:G:O5'	2.17	0.43
25:YA:971:C:O2'	25:YA:983:A:N3	2.38	0.43
25:YA:1061:U:H3'	25:YA:1062:G:C5'	2.48	0.43
25:YA:1157:G:O2'	49:Y3:31:LEU:HD12	2.19	0.43
25:YA:1178:C:H2'	25:YA:1179:C:C6	2.53	0.43
25:YA:1526:G:C6	25:YA:1527:G:C6	3.06	0.43
25:YA:2154:G:H2'	25:YA:2155:G:C8	2.53	0.43
25:YA:2543:G:H2'	25:YA:2544:G:H8	1.82	0.43
25:YA:2610:C:H4'	25:YA:2611:U:H5'	2.00	0.43
25:YA:2649:U:H2'	25:YA:2650:U:C6	2.53	0.43
25:YA:2712:U:O2'	25:YA:2712(A):A:H8	2.00	0.43
25:YA:2839:G:H5'	37:YR:46:GLY:HA2	1.99	0.43
27:YD:31:LYS:HG3	27:YD:32:SER:N	2.33	0.43
27:YD:213:ARG:HD2	27:YD:217:ARG:O	2.17	0.43
28:YE:101:ARG:NH1	28:YE:171:GLU:HB2	2.33	0.43
34:YO:22:ILE:HG12	34:YO:41:ALA:HA	1.99	0.43
44:YY:14:LEU:HB2	44:YY:75:ILE:HD11	1.99	0.43
54:Y8:26:LYS:HD3	54:Y8:47:LYS:HB3	1.99	0.43
1:QA:477:G:H2'	1:QA:478:A:H8	1.84	0.43
1:QA:925:G:C2	1:QA:927:G:C8	3.06	0.43
1:QA:1129:C:H5'	1:QA:1130:A:H5'	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:QI:89:ASN:HB2	9:QI:92:TYR:CE2	2.54	0.43
9:QI:114:TYR:HE2	10:QJ:59:SER:HA	1.83	0.43
25:RA:301:G:C6	25:RA:317:G:C6	3.07	0.43
25:RA:902:C:H2'	25:RA:903:C:H6	1.82	0.43
25:RA:1184:G:OP1	49:R3:29:ARG:NH1	2.51	0.43
25:RA:1257:C:H4'	29:RF:83:PHE:CE1	2.53	0.43
25:RA:1290:C:H2'	25:RA:1291:C:C6	2.52	0.43
25:RA:2052:G:H4'	28:RE:143:ASN:O	2.19	0.43
25:RA:2692:C:H2'	25:RA:2693:A:C8	2.52	0.43
25:RA:2693:A:H2'	25:RA:2694:G:C8	2.53	0.43
25:RA:2789:C:H1'	25:RA:2892:A:H2	1.83	0.43
25:RA:2846:G:H2'	25:RA:2847:U:C6	2.53	0.43
28:RE:16:ARG:HG3	28:RE:16:ARG:O	2.18	0.43
29:RF:34:TRP:CD2	35:RP:8:PRO:HB3	2.54	0.43
32:RI:99:GLU:OE2	32:RI:103:ARG:NH2	2.50	0.43
41:RV:55:ALA:HA	41:RV:101:GLY:HA2	2.00	0.43
42:RW:71:VAL:HA	42:RW:107:LEU:HD23	2.00	0.43
54:R8:50:LEU:C	54:R8:52:LYS:H	2.25	0.43
1:XA:528:C:H41	12:XL:49:ASN:CG	2.27	0.43
1:XA:610:G:C4	1:XA:611:A:C8	3.06	0.43
1:XA:950:U:H2'	1:XA:951:G:C8	2.53	0.43
1:XA:997:U:H2'	1:XA:998:G:H8	1.84	0.43
1:XA:1301:U:O2'	1:XA:1302:U:OP1	2.32	0.43
3:XC:150:LYS:HB3	3:XC:201:TYR:HB2	2.00	0.43
4:XD:154:ASN:OD1	4:XD:155:LEU:N	2.44	0.43
6:XF:95:GLU:O	18:XR:32:ARG:NH1	2.51	0.43
19:XS:10:PHE:HB2	19:XS:39:THR:HB	2.00	0.43
22:XV:24:C:H2'	22:XV:25:U:H6	1.84	0.43
25:YA:99:U:H4'	25:YA:101:G:H5'	2.01	0.43
25:YA:398:G:H2'	25:YA:399:G:C8	2.52	0.43
25:YA:1257:C:H4'	29:YF:83:PHE:CD1	2.53	0.43
25:YA:2183:C:H2'	25:YA:2184:G:H8	1.83	0.43
25:YA:2298:A:H62	25:YA:2318:G:H8	1.67	0.43
25:YA:2339:G:H2'	25:YA:2340:G:H8	1.83	0.43
25:YA:2475:C:H42	25:YA:2529:G:H22	1.66	0.43
25:YA:2593:U:H2'	25:YA:2594:C:C6	2.53	0.43
25:YA:2599:G:C8	27:YD:236:GLY:HA2	2.51	0.43
29:YF:110:LEU:HA	29:YF:183:VAL:HG12	2.00	0.43
29:YF:167:ALA:HA	29:YF:170:LEU:HD13	2.00	0.43
30:YG:144:ILE:HG22	30:YG:146:TYR:H	1.84	0.43
35:YP:85:LEU:HD13	35:YP:120:ALA:HB2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:YQ:66:ILE:HG13	36:YQ:67:ARG:N	2.33	0.43
36:YQ:77:LYS:NZ	36:YQ:84:GLY:O	2.41	0.43
48:Y2:16:LEU:CD2	48:Y2:20:GLU:HG3	2.49	0.43
54:Y8:54:GLU:O	54:Y8:58:ILE:HG12	2.18	0.43
55:Y9:9:ARG:CZ	55:Y9:16:VAL:HB	2.48	0.43
1:QA:340:U:H2'	1:QA:341:C:C6	2.54	0.43
1:QA:359:U:H2'	1:QA:360:A:C8	2.53	0.43
1:QA:574:A:N3	1:QA:883:C:H1'	2.33	0.43
1:QA:718:G:H21	18:QR:49:LYS:HE3	1.82	0.43
1:QA:1032(A):G:H2'	1:QA:1032(B):G:C8	2.53	0.43
3:QC:88:ARG:NH1	3:QC:101:LEU:H	2.17	0.43
4:QD:63:LYS:O	4:QD:67:ILE:HG13	2.18	0.43
13:QM:3:ARG:NH2	30:RG:113:ARG:HH21	2.14	0.43
17:QQ:26:GLN:HB3	17:QQ:37:LYS:HG2	2.01	0.43
22:QW:10:G:H2'	22:QW:11:A:H8	1.83	0.43
25:RA:18:C:O2'	25:RA:553:U:OP1	2.37	0.43
25:RA:71:A:N6	25:RA:114:U:H1'	2.31	0.43
25:RA:689:A:H2'	25:RA:690:G:H8	1.84	0.43
25:RA:2041:U:H2'	25:RA:2042:A:H8	1.82	0.43
25:RA:2091:U:OP2	25:RA:2092:U:O2'	2.30	0.43
25:RA:2271:G:OP1	46:R0:18:ALA:HB1	2.18	0.43
25:RA:2712:U:OP1	25:RA:2714:G:H4'	2.18	0.43
28:RE:134:ILE:HA	28:RE:137:HIS:ND1	2.34	0.43
35:RP:23:PRO:C	35:RP:25:SER:H	2.26	0.43
36:RQ:17:LEU:HD11	36:RQ:41:TRP:NE1	2.33	0.43
1:XA:41:G:H2'	1:XA:42:G:H8	1.83	0.43
1:XA:363:A:OP1	12:XL:33:ARG:HD3	2.18	0.43
1:XA:674:G:H1'	18:XR:81:PHE:CE2	2.54	0.43
1:XA:923:A:H2'	1:XA:924:C:C6	2.54	0.43
1:XA:1000:A:H2'	1:XA:1001:G:C8	2.53	0.43
1:XA:1454:G:H2'	1:XA:1455:G:H8	1.83	0.43
4:XD:190:ASP:OD1	4:XD:191:ARG:N	2.45	0.43
13:XM:96:LEU:HB3	13:XM:97:PRO:HD2	2.00	0.43
20:XT:54:LYS:HG3	20:XT:57:ARG:NH2	2.33	0.43
22:XV:15:G:H22	22:XV:49:C:H41	1.66	0.43
24:XY:39:U:H2'	24:XY:40:C:H6	1.82	0.43
25:YA:608:A:H2'	25:YA:609:A:C8	2.53	0.43
25:YA:1930:G:H2'	25:YA:1968:G:H1	1.83	0.43
25:YA:2099:U:H2'	25:YA:2100:G:C8	2.53	0.43
28:YE:56:PRO:HD2	28:YE:58:ARG:NH2	2.32	0.43
31:YH:46:GLU:HB2	31:YH:49:VAL:HG23	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:YU:87:GLY:O	41:YV:50:PRO:HD3	2.19	0.43
53:Y7:17:GLY:O	53:Y7:21:ARG:HG2	2.19	0.43
1:QA:1135:U:H4'	1:QA:1136:U:H5	1.84	0.43
1:QA:1151:A:O2'	10:QJ:70:ARG:NH2	2.52	0.43
3:QC:19:GLU:O	3:QC:40:ARG:NH2	2.51	0.43
11:QK:48:ILE:HD11	11:QK:64:ALA:HA	2.00	0.43
12:QL:103:GLY:N	12:QL:107:ALA:O	2.42	0.43
17:QQ:18:THR:OG1	17:QQ:69:LYS:NZ	2.35	0.43
22:QV:75:C:O2'	22:QV:76:C:H5'	2.18	0.43
25:RA:669:G:H2'	25:RA:669:G:N3	2.33	0.43
25:RA:679:C:H2'	25:RA:680:G:C8	2.54	0.43
27:RD:44:ASN:HB3	27:RD:49:ILE:HA	1.99	0.43
28:RE:152:LYS:HG3	33:RN:78:TYR:CE1	2.53	0.43
29:RF:9:ILE:HG12	29:RF:123:LEU:HD23	2.01	0.43
30:RG:111:LEU:HB3	30:RG:117:PHE:CZ	2.53	0.43
44:RY:8:LYS:HD3	44:RY:97:ARG:HH21	1.82	0.43
1:XA:1129:C:H4'	1:XA:1130:A:H8	1.84	0.43
1:XA:1129:C:N4	1:XA:1133:G:O6	2.51	0.43
1:XA:1488:G:H2'	1:XA:1489:G:H8	1.83	0.43
3:XC:52:LEU:HD23	3:XC:52:LEU:H	1.83	0.43
4:XD:100:ARG:NH2	4:XD:136:PRO:O	2.52	0.43
6:XF:97:PHE:CD2	18:XR:31:LEU:HD21	2.53	0.43
7:XG:46:ALA:O	7:XG:50:ILE:HG12	2.18	0.43
25:YA:196:A:N7	25:YA:805:G:C5	2.87	0.43
25:YA:244:A:H4'	35:YP:74:GLU:HB2	1.99	0.43
25:YA:296:C:O3'	44:YY:95:LYS:NZ	2.51	0.43
25:YA:831:G:O2'	35:YP:38:GLN:OE1	2.34	0.43
25:YA:1438:U:H2'	25:YA:1439:A:C8	2.53	0.43
25:YA:1458:C:H4'	25:YA:1459:G:O4'	2.18	0.43
25:YA:1509:C:H2'	25:YA:1511:A:C8	2.53	0.43
25:YA:1683:C:H2'	25:YA:1684:C:C6	2.54	0.43
25:YA:1770:G:H2'	25:YA:1771:C:C6	2.53	0.43
25:YA:1788:C:H5"	27:YD:225:ALA:HB1	2.00	0.43
25:YA:2684:U:H5"	39:YT:75:ILE:HD13	1.99	0.43
25:YA:2746:U:H5"	31:YH:138:LYS:HE2	1.99	0.43
27:YD:11:PRO:O	27:YD:12:SER:OG	2.32	0.43
27:YD:92:ILE:HD12	27:YD:104:TYR:CD2	2.53	0.43
30:YG:169:ALA:O	30:YG:173:LEU:HG	2.18	0.43
45:YZ:102:LEU:HD21	45:YZ:124:ILE:HD12	2.00	0.43
1:QA:109:A:C6	1:QA:326:G:C6	3.07	0.43
1:QA:134:A:H61	16:QP:25:ARG:HH12	1.67	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:578:C:O2'	1:QA:728:A:N3	2.52	0.43
1:QA:690:G:H22	11:QK:55:LYS:NZ	2.16	0.43
1:QA:923:A:H2'	1:QA:924:C:C6	2.53	0.43
1:QA:963:G:H21	10:QJ:55:LYS:HE2	1.83	0.43
1:QA:1014:A:C2	1:QA:1219:U:H1'	2.54	0.43
2:QB:167:PRO:HG3	2:QB:188:ALA:HB2	1.99	0.43
5:QE:48:ALA:HB2	5:QE:57:LYS:HE3	1.99	0.43
7:QG:143:ARG:HD3	22:QW:42:C:O3'	2.19	0.43
13:QM:7:VAL:HB	30:RG:115:ARG:HH12	1.82	0.43
25:RA:270(A):A:N3	25:RA:365:C:O2'	2.51	0.43
25:RA:863:A:OP1	36:RQ:21:THR:HB	2.19	0.43
25:RA:1042:G:H2'	25:RA:1043:C:C6	2.53	0.43
25:RA:1116:C:H2'	25:RA:1117:G:H8	1.84	0.43
25:RA:2469:A:H5"	25:RA:2470:G:H8	1.82	0.43
27:RD:69:ARG:NH1	27:RD:105:ILE:HG12	2.34	0.43
30:RG:112:PRO:HB3	50:R4:40:HIS:CD2	2.53	0.43
30:RG:144:ILE:HG22	30:RG:146:TYR:H	1.84	0.43
32:RI:82:ARG:HA	32:RI:145:VAL:HG12	2.01	0.43
34:RO:93:PRO:HB3	34:RO:114:ILE:HD11	2.00	0.43
36:RQ:24:GLY:H	36:RQ:101:ARG:CD	2.29	0.43
39:RT:57:PHE:CG	39:RT:58:ASN:N	2.87	0.43
44:RY:28:LYS:N	44:RY:38:ILE:O	2.50	0.43
1:XA:105:G:H2'	1:XA:106:C:H6	1.83	0.43
1:XA:281:G:OP2	1:XA:281:G:H8	2.01	0.43
1:XA:373:A:C2	1:XA:374:A:C8	3.06	0.43
1:XA:539:A:OP2	12:XL:115:LYS:HD3	2.18	0.43
1:XA:825:G:H2'	1:XA:826:C:C6	2.54	0.43
1:XA:1167:A:H2'	1:XA:1169:A:C8	2.53	0.43
1:XA:1355:G:H2'	1:XA:1356:G:C8	2.53	0.43
8:XH:103:VAL:HG12	8:XH:108:GLY:HA3	2.00	0.43
17:XQ:28:PRO:HG3	17:XQ:35:VAL:HG22	2.01	0.43
25:YA:191:A:H2'	25:YA:192:C:C6	2.53	0.43
25:YA:270(E):G:H2'	25:YA:270(F):U:C6	2.53	0.43
25:YA:442:G:H1'	29:YF:48:THR:HG21	2.00	0.43
25:YA:554:U:H2'	25:YA:556:G:H8	1.84	0.43
25:YA:609(A):G:H2'	25:YA:610:C:C6	2.54	0.43
25:YA:1869:G:H5'	25:YA:1870:C:OP2	2.19	0.43
25:YA:2176:A:H2'	25:YA:2177:C:C6	2.54	0.43
25:YA:2521:C:H2'	25:YA:2522:U:C6	2.54	0.43
25:YA:2554:U:H2'	25:YA:2555:U:C6	2.53	0.43
25:YA:2649:U:H2'	25:YA:2650:U:H6	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:2742:C:C4	55:Y9:33:LYS:NZ	2.85	0.43
27:YD:133:LEU:HG	27:YD:189:CYS:O	2.19	0.43
42:YW:82:LEU:HD23	42:YW:84:ARG:NH2	2.33	0.43
43:YX:26:TYR:CD2	43:YX:89:ILE:HD12	2.47	0.43
46:Y0:72:ARG:HB3	46:Y0:75:LEU:HB2	2.01	0.43
47:Y1:44:PRO:HG2	47:Y1:46:LEU:CD1	2.48	0.43
1:QA:361:G:H2'	1:QA:362:G:O4'	2.19	0.43
1:QA:1254:C:OP1	10:QJ:45:ARG:NE	2.29	0.43
5:QE:5:ASP:OD1	5:QE:6:PHE:N	2.52	0.43
12:QL:24:VAL:HG13	12:QL:98:TYR:CE1	2.54	0.43
13:QM:14:ARG:NH2	13:QM:16:ASP:OD2	2.51	0.43
19:QS:63:THR:HG22	19:QS:66:MET:HE3	2.01	0.43
25:RA:116:C:H2'	25:RA:117:G:O4'	2.19	0.43
25:RA:507:A:H5"	25:RA:508:G:H5'	2.01	0.43
25:RA:687:C:H5"	53:R7:2:LYS:HE2	2.00	0.43
25:RA:1662:C:O2'	25:RA:2687:U:OP1	2.37	0.43
25:RA:1914:C:H2'	25:RA:1915:U:O4'	2.18	0.43
25:RA:2022:U:O2'	25:RA:2617:C:H5'	2.19	0.43
25:RA:2168:G:H2'	25:RA:2168:G:N3	2.34	0.43
25:RA:2243:U:H2'	25:RA:2244:U:H6	1.82	0.43
25:RA:2329:G:H2'	25:RA:2330:G:C8	2.54	0.43
25:RA:2443:C:H2'	25:RA:2444:G:C8	2.54	0.43
25:RA:2663:G:H2'	25:RA:2664:G:O4'	2.19	0.43
33:RN:13:TRP:HB2	33:RN:133:GLN:HB3	2.00	0.43
8:XH:12:ARG:HD2	8:XH:26:VAL:HG12	2.00	0.43
9:XI:48:GLU:N	9:XI:49:PRO:HD2	2.34	0.43
25:YA:273:G:H1	25:YA:364:C:H42	1.65	0.43
25:YA:767:U:H2'	25:YA:768:G:H8	1.84	0.43
25:YA:816:C:H2'	25:YA:817:C:C6	2.54	0.43
25:YA:1605:C:H2'	25:YA:1606:G:O4'	2.19	0.43
25:YA:2241:A:H2'	25:YA:2242:G:H8	1.81	0.43
25:YA:2319:G:O6	38:YS:4:LEU:HB2	2.19	0.43
29:YF:155:LEU:HD23	29:YF:186:ILE:HD13	2.01	0.43
30:YG:11:TYR:HD1	30:YG:176:LEU:HD21	1.83	0.43
32:YI:5:LEU:HD21	32:YI:12:LEU:HB3	2.00	0.43
54:Y8:50:LEU:C	54:Y8:52:LYS:H	2.26	0.43
1:QA:381:C:H2'	1:QA:382:A:O4'	2.19	0.43
1:QA:677:U:O2	1:QA:777:A:O2'	2.36	0.43
1:QA:701:C:H1'	1:QA:703:G:C2	2.54	0.43
1:QA:797:C:OP1	11:QK:124:LYS:HD3	2.19	0.43
1:QA:1103:C:H2'	1:QA:1104:G:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1128:C:OP1	9:QI:66:ARG:NH2	2.52	0.43
1:QA:1410:G:H2'	1:QA:1411:C:C6	2.54	0.43
13:QM:53:VAL:HG12	13:QM:57:ARG:NE	2.33	0.43
25:RA:605:C:O2	25:RA:657:U:O2'	2.37	0.43
25:RA:1204:A:O2'	25:RA:1205:U:O5'	2.36	0.43
25:RA:2455:G:H2'	25:RA:2456:C:H6	1.84	0.43
25:RA:2593:U:H2'	25:RA:2594:C:C6	2.53	0.43
25:RA:2637:U:H5"	28:RE:82:ARG:HH12	1.84	0.43
26:RB:88:C:H2'	26:RB:89:G:C8	2.54	0.43
36:RQ:65:PHE:O	36:RQ:67:ARG:HG3	2.19	0.43
36:RQ:79:LEU:HD23	36:RQ:79:LEU:O	2.19	0.43
37:RR:38:VAL:HB	37:RR:39:PRO:HD3	2.00	0.43
47:R1:40:ARG:HH12	47:R1:42:GLN:HG2	1.84	0.43
1:XA:93:U:H2'	1:XA:95:G:O4'	2.19	0.43
1:XA:711:G:H2'	1:XA:712:A:H8	1.84	0.43
1:XA:1225:A:N3	1:XA:1225:A:H2'	2.34	0.43
1:XA:1250:A:H2'	1:XA:1251:A:C8	2.53	0.43
1:XA:1330:U:H5"	1:XA:1331:G:OP2	2.19	0.43
1:XA:1389:C:H2'	1:XA:1390:U:C6	2.54	0.43
2:XB:160:ASP:O	2:XB:183:PRO:HD2	2.18	0.43
3:XC:157:ILE:HD13	3:XC:166:GLU:HG2	2.01	0.43
6:XF:8:ILE:HD13	6:XF:26:ILE:HD13	2.01	0.43
7:XG:147:ALA:CB	22:XW:42:C:H5'	2.49	0.43
11:XK:67:ASP:OD1	11:XK:71:LYS:HE3	2.18	0.43
15:XO:21:ASP:OD2	15:XO:24:SER:HB2	2.18	0.43
18:XR:70:ILE:O	18:XR:74:ARG:HB2	2.19	0.43
25:YA:375:C:H2'	25:YA:376:C:C6	2.53	0.43
25:YA:664:C:H2'	25:YA:665:C:H6	1.84	0.43
25:YA:709:U:H2'	25:YA:710:G:H8	1.84	0.43
25:YA:729:G:H5'	25:YA:730:C:H5"	2.00	0.43
25:YA:860:U:OP2	25:YA:916:G:N1	2.50	0.43
25:YA:1637:A:H4'	25:YA:2711:A:O2'	2.19	0.43
25:YA:1825:A:H2'	25:YA:1826:G:C8	2.54	0.43
25:YA:1842:G:H2'	25:YA:1843:C:H6	1.84	0.43
25:YA:1878:G:H2'	25:YA:1879:C:C6	2.53	0.43
25:YA:1918:A:O2'	25:YA:1920:C:N4	2.52	0.43
25:YA:2064:C:H2'	25:YA:2065:C:H6	1.83	0.43
25:YA:2433:A:H1'	47:Y1:21:ARG:HH22	1.84	0.43
36:YQ:23:GLY:HA3	36:YQ:101:ARG:HD3	2.00	0.43
36:YQ:65:PHE:O	36:YQ:67:ARG:HG3	2.19	0.43
45:YZ:4:ARG:HA	45:YZ:59:LEU:H	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:YZ:59:LEU:O	45:YZ:60:GLU:HG2	2.18	0.43
55:Y9:25:VAL:HG23	55:Y9:34:GLN:N	2.33	0.43
1:QA:148:G:H2'	1:QA:149:A:H8	1.84	0.43
1:QA:323:U:H2'	1:QA:324:G:O4'	2.18	0.43
7:QG:66:VAL:O	7:QG:70:LYS:HG3	2.19	0.43
8:QH:103:VAL:HG12	8:QH:108:GLY:HA3	2.01	0.43
9:QI:28:VAL:HG22	9:QI:63:ILE:HB	2.01	0.43
12:QL:104:VAL:HG12	12:QL:105:TYR:N	2.26	0.43
25:RA:111:A:H5'	48:R2:69:ARG:HH11	1.83	0.43
25:RA:638:G:C5	25:RA:651:G:C2	3.06	0.43
25:RA:828:U:H4'	25:RA:831:G:N1	2.33	0.43
25:RA:1105:U:H2'	25:RA:1106:G:C8	2.51	0.43
25:RA:1660:C:H5'	25:RA:2712(A):A:H61	1.83	0.43
25:RA:1697:G:OP2	25:RA:1698:A:O2'	2.32	0.43
25:RA:2198:A:C2	32:RI:29:TYR:HB2	2.54	0.43
25:RA:2291:U:H2'	25:RA:2292:C:C6	2.54	0.43
25:RA:2514:U:H2'	25:RA:2515:C:C6	2.54	0.43
25:RA:2784:C:H2'	25:RA:2785:C:H6	1.83	0.43
28:RE:38:THR:HG23	28:RE:41:LYS:H	1.83	0.43
28:RE:52:LEU:HB2	28:RE:75:VAL:HB	2.00	0.43
29:RF:64:ILE:HG23	29:RF:65:TRP:H	1.84	0.43
33:RN:39:ARG:HB2	33:RN:48:MET:HE1	2.00	0.43
44:RY:39:VAL:HB	44:RY:42:VAL:HB	2.01	0.43
53:R7:26:GLY:O	53:R7:30:VAL:HG23	2.19	0.43
1:XA:253:U:H2'	1:XA:254:G:H8	1.84	0.43
1:XA:376:G:H1	1:XA:387:U:H3	1.65	0.43
1:XA:381:C:H2'	1:XA:382:A:O4'	2.19	0.43
1:XA:1147:C:O2'	9:XI:5:TYR:OH	2.30	0.43
1:XA:1169:A:H2'	1:XA:1170:A:C8	2.53	0.43
1:XA:1226:C:H2'	13:XM:103:THR:HB	2.01	0.43
1:XA:1241:G:H2'	1:XA:1242:C:H6	1.84	0.43
1:XA:1391:U:H2'	1:XA:1392:G:C8	2.53	0.43
1:XA:1446:A:O2'	1:XA:1447:G:O4'	2.36	0.43
19:XS:22:LEU:O	19:XS:26:GLY:HA2	2.18	0.43
25:YA:605:C:O2	25:YA:657:U:O2'	2.37	0.43
25:YA:1425:G:H2'	25:YA:1426:G:C8	2.54	0.43
25:YA:1679:U:H1'	25:YA:1989:G:H21	1.84	0.43
25:YA:2086:U:H2'	25:YA:2087:G:C8	2.53	0.43
25:YA:2697:G:H2'	25:YA:2698:U:C6	2.54	0.43
25:YA:2741:A:H5"	55:Y9:31:LYS:HA	2.00	0.43
27:YD:44:ASN:HB2	27:YD:48:ARG:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:YD:72:LYS:HG3	27:YD:97:TYR:CE2	2.54	0.43
29:YF:178:PRO:HG2	29:YF:179:GLU:OE1	2.19	0.43
54:Y8:29:LYS:HG3	54:Y8:30:ARG:N	2.27	0.43
1:QA:434:U:H2'	1:QA:435:C:C6	2.54	0.42
1:QA:558:G:OP2	1:QA:559:A:O2'	2.29	0.42
1:QA:742:G:OP2	15:QO:35:ARG:NH2	2.52	0.42
1:QA:892:A:H2'	1:QA:893:C:H6	1.83	0.42
1:QA:963:G:N3	10:QJ:55:LYS:HE2	2.34	0.42
1:QA:1000:A:H2'	1:QA:1001:G:C8	2.54	0.42
1:QA:1104:G:O2'	2:QB:111:ARG:NH1	2.53	0.42
1:QA:1147:C:O2	9:QI:16:ARG:NH2	2.52	0.42
1:QA:1370:G:H2'	1:QA:1371:G:H8	1.84	0.42
7:QG:13:GLN:O	7:QG:24:THR:HG21	2.19	0.42
25:RA:910:A:C6	36:RQ:13:GLN:HG3	2.54	0.42
25:RA:1946:U:H2'	25:RA:1947:C:C6	2.54	0.42
25:RA:2073:C:H5"	27:RD:229:VAL:HG22	2.01	0.42
25:RA:2216:G:H2'	25:RA:2217:G:H8	1.84	0.42
25:RA:2310:A:N6	30:RG:79:ASN:OD1	2.52	0.42
25:RA:2579:C:O2'	28:RE:131:ALA:HA	2.18	0.42
27:RD:77:ALA:HB2	27:RD:97:TYR:CD1	2.54	0.42
29:RF:184:TYR:O	29:RF:188:ARG:HG3	2.19	0.42
1:XA:1290:G:N3	1:XA:1290:G:H2'	2.33	0.42
3:XC:56:ASP:HB2	3:XC:67:THR:HB	2.01	0.42
3:XC:68:VAL:HG12	3:XC:70:VAL:HG23	1.99	0.42
19:XS:3:ARG:HH22	19:XS:11:VAL:HG11	1.83	0.42
25:YA:270(R):G:H2'	25:YA:270(S):G:C8	2.54	0.42
25:YA:532:A:N1	25:YA:2019:A:H2	2.17	0.42
25:YA:648:G:H2'	25:YA:649:G:H8	1.84	0.42
25:YA:1429:G:H2'	25:YA:1430:C:H6	1.84	0.42
25:YA:2525:G:O2'	25:YA:2526:G:C8	2.69	0.42
25:YA:2679:A:OP2	28:YE:160:TYR:OH	2.36	0.42
25:YA:2740:A:C6	25:YA:2764:A:C5	3.07	0.42
27:YD:154:LYS:C	27:YD:155:LEU:HD12	2.44	0.42
31:YH:9:ILE:HA	31:YH:10:PRO:HD3	1.88	0.42
42:YW:11:ARG:HH21	42:YW:98:LYS:HD3	1.83	0.42
52:Y6:38:LYS:HB2	52:Y6:49:HIS:CE1	2.54	0.42
1:QA:336:C:H1'	1:QA:1468:A:H2	1.84	0.42
1:QA:621:A:H2'	1:QA:622:A:H8	1.84	0.42
1:QA:1250:A:H2'	1:QA:1251:A:C8	2.54	0.42
4:QD:60:GLU:OE2	4:QD:198:VAL:HA	2.19	0.42
7:QG:152:ALA:O	7:QG:155:ARG:HG3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:QK:54:ARG:NH1	22:QW:40:C:H4'	2.33	0.42
18:QR:70:ILE:O	18:QR:74:ARG:HB2	2.19	0.42
25:RA:857:C:OP1	46:R0:69:PHE:HD2	2.02	0.42
25:RA:962:G:H2'	25:RA:963:U:C6	2.53	0.42
25:RA:1212:G:O2'	25:RA:1213:A:OP2	2.35	0.42
25:RA:1234:U:H2'	25:RA:1235:G:O4'	2.18	0.42
25:RA:1412:A:H2'	25:RA:1413:G:C8	2.54	0.42
25:RA:1509:C:N3	25:RA:1511:A:N6	2.67	0.42
25:RA:2403:C:N3	25:RA:2415:G:N1	2.67	0.42
25:RA:2528:U:H2'	25:RA:2530:A:O5'	2.19	0.42
27:RD:52:ARG:NH1	27:RD:249:PRO:HG2	2.34	0.42
27:RD:175:LEU:HD12	27:RD:185:VAL:HG21	2.00	0.42
29:RF:197:ASP:C	29:RF:199:TRP:H	2.26	0.42
30:RG:82:LEU:HD21	30:RG:88:ILE:HG21	2.00	0.42
31:RH:55:PRO:HG2	31:RH:61:HIS:CE1	2.54	0.42
36:RQ:48:GLU:OE2	36:RQ:51:ARG:NH2	2.52	0.42
39:RT:20:PRO:HD2	39:RT:86:ILE:HG23	2.00	0.42
1:XA:824:C:H2'	1:XA:825:G:H8	1.83	0.42
1:XA:895:G:H2'	1:XA:896:C:C6	2.54	0.42
1:XA:998(A):C:H2'	1:XA:999:U:C6	2.54	0.42
1:XA:1000:A:H2'	1:XA:1001:G:H8	1.84	0.42
1:XA:1154:G:H2'	1:XA:1155:G:H8	1.85	0.42
1:XA:1348:U:N3	1:XA:1374:A:H2	2.12	0.42
9:XI:22:GLY:HA3	9:XI:60:ASP:OD2	2.19	0.42
10:XJ:33:GLN:HB2	10:XJ:75:ILE:HD11	2.01	0.42
15:XO:17:ARG:HH12	15:XO:77:ARG:NH1	2.15	0.42
25:YA:49:A:H5"	25:YA:51:G:O4'	2.19	0.42
25:YA:530:G:N1	25:YA:2022:U:OP1	2.52	0.42
25:YA:808:G:H2'	25:YA:809:G:H8	1.84	0.42
25:YA:1130:U:N3	28:YE:147:PRO:HB3	2.33	0.42
25:YA:1448:G:H5'	25:YA:1449:A:OP1	2.19	0.42
25:YA:1526:G:H2'	25:YA:1527:G:C8	2.54	0.42
25:YA:1528:A:N6	25:YA:1545:A:N1	2.66	0.42
25:YA:1812:A:C4'	27:YD:46:GLN:HE22	2.32	0.42
25:YA:1825:A:H2'	25:YA:1826:G:H8	1.83	0.42
25:YA:2515:C:H2'	25:YA:2516:G:H8	1.83	0.42
25:YA:2641:G:H2'	25:YA:2642:G:H8	1.85	0.42
35:YP:64:LYS:C	35:YP:66:GLY:H	2.27	0.42
39:YT:65:LYS:HZ1	39:YT:67:SER:HB2	1.83	0.42
40:YU:17:ILE:HG13	40:YU:32:PHE:HE1	1.84	0.42
43:YX:11:PRO:HD3	48:Y2:37:PHE:CE1	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:YX:70:LEU:HD23	43:YX:70:LEU:H	1.84	0.42
1:QA:45:U:H2'	1:QA:46:G:H8	1.82	0.42
1:QA:219:C:H2'	1:QA:220:G:O4'	2.20	0.42
1:QA:424:G:H2'	1:QA:425:G:C8	2.54	0.42
1:QA:1240:U:OP1	7:QG:119:ARG:NH2	2.52	0.42
3:QC:91:LEU:HB3	3:QC:99:VAL:HG11	2.00	0.42
4:QD:119:GLN:OE1	4:QD:119:GLN:HB3	2.20	0.42
25:RA:103:A:H8	25:RA:103:A:OP2	2.02	0.42
25:RA:380:U:H5'	47:R1:18:ILE:HD12	2.02	0.42
25:RA:534:U:H2'	25:RA:535:C:C6	2.55	0.42
25:RA:565:C:H2'	25:RA:566:U:C6	2.54	0.42
25:RA:883:G:H22	25:RA:892:G:N2	2.15	0.42
25:RA:1043:C:H2'	25:RA:1044:G:O4'	2.20	0.42
25:RA:1199:U:H2'	25:RA:1200:C:C6	2.54	0.42
25:RA:1423:G:H2'	25:RA:1424:G:H8	1.83	0.42
25:RA:1651:G:OP2	37:RR:40:LYS:NZ	2.51	0.42
25:RA:2262:U:H4'	25:RA:2328:A:C2	2.55	0.42
25:RA:2420:C:OP1	54:R8:34:TRP:HB3	2.19	0.42
25:RA:2619:C:H5"	28:RE:152:LYS:HA	2.01	0.42
28:RE:18:ASP:HB3	39:RT:82:LEU:HD11	2.02	0.42
36:RQ:30:GLY:CA	36:RQ:107:ALA:HB2	2.49	0.42
37:RR:26:LYS:HE2	37:RR:70:LEU:O	2.19	0.42
45:RZ:52:SER:C	45:RZ:54:HIS:N	2.77	0.42
1:XA:603:U:H2'	1:XA:604:G:H8	1.85	0.42
1:XA:679:C:H2'	1:XA:680:C:C6	2.54	0.42
1:XA:966:G:N2	22:XV:35:C:H5'	2.34	0.42
1:XA:1091:U:C2	1:XA:1095:U:C4	3.07	0.42
1:XA:1202:G:O4'	14:XN:29:ARG:NH1	2.53	0.42
3:XC:189:ALA:CB	3:XC:196:LEU:HB2	2.49	0.42
12:XL:33:ARG:N	12:XL:85:ILE:HG22	2.34	0.42
25:YA:629:G:H1'	25:YA:639:U:H1'	2.01	0.42
25:YA:839:U:H1'	25:YA:1191:G:H1'	2.00	0.42
25:YA:947:G:H2'	25:YA:948:G:H8	1.84	0.42
25:YA:1802:A:H2'	25:YA:1803:A:C8	2.54	0.42
25:YA:1907:G:H2'	25:YA:1908:C:C6	2.54	0.42
25:YA:2008:C:H2'	25:YA:2009:G:H8	1.84	0.42
25:YA:2526:G:H1'	55:Y9:28:GLU:OE1	2.19	0.42
25:YA:2740:A:C6	25:YA:2741:A:N6	2.87	0.42
25:YA:2744:G:C6	25:YA:2761:G:C5	3.07	0.42
25:YA:2747:G:N2	25:YA:2757:A:H62	2.15	0.42
27:YD:228:PRO:HD3	27:YD:235:GLY:CA	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:YE:171:GLU:HB3	28:YE:185:LYS:HD3	2.01	0.42
29:YF:73:ALA:HB3	29:YF:75:HIS:HE1	1.85	0.42
31:YH:12:PRO:HD3	31:YH:48:GLY:O	2.19	0.42
33:YN:22:THR:HG23	33:YN:62:VAL:HA	2.00	0.42
1:QA:1015:A:H2'	1:QA:1016:A:C8	2.53	0.42
1:QA:1022:G:H2'	1:QA:1023:G:C8	2.54	0.42
1:QA:1149:C:H2'	1:QA:1150:U:C6	2.54	0.42
2:QB:166:ASP:HB3	2:QB:169:LYS:HB3	2.01	0.42
4:QD:135:LEU:C	4:QD:137:SER:H	2.27	0.42
5:QE:51:VAL:HB	5:QE:52:PRO:HD3	2.02	0.42
6:QF:47:ARG:NH2	6:QF:57:GLN:OE1	2.53	0.42
22:QW:23:G:C2	22:QW:24:C:C5	3.07	0.42
25:RA:436:C:H2'	25:RA:438:G:H8	1.84	0.42
25:RA:817:C:H2'	25:RA:818:G:O4'	2.19	0.42
25:RA:2041:U:H2'	25:RA:2042:A:C8	2.55	0.42
25:RA:2392:A:C8	35:RP:60:MET:HG2	2.55	0.42
25:RA:2853:C:H2'	25:RA:2854:G:C8	2.53	0.42
27:RD:77:ALA:O	27:RD:116:GLN:HA	2.20	0.42
28:RE:36:ARG:NH2	28:RE:88:GLY:HA2	2.34	0.42
28:RE:101:ARG:HD2	28:RE:169:ASN:OD1	2.19	0.42
32:RI:49:ALA:HA	32:RI:52:ARG:HG2	2.01	0.42
34:RO:122:LEU:HD13	39:RT:72:VAL:HG11	2.01	0.42
1:XA:828:A:H2'	1:XA:829:G:O4'	2.20	0.42
1:XA:1053:G:N7	1:XA:1199:U:H2'	2.35	0.42
1:XA:1150:U:O4	1:XA:1151:A:N6	2.52	0.42
2:XB:7:VAL:HG11	2:XB:217:ARG:CZ	2.48	0.42
2:XB:84:GLU:HG3	2:XB:215:LEU:HB3	2.01	0.42
4:XD:121:VAL:O	4:XD:134:ASP:HA	2.19	0.42
4:XD:135:LEU:C	4:XD:137:SER:H	2.27	0.42
10:XJ:7:LYS:HB2	10:XJ:97:GLU:HB2	2.00	0.42
16:XP:19:ILE:HD11	16:XP:73:LEU:HD22	2.01	0.42
25:YA:532:A:H4'	25:YA:533:G:C8	2.54	0.42
25:YA:582:G:H2'	25:YA:583:G:H8	1.83	0.42
25:YA:637:A:OP2	35:YP:115:LEU:HB2	2.19	0.42
25:YA:1441:G:H2'	25:YA:1442:G:H8	1.84	0.42
25:YA:1766:U:H2'	25:YA:1767:C:C6	2.54	0.42
25:YA:2266:A:H4'	25:YA:2267:A:N3	2.34	0.42
25:YA:2305:A:N1	30:YG:154:GLY:N	2.62	0.42
25:YA:2590:A:H2'	25:YA:2591:C:H6	1.84	0.42
25:YA:2745:C:OP2	55:Y9:24:TYR:CZ	2.72	0.42
26:YB:23:G:H2'	26:YB:24:G:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:YE:154:LYS:HG2	28:YE:156:MET:HE3	2.01	0.42
30:YG:3:LEU:HD21	50:Y4:25:TYR:CD2	2.54	0.42
31:YH:149:ARG:HH12	55:Y9:18:ARG:NH1	2.17	0.42
31:YH:151:ILE:HG22	31:YH:153:LYS:HG2	2.00	0.42
38:YS:10:ARG:HG2	38:YS:13:ARG:NH2	2.34	0.42
40:YU:94:ASN:O	40:YU:94:ASN:ND2	2.48	0.42
42:YW:19:LEU:HD23	51:Y5:25:LEU:HG	2.02	0.42
43:YX:27:THR:HA	43:YX:80:ILE:HA	2.02	0.42
55:Y9:1:MET:HG3	55:Y9:33:LYS:CB	2.45	0.42
1:QA:21:G:H2'	1:QA:22:G:H8	1.81	0.42
1:QA:738:C:H2'	1:QA:739:C:C6	2.55	0.42
1:QA:751:U:H2'	1:QA:752:G:O4'	2.19	0.42
1:QA:947:G:H4'	1:QA:1332:A:H2	1.84	0.42
1:QA:955:U:H1'	1:QA:1227:A:N6	2.34	0.42
1:QA:966:G:N2	22:QV:35:C:H5'	2.34	0.42
1:QA:1009:G:O6	1:QA:1020:U:O4	2.37	0.42
1:QA:1149:C:H2'	1:QA:1150:U:H6	1.85	0.42
1:QA:1410:G:H2'	1:QA:1411:C:H6	1.84	0.42
2:QB:93:VAL:HG11	2:QB:97:TRP:CD1	2.54	0.42
7:QG:94:ARG:NH1	7:QG:98:SER:OG	2.53	0.42
19:QS:19:VAL:HG21	19:QS:44:MET:SD	2.60	0.42
25:RA:131:G:H2'	25:RA:132:G:C8	2.53	0.42
25:RA:557:U:H2'	25:RA:558:G:C8	2.55	0.42
25:RA:1103:A:H5"	25:RA:1104:C:C5	2.53	0.42
25:RA:1142(A):A:H4'	33:RN:25:ARG:NH2	2.34	0.42
25:RA:1357:U:H2'	25:RA:1358:G:O4'	2.20	0.42
25:RA:2291:U:OP1	25:RA:2380:C:O2'	2.38	0.42
25:RA:2537:U:H2'	25:RA:2538:C:C6	2.54	0.42
25:RA:2755:C:H42	55:R9:1:MET:N	2.17	0.42
29:RF:118:ALA:HB2	29:RF:123:LEU:HD22	2.01	0.42
1:XA:149:A:H2'	1:XA:150:C:C6	2.55	0.42
1:XA:624:C:H2'	1:XA:625:G:H8	1.84	0.42
1:XA:1010:G:H2'	1:XA:1011:G:H8	1.84	0.42
1:XA:1321:C:C3'	1:XA:1322:C:H5"	2.50	0.42
1:XA:1374:A:O2'	7:XG:28:ASN:HB3	2.19	0.42
4:XD:57:ARG:HB3	4:XD:206:PHE:HB2	1.99	0.42
9:XI:65:VAL:CG2	9:XI:73:GLN:HG2	2.49	0.42
11:XK:82:VAL:HG11	11:XK:95:ILE:HD12	2.02	0.42
16:XP:57:ARG:NE	16:XP:79:VAL:O	2.53	0.42
25:YA:43:G:H2'	25:YA:44:A:C8	2.54	0.42
25:YA:1257:C:H2'	25:YA:1258:C:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:1292:U:H2'	25:YA:1293:C:C6	2.54	0.42
25:YA:1841:U:C2	25:YA:1842:G:C8	3.07	0.42
25:YA:2278:A:OP2	46:Y0:12:ASN:ND2	2.52	0.42
25:YA:2744:G:H4'	55:Y9:19:ARG:O	2.20	0.42
26:YB:32:C:C4	26:YB:51:G:N2	2.87	0.42
27:YD:165:ILE:HA	27:YD:175:LEU:HD23	2.02	0.42
50:Y4:61:ARG:O	50:Y4:61:ARG:HG2	2.19	0.42
55:Y9:1:MET:HG3	55:Y9:33:LYS:CD	2.45	0.42
1:QA:19:C:H5"	5:QE:86:ALA:HB3	2.00	0.42
1:QA:156:G:H2'	1:QA:157:G:C8	2.54	0.42
1:QA:607:A:H2'	1:QA:608:A:O4'	2.20	0.42
1:QA:1107:C:C4	1:QA:1108:G:C8	3.07	0.42
6:QF:10:LEU:HD13	6:QF:61:LEU:HD13	2.02	0.42
9:QI:121:ARG:NH1	9:QI:122:ALA:O	2.53	0.42
10:QJ:13:HIS:HB3	10:QJ:68:HIS:NE2	2.34	0.42
25:RA:51:G:OP2	25:RA:51:G:H8	2.03	0.42
25:RA:108:U:H2'	25:RA:109:G:C8	2.55	0.42
25:RA:667:U:H2'	25:RA:668:G:O4'	2.19	0.42
25:RA:861:A:N3	26:RB:79:C:O2'	2.50	0.42
25:RA:1458:C:H4'	25:RA:1459:G:O4'	2.20	0.42
25:RA:1841:U:H2'	25:RA:1842:G:H8	1.84	0.42
25:RA:2377:A:H4'	38:RS:111:GLU:O	2.19	0.42
25:RA:2406:U:C2	35:RP:72:PRO:HB2	2.55	0.42
27:RD:92:ILE:HD12	27:RD:104:TYR:CD2	2.55	0.42
30:RG:11:TYR:CD1	30:RG:176:LEU:HD21	2.53	0.42
34:RO:77:ILE:HB	39:RT:74:ARG:HH11	1.85	0.42
37:RR:3:HIS:O	37:RR:4:LEU:C	2.62	0.42
45:RZ:10:ARG:NH2	45:RZ:37:VAL:O	2.53	0.42
50:R4:56:VAL:CG2	50:R4:58:ARG:HG3	2.50	0.42
1:XA:552:U:H2'	1:XA:553:A:H8	1.82	0.42
1:XA:555:C:H2'	1:XA:556:C:C6	2.55	0.42
1:XA:1126:U:H1'	1:XA:1280:A:N7	2.35	0.42
1:XA:1161:C:H2'	1:XA:1162:C:C6	2.54	0.42
1:XA:1417:G:C6	1:XA:1482:G:C6	3.08	0.42
3:XC:64:VAL:HG12	3:XC:66:VAL:HG23	2.02	0.42
13:XM:7:VAL:HG11	30:YG:115:ARG:HH12	1.85	0.42
22:XV:20:G:H4'	22:XV:21:U:OP2	2.17	0.42
22:XW:28:U:H2'	22:XW:29:C:C6	2.53	0.42
25:YA:269:U:H1'	25:YA:424:G:N2	2.34	0.42
25:YA:270(I):G:H2'	25:YA:270(J):G:C8	2.55	0.42
25:YA:671:C:H2'	25:YA:672:C:C6	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:1142(A):A:C4	25:YA:1144:G:N7	2.88	0.42
25:YA:1296:G:OP1	25:YA:2709:G:O2'	2.22	0.42
25:YA:2061:G:H5"	25:YA:2503:A:C2	2.55	0.42
25:YA:2235:G:H2'	25:YA:2236:C:C6	2.55	0.42
26:YB:7:G:H4'	38:YS:29:PHE:CG	2.54	0.42
28:YE:116:VAL:HG23	28:YE:157:ALA:HB2	2.01	0.42
29:YF:176:LEU:HD21	29:YF:181:LEU:HA	2.02	0.42
32:YI:68:LEU:HA	32:YI:71:ILE:HG22	2.01	0.42
32:YI:99:GLU:OE2	32:YI:103:ARG:NH2	2.52	0.42
34:YO:78:ARG:NE	39:YT:73:GLU:OE1	2.52	0.42
34:YO:103:ALA:HA	34:YO:122:LEU:O	2.19	0.42
38:YS:14:VAL:HG11	38:YS:90:GLY:O	2.19	0.42
38:YS:26:LEU:HD22	38:YS:87:PHE:HD1	1.84	0.42
39:YT:57:PHE:CG	39:YT:58:ASN:N	2.88	0.42
40:YU:92:ARG:NH1	40:YU:94:ASN:OD1	2.53	0.42
1:QA:181:G:H4'	1:QA:182:U:H5'	2.01	0.42
1:QA:322:C:H2'	1:QA:323:U:C6	2.54	0.42
1:QA:652:U:H1'	1:QA:653:A:H2	1.84	0.42
1:QA:1121:U:H2'	1:QA:1122:U:H6	1.85	0.42
1:QA:1347:G:O2'	1:QA:1348:U:P	2.78	0.42
1:QA:1352:C:H2'	1:QA:1353:G:C8	2.55	0.42
2:QB:163:PHE:HA	2:QB:185:ILE:O	2.19	0.42
2:QB:237:ALA:O	2:QB:239:VAL:HG23	2.19	0.42
4:QD:63:LYS:HE3	4:QD:198:VAL:HG22	2.01	0.42
4:QD:121:VAL:O	4:QD:134:ASP:HA	2.20	0.42
9:QI:96:LEU:HD12	9:QI:101:PHE:HB2	2.00	0.42
25:RA:177:G:H5'	25:RA:178:G:N7	2.34	0.42
25:RA:363(E):U:H3'	25:RA:363(F):A:C8	2.54	0.42
25:RA:740:U:H2'	25:RA:741:G:C8	2.54	0.42
25:RA:746:A:H2'	25:RA:2612:C:H5"	2.01	0.42
25:RA:863:A:H2'	25:RA:864:G:C8	2.55	0.42
25:RA:1198:U:C2	25:RA:1199:U:C5	3.08	0.42
25:RA:1588:C:H2'	25:RA:1589:C:H6	1.84	0.42
25:RA:2405:G:HO2'	25:RA:2406:U:P	2.41	0.42
25:RA:2455:G:C4	25:RA:2456:C:C5	3.07	0.42
25:RA:2514:U:H2'	25:RA:2515:C:H6	1.85	0.42
27:RD:14:ARG:HG3	27:RD:15:PHE:CD1	2.55	0.42
27:RD:52:ARG:HE	27:RD:53:PHE:HE2	1.68	0.42
29:RF:155:LEU:HD23	29:RF:186:ILE:HD13	2.02	0.42
36:RQ:3:MET:HB2	36:RQ:93:TYR:CE2	2.54	0.42
1:XA:62:U:OP1	1:XA:385:C:O2'	2.37	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:485:G:O2'	1:XA:486:U:P	2.78	0.42
1:XA:498:A:O3'	1:XA:500:G:H8	2.02	0.42
1:XA:864:A:H2'	1:XA:865:A:C8	2.54	0.42
1:XA:932:C:H5'	7:XG:4:ARG:HG3	2.02	0.42
1:XA:950:U:H2'	1:XA:951:G:H8	1.84	0.42
1:XA:1179:A:H2'	1:XA:1180:A:O4'	2.20	0.42
1:XA:1319:A:OP1	19:XS:3:ARG:HD3	2.20	0.42
1:XA:1392:G:H2'	1:XA:1393:U:C6	2.54	0.42
1:XA:1496:C:H2'	1:XA:1497:G:C8	2.55	0.42
2:XB:164:VAL:HG12	2:XB:166:ASP:H	1.84	0.42
3:XC:129:ALA:HB3	3:XC:132:ARG:HB3	2.02	0.42
8:XH:104:ARG:HD2	8:XH:138:TRP:CE3	2.54	0.42
12:XL:39:VAL:HB	12:XL:57:LYS:HB2	2.01	0.42
13:XM:65:LYS:HB3	50:Y4:50:VAL:HG21	2.02	0.42
19:XS:10:PHE:HE1	19:XS:15:LEU:HD21	1.84	0.42
22:XV:53:G:HO2'	22:XV:54:G:P	2.41	0.42
25:YA:270(P):C:H2'	25:YA:270(Q):C:H6	1.85	0.42
25:YA:459:U:H2'	25:YA:460:A:H8	1.84	0.42
25:YA:1842:G:O2'	27:YD:253:GLN:NE2	2.47	0.42
25:YA:2153:G:H2'	25:YA:2154:G:H8	1.84	0.42
26:YB:111:U:H2'	26:YB:112:G:C8	2.55	0.42
29:YF:178:PRO:HB3	29:YF:198:ALA:HB2	2.00	0.42
30:YG:16:ARG:O	30:YG:20:ILE:HG12	2.19	0.42
41:YV:34:GLU:O	41:YV:36:PRO:HD3	2.20	0.42
1:QA:392:G:H2'	1:QA:393:A:C8	2.55	0.42
1:QA:429:U:H3'	4:QD:9:CYS:SG	2.60	0.42
1:QA:446:G:H2'	1:QA:447:G:O4'	2.20	0.42
1:QA:629:G:H2'	1:QA:630:G:C8	2.55	0.42
1:QA:658:G:H2'	1:QA:659:U:C6	2.55	0.42
1:QA:667:G:H2'	1:QA:668:G:H8	1.84	0.42
1:QA:1211:U:H5'	1:QA:1212:U:OP1	2.20	0.42
1:QA:1419:G:H1	1:QA:1481:U:H3	1.68	0.42
2:QB:48:MET:HA	2:QB:51:LEU:HD12	2.02	0.42
12:QL:104:VAL:HG12	12:QL:105:TYR:CD2	2.54	0.42
13:QM:13:LYS:HA	13:QM:44:ARG:HD2	2.02	0.42
25:RA:150:C:H2'	25:RA:151:C:H6	1.84	0.42
25:RA:621:A:OP2	35:RP:108:LYS:NZ	2.52	0.42
25:RA:783:A:H2'	25:RA:784:A:H4'	2.00	0.42
25:RA:1475:G:H2'	25:RA:1476:C:C6	2.54	0.42
25:RA:1680:U:H2'	25:RA:1681:G:O4'	2.20	0.42
25:RA:2285:C:N4	52:R6:24:GLU:OE2	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:2379:G:H2'	25:RA:2380:C:H6	1.85	0.42
25:RA:2532:G:N2	25:RA:2663:G:O2'	2.53	0.42
25:RA:2758:A:C4	31:RH:67:LEU:HD21	2.54	0.42
26:RB:16:G:N2	26:RB:69:G:H1'	2.35	0.42
27:RD:4:LYS:NZ	27:RD:20:ASP:HA	2.35	0.42
28:RE:82:ARG:O	28:RE:83:ASP:HB2	2.19	0.42
31:RH:14:GLY:O	31:RH:29:PRO:HD3	2.20	0.42
34:RO:2:ILE:HG21	34:RO:8:LEU:HD21	2.02	0.42
36:RQ:62:GLY:HA3	36:RQ:107:ALA:O	2.20	0.42
54:R8:34:TRP:CE3	54:R8:35:GLN:HB2	2.55	0.42
55:R9:25:VAL:O	55:R9:33:LYS:HA	2.19	0.42
1:XA:164:U:H2'	1:XA:165:C:C6	2.54	0.42
1:XA:295:C:H2'	1:XA:296:U:O4'	2.20	0.42
1:XA:412:A:H61	4:XD:35:ARG:HA	1.84	0.42
1:XA:560:U:H4'	1:XA:561:U:C5'	2.50	0.42
1:XA:745:C:OP1	1:XA:851:G:O2'	2.37	0.42
1:XA:812:C:H4'	1:XA:813:U:H5'	2.02	0.42
1:XA:902:G:H2'	1:XA:903:G:H8	1.84	0.42
1:XA:991:U:O4	1:XA:1212:U:O2'	2.19	0.42
1:XA:1129:C:H4'	1:XA:1130:A:H5'	2.01	0.42
1:XA:1264:C:H2'	1:XA:1265:G:H8	1.83	0.42
1:XA:1369:C:H2'	1:XA:1370:G:C8	2.55	0.42
1:XA:1414:U:H2'	1:XA:1415:G:C8	2.54	0.42
22:XV:20:G:H5'	22:XV:21:U:C5	2.54	0.42
25:YA:137(A):G:H2'	25:YA:139:G:N7	2.34	0.42
25:YA:817:C:O2'	25:YA:839:U:OP1	2.25	0.42
25:YA:1026:U:H4'	25:YA:1027:A:OP1	2.20	0.42
45:YZ:151:HIS:CB	45:YZ:170:THR:HA	2.50	0.42
50:Y4:55:ARG:HD3	50:Y4:58:ARG:NH2	2.35	0.42
1:QA:113:G:H1'	1:QA:354:G:H5'	2.01	0.42
1:QA:513:C:H2'	1:QA:514:C:H6	1.85	0.42
1:QA:763:G:H2'	1:QA:764:C:H6	1.85	0.42
1:QA:1160:G:H4'	2:QB:132:LYS:NZ	2.34	0.42
1:QA:1298:C:H4'	1:QA:1299:A:C5	2.55	0.42
1:QA:1343:G:H4'	9:QI:122:ALA:HB3	2.00	0.42
2:QB:12:GLU:HA	2:QB:16:HIS:CD2	2.55	0.42
18:QR:47:THR:O	18:QR:83:GLU:N	2.52	0.42
25:RA:81:G:C6	25:RA:82:G:N2	2.87	0.42
25:RA:220:G:H21	25:RA:429:A:N6	2.17	0.42
25:RA:661:C:H5"	35:RP:15:ARG:NH2	2.35	0.42
25:RA:1032:A:O2'	25:RA:1033:U:P	2.78	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:1094:U:O2'	25:RA:1096:A:OP1	2.29	0.42
25:RA:1116:C:H2'	25:RA:1117:G:C8	2.55	0.42
25:RA:1530:G:H1	25:RA:1541:U:H3	1.67	0.42
25:RA:1540:G:H2'	25:RA:1541:U:C6	2.55	0.42
25:RA:2020:A:H4'	40:RU:25:TRP:HZ3	1.85	0.42
25:RA:2368:C:H2'	25:RA:2369:A:C8	2.53	0.42
25:RA:2475:C:H42	25:RA:2529:G:H22	1.67	0.42
25:RA:2543:G:H2'	25:RA:2544:G:C8	2.55	0.42
25:RA:2838:G:C4	25:RA:2839:G:C8	3.07	0.42
27:RD:27:THR:HG21	27:RD:81:ALA:HB1	2.01	0.42
28:RE:74:PRO:HG2	28:RE:77:ILE:HG22	2.02	0.42
34:RO:64:ARG:HB2	34:RO:83:ALA:HB3	2.01	0.42
35:RP:61:ARG:HG3	54:R8:13:ARG:CD	2.49	0.42
45:RZ:103:ARG:HD3	45:RZ:136:PHE:CD2	2.55	0.42
1:XA:109:A:C6	1:XA:326:G:C6	3.08	0.42
1:XA:358:U:H2'	1:XA:359:U:C6	2.55	0.42
1:XA:807:A:H2'	1:XA:808:C:H6	1.83	0.42
1:XA:1016:A:H2'	1:XA:1017:G:O4'	2.20	0.42
1:XA:1038:C:H2'	1:XA:1039:C:C6	2.55	0.42
3:XC:20:SER:OG	3:XC:22:TRP:NE1	2.53	0.42
4:XD:105:VAL:HG13	4:XD:110:PHE:HB2	2.02	0.42
13:XM:83:ASP:H	13:XM:93:ARG:NH2	2.17	0.42
14:XN:23:ARG:NH1	14:XN:30:ALA:HB2	2.34	0.42
18:XR:53:ARG:HE	18:XR:59:SER:C	2.28	0.42
25:YA:65:C:H2'	25:YA:66:C:H6	1.85	0.42
25:YA:689:A:H2'	25:YA:690:G:H8	1.85	0.42
25:YA:2527:C:H5'	55:Y9:14:CYS:O	2.20	0.42
25:YA:2660:A:H2'	25:YA:2661:G:O4'	2.20	0.42
26:YB:3:C:H2'	26:YB:4:C:C6	2.54	0.42
27:YD:10:THR:OG1	27:YD:13:ARG:HG3	2.19	0.42
31:YH:148:ILE:HG23	55:Y9:20:HIS:NE2	2.35	0.42
35:YP:82:GLY:HA2	35:YP:113:LYS:O	2.20	0.42
1:QA:148:G:H2'	1:QA:149:A:C8	2.54	0.42
1:QA:672:U:H3	1:QA:734:G:H1	1.68	0.42
1:QA:757:U:H2'	1:QA:758:G:O4'	2.19	0.42
1:QA:1031:G:OP2	1:QA:1031:G:H8	2.03	0.42
1:QA:1060:C:H2'	1:QA:1061:G:H8	1.85	0.42
1:QA:1435:G:H2'	1:QA:1436:U:C6	2.55	0.42
3:QC:5:ILE:HD11	14:QN:49:HIS:HE1	1.84	0.42
3:QC:52:LEU:HD23	3:QC:52:LEU:H	1.85	0.42
3:QC:186:PHE:HA	3:QC:198:VAL:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:QD:127:THR:HA	4:QD:132:ARG:HA	2.02	0.42
6:QF:7:ASN:HB2	6:QF:89:MET:HB3	2.02	0.42
7:QG:15:ASP:H	7:QG:20:ASP:H	1.68	0.42
25:RA:823:G:H2'	25:RA:824:A:C8	2.54	0.42
25:RA:1790:C:H2'	25:RA:1791:A:C8	2.55	0.42
25:RA:2372:G:H2'	25:RA:2373:G:H8	1.84	0.42
25:RA:2747:G:O6	25:RA:2754:U:H3'	2.20	0.42
25:RA:2869:G:H2'	25:RA:2870:C:C6	2.55	0.42
40:RU:90:VAL:HG11	41:RV:40:LEU:HG	2.02	0.42
40:RU:94:ASN:C	40:RU:94:ASN:HD22	2.24	0.42
43:RX:70:LEU:HD23	43:RX:70:LEU:H	1.84	0.42
1:XA:582:U:H2'	1:XA:583:A:H8	1.85	0.42
1:XA:584:G:H2'	1:XA:585:G:H8	1.84	0.42
1:XA:1171:G:H2'	1:XA:1172:C:C6	2.54	0.42
1:XA:1262:C:H2'	1:XA:1263:C:C6	2.55	0.42
1:XA:1323:G:H2'	1:XA:1324:A:C8	2.54	0.42
2:XB:167:PRO:HG2	2:XB:192:SER:CB	2.49	0.42
4:XD:173:TRP:CZ3	4:XD:193:ASP:HB3	2.55	0.42
5:XE:51:VAL:HB	5:XE:52:PRO:HD3	2.02	0.42
5:XE:98:THR:H	5:XE:117:ASP:CG	2.28	0.42
9:XI:7:THR:O	9:XI:83:ARG:HD2	2.20	0.42
25:YA:185:U:H2'	25:YA:186:G:C8	2.55	0.42
25:YA:217:G:C4	25:YA:218:A:C8	3.08	0.42
25:YA:376:C:H2'	25:YA:377:C:H6	1.85	0.42
25:YA:881:G:O6	25:YA:895:U:O2	2.38	0.42
25:YA:1246:A:OP1	35:YP:15:ARG:NH2	2.45	0.42
25:YA:1424:G:H2'	25:YA:1425:G:O4'	2.20	0.42
25:YA:1470:G:O2'	25:YA:1522:G:O6	2.22	0.42
25:YA:1669:A:O3'	25:YA:2549:G:H5'	2.20	0.42
25:YA:1801:G:O6	25:YA:2206:C:O2'	2.34	0.42
27:YD:71:ASP:HB2	27:YD:103:ARG:HH12	1.85	0.42
33:YN:13:TRP:HB2	33:YN:133:GLN:HB3	2.01	0.42
33:YN:18:ALA:HB2	33:YN:54:VAL:HG13	2.01	0.42
36:YQ:74:TYR:HD2	36:YQ:91:GLU:HB3	1.85	0.42
45:YZ:52:SER:C	45:YZ:54:HIS:N	2.75	0.42
1:QA:267:C:P	17:QQ:67:LYS:HD2	2.59	0.41
1:QA:1167:A:H2'	1:QA:1169:A:C8	2.55	0.41
1:QA:1443:G:H5'	1:QA:1446:A:OP2	2.20	0.41
9:QI:83:ARG:O	9:QI:86:VAL:HG12	2.20	0.41
15:QO:36:ILE:HG23	15:QO:56:LEU:HD11	2.02	0.41
16:QP:19:ILE:HD11	16:QP:73:LEU:HD22	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:QY:40:C:H2'	24:QY:41:C:C6	2.55	0.41
25:RA:270(G):C:H2'	25:RA:270(H):C:C6	2.55	0.41
25:RA:784:A:O2'	25:RA:785:G:H5"	2.20	0.41
25:RA:1259:G:H2'	25:RA:1260:G:C8	2.55	0.41
25:RA:2011:U:H2'	25:RA:2012:G:O4'	2.19	0.41
25:RA:2472:G:N1	25:RA:2477:C:OP1	2.38	0.41
27:RD:24:ILE:HD13	27:RD:82:ILE:HG22	2.01	0.41
29:RF:32:LEU:HD12	29:RF:32:LEU:HA	1.87	0.41
31:RH:86:GLU:HG3	31:RH:164:TYR:HD1	1.84	0.41
35:RP:144:GLU:HA	35:RP:145:PRO:HD3	1.87	0.41
36:RQ:55:VAL:HG13	45:RZ:178:GLU:HB3	2.02	0.41
38:RS:110:LEU:HB3	38:RS:112:PHE:CE1	2.55	0.41
40:RU:59:ARG:O	40:RU:63:VAL:HG23	2.20	0.41
40:RU:92:ARG:C	40:RU:94:ASN:N	2.75	0.41
1:XA:1291:G:H2'	1:XA:1292:U:C6	2.55	0.41
8:XH:12:ARG:HH12	8:XH:27:PRO:HD3	1.85	0.41
10:XJ:38:ILE:HG13	10:XJ:38:ILE:O	2.20	0.41
19:XS:26:GLY:O	19:XS:27:GLU:HG2	2.20	0.41
20:XT:30:LYS:HZ2	20:XT:80:ARG:NH1	2.18	0.41
22:XW:25:U:H2'	22:XW:26:C:C6	2.55	0.41
25:YA:84:A:H2	25:YA:103:A:C5	2.37	0.41
25:YA:1844:C:H2'	25:YA:1845:G:C8	2.53	0.41
25:YA:2746:U:H2'	25:YA:2747:G:C8	2.54	0.41
25:YA:2757:A:N3	25:YA:2757:A:H2'	2.35	0.41
25:YA:2809:A:H2'	25:YA:2810:A:H8	1.85	0.41
26:YB:17:C:H2'	26:YB:18:G:O4'	2.20	0.41
38:YS:14:VAL:O	38:YS:18:ILE:HG12	2.20	0.41
38:YS:20:ARG:HH22	46:Y0:47:PRO:HB2	1.84	0.41
43:YX:31:HIS:CE1	43:YX:33:LYS:HB2	2.55	0.41
44:YY:15:VAL:HG21	44:YY:42:VAL:HG11	2.01	0.41
47:Y1:3:LYS:O	47:Y1:12:PRO:HD3	2.20	0.41
55:Y9:1:MET:HE3	55:Y9:33:LYS:HD3	2.02	0.41
1:QA:363:A:N1	12:QL:31:PRO:HD2	2.35	0.41
1:QA:464:G:N1	1:QA:467:G:OP2	2.54	0.41
1:QA:962:C:H1'	1:QA:1201:A:N6	2.34	0.41
1:QA:1226:C:H42	13:QM:104:ARG:NH1	2.18	0.41
1:QA:1513:A:H2'	1:QA:1514:C:H6	1.86	0.41
9:QI:111:ARG:HG3	14:QN:61:TRP:CD1	2.55	0.41
22:QV:28:U:H2'	22:QV:29:C:H6	1.84	0.41
22:QV:37:U:H2'	22:QV:38:A:H8	1.85	0.41
25:RA:1019:U:OP1	25:RA:1035:U:O2'	2.22	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:1201:C:C2	25:RA:1202:C:C5	3.08	0.41
25:RA:1351:C:H2'	25:RA:1352:U:C6	2.55	0.41
25:RA:1569:A:H2'	25:RA:1570:A:C8	2.54	0.41
25:RA:2078:C:H2'	25:RA:2079:U:C6	2.55	0.41
25:RA:2868:A:H2'	25:RA:2869:G:C8	2.55	0.41
28:RE:6:GLY:HA2	28:RE:51:PHE:CE1	2.55	0.41
30:RG:16:ARG:O	30:RG:20:ILE:HG12	2.20	0.41
31:RH:154:PRO:HB3	31:RH:162:ILE:O	2.20	0.41
33:RN:73:THR:HB	33:RN:82:LEU:HD11	2.02	0.41
37:RR:86:ARG:NH2	37:RR:118:GLU:OXT	2.52	0.41
40:RU:44:ASN:ND2	41:RV:75:PHE:HB3	2.35	0.41
43:RX:31:HIS:HB3	43:RX:34:ALA:HB2	2.02	0.41
46:R0:15:ASP:OD1	46:R0:16:SER:N	2.53	0.41
1:XA:41:G:C6	1:XA:402:G:C6	3.09	0.41
1:XA:235:C:H2'	1:XA:236:G:H8	1.84	0.41
1:XA:314:C:H2'	1:XA:315:A:C8	2.55	0.41
1:XA:377:G:OP1	16:XP:3:LYS:HD2	2.19	0.41
1:XA:784:C:H2'	1:XA:785:G:C8	2.55	0.41
1:XA:1254:C:H2'	1:XA:1255:G:C8	2.54	0.41
5:XE:15:ARG:HG3	5:XE:28:PHE:CE1	2.54	0.41
7:XG:45:ASP:O	7:XG:49:ILE:HG12	2.20	0.41
18:XR:44:LEU:HD21	18:XR:74:ARG:HH21	1.85	0.41
22:XW:19:G:H1'	22:XW:59:A:C2	2.56	0.41
25:YA:27:G:N2	25:YA:513:A:OP2	2.52	0.41
25:YA:689:A:H2'	25:YA:690:G:C8	2.55	0.41
25:YA:710:G:H2'	25:YA:711:G:H8	1.85	0.41
25:YA:922:U:H2'	25:YA:923:C:C6	2.55	0.41
25:YA:1354:A:H5'	27:YD:38:LYS:NZ	2.35	0.41
25:YA:1479:G:N7	25:YA:1510:A:N6	2.68	0.41
25:YA:1550:C:H2'	25:YA:1551:C:H6	1.84	0.41
25:YA:1812:A:H4'	27:YD:46:GLN:HE22	1.85	0.41
25:YA:1835:G:H2'	25:YA:1835:G:N3	2.35	0.41
25:YA:2774:C:H2'	25:YA:2775:A:O4'	2.19	0.41
26:YB:28:C:OP2	38:YS:33:LYS:HE3	2.21	0.41
30:YG:72:ARG:HD3	30:YG:87:PRO:HB3	2.02	0.41
30:YG:115:ARG:C	30:YG:117:PHE:H	2.28	0.41
33:YN:30:ILE:HD13	33:YN:99:LEU:HD11	2.01	0.41
35:YP:107:LYS:O	35:YP:109:GLY:N	2.54	0.41
36:YQ:34:LEU:HB2	36:YQ:118:LEU:HD22	2.01	0.41
40:YU:94:ASN:C	40:YU:96:ALA:H	2.27	0.41
45:YZ:99:TYR:CE1	45:YZ:125:LEU:HB2	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:Y1:76:ARG:HD2	47:Y1:76:ARG:N	2.35	0.41
1:QA:161:A:H2'	1:QA:162:A:C8	2.56	0.41
1:QA:1103:C:O2	2:QB:107:THR:HG21	2.21	0.41
1:QA:1151:A:H2'	1:QA:1152:A:H8	1.85	0.41
3:QC:81:GLY:HA2	3:QC:84:ILE:HG22	2.03	0.41
11:QK:124:LYS:HE3	11:QK:125:PHE:CE1	2.56	0.41
25:RA:300:A:H2'	25:RA:334:C:H1'	2.02	0.41
25:RA:399:G:H2'	25:RA:400:G:O4'	2.21	0.41
25:RA:639:U:C2	25:RA:640:C:C5	3.08	0.41
25:RA:669:G:H5"	25:RA:670:A:OP2	2.20	0.41
25:RA:752:A:H4'	25:RA:753:C:H5'	2.02	0.41
25:RA:1664:A:H61	25:RA:1996:C:N4	2.17	0.41
25:RA:1829:A:H3'	25:RA:1830:C:H6	1.85	0.41
25:RA:2291:U:O2'	25:RA:2374:C:O2	2.35	0.41
25:RA:2754:U:O2'	25:RA:2756:U:OP1	2.35	0.41
27:RD:260:ARG:NH2	27:RD:264:LYS:HD3	2.36	0.41
36:RQ:66:ILE:HG13	36:RQ:67:ARG:N	2.35	0.41
38:RS:27:SER:HA	38:RS:88:ASP:HB3	2.02	0.41
1:XA:272:C:C2	1:XA:273:A:C8	3.08	0.41
1:XA:452:A:O2'	16:XP:72:ARG:HD2	2.21	0.41
1:XA:737:A:H5'	6:XF:90:VAL:O	2.21	0.41
1:XA:770:C:H2'	1:XA:771:G:H8	1.85	0.41
2:XB:93:VAL:HG11	2:XB:97:TRP:CD1	2.55	0.41
25:YA:463:G:N2	25:YA:466:A:OP2	2.30	0.41
25:YA:816:C:H2'	25:YA:817:C:H6	1.85	0.41
25:YA:995:C:O2	33:YN:3:THR:OG1	2.30	0.41
25:YA:1291:C:H2'	25:YA:1292:U:H6	1.85	0.41
25:YA:2011:U:H2'	25:YA:2012:G:O4'	2.20	0.41
25:YA:2030:A:H4'	25:YA:2031:A:C8	2.54	0.41
26:YB:48:A:H2'	26:YB:49:C:C6	2.55	0.41
31:YH:149:ARG:HD3	31:YH:162:ILE:HD12	2.02	0.41
55:Y9:13:LYS:HA	55:Y9:13:LYS:HD3	1.79	0.41
1:QA:287:U:H2'	1:QA:288:A:C8	2.55	0.41
1:QA:642:A:N7	8:QH:115:SER:HA	2.35	0.41
1:QA:784:C:H2'	1:QA:785:G:H8	1.85	0.41
1:QA:792:A:N3	1:QA:792:A:H2'	2.35	0.41
1:QA:812:C:H1'	1:QA:813:U:OP2	2.21	0.41
1:QA:913:A:H4'	1:QA:914:A:O5'	2.21	0.41
1:QA:1152:A:H2'	1:QA:1153:C:C6	2.55	0.41
1:QA:1242:C:H2'	1:QA:1243:C:C6	2.55	0.41
1:QA:1289:A:H2'	1:QA:1290:G:H5'	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1349:A:H62	1:QA:1373:G:H21	1.66	0.41
1:QA:1351:U:H5	9:QI:118:LYS:HZ1	1.68	0.41
2:QB:97:TRP:NE1	2:QB:101:MET:HG3	2.36	0.41
11:QK:29:ILE:HG13	11:QK:44:SER:HB3	2.01	0.41
20:QT:43:LEU:HD13	20:QT:51:GLU:HG3	2.03	0.41
25:RA:242:G:N2	25:RA:254:G:H2'	2.35	0.41
25:RA:809:G:H2'	25:RA:810:U:C6	2.56	0.41
25:RA:1676:A:H2'	25:RA:1677:A:O4'	2.20	0.41
25:RA:1819:A:H4'	25:RA:1820:U:O5'	2.19	0.41
25:RA:2061:G:H2'	25:RA:2501:C:O2'	2.21	0.41
25:RA:2108:C:H2'	25:RA:2109:U:H6	1.85	0.41
25:RA:2359:C:H2'	25:RA:2360:A:O4'	2.19	0.41
25:RA:2454:G:C2	25:RA:2499:C:N4	2.88	0.41
25:RA:2712:U:O2'	25:RA:2712(A):A:C8	2.73	0.41
25:RA:2712:U:O2'	25:RA:2712(A):A:OP1	2.33	0.41
25:RA:2754:U:H4'	55:R9:30:PRO:HD2	2.02	0.41
31:RH:28:GLY:HA3	31:RH:79:VAL:HB	2.02	0.41
33:RN:123:TYR:HE2	33:RN:129:PRO:HD2	1.86	0.41
40:RU:21:ALA:HA	40:RU:24:TYR:CE2	2.56	0.41
41:RV:35:LEU:HD13	41:RV:37:VAL:HG23	2.02	0.41
49:R3:3:ARG:NH2	49:R3:60:GLU:OXT	2.53	0.41
52:R6:6:ARG:HE	52:R6:24:GLU:CD	2.28	0.41
1:XA:489:C:H2'	1:XA:490:G:C8	2.55	0.41
1:XA:512:U:H2'	1:XA:513:C:C6	2.55	0.41
1:XA:784:C:H2'	1:XA:785:G:H8	1.85	0.41
1:XA:865:A:H2'	1:XA:866:C:C6	2.56	0.41
1:XA:1015:A:H2'	1:XA:1016:A:C8	2.56	0.41
12:XL:27:LEU:HD13	12:XL:62:SER:CB	2.48	0.41
22:XW:9:G:H4'	22:XW:47:G:H4'	2.02	0.41
25:YA:141:A:H8	25:YA:1408:C:H1'	1.85	0.41
25:YA:210:C:H2'	25:YA:211:A:C8	2.55	0.41
25:YA:848:G:O6	25:YA:929:G:H2'	2.20	0.41
25:YA:1379:A:H4'	25:YA:1380:G:OP2	2.19	0.41
25:YA:1706:U:O2'	25:YA:1757:U:H5'	2.20	0.41
25:YA:1939:U:O2	25:YA:1967:C:H4'	2.20	0.41
25:YA:2526:G:N2	25:YA:2537:U:O2	2.44	0.41
35:YP:104:GLY:C	35:YP:105:LEU:HD12	2.44	0.41
42:YW:88:ARG:HB2	42:YW:92:ARG:HB2	2.01	0.41
44:YY:99:CYS:SG	44:YY:100:ALA:N	2.94	0.41
45:YZ:145:GLU:HG3	45:YZ:146:ILE:N	2.34	0.41
47:Y1:53:VAL:C	47:Y1:55:GLY:H	2.27	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:Y8:34:TRP:CE3	54:Y8:35:GLN:HB2	2.55	0.41
1:QA:97:U:H2'	1:QA:99:C:C6	2.55	0.41
1:QA:174:C:H2'	1:QA:175:C:C6	2.56	0.41
1:QA:551:U:H2'	1:QA:552:U:C6	2.56	0.41
1:QA:639:G:H2'	1:QA:640:A:C8	2.54	0.41
1:QA:726:C:H2'	1:QA:727:G:C8	2.54	0.41
1:QA:977:A:O2'	1:QA:979:C:OP2	2.32	0.41
1:QA:1096:C:H2'	1:QA:1097:C:C6	2.55	0.41
1:QA:1376:U:P	7:QG:94:ARG:HH22	2.43	0.41
3:QC:20:SER:HG	3:QC:22:TRP:NE1	2.19	0.41
16:QP:53:VAL:O	16:QP:57:ARG:HG2	2.20	0.41
22:QW:10:G:C6	22:QW:27:G:C5	3.09	0.41
22:QW:41:C:H2'	22:QW:42:C:C6	2.55	0.41
25:RA:324:A:N6	25:RA:339:U:O4'	2.54	0.41
25:RA:1405:U:H2'	25:RA:1406:U:C6	2.48	0.41
25:RA:1528:A:C8	25:RA:1529:A:C8	3.09	0.41
25:RA:1556:C:H2'	25:RA:1557:C:C6	2.56	0.41
25:RA:2506:U:O2	25:RA:2506:U:H2'	2.20	0.41
28:RE:61:ARG:C	28:RE:63:LEU:H	2.29	0.41
37:RR:96:ARG:NH2	37:RR:117:VAL:HG23	2.35	0.41
41:RV:52:VAL:HG21	41:RV:55:ALA:HB3	2.02	0.41
52:R6:16:CYS:HB2	52:R6:18:ARG:NH1	2.36	0.41
1:XA:356:A:N3	1:XA:368:U:O2'	2.46	0.41
1:XA:360:A:C6	1:XA:361:G:C6	3.09	0.41
1:XA:701:C:OP1	1:XA:702:A:O2'	2.22	0.41
1:XA:773:G:O6	1:XA:807:A:N6	2.53	0.41
1:XA:1112:C:H1'	3:XC:179:ARG:NH1	2.36	0.41
2:XB:54:THR:O	2:XB:58:ILE:HG12	2.20	0.41
13:XM:65:LYS:C	13:XM:66:LEU:HD12	2.45	0.41
25:YA:240:G:OP2	25:YA:241:A:O2'	2.32	0.41
25:YA:278:A:H4'	25:YA:279:C:OP1	2.21	0.41
25:YA:306:U:H2'	25:YA:307:G:O4'	2.20	0.41
25:YA:812:C:H5"	25:YA:1250:G:O2'	2.20	0.41
25:YA:835:A:C2	25:YA:836:G:C8	3.09	0.41
25:YA:923:C:H2'	25:YA:924:C:H6	1.86	0.41
25:YA:1141:U:H1'	25:YA:1142(A):A:C5	2.56	0.41
25:YA:1344:G:H4'	25:YA:1384:A:C5	2.56	0.41
25:YA:1538:G:H2'	25:YA:1539:G:H8	1.85	0.41
25:YA:1843:C:H2'	25:YA:1844:C:H6	1.86	0.41
25:YA:2743:C:C1'	55:Y9:26:ILE:HG12	2.51	0.41
25:YA:2832:U:H1'	25:YA:2834:G:C4	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:YD:148:GLU:OE1	27:YD:151:LYS:NZ	2.30	0.41
49:Y3:31:LEU:HD23	49:Y3:31:LEU:HA	1.91	0.41
1:QA:181:G:O2'	1:QA:182:U:P	2.78	0.41
1:QA:358:U:H2'	1:QA:359:U:H6	1.84	0.41
1:QA:400:C:H2'	1:QA:401:C:H6	1.84	0.41
1:QA:541:G:H2'	1:QA:542:G:C8	2.55	0.41
1:QA:701:C:O2	1:QA:703:G:N1	2.54	0.41
1:QA:1099:G:OP2	2:QB:148:TYR:OH	2.38	0.41
1:QA:1179:A:H2'	1:QA:1180:A:O4'	2.21	0.41
5:QE:90:VAL:O	5:QE:120:THR:HA	2.21	0.41
6:QF:8:ILE:HD13	6:QF:26:ILE:HD13	2.02	0.41
8:QH:51:VAL:HG11	8:QH:60:ARG:HH11	1.86	0.41
13:QM:9:ILE:O	13:QM:9:ILE:HD12	2.20	0.41
13:QM:32:GLU:OE2	13:QM:59:TYR:OH	2.38	0.41
15:QO:3:ILE:O	15:QO:3:ILE:HG13	2.20	0.41
25:RA:43:G:H2'	25:RA:44:A:C8	2.56	0.41
25:RA:557:U:H2'	25:RA:558:G:H8	1.86	0.41
25:RA:949:C:H2'	25:RA:950:G:H8	1.85	0.41
25:RA:1207:C:H2'	25:RA:1208:C:H6	1.86	0.41
25:RA:1503:U:H2'	25:RA:1504:C:H6	1.84	0.41
25:RA:2037:G:H2'	25:RA:2038:G:H8	1.85	0.41
25:RA:2039:C:H2'	25:RA:2040:C:C6	2.56	0.41
25:RA:2462:U:H2'	25:RA:2463:C:H6	1.86	0.41
25:RA:2478:A:C8	25:RA:2529:G:C5	3.09	0.41
30:RG:95:ARG:O	30:RG:99:MET:HG2	2.19	0.41
30:RG:169:ALA:O	30:RG:173:LEU:HG	2.21	0.41
31:RH:105:LEU:HD13	31:RH:107:VAL:HG13	2.03	0.41
35:RP:104:GLY:C	35:RP:105:LEU:HD12	2.46	0.41
39:RT:111:ARG:C	39:RT:113:LYS:N	2.79	0.41
53:R7:9:ARG:NH1	53:R7:47:ARG:HG3	2.35	0.41
1:XA:255:G:H4'	17:XQ:17:LYS:HB2	2.02	0.41
1:XA:514:C:H2'	1:XA:515:G:C8	2.49	0.41
1:XA:544:G:OP1	4:XD:62:GLN:HG3	2.20	0.41
1:XA:1393:U:O2'	1:XA:1501:C:O2'	2.32	0.41
2:XB:20:GLU:HB2	2:XB:190:THR:OG1	2.20	0.41
10:XJ:38:ILE:HG13	10:XJ:71:LEU:HB3	2.02	0.41
16:XP:6:LEU:HG	16:XP:19:ILE:HD13	2.03	0.41
16:XP:26:ARG:HG3	16:XP:27:LYS:N	2.35	0.41
25:YA:38:A:H2'	25:YA:39:C:H6	1.84	0.41
25:YA:559:G:H22	40:YU:49:HIS:CE1	2.38	0.41
25:YA:784:A:O4'	27:YD:227:ASN:ND2	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:838:C:C2	25:YA:941:A:C6	3.09	0.41
25:YA:924:C:H2'	25:YA:925:C:C6	2.55	0.41
25:YA:1062:G:C8	25:YA:1088:A:C5	3.08	0.41
25:YA:1113:U:H2'	25:YA:1114:G:H8	1.85	0.41
25:YA:1604:C:H2'	25:YA:1605:C:C6	2.55	0.41
25:YA:1676:A:H2'	25:YA:1677:A:O4'	2.20	0.41
25:YA:1771:C:O2'	25:YA:1786:A:O4'	2.33	0.41
25:YA:1799:G:P	25:YA:1799:G:H3'	2.61	0.41
25:YA:2314:C:H5"	30:YG:38:VAL:HG21	2.03	0.41
25:YA:2525:G:H1'	55:Y9:28:GLU:HA	2.02	0.41
25:YA:2677:G:C6	25:YA:2731:G:C6	3.09	0.41
26:YB:61:G:H2'	26:YB:62:C:C6	2.55	0.41
26:YB:78:A:H2'	26:YB:79:C:O4'	2.21	0.41
27:YD:36:PRO:HB3	27:YD:61:LEU:HB3	2.02	0.41
28:YE:109:LYS:HE2	28:YE:191:PRO:HB3	2.01	0.41
31:YH:126:PRO:HB2	31:YH:130:ARG:O	2.21	0.41
43:YX:30:VAL:HG21	43:YX:39:ILE:HD11	2.02	0.41
44:YY:28:LYS:N	44:YY:38:ILE:O	2.53	0.41
1:QA:64:G:H5'	1:QA:65:U:OP1	2.20	0.41
1:QA:227:G:H2'	1:QA:228:A:C8	2.56	0.41
1:QA:284:G:H2'	1:QA:285:G:H8	1.86	0.41
1:QA:519:C:H2'	1:QA:520:A:O4'	2.21	0.41
1:QA:559:A:H4'	1:QA:560:U:H3'	2.02	0.41
1:QA:624:C:H4'	16:QP:10:GLY:C	2.44	0.41
1:QA:1022:G:H2'	1:QA:1023:G:H8	1.84	0.41
1:QA:1351:U:H5	9:QI:118:LYS:NZ	2.18	0.41
4:QD:196:LEU:HD23	6:XF:16:GLN:NE2	2.36	0.41
8:QH:16:ALA:HB2	8:QH:24:THR:HG21	2.03	0.41
18:QR:74:ARG:HG2	18:QR:81:PHE:CD1	2.55	0.41
22:QV:20:G:H4'	22:QV:21:U:OP2	2.19	0.41
22:QV:26:C:C2	22:QV:27:G:C8	3.09	0.41
25:RA:110:G:H2'	25:RA:111:A:H8	1.84	0.41
25:RA:223:A:O2'	25:RA:420:C:O2	2.37	0.41
25:RA:1523:U:H2'	25:RA:1524:G:C8	2.56	0.41
25:RA:1707:G:C5	25:RA:1756:G:C6	3.08	0.41
25:RA:1864:U:OP1	25:RA:2410:G:O2'	2.39	0.41
25:RA:2199:A:OP1	47:R1:50:ARG:NH2	2.34	0.41
25:RA:2740:A:H2'	25:RA:2741:A:C8	2.55	0.41
27:RD:52:ARG:HH21	27:RD:53:PHE:HE2	1.68	0.41
28:RE:35:GLN:HE21	28:RE:37:ARG:NH2	2.19	0.41
30:RG:129:GLY:HA2	30:RG:169:ALA:HB2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:RI:68:LEU:HA	32:RI:71:ILE:HG22	2.02	0.41
45:RZ:125:LEU:HB3	45:RZ:165:VAL:HG22	2.01	0.41
55:R9:26:ILE:HG22	55:R9:33:LYS:HE3	2.03	0.41
1:XA:265:G:H4'	17:XQ:66:SER:HA	2.02	0.41
1:XA:1032:A:C5	1:XA:1032(A):G:H1'	2.55	0.41
1:XA:1285:A:H1'	1:XA:1286:A:OP2	2.20	0.41
1:XA:1384:C:H2'	1:XA:1385:G:C8	2.55	0.41
10:XJ:51:ARG:CZ	10:XJ:61:GLU:HB3	2.51	0.41
20:XT:79:ARG:HE	20:XT:83:ARG:HH12	1.69	0.41
20:XT:89:ARG:HD2	20:XT:104:LEU:HD21	2.02	0.41
25:YA:84:A:C2	25:YA:103:A:C5	3.08	0.41
25:YA:236:C:H2'	25:YA:237:C:H6	1.86	0.41
25:YA:459:U:H2'	25:YA:460:A:C8	2.56	0.41
25:YA:586:A:N1	25:YA:809:G:O2'	2.51	0.41
25:YA:1062:G:H2'	25:YA:1063:G:H8	1.85	0.41
25:YA:1103:A:H5"	25:YA:1104:C:H5	1.86	0.41
25:YA:1329:U:H5"	25:YA:1330:C:C5	2.56	0.41
25:YA:1454:U:H5'	37:YR:63:ARG:NH2	2.35	0.41
25:YA:1454:U:O2'	25:YA:1455:G:N7	2.53	0.41
25:YA:2090:G:C6	25:YA:2230:G:C6	3.08	0.41
25:YA:2230:G:C6	25:YA:2231:C:C4	3.09	0.41
25:YA:2271:G:OP1	46:Y0:18:ALA:HB1	2.20	0.41
25:YA:2756:U:C5'	55:Y9:3:VAL:HG21	2.51	0.41
25:YA:2808:U:O2	25:YA:2809:A:C8	2.74	0.41
29:YF:160:ASN:ND2	29:YF:163:VAL:HG23	2.35	0.41
30:YG:111:LEU:HB3	30:YG:117:PHE:CZ	2.56	0.41
31:YH:10:PRO:HG3	31:YH:69:ARG:NH1	2.34	0.41
35:YP:108:LYS:HD2	35:YP:108:LYS:H	1.85	0.41
48:Y2:28:LYS:HD2	48:Y2:53:LEU:HD11	2.03	0.41
54:Y8:61:LEU:C	54:Y8:63:PRO:HD3	2.46	0.41
55:Y9:27:CYS:C	55:Y9:29:ASN:N	2.77	0.41
1:QA:502:G:H2'	1:QA:503:C:O4'	2.21	0.41
1:QA:1083:U:O2'	1:QA:1102:A:OP2	2.26	0.41
1:QA:1129:C:O2	1:QA:1132:C:N4	2.54	0.41
1:QA:1376:U:H2'	1:QA:1377:A:C8	2.56	0.41
1:QA:1524:C:H2'	1:QA:1525:G:C8	2.56	0.41
2:QB:178:ARG:HH22	2:QB:196:LEU:C	2.28	0.41
4:QD:112:VAL:HG12	4:QD:116:GLN:OE1	2.21	0.41
10:QJ:50:ILE:HG23	10:QJ:56:HIS:O	2.20	0.41
11:QK:20:TYR:CE1	11:QK:83:ILE:HD12	2.56	0.41
25:RA:48:G:N2	25:RA:177:G:H21	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:262:A:H2'	25:RA:263:C:O4'	2.21	0.41
25:RA:579:G:O2'	25:RA:2019:A:OP1	2.29	0.41
25:RA:609:A:H2'	25:RA:609(A):G:O4'	2.21	0.41
25:RA:827:U:O2	25:RA:2246:G:H4'	2.19	0.41
25:RA:1771:C:H2'	25:RA:1772:G:H8	1.86	0.41
25:RA:2020:A:H4'	40:RU:25:TRP:CZ3	2.55	0.41
25:RA:2593:U:H2'	25:RA:2594:C:H6	1.86	0.41
34:RO:68:GLU:HA	34:RO:78:ARG:HB3	2.02	0.41
46:R0:40:GLN:OE1	46:R0:44:ARG:HB2	2.20	0.41
48:R2:66:GLU:HG2	48:R2:69:ARG:HH21	1.85	0.41
49:R3:40:THR:HG22	49:R3:42:ALA:H	1.86	0.41
50:R4:61:ARG:O	50:R4:62:ARG:C	2.63	0.41
55:R9:7:VAL:HG21	55:R9:23:VAL:O	2.21	0.41
1:XA:186(E):C:H2'	1:XA:186(F):C:C6	2.56	0.41
1:XA:603:U:H2'	1:XA:604:G:C8	2.56	0.41
1:XA:827:U:H6	1:XA:827:U:H2'	1.72	0.41
1:XA:1346:A:O2'	1:XA:1347:G:H4'	2.21	0.41
1:XA:1440:C:H2'	1:XA:1441:G:O4'	2.20	0.41
16:XP:39:TYR:HD1	16:XP:49:LEU:HD13	1.86	0.41
16:XP:72:ARG:HG3	16:XP:73:LEU:HD12	2.02	0.41
22:XW:10:G:C6	22:XW:27:G:C5	3.09	0.41
25:YA:59:U:O2'	25:YA:74:A:OP2	2.37	0.41
25:YA:320:A:C2'	29:YF:169:ASN:HD22	2.33	0.41
25:YA:588:U:O5'	25:YA:588:U:H6	2.04	0.41
25:YA:708:C:H2'	25:YA:709:U:C6	2.55	0.41
25:YA:862:G:H21	26:YB:99:A:H2	1.67	0.41
25:YA:1054:A:H3'	25:YA:1055:G:H8	1.86	0.41
25:YA:1637:A:H2'	25:YA:1638:C:C6	2.56	0.41
25:YA:2210:G:H2'	25:YA:2210:G:N3	2.35	0.41
25:YA:2330:G:H2'	25:YA:2331:G:O4'	2.20	0.41
25:YA:2540:C:H1'	25:YA:2741:A:C4	2.56	0.41
26:YB:3:C:H2'	26:YB:4:C:H6	1.86	0.41
29:YF:60:SER:OG	29:YF:61:GLY:N	2.53	0.41
29:YF:128:ALA:C	29:YF:130:ALA:H	2.28	0.41
1:QA:55:A:C2	32:YI:89:TYR:CD2	3.09	0.41
1:QA:191(F):U:H2'	1:QA:191:G:H8	1.86	0.41
1:QA:552:U:O2	12:QL:31:PRO:HB3	2.21	0.41
1:QA:553:A:H2'	1:QA:554:C:C6	2.56	0.41
1:QA:645:C:H2'	1:QA:646:U:C6	2.56	0.41
1:QA:696:A:H2'	1:QA:697:U:H6	1.84	0.41
1:QA:728:A:H2'	1:QA:729:A:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1043:C:H2'	1:QA:1044:A:C8	2.48	0.41
1:QA:1429:C:H2'	1:QA:1430:C:C6	2.56	0.41
2:QB:16:HIS:ND1	2:QB:210:SER:HA	2.35	0.41
3:QC:34:LEU:HD12	14:QN:25:VAL:HG21	2.02	0.41
4:QD:19:LEU:HB2	4:QD:67:ILE:HG12	2.03	0.41
8:QH:97:VAL:HG21	8:QH:128:GLY:HA2	2.03	0.41
9:QI:32:ASP:OD1	9:QI:33:PHE:N	2.54	0.41
11:QK:20:TYR:CD1	11:QK:83:ILE:HB	2.56	0.41
12:QL:45:PRO:HB3	12:QL:53:ARG:NH1	2.36	0.41
13:QM:3:ARG:HB2	50:R4:34:GLU:HB3	2.02	0.41
16:QP:23:ASP:OD1	16:QP:24:ALA:N	2.54	0.41
17:QQ:95:TYR:HD1	17:QQ:98:LEU:HD12	1.86	0.41
18:QR:36:ASN:HB3	18:QR:39:VAL:HB	2.03	0.41
22:QW:14:A:C4	22:QW:23:G:C2	3.09	0.41
22:QW:15:G:N2	22:QW:60:A:N7	2.69	0.41
25:RA:99:U:H4'	25:RA:101:G:O5'	2.20	0.41
25:RA:413:C:H2'	25:RA:414:C:C6	2.56	0.41
25:RA:527:C:H2'	25:RA:2779:U:H5	1.86	0.41
25:RA:646:A:H2'	25:RA:647:G:O4'	2.21	0.41
25:RA:690:G:H4'	27:RD:218:ARG:HH22	1.85	0.41
25:RA:820:A:H2'	25:RA:821:A:C8	2.56	0.41
25:RA:1173:G:H4'	25:RA:1174:A:C5	2.56	0.41
25:RA:1201:C:H2'	25:RA:1202:C:C6	2.56	0.41
25:RA:1482:U:H3	25:RA:1512:G:H1	1.69	0.41
25:RA:1535:U:H2'	25:RA:1536:A:N7	2.36	0.41
25:RA:1550:C:H2'	25:RA:1551:C:H6	1.85	0.41
25:RA:1561:G:H2'	25:RA:1562:A:C8	2.56	0.41
25:RA:2036:C:H2'	25:RA:2037:G:H8	1.86	0.41
25:RA:2294:C:H2'	25:RA:2295:C:C6	2.55	0.41
25:RA:2625:G:H2'	25:RA:2626:C:C6	2.55	0.41
25:RA:2795:G:H3'	25:RA:2797:U:H5"	2.02	0.41
27:RD:145:VAL:HG22	27:RD:191:ALA:HB1	2.02	0.41
27:RD:233:HIS:NE2	27:RD:246:PRO:HA	2.36	0.41
28:RE:63:LEU:HD12	28:RE:65:GLY:N	2.36	0.41
29:RF:78:ILE:HA	29:RF:83:PHE:CD2	2.56	0.41
29:RF:110:LEU:HD11	29:RF:181:LEU:HG	2.03	0.41
30:RG:23:PHE:CE2	30:RG:168:GLU:HG2	2.56	0.41
33:RN:22:THR:HG23	33:RN:62:VAL:HA	2.03	0.41
41:RV:38:LEU:HD12	41:RV:57:VAL:HG13	2.03	0.41
41:RV:40:LEU:CD2	41:RV:47:VAL:HG12	2.51	0.41
54:R8:32:LEU:O	54:R8:36:LYS:HE3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:57:G:N2	1:XA:388:G:O6	2.41	0.41
1:XA:59:A:H5"	1:XA:60:A:H5"	2.03	0.41
1:XA:323:U:H2'	1:XA:324:G:O4'	2.19	0.41
1:XA:677:U:O2	1:XA:777:A:O2'	2.39	0.41
1:XA:875:C:O2'	8:XH:14:ARG:HD2	2.20	0.41
1:XA:1011:G:H2'	1:XA:1012:U:C6	2.55	0.41
1:XA:1049:U:H4'	1:XA:1050:G:H5"	2.02	0.41
1:XA:1287:A:N3	1:XA:1353:G:O2'	2.49	0.41
1:XA:1347:G:O2'	1:XA:1348:U:H5	2.03	0.41
1:XA:1368:G:H5"	9:XI:112:LYS:HB3	2.03	0.41
1:XA:1376:U:H2'	1:XA:1377:A:C8	2.56	0.41
2:XB:71:VAL:HG23	2:XB:93:VAL:HB	2.03	0.41
4:XD:111:ALA:HB2	4:XD:120:LEU:HD12	2.02	0.41
6:XF:8:ILE:HG22	6:XF:10:LEU:HD12	2.03	0.41
12:XL:66:VAL:HG21	12:XL:98:TYR:CE2	2.56	0.41
17:XQ:95:TYR:HD1	17:XQ:98:LEU:HD12	1.86	0.41
18:XR:47:THR:O	18:XR:83:GLU:N	2.54	0.41
18:XR:81:PHE:CD1	18:XR:81:PHE:N	2.89	0.41
22:XV:4:G:O2'	22:XV:5:G:H8	2.03	0.41
22:XW:41:C:H2'	22:XW:42:C:H6	1.85	0.41
22:XW:52:C:O2	22:XW:65:G:N2	2.54	0.41
25:YA:39:C:H2'	25:YA:40:C:C6	2.56	0.41
25:YA:125:G:H5'	53:Y7:19:ARG:HD3	2.03	0.41
25:YA:272:G:H2'	25:YA:273:G:C8	2.55	0.41
25:YA:573:G:O2'	25:YA:574:C:H3'	2.21	0.41
25:YA:609(A):G:H2'	25:YA:610:C:H6	1.86	0.41
25:YA:1007:C:H5"	33:YN:35:ARG:NH1	2.36	0.41
25:YA:1112:G:H2'	25:YA:1113:U:C6	2.55	0.41
25:YA:1266:G:N7	42:YW:15:ARG:HD2	2.36	0.41
25:YA:1297:C:H2'	25:YA:1298:C:C6	2.55	0.41
25:YA:1316:U:H2'	25:YA:1317:A:H8	1.80	0.41
25:YA:1475:G:H2'	25:YA:1476:C:H6	1.86	0.41
25:YA:1595:G:H2'	25:YA:1596:A:C8	2.56	0.41
25:YA:1958:C:H2'	25:YA:1959:G:H8	1.84	0.41
25:YA:2073:C:C5'	27:YD:229:VAL:HG22	2.50	0.41
25:YA:2273:A:H2'	25:YA:2274:A:C8	2.56	0.41
25:YA:2293:C:H2'	25:YA:2294:C:H6	1.84	0.41
25:YA:2315:G:OP1	30:YG:36:LYS:NZ	2.39	0.41
25:YA:2743:C:C4'	55:Y9:26:ILE:H	2.33	0.41
25:YA:2747:G:N1	25:YA:2755:C:H4'	2.36	0.41
25:YA:2755:C:C5'	25:YA:2755:C:H6	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:YB:60:C:H2'	26:YB:61:G:H8	1.86	0.41
27:YD:35:LYS:O	27:YD:36:PRO:C	2.64	0.41
28:YE:29:GLY:HA2	28:YE:180:ASN:HB3	2.02	0.41
30:YG:63:ILE:HG22	30:YG:143:GLU:HB2	2.03	0.41
30:YG:114:ILE:HB	30:YG:117:PHE:HB2	2.03	0.41
35:YP:37:GLY:O	35:YP:41:ARG:HG2	2.21	0.41
36:YQ:19:GLY:O	36:YQ:98:LYS:HD3	2.20	0.41
36:YQ:139:GLU:N	36:YQ:139:GLU:OE1	2.54	0.41
37:YR:104:ARG:HD2	37:YR:107:ASP:OD2	2.19	0.41
39:YT:34:VAL:HG12	39:YT:36:GLU:HG2	2.02	0.41
45:YZ:54:HIS:ND1	45:YZ:101:PRO:HG3	2.36	0.41
45:YZ:58:VAL:O	45:YZ:59:LEU:HB2	2.21	0.41
45:YZ:112:ARG:HG3	45:YZ:113:ALA:H	1.85	0.41
47:Y1:51:VAL:HG11	47:Y1:74:VAL:HG21	2.03	0.41
55:Y9:32:HIS:HB3	55:Y9:34:GLN:HE21	1.86	0.41
1:QA:763:G:H2'	1:QA:764:C:C6	2.55	0.41
1:QA:955:U:H1'	1:QA:1227:A:H61	1.85	0.41
3:QC:150:LYS:HG3	3:QC:169:ALA:HB2	2.03	0.41
6:QF:50:TYR:CE1	18:QR:77:GLY:HA2	2.56	0.41
8:QH:12:ARG:NH1	8:QH:26:VAL:HA	2.36	0.41
19:QS:50:ALA:HA	19:QS:58:VAL:O	2.20	0.41
22:QW:10:G:N2	22:QW:27:G:H1'	2.36	0.41
25:RA:839:U:O2'	25:RA:1191:G:N3	2.53	0.41
25:RA:1108:U:H2'	25:RA:1109:C:C2	2.56	0.41
25:RA:1210:A:H5'	25:RA:1211:U:H2'	2.03	0.41
25:RA:1278:A:H5"	37:RR:36:THR:HG22	2.03	0.41
25:RA:1291:C:C2	25:RA:1292:U:C5	3.09	0.41
25:RA:1346:G:C6	25:RA:1601:G:C6	3.09	0.41
25:RA:2271:G:H2'	25:RA:2272:U:C6	2.56	0.41
25:RA:2721:A:C4	25:RA:2722:G:C8	3.09	0.41
25:RA:2848:G:O2'	25:RA:2867:G:N2	2.53	0.41
48:R2:17:SER:OG	48:R2:20:GLU:HG2	2.20	0.41
1:XA:253:U:H2'	1:XA:254:G:C8	2.56	0.41
1:XA:812:C:H1'	1:XA:813:U:OP2	2.21	0.41
9:XI:6:GLY:HA3	9:XI:84:ALA:HB2	2.02	0.41
9:XI:9:ARG:HG2	9:XI:14:VAL:HG22	2.02	0.41
9:XI:118:LYS:C	9:XI:120:ARG:H	2.29	0.41
10:XJ:6:ILE:HG22	10:XJ:98:ILE:HG13	2.03	0.41
16:XP:82:GLN:HG2	16:XP:84:ALA:H	1.86	0.41
25:YA:94:G:N3	48:Y2:47:ASN:ND2	2.69	0.41
25:YA:392:C:H5"	25:YA:409:C:H5"	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:593:G:H2'	25:YA:594:U:H6	1.84	0.41
25:YA:792:G:N3	25:YA:2072:G:O2'	2.34	0.41
25:YA:1321:A:C4	25:YA:1322:A:C8	3.09	0.41
25:YA:1530:G:H2'	25:YA:1531:C:C6	2.57	0.41
25:YA:1794:U:H2'	25:YA:1795:C:C6	2.56	0.41
25:YA:2108:C:H2'	25:YA:2109:U:C6	2.56	0.41
25:YA:2408:U:H2'	25:YA:2409:G:H8	1.86	0.41
25:YA:2417:C:C2	25:YA:2418:A:C8	3.08	0.41
25:YA:2706:G:O2'	37:YR:64:ARG:HD3	2.20	0.41
25:YA:2867:G:O2'	25:YA:2868:A:H8	1.84	0.41
30:YG:40:ASN:HD22	30:YG:41:GLN:N	2.17	0.41
32:YI:49:ALA:HA	32:YI:52:ARG:HG2	2.03	0.41
39:YT:6:LEU:O	39:YT:10:VAL:HG23	2.21	0.41
1:QA:579:G:H5'	1:QA:728:A:H1'	2.03	0.40
1:QA:1219:U:C2	1:QA:1220:G:C8	3.10	0.40
1:QA:1418:A:N3	25:RA:1959:G:H1'	2.36	0.40
3:QC:130:VAL:O	3:QC:134:ILE:HG12	2.22	0.40
9:QI:42:ARG:HH22	9:QI:75:ASP:CG	2.29	0.40
22:QW:60:A:H2'	22:QW:61:U:O4'	2.21	0.40
25:RA:363:G:H2'	25:RA:363(A):A:H8	1.85	0.40
25:RA:900:A:H2'	25:RA:900:A:N3	2.36	0.40
25:RA:1429:G:H2'	25:RA:1430:C:C6	2.56	0.40
25:RA:1660:C:H2'	25:RA:1661:G:H8	1.86	0.40
25:RA:2114:A:N6	25:RA:2119:A:H62	2.19	0.40
25:RA:2704:C:H2'	25:RA:2705:A:O4'	2.21	0.40
28:RE:35:GLN:HE21	28:RE:37:ARG:CZ	2.34	0.40
32:RI:21:VAL:HG22	32:RI:22:LYS:H	1.86	0.40
41:RV:49:THR:HB	41:RV:50:PRO:HD2	2.03	0.40
44:RY:13:VAL:HB	44:RY:72:VAL:HG13	2.03	0.40
46:R0:53:MET:HA	46:R0:58:THR:O	2.21	0.40
47:R1:83:GLU:HG2	47:R1:85:LEU:H	1.86	0.40
1:XA:579:G:O2'	15:XO:54:ARG:NE	2.53	0.40
1:XA:881:G:H2'	1:XA:882:C:O4'	2.21	0.40
1:XA:1148:U:O3'	9:XI:14:VAL:HG11	2.21	0.40
1:XA:1186:G:H21	14:XN:61:TRP:C	2.29	0.40
2:XB:21:ARG:HG3	2:XB:38:GLY:C	2.46	0.40
2:XB:189:ASP:HB3	2:XB:203:GLY:O	2.20	0.40
4:XD:68:TYR:OH	4:XD:196:LEU:HD11	2.21	0.40
9:XI:77:ILE:O	9:XI:81:ILE:HG12	2.21	0.40
10:XJ:45:ARG:HB3	10:XJ:65:LEU:HB3	2.02	0.40
10:XJ:50:ILE:CD1	10:XJ:60:ARG:HE	2.33	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:XK:84:VAL:CG1	11:XK:95:ILE:HD11	2.51	0.40
13:XM:12:ASN:O	13:XM:13:LYS:HB2	2.21	0.40
22:XW:41:C:H2'	22:XW:42:C:C6	2.56	0.40
25:YA:116:C:O2'	25:YA:126:A:N3	2.47	0.40
25:YA:242:G:H4'	25:YA:243:U:O5'	2.21	0.40
25:YA:313:C:H2'	25:YA:314:A:H8	1.85	0.40
25:YA:567:A:N6	41:YV:78:LYS:HD3	2.36	0.40
25:YA:680:G:H2'	25:YA:681:G:C8	2.56	0.40
25:YA:720:C:H2'	25:YA:721:C:C6	2.54	0.40
25:YA:1005:C:H5'	25:YA:1012:U:H1'	2.03	0.40
25:YA:1422:G:H4'	25:YA:1493:C:OP1	2.21	0.40
25:YA:1668:A:N3	25:YA:1670:C:C4	2.89	0.40
25:YA:1907:G:H2'	25:YA:1908:C:H6	1.85	0.40
25:YA:2025:C:H2'	25:YA:2026:C:H6	1.86	0.40
25:YA:2047:U:H2'	25:YA:2048:G:C8	2.54	0.40
25:YA:2747:G:N1	25:YA:2755:C:P	2.94	0.40
25:YA:2847:U:OP1	39:YT:98:LYS:HD3	2.21	0.40
25:YA:2893:G:H5"	25:YA:2894:G:OP1	2.20	0.40
28:YE:103:ASP:OD2	28:YE:201:THR:HA	2.20	0.40
29:YF:34:TRP:CE2	35:YP:8:PRO:HG3	2.56	0.40
29:YF:181:LEU:HD11	29:YF:186:ILE:HD11	2.04	0.40
30:YG:3:LEU:HD21	50:Y4:25:TYR:HD2	1.86	0.40
33:YN:67:LEU:O	33:YN:88:GLU:HB2	2.21	0.40
42:YW:35:ILE:O	42:YW:39:THR:OG1	2.31	0.40
45:YZ:48:PHE:HE1	45:YZ:71:VAL:HG11	1.84	0.40
1:QA:452:A:O2'	16:QP:72:ARG:HD2	2.20	0.40
1:QA:500:G:H2'	1:QA:501:C:C6	2.56	0.40
1:QA:557:G:H2'	1:QA:558:G:C8	2.56	0.40
1:QA:992:U:H1'	1:QA:993:G:OP2	2.22	0.40
4:QD:57:ARG:HB3	4:QD:206:PHE:HD1	1.85	0.40
6:QF:60:PHE:C	6:QF:61:LEU:HD12	2.47	0.40
15:QO:55:GLY:HA2	15:QO:58:MET:HE3	2.04	0.40
22:QW:52:C:O2	22:QW:65:G:N2	2.54	0.40
25:RA:270(P):C:H2'	25:RA:270(Q):C:H6	1.86	0.40
25:RA:436:C:H2'	25:RA:438:G:C8	2.56	0.40
25:RA:554:U:H2'	25:RA:556:G:N7	2.37	0.40
25:RA:910:A:N3	25:RA:2264:C:O2'	2.45	0.40
25:RA:1173:G:H21	25:RA:1175:U:H5	1.69	0.40
25:RA:1291:C:H2'	25:RA:1292:U:C6	2.56	0.40
25:RA:1419:A:C8	25:RA:1579:A:N6	2.89	0.40
25:RA:1469:A:H2'	25:RA:1470:G:O4'	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:2314:C:H2'	25:RA:2315:G:C8	2.56	0.40
25:RA:2327:A:H2'	25:RA:2328:A:C8	2.57	0.40
25:RA:2437:U:H2'	25:RA:2438:U:C6	2.57	0.40
25:RA:2521:C:O2'	25:RA:2564:A:N3	2.50	0.40
26:RB:73:A:N3	26:RB:73:A:H2'	2.36	0.40
29:RF:128:ALA:C	29:RF:130:ALA:H	2.30	0.40
30:RG:60:LEU:O	30:RG:64:THR:HG22	2.22	0.40
39:RT:19:LEU:HD22	39:RT:86:ILE:HG22	2.01	0.40
45:RZ:52:SER:C	45:RZ:54:HIS:H	2.28	0.40
45:RZ:145:GLU:CG	45:RZ:146:ILE:H	2.33	0.40
1:XA:35:G:H2'	1:XA:36:C:C6	2.56	0.40
1:XA:235:C:H1'	17:XQ:61:GLU:OE1	2.21	0.40
1:XA:374:A:C6	1:XA:375:U:C4	3.09	0.40
1:XA:679:C:H2'	1:XA:680:C:H6	1.87	0.40
1:XA:738:C:H2'	1:XA:739:C:C6	2.55	0.40
1:XA:1421:G:C6	1:XA:1480:G:C6	3.09	0.40
2:XB:155:LEU:O	2:XB:157:ARG:N	2.48	0.40
7:XG:116:ALA:O	7:XG:120:ILE:HG12	2.21	0.40
22:XW:23:G:C2	22:XW:24:C:C5	3.09	0.40
25:YA:38:A:N3	29:YF:48:THR:OG1	2.53	0.40
25:YA:171:G:H2'	25:YA:172:C:C6	2.56	0.40
25:YA:416:C:H2'	25:YA:417:C:C6	2.56	0.40
25:YA:872:A:N6	25:YA:906:G:C6	2.89	0.40
25:YA:978:G:O4'	25:YA:1001:A:H2	2.04	0.40
25:YA:1751:C:H2'	25:YA:1752:C:C6	2.57	0.40
25:YA:1862:G:H2'	25:YA:1863:G:H8	1.86	0.40
25:YA:2090:G:H21	47:Y1:45:ASN:CG	2.29	0.40
25:YA:2186:G:H2'	25:YA:2187:G:C8	2.56	0.40
25:YA:2521:C:C2	25:YA:2545:G:N2	2.89	0.40
25:YA:2685:G:P	39:YT:51:ARG:HH22	2.44	0.40
25:YA:2712:U:H5"	25:YA:2714:G:H5'	2.03	0.40
25:YA:2795:G:H3'	25:YA:2797:U:H5"	2.02	0.40
27:YD:77:ALA:HB2	27:YD:97:TYR:CD1	2.57	0.40
28:YE:63:LEU:HD12	28:YE:65:GLY:N	2.37	0.40
36:YQ:81:VAL:HG23	36:YQ:82:ARG:N	2.34	0.40
49:Y3:7:LYS:HA	49:Y3:33:GLN:O	2.21	0.40
1:QA:608:A:C2	1:QA:609:A:H1'	2.57	0.40
4:QD:64:LEU:HB2	4:QD:198:VAL:HG11	2.03	0.40
18:QR:53:ARG:HE	18:QR:59:SER:C	2.29	0.40
25:RA:315:G:H2'	25:RA:316:C:C6	2.55	0.40
25:RA:541:C:H2'	25:RA:542:C:C6	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:1009:A:N3	25:RA:1153:C:O2'	2.44	0.40
25:RA:1314:C:H5"	25:RA:1610:A:H61	1.87	0.40
25:RA:1478:G:H1'	25:RA:1557:C:O2'	2.22	0.40
25:RA:1671:U:N3	25:RA:1674:G:OP2	2.50	0.40
25:RA:1754:C:P	39:RT:96:ARG:HH12	2.44	0.40
25:RA:1891:G:H2'	25:RA:1892:C:C6	2.56	0.40
25:RA:2025:C:H2'	25:RA:2026:C:H6	1.86	0.40
25:RA:2112:G:O6	25:RA:2169:A:N6	2.54	0.40
25:RA:2466:C:C4	25:RA:2467:C:N4	2.89	0.40
25:RA:2677:G:H2'	25:RA:2678:C:C6	2.55	0.40
25:RA:2787:C:O2'	25:RA:2810:A:O2'	2.37	0.40
25:RA:2846:G:H2'	25:RA:2847:U:H6	1.87	0.40
27:RD:31:LYS:HG3	27:RD:32:SER:N	2.36	0.40
29:RF:40:GLN:HE22	29:RF:182:ASN:ND2	2.19	0.40
29:RF:64:ILE:HG23	29:RF:65:TRP:N	2.36	0.40
34:RO:107:ARG:HB2	34:RO:115:VAL:HG11	2.02	0.40
37:RR:91:GLN:O	37:RR:91:GLN:HG2	2.21	0.40
37:RR:98:LEU:O	37:RR:113:LEU:N	2.43	0.40
38:RS:61:ASN:O	38:RS:64:GLU:N	2.54	0.40
39:RT:34:VAL:HG12	39:RT:36:GLU:HG2	2.03	0.40
42:RW:66:GLU:C	42:RW:68:ARG:H	2.30	0.40
1:XA:682:G:H2'	1:XA:683:G:H8	1.86	0.40
1:XA:963:G:H21	10:XJ:55:LYS:CD	2.34	0.40
1:XA:997:U:H2'	1:XA:998:G:C8	2.55	0.40
1:XA:1144:G:H21	1:XA:1146:A:H62	1.70	0.40
9:XI:10:ARG:HH21	9:XI:107:ARG:HE	1.69	0.40
9:XI:114:TYR:HB2	10:XJ:60:ARG:HH11	1.86	0.40
22:XW:15:G:N2	22:XW:60:A:N7	2.70	0.40
22:XW:33:C:H5'	22:XW:34:U:OP2	2.22	0.40
25:YA:185:U:H2'	25:YA:186:G:H8	1.85	0.40
25:YA:247:G:H4'	25:YA:386:G:C4	2.57	0.40
25:YA:270(U):C:H2'	25:YA:270(V):G:C8	2.56	0.40
25:YA:465:G:H21	25:YA:684:G:H1'	1.85	0.40
25:YA:520:G:H2'	25:YA:521:G:C8	2.56	0.40
25:YA:536:A:OP1	40:YU:53:ARG:NH1	2.54	0.40
25:YA:564:C:H2'	25:YA:565:C:H6	1.87	0.40
25:YA:970:C:H2'	25:YA:971:C:C6	2.56	0.40
25:YA:1187:G:H5"	41:YV:81:TYR:CE1	2.56	0.40
25:YA:1298:C:H2'	25:YA:1299:G:O4'	2.22	0.40
25:YA:1406:U:H3'	25:YA:1407:C:H6	1.86	0.40
25:YA:1930:G:H2'	25:YA:1968:G:N1	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:2051:A:H5'	25:YA:2578:G:O4'	2.21	0.40
25:YA:2208:U:H2'	25:YA:2209:C:C6	2.56	0.40
25:YA:2408:U:H2'	25:YA:2409:G:C8	2.56	0.40
25:YA:2566:A:H4'	25:YA:2567:G:O5'	2.21	0.40
31:YH:146:ALA:HA	55:Y9:20:HIS:HB3	2.03	0.40
35:YP:62:LEU:HD22	54:Y8:27:THR:HA	2.02	0.40
54:Y8:29:LYS:HA	54:Y8:36:LYS:NZ	2.37	0.40
1:QA:604:G:H2'	1:QA:605:U:O4'	2.21	0.40
1:QA:939:G:H2'	1:QA:940:C:H6	1.86	0.40
1:QA:1126:U:H1'	1:QA:1280:A:C5	2.56	0.40
1:QA:1150:U:H2'	1:QA:1151:A:C8	2.56	0.40
1:QA:1264:C:H2'	1:QA:1265:G:H8	1.85	0.40
1:QA:1319:A:C8	1:QA:1323:G:C5	3.09	0.40
11:QK:93:GLN:OE1	11:QK:96:ARG:NH2	2.48	0.40
22:QV:35:C:HO2'	22:QV:36:A:P	2.44	0.40
25:RA:117:G:H4'	53:R7:18:PHE:CE2	2.56	0.40
25:RA:493:G:H4'	42:RW:8:ARG:HB2	2.04	0.40
25:RA:918:A:C5	25:RA:919:G:H1'	2.56	0.40
25:RA:1292:U:C2	25:RA:1293:C:C5	3.09	0.40
25:RA:1375:C:H2'	25:RA:1376:C:C6	2.57	0.40
25:RA:1407:C:O2	25:RA:1407:C:H2'	2.22	0.40
25:RA:1669:A:O3'	25:RA:2549:G:H5'	2.22	0.40
25:RA:1694:C:H4'	25:RA:1695:G:O5'	2.21	0.40
25:RA:1800:C:H3'	27:RD:147:LEU:HD22	2.04	0.40
25:RA:2009:G:C6	25:RA:2010:G:N7	2.90	0.40
25:RA:2416:C:C2	25:RA:2417:C:C5	3.10	0.40
25:RA:2771:C:H2'	25:RA:2772:C:H6	1.85	0.40
25:RA:2820:A:H4'	37:RR:3:HIS:ND1	2.37	0.40
31:RH:9:ILE:HA	31:RH:10:PRO:HD3	1.90	0.40
31:RH:149:ARG:O	31:RH:149:ARG:HG2	2.21	0.40
33:RN:22:THR:HA	33:RN:61:ARG:O	2.22	0.40
34:RO:64:ARG:HG2	34:RO:79:PHE:CD2	2.56	0.40
36:RQ:73:PRO:HA	36:RQ:93:TYR:CD1	2.56	0.40
38:RS:10:ARG:HG2	38:RS:13:ARG:NH2	2.35	0.40
39:RT:30:VAL:HB	39:RT:86:ILE:HG13	2.03	0.40
42:RW:13:SER:HB3	42:RW:16:LYS:HD2	2.03	0.40
1:XA:392:G:H2'	1:XA:393:A:C8	2.57	0.40
1:XA:405:U:H3'	1:XA:406:G:H5'	2.04	0.40
1:XA:913:A:H4'	1:XA:914:A:O5'	2.21	0.40
1:XA:1004:A:H8	1:XA:1036:G:H22	1.68	0.40
1:XA:1010:G:H2'	1:XA:1011:G:C8	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:XB:16:HIS:HD2	2:XB:210:SER:CA	2.34	0.40
4:XD:10:ARG:HG3	4:XD:40:PRO:CG	2.51	0.40
11:XK:21:ILE:HB	11:XK:84:VAL:HG12	2.02	0.40
22:XW:20:G:H3'	22:XW:21:U:H5	1.87	0.40
25:YA:37:C:H2'	25:YA:38:A:H8	1.87	0.40
25:YA:529:A:H8	25:YA:530:G:C6	2.40	0.40
25:YA:1085:A:H2'	25:YA:1086:A:C4	2.57	0.40
25:YA:1993:U:H4'	28:YE:128:SER:OG	2.22	0.40
25:YA:2250:G:C4	36:YQ:82:ARG:HG3	2.57	0.40
25:YA:2712:U:HO2'	25:YA:2712(A):A:P	2.44	0.40
25:YA:2773:C:H2'	25:YA:2774:C:H6	1.85	0.40
26:YB:73:A:H2'	26:YB:73:A:N3	2.36	0.40
27:YD:34:VAL:O	27:YD:34:VAL:HG13	2.22	0.40
30:YG:81:LYS:HB3	30:YG:82:LEU:H	1.69	0.40
37:YR:13:HIS:CE1	37:YR:16:HIS:HB2	2.57	0.40
39:YT:39:ARG:HG2	39:YT:40:THR:H	1.86	0.40
40:YU:11:ARG:O	40:YU:15:LYS:HG2	2.22	0.40
40:YU:92:ARG:HH21	41:YV:10:LYS:HB3	1.86	0.40
46:Y0:68:GLU:HG3	46:Y0:80:HIS:HB2	2.04	0.40
55:Y9:26:ILE:O	55:Y9:26:ILE:HG13	2.17	0.40
1:QA:229:U:H2'	1:QA:230:G:C8	2.56	0.40
1:QA:235:C:H2'	1:QA:236:G:C8	2.53	0.40
1:QA:975:A:N1	10:QJ:48:THR:HB	2.36	0.40
1:QA:1013:G:N2	1:QA:1015:A:H3'	2.36	0.40
1:QA:1072:G:H2'	1:QA:1073:U:C6	2.56	0.40
1:QA:1325:C:H4'	21:QU:17:THR:HG21	2.02	0.40
3:QC:30:ARG:HD2	14:QN:38:GLY:HA3	2.03	0.40
3:QC:129:ALA:HB3	3:QC:132:ARG:HB3	2.03	0.40
3:QC:134:ILE:HG23	3:QC:151:VAL:HB	2.04	0.40
4:QD:13:ARG:HH12	4:QD:36:ARG:CZ	2.35	0.40
9:QI:97:LYS:HB3	9:QI:98:PRO:HD3	2.03	0.40
16:QP:82:GLN:HG2	16:QP:84:ALA:H	1.86	0.40
22:QW:41:C:H2'	22:QW:42:C:H6	1.87	0.40
25:RA:25:U:H5'	42:RW:79:GLY:HA2	2.03	0.40
25:RA:108:U:H4'	25:RA:347:A:H2	1.86	0.40
25:RA:270(U):C:C2	25:RA:270(V):G:C8	3.10	0.40
25:RA:1416:G:H2'	25:RA:1417:C:H6	1.85	0.40
25:RA:1802:A:H2'	25:RA:1803:A:H8	1.85	0.40
25:RA:1826:G:H2'	25:RA:1827:C:C6	2.56	0.40
25:RA:1910:G:H2'	25:RA:1911:U:O4'	2.22	0.40
25:RA:2752:C:O2	25:RA:2752:C:H2'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:RE:117:MET:HA	28:RE:122:PHE:H	1.85	0.40
31:RH:4:ILE:HD12	31:RH:4:ILE:H	1.85	0.40
33:RN:21:LYS:HG2	33:RN:26:LEU:HD13	2.03	0.40
35:RP:107:LYS:O	35:RP:109:GLY:N	2.55	0.40
45:RZ:6:LYS:HD2	45:RZ:8:TYR:CZ	2.57	0.40
52:R6:9:LEU:HA	52:R6:54:ILE:HB	2.03	0.40
1:XA:595:G:H21	1:XA:596:C:H42	1.70	0.40
1:XA:704:A:N3	1:XA:704:A:H2'	2.36	0.40
1:XA:704:A:OP2	1:XA:704:A:H8	2.04	0.40
1:XA:1095:U:H2'	1:XA:1096:C:C6	2.55	0.40
1:XA:1101:A:N6	2:XB:176:GLU:OE2	2.54	0.40
1:XA:1499:A:C1'	1:XA:1520:G:H5'	2.52	0.40
13:XM:3:ARG:NH2	50:Y4:34:GLU:OE2	2.54	0.40
16:XP:53:VAL:O	16:XP:57:ARG:HG2	2.22	0.40
25:YA:546:C:OP1	25:YA:547:A:N6	2.55	0.40
25:YA:565:C:H2'	25:YA:566:U:C6	2.57	0.40
25:YA:598:G:H2'	25:YA:599:G:O4'	2.22	0.40
25:YA:601:C:O2'	25:YA:605:C:H5"	2.21	0.40
25:YA:719:C:H2'	25:YA:720:C:H6	1.87	0.40
25:YA:874:G:H2'	25:YA:875:G:C8	2.57	0.40
25:YA:910:A:C5	36:YQ:13:GLN:HG3	2.55	0.40
25:YA:1278:A:OP1	37:YR:36:THR:HG22	2.21	0.40
25:YA:1662:C:H2'	25:YA:1663:C:C6	2.56	0.40
25:YA:1794:U:H2'	25:YA:1795:C:H6	1.86	0.40
25:YA:2078:C:H2'	25:YA:2079:U:C6	2.56	0.40
25:YA:2181:G:H2'	25:YA:2182:G:C8	2.56	0.40
26:YB:46:A:C5	26:YB:47:C:C5	3.09	0.40
28:YE:82:ARG:O	28:YE:83:ASP:HB2	2.21	0.40
30:YG:41:GLN:HE21	30:YG:153:ARG:HB3	1.86	0.40
32:YI:11:ASN:O	32:YI:12:LEU:HD12	2.22	0.40
36:YQ:30:GLY:H	36:YQ:105:GLU:CD	2.28	0.40
50:Y4:37:SER:O	50:Y4:43:TYR:HD2	2.04	0.40
55:Y9:2:LYS:HB2	55:Y9:32:HIS:HA	2.03	0.40
55:Y9:31:LYS:HD3	55:Y9:32:HIS:CE1	2.57	0.40

All (1) 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)
42:RW:63:ASP:OD1	44:YY:92:ASN:ND2[3_555]	2.18	0.02

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%)	202 (87%)	29 (12%)	2 (1%)	14 45
2	XB	234/256 (91%)	202 (86%)	31 (13%)	1 (0%)	30 60
3	QC	203/239 (85%)	188 (93%)	15 (7%)	0	100 100
3	XC	203/239 (85%)	190 (94%)	13 (6%)	0	100 100
4	QD	206/209 (99%)	189 (92%)	17 (8%)	0	100 100
4	XD	206/209 (99%)	190 (92%)	16 (8%)	0	100 100
5	QE	149/162 (92%)	141 (95%)	7 (5%)	1 (1%)	18 50
5	XE	149/162 (92%)	140 (94%)	8 (5%)	1 (1%)	18 50
6	QF	99/101 (98%)	97 (98%)	2 (2%)	0	100 100
6	XF	99/101 (98%)	98 (99%)	1 (1%)	0	100 100
7	QG	153/156 (98%)	147 (96%)	6 (4%)	0	100 100
7	XG	153/156 (98%)	148 (97%)	5 (3%)	0	100 100
8	QH	135/138 (98%)	129 (96%)	6 (4%)	0	100 100
8	XH	135/138 (98%)	126 (93%)	9 (7%)	0	100 100
9	QI	125/128 (98%)	112 (90%)	13 (10%)	0	100 100
9	XI	124/128 (97%)	112 (90%)	12 (10%)	0	100 100
10	QJ	97/105 (92%)	90 (93%)	7 (7%)	0	100 100
10	XJ	94/105 (90%)	84 (89%)	10 (11%)	0	100 100
11	QK	117/129 (91%)	109 (93%)	8 (7%)	0	100 100
11	XK	114/129 (88%)	108 (95%)	6 (5%)	0	100 100
12	QL	123/132 (93%)	105 (85%)	18 (15%)	0	100 100
12	XL	120/132 (91%)	97 (81%)	22 (18%)	1 (1%)	16 47
13	QM	118/126 (94%)	96 (81%)	21 (18%)	1 (1%)	16 47
13	XM	117/126 (93%)	94 (80%)	22 (19%)	1 (1%)	14 45
14	QN	58/61 (95%)	54 (93%)	3 (5%)	1 (2%)	7 33

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
14	XN	58/61 (95%)	54 (93%)	3 (5%)	1 (2%)	7 33
15	QO	86/89 (97%)	81 (94%)	5 (6%)	0	100 100
15	XO	85/89 (96%)	84 (99%)	1 (1%)	0	100 100
16	QP	82/88 (93%)	79 (96%)	3 (4%)	0	100 100
16	XP	82/88 (93%)	78 (95%)	4 (5%)	0	100 100
17	QQ	98/105 (93%)	96 (98%)	2 (2%)	0	100 100
17	XQ	98/105 (93%)	96 (98%)	2 (2%)	0	100 100
18	QR	68/88 (77%)	64 (94%)	4 (6%)	0	100 100
18	XR	68/88 (77%)	65 (96%)	3 (4%)	0	100 100
19	QS	81/93 (87%)	70 (86%)	11 (14%)	0	100 100
19	XS	82/93 (88%)	70 (85%)	11 (13%)	1 (1%)	10 39
20	QT	97/106 (92%)	90 (93%)	7 (7%)	0	100 100
20	XT	97/106 (92%)	87 (90%)	10 (10%)	0	100 100
21	QU	23/27 (85%)	22 (96%)	1 (4%)	0	100 100
21	XU	23/27 (85%)	22 (96%)	1 (4%)	0	100 100
27	RD	270/276 (98%)	235 (87%)	33 (12%)	2 (1%)	18 50
27	YD	270/276 (98%)	239 (88%)	29 (11%)	2 (1%)	18 50
28	RE	203/206 (98%)	163 (80%)	37 (18%)	3 (2%)	8 35
28	YE	203/206 (98%)	158 (78%)	42 (21%)	3 (2%)	8 35
29	RF	200/210 (95%)	183 (92%)	17 (8%)	0	100 100
29	YF	200/210 (95%)	185 (92%)	13 (6%)	2 (1%)	12 43
30	RG	179/182 (98%)	149 (83%)	29 (16%)	1 (1%)	21 52
30	YG	179/182 (98%)	148 (83%)	29 (16%)	2 (1%)	11 41
31	RH	172/180 (96%)	141 (82%)	28 (16%)	3 (2%)	7 33
31	YH	172/180 (96%)	137 (80%)	32 (19%)	3 (2%)	7 33
32	RI	144/148 (97%)	119 (83%)	22 (15%)	3 (2%)	5 30
32	YI	144/148 (97%)	117 (81%)	24 (17%)	3 (2%)	5 30
33	RN	136/140 (97%)	117 (86%)	17 (12%)	2 (2%)	8 35
33	YN	136/140 (97%)	117 (86%)	18 (13%)	1 (1%)	18 50
34	RO	120/122 (98%)	116 (97%)	4 (3%)	0	100 100
34	YO	120/122 (98%)	114 (95%)	6 (5%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
35	RP	148/150 (99%)	114 (77%)	33 (22%)	1 (1%)	18 50
35	YP	145/150 (97%)	112 (77%)	32 (22%)	1 (1%)	18 50
36	RQ	139/141 (99%)	114 (82%)	24 (17%)	1 (1%)	18 50
36	YQ	139/141 (99%)	116 (84%)	21 (15%)	2 (1%)	9 36
37	RR	115/118 (98%)	102 (89%)	13 (11%)	0	100 100
37	YR	115/118 (98%)	103 (90%)	11 (10%)	1 (1%)	14 45
38	RS	109/112 (97%)	86 (79%)	23 (21%)	0	100 100
38	YS	109/112 (97%)	87 (80%)	22 (20%)	0	100 100
39	RT	135/146 (92%)	115 (85%)	18 (13%)	2 (2%)	8 35
39	YT	135/146 (92%)	115 (85%)	18 (13%)	2 (2%)	8 35
40	RU	115/118 (98%)	109 (95%)	5 (4%)	1 (1%)	14 45
40	YU	115/118 (98%)	109 (95%)	5 (4%)	1 (1%)	14 45
41	RV	99/101 (98%)	86 (87%)	12 (12%)	1 (1%)	12 43
41	YV	99/101 (98%)	86 (87%)	13 (13%)	0	100 100
42	RW	111/113 (98%)	103 (93%)	8 (7%)	0	100 100
42	YW	111/113 (98%)	98 (88%)	13 (12%)	0	100 100
43	RX	90/96 (94%)	87 (97%)	3 (3%)	0	100 100
43	YX	90/96 (94%)	88 (98%)	2 (2%)	0	100 100
44	RY	105/110 (96%)	101 (96%)	4 (4%)	0	100 100
44	YY	105/110 (96%)	98 (93%)	7 (7%)	0	100 100
45	RZ	181/206 (88%)	144 (80%)	33 (18%)	4 (2%)	5 29
45	YZ	181/206 (88%)	142 (78%)	36 (20%)	3 (2%)	7 33
46	R0	79/85 (93%)	76 (96%)	3 (4%)	0	100 100
46	Y0	73/85 (86%)	69 (94%)	4 (6%)	0	100 100
47	R1	95/98 (97%)	85 (90%)	9 (10%)	1 (1%)	11 41
47	Y1	91/98 (93%)	77 (85%)	13 (14%)	1 (1%)	11 41
48	R2	67/72 (93%)	62 (92%)	4 (6%)	1 (2%)	8 35
48	Y2	67/72 (93%)	61 (91%)	5 (8%)	1 (2%)	8 35
49	R3	57/60 (95%)	53 (93%)	4 (7%)	0	100 100
49	Y3	57/60 (95%)	53 (93%)	4 (7%)	0	100 100
50	R4	67/71 (94%)	53 (79%)	13 (19%)	1 (2%)	8 35

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
50	Y4	67/71 (94%)	53 (79%)	13 (19%)	1 (2%)	8 35
51	R5	57/60 (95%)	54 (95%)	3 (5%)	0	100 100
51	Y5	57/60 (95%)	53 (93%)	4 (7%)	0	100 100
52	R6	51/54 (94%)	49 (96%)	2 (4%)	0	100 100
52	Y6	51/54 (94%)	48 (94%)	3 (6%)	0	100 100
53	R7	45/49 (92%)	44 (98%)	1 (2%)	0	100 100
53	Y7	46/49 (94%)	45 (98%)	1 (2%)	0	100 100
54	R8	62/65 (95%)	46 (74%)	14 (23%)	2 (3%)	3 24
54	Y8	62/65 (95%)	47 (76%)	13 (21%)	2 (3%)	3 24
55	R9	35/37 (95%)	25 (71%)	10 (29%)	0	100 100
55	Y9	35/37 (95%)	18 (51%)	15 (43%)	2 (6%)	1 15
All	All	11452/12128 (94%)	10130 (88%)	1249 (11%)	73 (1%)	21 52

All (73) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
28	RE	18	ASP
31	RH	87	LEU
32	RI	15	VAL
35	RP	108	LYS
39	RT	124	ASP
40	RU	92	ARG
45	RZ	53	ILE
45	RZ	180	VAL
54	R8	29	LYS
54	R8	30	ARG
28	YE	18	ASP
31	YH	87	LEU
32	YI	15	VAL
35	YP	108	LYS
39	YT	124	ASP
45	YZ	53	ILE
45	YZ	180	VAL
54	Y8	29	LYS
54	Y8	30	ARG
2	QB	208	ILE
14	QN	17	LYS
27	RD	34	VAL

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Mol	Chain	Res	Type
27	RD	243	GLY
33	RN	22	THR
39	RT	123	GLN
50	R4	47	GLN
14	XN	17	LYS
33	YN	22	THR
39	YT	123	GLN
40	YU	92	ARG
50	Y4	47	GLN
55	Y9	30	PRO
13	QM	14	ARG
32	RI	11	ASN
48	R2	70	GLN
27	YD	34	VAL
27	YD	243	GLY
32	YI	11	ASN
37	YR	4	LEU
45	YZ	178	GLU
48	Y2	70	GLN
28	RE	83	ASP
30	RG	81	LYS
31	RH	86	GLU
41	RV	44	LYS
45	RZ	178	GLU
12	XL	105	TYR
19	XS	27	GLU
28	YE	63	LEU
28	YE	83	ASP
30	YG	81	LYS
31	YH	86	GLU
55	Y9	28	GLU
47	R1	54	ALA
13	XM	14	ARG
29	YF	67	GLN
29	YF	129	PHE
28	RE	145	LYS
33	RN	96	GLU
36	RQ	78	PRO
30	YG	82	LEU
31	YH	12	PRO
36	YQ	22	LYS
36	YQ	78	PRO

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Mol	Chain	Res	Type
47	Y1	54	ALA
31	RH	12	PRO
2	XB	208	ILE
2	QB	232	PRO
5	QE	74	GLY
32	RI	16	GLY
5	XE	74	GLY
32	YI	16	GLY
45	RZ	166	SER

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%)	203 (100%)	0	100	100
2	XB	204/220 (93%)	204 (100%)	0	100	100
3	QC	159/188 (85%)	159 (100%)	0	100	100
3	XC	159/188 (85%)	159 (100%)	0	100	100
4	QD	180/181 (99%)	180 (100%)	0	100	100
4	XD	180/181 (99%)	180 (100%)	0	100	100
5	QE	116/123 (94%)	116 (100%)	0	100	100
5	XE	116/123 (94%)	116 (100%)	0	100	100
6	QF	90/90 (100%)	90 (100%)	0	100	100
6	XF	90/90 (100%)	90 (100%)	0	100	100
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%)	118 (100%)	0	100	100
8	XH	118/119 (99%)	118 (100%)	0	100	100
9	QI	98/99 (99%)	98 (100%)	0	100	100
9	XI	97/99 (98%)	97 (100%)	0	100	100
10	QJ	89/92 (97%)	89 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
10	XJ	86/92 (94%)	86 (100%)	0	100	100
11	QK	90/99 (91%)	90 (100%)	0	100	100
11	XK	88/99 (89%)	88 (100%)	0	100	100
12	QL	104/109 (95%)	104 (100%)	0	100	100
12	XL	103/109 (94%)	103 (100%)	0	100	100
13	QM	96/101 (95%)	96 (100%)	0	100	100
13	XM	95/101 (94%)	95 (100%)	0	100	100
14	QN	49/50 (98%)	49 (100%)	0	100	100
14	XN	49/50 (98%)	49 (100%)	0	100	100
15	QO	79/80 (99%)	79 (100%)	0	100	100
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%)	95 (100%)	0	100	100
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%)	71 (99%)	1 (1%)	59	70
19	XS	73/80 (91%)	73 (100%)	0	100	100
20	QT	76/82 (93%)	76 (100%)	0	100	100
20	XT	76/82 (93%)	76 (100%)	0	100	100
21	QU	20/22 (91%)	20 (100%)	0	100	100
21	XU	20/22 (91%)	20 (100%)	0	100	100
27	RD	214/218 (98%)	214 (100%)	0	100	100
27	YD	214/218 (98%)	214 (100%)	0	100	100
28	RE	165/166 (99%)	165 (100%)	0	100	100
28	YE	165/166 (99%)	165 (100%)	0	100	100
29	RF	161/166 (97%)	161 (100%)	0	100	100
29	YF	161/166 (97%)	161 (100%)	0	100	100
30	RG	155/156 (99%)	155 (100%)	0	100	100
30	YG	155/156 (99%)	155 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
31	RH	145/148 (98%)	145 (100%)	0	100	100
31	YH	145/148 (98%)	145 (100%)	0	100	100
32	RI	122/124 (98%)	122 (100%)	0	100	100
32	YI	122/124 (98%)	122 (100%)	0	100	100
33	RN	117/119 (98%)	117 (100%)	0	100	100
33	YN	117/119 (98%)	117 (100%)	0	100	100
34	RO	100/100 (100%)	100 (100%)	0	100	100
34	YO	100/100 (100%)	100 (100%)	0	100	100
35	RP	116/116 (100%)	116 (100%)	0	100	100
35	YP	114/116 (98%)	114 (100%)	0	100	100
36	RQ	111/111 (100%)	111 (100%)	0	100	100
36	YQ	111/111 (100%)	111 (100%)	0	100	100
37	RR	100/101 (99%)	100 (100%)	0	100	100
37	YR	100/101 (99%)	100 (100%)	0	100	100
38	RS	87/88 (99%)	87 (100%)	0	100	100
38	YS	87/88 (99%)	87 (100%)	0	100	100
39	RT	120/127 (94%)	120 (100%)	0	100	100
39	YT	120/127 (94%)	120 (100%)	0	100	100
40	RU	93/94 (99%)	93 (100%)	0	100	100
40	YU	93/94 (99%)	93 (100%)	0	100	100
41	RV	82/82 (100%)	82 (100%)	0	100	100
41	YV	82/82 (100%)	82 (100%)	0	100	100
42	RW	92/92 (100%)	92 (100%)	0	100	100
42	YW	92/92 (100%)	92 (100%)	0	100	100
43	RX	74/78 (95%)	74 (100%)	0	100	100
43	YX	74/78 (95%)	74 (100%)	0	100	100
44	RY	88/91 (97%)	88 (100%)	0	100	100
44	YY	88/91 (97%)	88 (100%)	0	100	100
45	RZ	162/179 (90%)	162 (100%)	0	100	100
45	YZ	162/179 (90%)	162 (100%)	0	100	100
46	R0	65/67 (97%)	65 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
46	Y0	61/67 (91%)	61 (100%)	0	100 100
47	R1	82/83 (99%)	82 (100%)	0	100 100
47	Y1	78/83 (94%)	78 (100%)	0	100 100
48	R2	64/67 (96%)	64 (100%)	0	100 100
48	Y2	64/67 (96%)	64 (100%)	0	100 100
49	R3	51/52 (98%)	51 (100%)	0	100 100
49	Y3	51/52 (98%)	51 (100%)	0	100 100
50	R4	62/63 (98%)	62 (100%)	0	100 100
50	Y4	62/63 (98%)	61 (98%)	1 (2%)	55 67
51	R5	51/52 (98%)	51 (100%)	0	100 100
51	Y5	51/52 (98%)	51 (100%)	0	100 100
52	R6	51/52 (98%)	51 (100%)	0	100 100
52	Y6	51/52 (98%)	51 (100%)	0	100 100
53	R7	40/42 (95%)	40 (100%)	0	100 100
53	Y7	41/42 (98%)	41 (100%)	0	100 100
54	R8	54/55 (98%)	54 (100%)	0	100 100
54	Y8	54/55 (98%)	54 (100%)	0	100 100
55	R9	34/34 (100%)	34 (100%)	0	100 100
55	Y9	34/34 (100%)	33 (97%)	1 (3%)	37 57
All	All	9687/10066 (96%)	9684 (100%)	3 (0%)	100 100

All (3) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
19	QS	41	VAL
50	Y4	56	VAL
55	Y9	27	CYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (72) such sidechains are listed below:

Mol	Chain	Res	Type
2	QB	140	HIS
3	QC	6	HIS
3	QC	69	HIS

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Mol	Chain	Res	Type
3	QC	108	ASN
4	QD	103	ASN
4	QD	119	GLN
4	QD	161	ASN
6	QF	13	ASN
6	QF	27	GLN
7	QG	11	GLN
9	QI	3	GLN
9	QI	73	GLN
10	QJ	78	ASN
10	QJ	84	GLN
11	QK	13	GLN
11	QK	22	HIS
13	QM	77	ASN
15	QO	51	HIS
19	QS	14	HIS
27	RD	96	HIS
28	RE	129	HIS
29	RF	40	GLN
29	RF	67	GLN
29	RF	203	GLN
30	RG	40	ASN
31	RH	139	GLN
31	RH	143	GLN
32	RI	104	GLN
35	RP	81	GLN
36	RQ	141	GLN
37	RR	31	HIS
39	RT	58	ASN
39	RT	90	GLN
39	RT	123	GLN
48	R2	47	ASN
48	R2	65	ASN
52	R6	29	ASN
54	R8	35	GLN
2	XB	16	HIS
2	XB	95	GLN
3	XC	37	GLN
3	XC	69	HIS
3	XC	108	ASN
4	XD	103	ASN
5	XE	130	ASN

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Mol	Chain	Res	Type
6	XF	27	GLN
7	XG	11	GLN
8	XH	81	HIS
8	XH	82	HIS
9	XI	117	HIS
13	XM	101	GLN
19	XS	47	HIS
19	XS	83	HIS
27	YD	227	ASN
28	YE	143	ASN
29	YF	40	GLN
29	YF	203	GLN
31	YH	74	ASN
31	YH	139	GLN
32	YI	105	HIS
33	YN	128	HIS
33	YN	130	HIS
34	YO	3	GLN
35	YP	70	GLN
36	YQ	141	GLN
37	YR	71	GLN
38	YS	34	HIS
39	YT	90	GLN
42	YW	111	HIS
44	YY	6	HIS
52	Y6	20	ASN
55	Y9	32	HIS

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	QA	1498/1508 (99%)	252 (16%)	34 (2%)
1	XA	1499/1508 (99%)	272 (18%)	37 (2%)
22	QV	76/77 (98%)	17 (22%)	3 (3%)
22	QW	75/77 (97%)	31 (41%)	2 (2%)
22	XV	76/77 (98%)	18 (23%)	3 (3%)
22	XW	75/77 (97%)	32 (42%)	2 (2%)
23	QX	7/25 (28%)	0	0
23	XX	9/25 (36%)	3 (33%)	0
24	QY	16/17 (94%)	2 (12%)	0
24	XY	16/17 (94%)	2 (12%)	0

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
25	RA	2879/2915 (98%)	599 (20%)	47 (1%)
25	YA	2880/2915 (98%)	570 (19%)	48 (1%)
26	RB	119/122 (97%)	17 (14%)	1 (0%)
26	YB	119/122 (97%)	19 (15%)	1 (0%)
All	All	9344/9482 (98%)	1834 (19%)	178 (1%)

All (1834) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	QA	6	G
1	QA	9	G
1	QA	32	A
1	QA	39	G
1	QA	48	C
1	QA	51	A
1	QA	64	G
1	QA	65	U
1	QA	66	G
1	QA	76	G
1	QA	79	G
1	QA	80	G
1	QA	101	A
1	QA	108	G
1	QA	116	A
1	QA	120	A
1	QA	121	C
1	QA	129(A)	G
1	QA	144	G
1	QA	146	G
1	QA	147	G
1	QA	163	C
1	QA	169	C
1	QA	173	U
1	QA	174	C
1	QA	182	U
1	QA	190	G
1	QA	195	A
1	QA	197	A
1	QA	209	U
1	QA	210	U
1	QA	216	G
1	QA	220	G

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Mol	Chain	Res	Type
1	QA	244	U
1	QA	245	C
1	QA	247	G
1	QA	250	A
1	QA	251	G
1	QA	267	C
1	QA	270	A
1	QA	281	G
1	QA	289	G
1	QA	306	G
1	QA	321	A
1	QA	328	C
1	QA	329	A
1	QA	332	G
1	QA	344	A
1	QA	346	G
1	QA	347	G
1	QA	351	G
1	QA	352	C
1	QA	353	A
1	QA	354	G
1	QA	367	U
1	QA	372	C
1	QA	373	A
1	QA	390	C
1	QA	397	A
1	QA	398	C
1	QA	406	G
1	QA	411	A
1	QA	412	A
1	QA	413	G
1	QA	421	U
1	QA	422	C
1	QA	423	G
1	QA	424	G
1	QA	428	G
1	QA	429	U
1	QA	448	A
1	QA	451	A
1	QA	466	C
1	QA	467	G
1	QA	482	A

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Mol	Chain	Res	Type
1	QA	485	G
1	QA	486	U
1	QA	496	A
1	QA	497	U
1	QA	505	G
1	QA	509	A
1	QA	510	A
1	QA	511	C
1	QA	518	C
1	QA	521	G
1	QA	527	G
1	QA	532	A
1	QA	533	A
1	QA	534	U
1	QA	545	C
1	QA	547	A
1	QA	559	A
1	QA	562	C
1	QA	564	C
1	QA	568	G
1	QA	572	A
1	QA	573	A
1	QA	576	G
1	QA	577	G
1	QA	596	C
1	QA	618	C
1	QA	630	G
1	QA	631	G
1	QA	633	G
1	QA	653	A
1	QA	665	A
1	QA	666	G
1	QA	686	U
1	QA	688	G
1	QA	701	C
1	QA	702	A
1	QA	703	G
1	QA	704	A
1	QA	723	U
1	QA	731	G
1	QA	748	C
1	QA	754	C

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Mol	Chain	Res	Type
1	QA	755	G
1	QA	777	A
1	QA	792	A
1	QA	793	U
1	QA	794	A
1	QA	802	A
1	QA	813	U
1	QA	817	C
1	QA	819	A
1	QA	821	G
1	QA	828	A
1	QA	841	U
1	QA	842	C
1	QA	843	U
1	QA	848	C
1	QA	859	A
1	QA	871	U
1	QA	872	A
1	QA	902	G
1	QA	914	A
1	QA	927	G
1	QA	934	C
1	QA	935	A
1	QA	960	U
1	QA	968	A
1	QA	969	A
1	QA	971	G
1	QA	972	C
1	QA	974	A
1	QA	975	A
1	QA	976	G
1	QA	977	A
1	QA	991	U
1	QA	992	U
1	QA	993	G
1	QA	994	A
1	QA	1001	G
1	QA	1004	A
1	QA	1009	G
1	QA	1024	G
1	QA	1025	U
1	QA	1028	C

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Mol	Chain	Res	Type
1	QA	1029	G
1	QA	1031	G
1	QA	1032(A)	G
1	QA	1054	C
1	QA	1055	A
1	QA	1064	G
1	QA	1065	U
1	QA	1066	C
1	QA	1081	G
1	QA	1094	G
1	QA	1095	U
1	QA	1100	C
1	QA	1101	A
1	QA	1108	G
1	QA	1124	G
1	QA	1125	U
1	QA	1126	U
1	QA	1130	A
1	QA	1131	G
1	QA	1136	U
1	QA	1137	C
1	QA	1138	G
1	QA	1139	G
1	QA	1146	A
1	QA	1157	A
1	QA	1158	C
1	QA	1159	U
1	QA	1160	G
1	QA	1171	G
1	QA	1181	G
1	QA	1183	A
1	QA	1184	G
1	QA	1196	U
1	QA	1200	C
1	QA	1201	A
1	QA	1202	G
1	QA	1212	U
1	QA	1213	A
1	QA	1224	G
1	QA	1238	A
1	QA	1240	U
1	QA	1241	G

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Mol	Chain	Res	Type
1	QA	1256	A
1	QA	1257	U
1	QA	1258	G
1	QA	1260	C
1	QA	1270	C
1	QA	1280	A
1	QA	1281	U
1	QA	1286	A
1	QA	1287	A
1	QA	1290	G
1	QA	1297	C
1	QA	1298	C
1	QA	1299	A
1	QA	1300	G
1	QA	1302	U
1	QA	1303	C
1	QA	1305	G
1	QA	1320	C
1	QA	1321	C
1	QA	1322	C
1	QA	1323	G
1	QA	1331	G
1	QA	1335	C
1	QA	1336	C
1	QA	1337	G
1	QA	1338	G
1	QA	1347	G
1	QA	1348	U
1	QA	1362(A)	C
1	QA	1397	C
1	QA	1398	A
1	QA	1406	U
1	QA	1419	G
1	QA	1442	G
1	QA	1446	A
1	QA	1447	G
1	QA	1452	C
1	QA	1453	G
1	QA	1487	G
1	QA	1492	A
1	QA	1494	G
1	QA	1499	A

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Mol	Chain	Res	Type
1	QA	1503	A
1	QA	1504	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
22	QV	5	G
22	QV	7	G
22	QV	8	U
22	QV	18	U
22	QV	19	G
22	QV	20	G
22	QV	21	U
22	QV	35	C
22	QV	36	A
22	QV	48	U
22	QV	49	C
22	QV	50	G
22	QV	53	G
22	QV	54	G
22	QV	55	U
22	QV	60	A
22	QV	76	C
22	QW	8	U
22	QW	9	G
22	QW	13	C
22	QW	14	A
22	QW	18	U
22	QW	19	G
22	QW	20	G
22	QW	21	U
22	QW	27	G
22	QW	32	G
22	QW	33	C
22	QW	34	U
22	QW	35	C
22	QW	36	A
22	QW	38	A
22	QW	39	A

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Mol	Chain	Res	Type
22	QW	43	G
22	QW	46	G
22	QW	47	G
22	QW	48	U
22	QW	49	C
22	QW	50	G
22	QW	56	U
22	QW	57	C
22	QW	58	A
22	QW	59	A
22	QW	60	A
22	QW	61	U
22	QW	62	C
22	QW	74	A
22	QW	75	C
24	QY	29	G
24	QY	30	G
25	RA	34	C
25	RA	35	G
25	RA	46	C
25	RA	51	G
25	RA	55	G
25	RA	61	G
25	RA	63	U
25	RA	72	U
25	RA	74	A
25	RA	75	G
25	RA	82	G
25	RA	101	G
25	RA	102	G
25	RA	103	A
25	RA	118	A
25	RA	120	U
25	RA	131	G
25	RA	138	G
25	RA	177	G
25	RA	181	A
25	RA	196	A
25	RA	199	A
25	RA	204	A
25	RA	205	G
25	RA	215	G

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Mol	Chain	Res	Type
25	RA	216	A
25	RA	221	A
25	RA	222	A
25	RA	223	A
25	RA	228	A
25	RA	229	A
25	RA	230	U
25	RA	232	G
25	RA	242	G
25	RA	243	U
25	RA	248	G
25	RA	252	G
25	RA	265	A
25	RA	266	G
25	RA	270(L)	U
25	RA	270(M)	U
25	RA	270(N)	G
25	RA	270(P)	C
25	RA	270(Y)	G
25	RA	271(A)	C
25	RA	271(C)	U
25	RA	275	G
25	RA	276	A
25	RA	277	C
25	RA	299	A
25	RA	311	A
25	RA	323	G
25	RA	324	A
25	RA	329	G
25	RA	330	A
25	RA	342	G
25	RA	346	A
25	RA	352	G
25	RA	364	C
25	RA	371	A
25	RA	372	G
25	RA	373	U
25	RA	386	G
25	RA	405	U
25	RA	407	G
25	RA	411	G
25	RA	412	A

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Mol	Chain	Res	Type
25	RA	428	A
25	RA	435	C
25	RA	444	C
25	RA	448	U
25	RA	455	C
25	RA	456	C
25	RA	457	A
25	RA	458	G
25	RA	470	A
25	RA	481	G
25	RA	491	G
25	RA	504	U
25	RA	505	A
25	RA	508	G
25	RA	509	C
25	RA	513	A
25	RA	527	C
25	RA	529	A
25	RA	532	A
25	RA	533	G
25	RA	537	C
25	RA	539	G
25	RA	540	G
25	RA	546	C
25	RA	547	A
25	RA	554	U
25	RA	556	G
25	RA	563	G
25	RA	571	A
25	RA	573	G
25	RA	575	A
25	RA	588	U
25	RA	603	A
25	RA	607	U
25	RA	614	U
25	RA	615	G
25	RA	617	G
25	RA	621	A
25	RA	622	G
25	RA	627	A
25	RA	631	A
25	RA	637	A

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Mol	Chain	Res	Type
25	RA	638	G
25	RA	645	C
25	RA	646	A
25	RA	647	G
25	RA	651	G
25	RA	652	C
25	RA	654	A
25	RA	654(A)	G
25	RA	654(B)	C
25	RA	658	C
25	RA	669	G
25	RA	686	G
25	RA	702	G
25	RA	708	C
25	RA	722	A
25	RA	730	C
25	RA	748	G
25	RA	753	C
25	RA	776	G
25	RA	782	A
25	RA	784	A
25	RA	785	G
25	RA	790	C
25	RA	805	G
25	RA	812	C
25	RA	819	A
25	RA	827	U
25	RA	828	U
25	RA	830	G
25	RA	847	U
25	RA	856	C
25	RA	857	C
25	RA	859	G
25	RA	860	U
25	RA	869	G
25	RA	872	A
25	RA	880	G
25	RA	882	G
25	RA	884	C
25	RA	885	C
25	RA	886	C
25	RA	888	C

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Mol	Chain	Res	Type
25	RA	889	C
25	RA	893	C
25	RA	896	A
25	RA	897	C
25	RA	900	A
25	RA	901	A
25	RA	904	C
25	RA	907	U
25	RA	910	A
25	RA	917	A
25	RA	930	U
25	RA	932	G
25	RA	938	G
25	RA	941	A
25	RA	945	A
25	RA	946	G
25	RA	953	A
25	RA	957	A
25	RA	959	A
25	RA	961	C
25	RA	973	A
25	RA	974	G
25	RA	974(A)	C
25	RA	975	G
25	RA	980	A
25	RA	983	A
25	RA	996	A
25	RA	1003	G
25	RA	1012	U
25	RA	1013	C
25	RA	1017	G
25	RA	1023	U
25	RA	1025	G
25	RA	1026	U
25	RA	1027	A
25	RA	1032	A
25	RA	1033	U
25	RA	1044	G
25	RA	1045	A
25	RA	1046	A
25	RA	1050	A
25	RA	1053	C

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Mol	Chain	Res	Type
25	RA	1054	A
25	RA	1055	G
25	RA	1059	G
25	RA	1060	U
25	RA	1061	U
25	RA	1066	U
25	RA	1067	A
25	RA	1068	G
25	RA	1070	A
25	RA	1071	G
25	RA	1076	C
25	RA	1077	A
25	RA	1078	U
25	RA	1079	C
25	RA	1081	U
25	RA	1082	U
25	RA	1083	U
25	RA	1084	A
25	RA	1085	A
25	RA	1086	A
25	RA	1087	G
25	RA	1088	A
25	RA	1090	U
25	RA	1091	G
25	RA	1093	G
25	RA	1095	A
25	RA	1096	A
25	RA	1097	U
25	RA	1104	C
25	RA	1105	U
25	RA	1110	G
25	RA	1111	A
25	RA	1112	G
25	RA	1122	G
25	RA	1124	C
25	RA	1129	A
25	RA	1130	U
25	RA	1135	C
25	RA	1136	G
25	RA	1139	G
25	RA	1140	C
25	RA	1141	U

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Mol	Chain	Res	Type
25	RA	1142(A)	A
25	RA	1151	G
25	RA	1169	G
25	RA	1173	G
25	RA	1174	A
25	RA	1175	U
25	RA	1176	G
25	RA	1178	C
25	RA	1179	C
25	RA	1183	G
25	RA	1195	G
25	RA	1204	A
25	RA	1205	U
25	RA	1206	G
25	RA	1210	A
25	RA	1211	U
25	RA	1212	G
25	RA	1220	A
25	RA	1238	G
25	RA	1247	A
25	RA	1248	G
25	RA	1253	A
25	RA	1256	G
25	RA	1265	A
25	RA	1271	G
25	RA	1272	A
25	RA	1273	U
25	RA	1286	A
25	RA	1288	U
25	RA	1300	U
25	RA	1301	A
25	RA	1312	U
25	RA	1313	U
25	RA	1314	C
25	RA	1321	A
25	RA	1329	U
25	RA	1330	C
25	RA	1341	U
25	RA	1349	A
25	RA	1352	U
25	RA	1365	A
25	RA	1368	G

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Mol	Chain	Res	Type
25	RA	1378	A
25	RA	1379	A
25	RA	1380	G
25	RA	1384	A
25	RA	1385	G
25	RA	1392	A
25	RA	1395	A
25	RA	1407	C
25	RA	1408	C
25	RA	1411	C
25	RA	1416	G
25	RA	1419	A
25	RA	1420	U
25	RA	1421	G
25	RA	1428	C
25	RA	1434	A
25	RA	1444(A)	A
25	RA	1445	C
25	RA	1449	A
25	RA	1449(A)	G
25	RA	1455	G
25	RA	1458	C
25	RA	1461	G
25	RA	1467	C
25	RA	1471	A
25	RA	1482	U
25	RA	1483	G
25	RA	1490	A
25	RA	1493	C
25	RA	1494	A
25	RA	1497	U
25	RA	1503	U
25	RA	1506	C
25	RA	1507	A
25	RA	1508	A
25	RA	1510	A
25	RA	1511	A
25	RA	1513	C
25	RA	1514	U
25	RA	1517	G
25	RA	1519	G
25	RA	1522	G

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Mol	Chain	Res	Type
25	RA	1528	A
25	RA	1534	G
25	RA	1535	U
25	RA	1536	A
25	RA	1537	C
25	RA	1538	G
25	RA	1543	A
25	RA	1545	A
25	RA	1558	A
25	RA	1559	G
25	RA	1560	G
25	RA	1566	A
25	RA	1569	A
25	RA	1578	U
25	RA	1579	A
25	RA	1581	G
25	RA	1585	C
25	RA	1586	A
25	RA	1599	C
25	RA	1608	A
25	RA	1610	A
25	RA	1616	A
25	RA	1617	C
25	RA	1618	A
25	RA	1640	C
25	RA	1648	C
25	RA	1651	G
25	RA	1654	A
25	RA	1665	A
25	RA	1667	G
25	RA	1668	A
25	RA	1674	G
25	RA	1675	C
25	RA	1678	G
25	RA	1695	G
25	RA	1725	G
25	RA	1728	G
25	RA	1729	A
25	RA	1730	U
25	RA	1731	G
25	RA	1732	A
25	RA	1733	G

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Mol	Chain	Res	Type
25	RA	1742	C
25	RA	1743	G
25	RA	1756	G
25	RA	1762	A
25	RA	1763	G
25	RA	1764	G
25	RA	1773	A
25	RA	1779	U
25	RA	1780	A
25	RA	1781	C
25	RA	1782	C
25	RA	1787	A
25	RA	1791	A
25	RA	1799	G
25	RA	1800	C
25	RA	1801	G
25	RA	1816	G
25	RA	1820	U
25	RA	1829	A
25	RA	1835	G
25	RA	1847	A
25	RA	1848	A
25	RA	1858	G
25	RA	1869	G
25	RA	1870	C
25	RA	1872	A
25	RA	1878	G
25	RA	1882	C
25	RA	1888	G
25	RA	1889	A
25	RA	1906	G
25	RA	1927	A
25	RA	1929	G
25	RA	1930	G
25	RA	1931	U
25	RA	1936	A
25	RA	1937	A
25	RA	1938	A
25	RA	1939	U
25	RA	1955	U
25	RA	1963	U
25	RA	1964	G

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Mol	Chain	Res	Type
25	RA	1967	C
25	RA	1969	A
25	RA	1970	A
25	RA	1971	A
25	RA	1972	A
25	RA	1982	C
25	RA	1992	G
25	RA	1993	U
25	RA	1996	C
25	RA	2013	A
25	RA	2020	A
25	RA	2021	C
25	RA	2023	G
25	RA	2031	A
25	RA	2032	G
25	RA	2033	A
25	RA	2043	C
25	RA	2052	G
25	RA	2055	C
25	RA	2056	G
25	RA	2059	A
25	RA	2060	A
25	RA	2061	G
25	RA	2062	A
25	RA	2069	G
25	RA	2093	G
25	RA	2111	C
25	RA	2113	U
25	RA	2114	A
25	RA	2115	G
25	RA	2116	G
25	RA	2117	A
25	RA	2119	A
25	RA	2123	G
25	RA	2126	A
25	RA	2127	G
25	RA	2128	C
25	RA	2131	G
25	RA	2132	U
25	RA	2135	A
25	RA	2136	C
25	RA	2146	C

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Mol	Chain	Res	Type
25	RA	2147	G
25	RA	2148	G
25	RA	2157	G
25	RA	2158	A
25	RA	2161	C
25	RA	2166	G
25	RA	2168	G
25	RA	2169	A
25	RA	2173	A
25	RA	2176	A
25	RA	2189	U
25	RA	2190	G
25	RA	2198	A
25	RA	2199	A
25	RA	2210	G
25	RA	2211	G
25	RA	2212	A
25	RA	2213	U
25	RA	2215	G
25	RA	2225	A
25	RA	2238	G
25	RA	2239	G
25	RA	2243	U
25	RA	2266	A
25	RA	2275	C
25	RA	2280	G
25	RA	2283	C
25	RA	2287	A
25	RA	2288	A
25	RA	2307	G
25	RA	2308	G
25	RA	2312	U
25	RA	2319	G
25	RA	2320	A
25	RA	2325	G
25	RA	2335	A
25	RA	2342	C
25	RA	2345	G
25	RA	2346	A
25	RA	2347	C
25	RA	2350	C
25	RA	2354	G

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Mol	Chain	Res	Type
25	RA	2358	G
25	RA	2383	G
25	RA	2385	C
25	RA	2392	A
25	RA	2394	C
25	RA	2402	C
25	RA	2403	C
25	RA	2406	U
25	RA	2423	U
25	RA	2424	C
25	RA	2425	A
25	RA	2429	G
25	RA	2430	A
25	RA	2434	A
25	RA	2435	A
25	RA	2439	A
25	RA	2440	C
25	RA	2441	C
25	RA	2447	G
25	RA	2448	A
25	RA	2465	C
25	RA	2466	C
25	RA	2467	C
25	RA	2468	G
25	RA	2469	A
25	RA	2470	G
25	RA	2474	C
25	RA	2475	C
25	RA	2476	A
25	RA	2478	A
25	RA	2479	G
25	RA	2482	G
25	RA	2494	G
25	RA	2502	G
25	RA	2505	G
25	RA	2518	A
25	RA	2519	U
25	RA	2527	C
25	RA	2529	G
25	RA	2542	A
25	RA	2543	G
25	RA	2554	U

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Mol	Chain	Res	Type
25	RA	2564	A
25	RA	2567	G
25	RA	2572	A
25	RA	2585	U
25	RA	2602	A
25	RA	2609	U
25	RA	2611	U
25	RA	2612	C
25	RA	2614	A
25	RA	2615	U
25	RA	2621	A
25	RA	2623	G
25	RA	2629	A
25	RA	2641	G
25	RA	2642	G
25	RA	2655	G
25	RA	2665	A
25	RA	2673	G
25	RA	2682	U
25	RA	2689	U
25	RA	2690	C
25	RA	2702	U
25	RA	2707	G
25	RA	2712	U
25	RA	2712(A)	A
25	RA	2713	A
25	RA	2714	G
25	RA	2726	U
25	RA	2732	G
25	RA	2733	A
25	RA	2739	U
25	RA	2743	C
25	RA	2744	G
25	RA	2748	A
25	RA	2752	C
25	RA	2753	A
25	RA	2754	U
25	RA	2756	U
25	RA	2757	A
25	RA	2758	A
25	RA	2761	G
25	RA	2764	A

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Mol	Chain	Res	Type
25	RA	2765	A
25	RA	2766	G
25	RA	2771	C
25	RA	2777	G
25	RA	2778	A
25	RA	2779	U
25	RA	2780	G
25	RA	2789	C
25	RA	2790	A
25	RA	2791	C
25	RA	2797	U
25	RA	2807	G
25	RA	2818	G
25	RA	2820	A
25	RA	2821	A
25	RA	2832	U
25	RA	2833	G
25	RA	2834	G
25	RA	2835	A
25	RA	2847	U
25	RA	2849	U
25	RA	2872	G
25	RA	2873	A
25	RA	2880	C
25	RA	2886	G
25	RA	2891	G
25	RA	2892	A
25	RA	2894	G
26	RB	9	G
26	RB	13	A
26	RB	15	A
26	RB	16	G
26	RB	22	U
26	RB	25	A
26	RB	32	C
26	RB	41	U
26	RB	42	C
26	RB	45	A
26	RB	56	G
26	RB	66	A
26	RB	67	G
26	RB	73	A

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Mol	Chain	Res	Type
26	RB	81	G
26	RB	82	G
26	RB	109	G
1	XA	6	G
1	XA	9	G
1	XA	32	A
1	XA	39	G
1	XA	47	C
1	XA	48	C
1	XA	50	A
1	XA	51	A
1	XA	61	G
1	XA	65	U
1	XA	66	G
1	XA	76	G
1	XA	79	G
1	XA	81	G
1	XA	89	U
1	XA	90	C
1	XA	91	C
1	XA	92	G
1	XA	95	G
1	XA	101	A
1	XA	108	G
1	XA	116	A
1	XA	121	C
1	XA	122	G
1	XA	129(A)	G
1	XA	130	A
1	XA	144	G
1	XA	147	G
1	XA	151	A
1	XA	163	C
1	XA	169	C
1	XA	172	A
1	XA	174	C
1	XA	190	G
1	XA	191(A)	G
1	XA	195	A
1	XA	197	A
1	XA	209	U
1	XA	222	U

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Mol	Chain	Res	Type
1	XA	244	U
1	XA	245	C
1	XA	247	G
1	XA	251	G
1	XA	262	A
1	XA	267	C
1	XA	270	A
1	XA	281	G
1	XA	289	G
1	XA	314	C
1	XA	317	G
1	XA	321	A
1	XA	328	C
1	XA	329	A
1	XA	332	G
1	XA	345	C
1	XA	346	G
1	XA	347	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	372	C
1	XA	373	A
1	XA	384	G
1	XA	388	G
1	XA	389	A
1	XA	390	C
1	XA	397	A
1	XA	398	C
1	XA	406	G
1	XA	411	A
1	XA	412	A
1	XA	413	G
1	XA	421	U
1	XA	422	C
1	XA	423	G
1	XA	424	G
1	XA	429	U
1	XA	430	A

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Mol	Chain	Res	Type
1	XA	440	A
1	XA	442	C
1	XA	452	A
1	XA	466	C
1	XA	467	G
1	XA	482	A
1	XA	485	G
1	XA	486	U
1	XA	496	A
1	XA	497	U
1	XA	509	A
1	XA	510	A
1	XA	511	C
1	XA	518	C
1	XA	521	G
1	XA	524	G
1	XA	527	G
1	XA	531	U
1	XA	532	A
1	XA	533	A
1	XA	545	C
1	XA	547	A
1	XA	548	G
1	XA	559	A
1	XA	561	U
1	XA	564	C
1	XA	568	G
1	XA	572	A
1	XA	573	A
1	XA	576	G
1	XA	577	G
1	XA	579	G
1	XA	618	C
1	XA	630	G
1	XA	631	G
1	XA	632	A
1	XA	633	G
1	XA	653	A
1	XA	665	A
1	XA	671	G
1	XA	688	G
1	XA	702	A

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Mol	Chain	Res	Type
1	XA	704	A
1	XA	721	G
1	XA	723	U
1	XA	731	G
1	XA	749	C
1	XA	754	C
1	XA	755	G
1	XA	774	G
1	XA	777	A
1	XA	792	A
1	XA	793	U
1	XA	794	A
1	XA	813	U
1	XA	817	C
1	XA	818	G
1	XA	821	G
1	XA	828	A
1	XA	841	U
1	XA	843	U
1	XA	848	C
1	XA	859	A
1	XA	871	U
1	XA	872	A
1	XA	902	G
1	XA	914	A
1	XA	926	G
1	XA	927	G
1	XA	934	C
1	XA	935	A
1	XA	940	C
1	XA	942	G
1	XA	958	A
1	XA	960	U
1	XA	968	A
1	XA	969	A
1	XA	971	G
1	XA	972	C
1	XA	974	A
1	XA	975	A
1	XA	976	G
1	XA	977	A
1	XA	980	C

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Mol	Chain	Res	Type
1	XA	991	U
1	XA	992	U
1	XA	993	G
1	XA	1004	A
1	XA	1006	C
1	XA	1009	G
1	XA	1024	G
1	XA	1025	U
1	XA	1028	C
1	XA	1029	G
1	XA	1032(A)	G
1	XA	1039	C
1	XA	1040	U
1	XA	1053	G
1	XA	1054	C
1	XA	1055	A
1	XA	1064	G
1	XA	1065	U
1	XA	1066	C
1	XA	1081	G
1	XA	1085	U
1	XA	1094	G
1	XA	1095	U
1	XA	1101	A
1	XA	1124	G
1	XA	1125	U
1	XA	1126	U
1	XA	1127	G
1	XA	1130	A
1	XA	1131	G
1	XA	1136	U
1	XA	1137	C
1	XA	1138	G
1	XA	1139	G
1	XA	1146	A
1	XA	1152	A
1	XA	1157	A
1	XA	1158	C
1	XA	1159	U
1	XA	1160	G
1	XA	1176	A
1	XA	1177	G

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Mol	Chain	Res	Type
1	XA	1181	G
1	XA	1183	A
1	XA	1184	G
1	XA	1187	G
1	XA	1196	U
1	XA	1201	A
1	XA	1212	U
1	XA	1213	A
1	XA	1225	A
1	XA	1238	A
1	XA	1240	U
1	XA	1241	G
1	XA	1256	A
1	XA	1257	U
1	XA	1258	G
1	XA	1263	C
1	XA	1270	C
1	XA	1273	G
1	XA	1280	A
1	XA	1281	U
1	XA	1282	C
1	XA	1286	A
1	XA	1287	A
1	XA	1298	C
1	XA	1300	G
1	XA	1301	U
1	XA	1302	U
1	XA	1303	C
1	XA	1305	G
1	XA	1318	A
1	XA	1319	A
1	XA	1320	C
1	XA	1321	C
1	XA	1322	C
1	XA	1323	G
1	XA	1331	G
1	XA	1336	C
1	XA	1337	G
1	XA	1347	G
1	XA	1353	G
1	XA	1362(A)	C
1	XA	1363	A

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Mol	Chain	Res	Type
1	XA	1364	U
1	XA	1378	C
1	XA	1397	C
1	XA	1398	A
1	XA	1419	G
1	XA	1442	G
1	XA	1446	A
1	XA	1447	G
1	XA	1452	C
1	XA	1453	G
1	XA	1454	G
1	XA	1492	A
1	XA	1497	G
1	XA	1499	A
1	XA	1502	A
1	XA	1503	A
1	XA	1504	G
1	XA	1506	U
1	XA	1507	A
1	XA	1517	G
1	XA	1520	G
1	XA	1529	G
1	XA	1530	G
22	XV	5	G
22	XV	7	G
22	XV	8	U
22	XV	18	U
22	XV	20	G
22	XV	21	U
22	XV	23	G
22	XV	35	C
22	XV	36	A
22	XV	48	U
22	XV	49	C
22	XV	50	G
22	XV	51	U
22	XV	53	G
22	XV	54	G
22	XV	55	U
22	XV	66	C
22	XV	76	C
22	XW	8	U

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Mol	Chain	Res	Type
22	XW	9	G
22	XW	10	G
22	XW	13	C
22	XW	14	A
22	XW	18	U
22	XW	19	G
22	XW	20	G
22	XW	21	U
22	XW	27	G
22	XW	32	G
22	XW	33	C
22	XW	34	U
22	XW	35	C
22	XW	36	A
22	XW	38	A
22	XW	39	A
22	XW	43	G
22	XW	46	G
22	XW	47	G
22	XW	48	U
22	XW	49	C
22	XW	50	G
22	XW	56	U
22	XW	57	C
22	XW	58	A
22	XW	59	A
22	XW	60	A
22	XW	61	U
22	XW	62	C
22	XW	74	A
22	XW	75	C
23	XX	14	A
23	XX	15	A
23	XX	22	A
24	XY	29	G
24	XY	30	G
25	YA	13	A
25	YA	34	C
25	YA	35	G
25	YA	46	C
25	YA	55	G
25	YA	61	G

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Mol	Chain	Res	Type
25	YA	63	U
25	YA	72	U
25	YA	74	A
25	YA	75	G
25	YA	96	G
25	YA	101	G
25	YA	102	G
25	YA	103	A
25	YA	118	A
25	YA	120	U
25	YA	125	G
25	YA	131	G
25	YA	161	U
25	YA	162	U
25	YA	181	A
25	YA	188	G
25	YA	196	A
25	YA	199	A
25	YA	214	G
25	YA	216	A
25	YA	221	A
25	YA	222	A
25	YA	223	A
25	YA	228	A
25	YA	229	A
25	YA	230	U
25	YA	232	G
25	YA	233	A
25	YA	242	G
25	YA	243	U
25	YA	248	G
25	YA	252	G
25	YA	265	A
25	YA	266	G
25	YA	270(L)	U
25	YA	270(M)	U
25	YA	270(N)	G
25	YA	270(P)	C
25	YA	271(A)	C
25	YA	271(B)	G
25	YA	271(C)	U
25	YA	271	G

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Mol	Chain	Res	Type
25	YA	274	G
25	YA	275	G
25	YA	276	A
25	YA	278	A
25	YA	279	C
25	YA	283	A
25	YA	299	A
25	YA	300	A
25	YA	311	A
25	YA	312	G
25	YA	316	C
25	YA	323	G
25	YA	324	A
25	YA	329	G
25	YA	330	A
25	YA	332	A
25	YA	342	G
25	YA	343	C
25	YA	352	G
25	YA	363	G
25	YA	363(E)	U
25	YA	364	C
25	YA	371	A
25	YA	372	G
25	YA	373	U
25	YA	380	U
25	YA	386	G
25	YA	387	U
25	YA	405	U
25	YA	406	G
25	YA	407	G
25	YA	411	G
25	YA	412	A
25	YA	421	U
25	YA	428	A
25	YA	444	C
25	YA	448	U
25	YA	451	C
25	YA	456	C
25	YA	457	A
25	YA	458	G
25	YA	470	A

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Mol	Chain	Res	Type
25	YA	481	G
25	YA	496	G
25	YA	501	A
25	YA	504	U
25	YA	505	A
25	YA	509	C
25	YA	512	G
25	YA	518	G
25	YA	531	C
25	YA	532	A
25	YA	533	G
25	YA	537	C
25	YA	539	G
25	YA	540	G
25	YA	546	C
25	YA	547	A
25	YA	563	G
25	YA	573	G
25	YA	575	A
25	YA	588	U
25	YA	603	A
25	YA	607	U
25	YA	614	U
25	YA	615	G
25	YA	617	G
25	YA	622	G
25	YA	627	A
25	YA	634	C
25	YA	637	A
25	YA	638	G
25	YA	645	C
25	YA	646	A
25	YA	651	G
25	YA	654	A
25	YA	654(A)	G
25	YA	668	G
25	YA	686	G
25	YA	717	G
25	YA	722	A
25	YA	730	C
25	YA	747	U
25	YA	753	C

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Mol	Chain	Res	Type
25	YA	764	A
25	YA	765	G
25	YA	782	A
25	YA	784	A
25	YA	785	G
25	YA	790	C
25	YA	792	G
25	YA	805	G
25	YA	812	C
25	YA	819	A
25	YA	827	U
25	YA	828	U
25	YA	831	G
25	YA	847	U
25	YA	856	C
25	YA	857	C
25	YA	860	U
25	YA	881	G
25	YA	884	C
25	YA	885	C
25	YA	886	C
25	YA	888	C
25	YA	889	C
25	YA	896	A
25	YA	899	A
25	YA	900	A
25	YA	906	G
25	YA	907	U
25	YA	910	A
25	YA	914	C
25	YA	915	C
25	YA	917	A
25	YA	930	U
25	YA	932	G
25	YA	941	A
25	YA	945	A
25	YA	946	G
25	YA	953	A
25	YA	959	A
25	YA	961	C
25	YA	965	C
25	YA	974	G

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Mol	Chain	Res	Type
25	YA	974(A)	C
25	YA	975	G
25	YA	980	A
25	YA	983	A
25	YA	996	A
25	YA	1003	G
25	YA	1009	A
25	YA	1011	G
25	YA	1012	U
25	YA	1013	C
25	YA	1015	G
25	YA	1017	G
25	YA	1023	U
25	YA	1025	G
25	YA	1026	U
25	YA	1027	A
25	YA	1033	U
25	YA	1045	A
25	YA	1046	A
25	YA	1050	A
25	YA	1054	A
25	YA	1059	G
25	YA	1060	U
25	YA	1061	U
25	YA	1065	U
25	YA	1066	U
25	YA	1067	A
25	YA	1068	G
25	YA	1071	G
25	YA	1073	A
25	YA	1077	A
25	YA	1078	U
25	YA	1079	C
25	YA	1082	U
25	YA	1083	U
25	YA	1084	A
25	YA	1085	A
25	YA	1086	A
25	YA	1088	A
25	YA	1093	G
25	YA	1095	A
25	YA	1096	A

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Mol	Chain	Res	Type
25	YA	1097	U
25	YA	1103	A
25	YA	1104	C
25	YA	1110	G
25	YA	1111	A
25	YA	1129	A
25	YA	1130	U
25	YA	1135	C
25	YA	1136	G
25	YA	1139	G
25	YA	1142	U
25	YA	1142(A)	A
25	YA	1151	G
25	YA	1168	G
25	YA	1170	G
25	YA	1173	G
25	YA	1174	A
25	YA	1175	U
25	YA	1176	G
25	YA	1179	C
25	YA	1195	G
25	YA	1204	A
25	YA	1205	U
25	YA	1206	G
25	YA	1210	A
25	YA	1211	U
25	YA	1220	A
25	YA	1236	G
25	YA	1238	G
25	YA	1250	G
25	YA	1252	G
25	YA	1253	A
25	YA	1256	G
25	YA	1265	A
25	YA	1272	A
25	YA	1273	U
25	YA	1300	U
25	YA	1301	A
25	YA	1319	G
25	YA	1329	U
25	YA	1349	A
25	YA	1352	U

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Mol	Chain	Res	Type
25	YA	1365	A
25	YA	1368	G
25	YA	1378	A
25	YA	1379	A
25	YA	1380	G
25	YA	1384	A
25	YA	1385	G
25	YA	1388	G
25	YA	1391	U
25	YA	1395	A
25	YA	1407	C
25	YA	1411	C
25	YA	1416	G
25	YA	1419	A
25	YA	1420	U
25	YA	1421	G
25	YA	1428	C
25	YA	1444(A)	A
25	YA	1445	C
25	YA	1449	A
25	YA	1449(A)	G
25	YA	1455	G
25	YA	1458	C
25	YA	1460	A
25	YA	1461	G
25	YA	1467	C
25	YA	1471	A
25	YA	1474	C
25	YA	1480	G
25	YA	1482	U
25	YA	1483	G
25	YA	1490	A
25	YA	1493	C
25	YA	1496	A
25	YA	1497	U
25	YA	1507	A
25	YA	1508	A
25	YA	1510	A
25	YA	1511	A
25	YA	1514	U
25	YA	1522	G
25	YA	1534	G

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Mol	Chain	Res	Type
25	YA	1535	U
25	YA	1536	A
25	YA	1537	C
25	YA	1540	G
25	YA	1543	A
25	YA	1544	C
25	YA	1545	A
25	YA	1547	C
25	YA	1558	A
25	YA	1559	G
25	YA	1560	G
25	YA	1566	A
25	YA	1569	A
25	YA	1578	U
25	YA	1579	A
25	YA	1581	G
25	YA	1585	C
25	YA	1586	A
25	YA	1591	G
25	YA	1592	C
25	YA	1598	C
25	YA	1608	A
25	YA	1609	A
25	YA	1616	A
25	YA	1617	C
25	YA	1639	U
25	YA	1640	C
25	YA	1646	C
25	YA	1648	C
25	YA	1654	A
25	YA	1660	C
25	YA	1674	G
25	YA	1688	U
25	YA	1695	G
25	YA	1698	A
25	YA	1699	G
25	YA	1700	A
25	YA	1725	G
25	YA	1728	G
25	YA	1729	A
25	YA	1731	G
25	YA	1742	C

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Mol	Chain	Res	Type
25	YA	1743	G
25	YA	1749	A
25	YA	1754	C
25	YA	1757	U
25	YA	1763	G
25	YA	1764	G
25	YA	1773	A
25	YA	1780	A
25	YA	1781	C
25	YA	1782	C
25	YA	1787	A
25	YA	1791	A
25	YA	1799	G
25	YA	1800	C
25	YA	1801	G
25	YA	1816	G
25	YA	1820	U
25	YA	1829	A
25	YA	1835	G
25	YA	1847	A
25	YA	1848	A
25	YA	1858	G
25	YA	1864	U
25	YA	1869	G
25	YA	1870	C
25	YA	1872	A
25	YA	1878	G
25	YA	1882	C
25	YA	1884	A
25	YA	1888	G
25	YA	1889	A
25	YA	1903	G
25	YA	1906	G
25	YA	1919	A
25	YA	1929	G
25	YA	1930	G
25	YA	1931	U
25	YA	1936	A
25	YA	1939	U
25	YA	1955	U
25	YA	1960	A
25	YA	1963	U

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Mol	Chain	Res	Type
25	YA	1965	C
25	YA	1967	C
25	YA	1969	A
25	YA	1970	A
25	YA	1971	A
25	YA	1972	A
25	YA	1982	C
25	YA	1992	G
25	YA	1993	U
25	YA	2004	G
25	YA	2020	A
25	YA	2021	C
25	YA	2023	G
25	YA	2031	A
25	YA	2033	A
25	YA	2043	C
25	YA	2055	C
25	YA	2056	G
25	YA	2059	A
25	YA	2060	A
25	YA	2061	G
25	YA	2062	A
25	YA	2069	G
25	YA	2070	G
25	YA	2089	U
25	YA	2092	U
25	YA	2093	G
25	YA	2111	C
25	YA	2113	U
25	YA	2114	A
25	YA	2115	G
25	YA	2116	G
25	YA	2119	A
25	YA	2120	G
25	YA	2126	A
25	YA	2127	G
25	YA	2128	C
25	YA	2131	G
25	YA	2132	U
25	YA	2133	G
25	YA	2136	C
25	YA	2146	C

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Mol	Chain	Res	Type
25	YA	2147	G
25	YA	2148	G
25	YA	2158	A
25	YA	2166	G
25	YA	2168	G
25	YA	2169	A
25	YA	2173	A
25	YA	2190	G
25	YA	2192	G
25	YA	2210	G
25	YA	2211	G
25	YA	2212	A
25	YA	2213	U
25	YA	2215	G
25	YA	2225	A
25	YA	2238	G
25	YA	2239	G
25	YA	2243	U
25	YA	2266	A
25	YA	2275	C
25	YA	2278	A
25	YA	2280	G
25	YA	2283	C
25	YA	2287	A
25	YA	2288	A
25	YA	2307	G
25	YA	2308	G
25	YA	2309	A
25	YA	2311	A
25	YA	2312	U
25	YA	2319	G
25	YA	2320	A
25	YA	2325	G
25	YA	2335	A
25	YA	2342	C
25	YA	2345	G
25	YA	2346	A
25	YA	2347	C
25	YA	2350	C
25	YA	2383	G
25	YA	2385	C
25	YA	2392	A

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Mol	Chain	Res	Type
25	YA	2394	C
25	YA	2402	C
25	YA	2403	C
25	YA	2406	U
25	YA	2423	U
25	YA	2424	C
25	YA	2425	A
25	YA	2427	C
25	YA	2428	G
25	YA	2429	G
25	YA	2430	A
25	YA	2434	A
25	YA	2435	A
25	YA	2439	A
25	YA	2440	C
25	YA	2441	C
25	YA	2448	A
25	YA	2469	A
25	YA	2470	G
25	YA	2471	C
25	YA	2475	C
25	YA	2476	A
25	YA	2482	G
25	YA	2494	G
25	YA	2502	G
25	YA	2504	U
25	YA	2505	G
25	YA	2518	A
25	YA	2520	C
25	YA	2524	G
25	YA	2527	C
25	YA	2529	G
25	YA	2540	C
25	YA	2542	A
25	YA	2554	U
25	YA	2558	C
25	YA	2567	G
25	YA	2573	C
25	YA	2574	G
25	YA	2578	G
25	YA	2599	G
25	YA	2602	A

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Mol	Chain	Res	Type
25	YA	2609	U
25	YA	2611	U
25	YA	2612	C
25	YA	2629	A
25	YA	2632	A
25	YA	2642	G
25	YA	2646	C
25	YA	2665	A
25	YA	2673	G
25	YA	2682	U
25	YA	2689	U
25	YA	2702	U
25	YA	2707	G
25	YA	2712	U
25	YA	2712(A)	A
25	YA	2713	A
25	YA	2714	G
25	YA	2726	U
25	YA	2733	A
25	YA	2741	A
25	YA	2742	C
25	YA	2743	C
25	YA	2744	G
25	YA	2745	C
25	YA	2748	A
25	YA	2751	G
25	YA	2754	U
25	YA	2755	C
25	YA	2756	U
25	YA	2758	A
25	YA	2759	G
25	YA	2761	G
25	YA	2765	A
25	YA	2777	G
25	YA	2778	A
25	YA	2779	U
25	YA	2780	G
25	YA	2789	C
25	YA	2790	A
25	YA	2791	C
25	YA	2794	C
25	YA	2797	U

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Mol	Chain	Res	Type
25	YA	2799	A
25	YA	2807	G
25	YA	2818	G
25	YA	2820	A
25	YA	2821	A
25	YA	2830	G
25	YA	2833	G
25	YA	2834	G
25	YA	2835	A
25	YA	2867	G
25	YA	2868	A
25	YA	2872	G
25	YA	2873	A
25	YA	2880	C
25	YA	2891	G
25	YA	2892	A
25	YA	2893	G
25	YA	2894	G
26	YB	8	U
26	YB	13	A
26	YB	15	A
26	YB	16	G
26	YB	22	U
26	YB	25	A
26	YB	32	C
26	YB	41	U
26	YB	42	C
26	YB	45	A
26	YB	56	G
26	YB	66	A
26	YB	67	G
26	YB	73	A
26	YB	81	G
26	YB	82	G
26	YB	89	G
26	YB	90	C
26	YB	109	G

All (178) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	QA	64	G

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Mol	Chain	Res	Type
1	QA	115	G
1	QA	119	A
1	QA	181	G
1	QA	243	A
1	QA	250	A
1	QA	266	G
1	QA	328	C
1	QA	410	G
1	QA	412	A
1	QA	481	G
1	QA	484	G
1	QA	485	G
1	QA	509	A
1	QA	533	A
1	QA	687	A
1	QA	703	G
1	QA	753	A
1	QA	792	A
1	QA	812	C
1	QA	913	A
1	QA	992	U
1	QA	1027	C
1	QA	1065	U
1	QA	1200	C
1	QA	1201	A
1	QA	1285	A
1	QA	1297	C
1	QA	1301	U
1	QA	1336	C
1	QA	1346	A
1	QA	1347	G
1	QA	1498	U
1	QA	1528	U
22	QV	20	G
22	QV	35	C
22	QV	53	G
22	QW	8	U
22	QW	59	A
25	RA	99	U
25	RA	102	G
25	RA	221	A
25	RA	229	A

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Mol	Chain	Res	Type
25	RA	242	G
25	RA	271(B)	G
25	RA	345	A
25	RA	372	G
25	RA	404	C
25	RA	503	A
25	RA	512	G
25	RA	587	C
25	RA	637	A
25	RA	752	A
25	RA	846	C
25	RA	856	C
25	RA	974(A)	C
25	RA	1012	U
25	RA	1022	G
25	RA	1026	U
25	RA	1032	A
25	RA	1045	A
25	RA	1078	U
25	RA	1085	A
25	RA	1178	C
25	RA	1204	A
25	RA	1210	A
25	RA	1312	U
25	RA	1427	A
25	RA	1558	A
25	RA	1653	G
25	RA	1694	C
25	RA	1799	G
25	RA	1819	A
25	RA	1930	G
25	RA	1992	G
25	RA	2060	A
25	RA	2126	A
25	RA	2405	G
25	RA	2439	A
25	RA	2481	G
25	RA	2566	A
25	RA	2610	C
25	RA	2689	U
25	RA	2712	U
25	RA	2776	A

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Mol	Chain	Res	Type
25	RA	2832	U
26	RB	66	A
1	XA	5	U
1	XA	60	A
1	XA	64	G
1	XA	78	G
1	XA	89	U
1	XA	115	G
1	XA	243	A
1	XA	244	U
1	XA	250	A
1	XA	266	G
1	XA	328	C
1	XA	345	C
1	XA	352	C
1	XA	410	G
1	XA	412	A
1	XA	429	U
1	XA	481	G
1	XA	484	G
1	XA	485	G
1	XA	509	A
1	XA	560	U
1	XA	687	A
1	XA	703	G
1	XA	753	A
1	XA	812	C
1	XA	913	A
1	XA	991	U
1	XA	992	U
1	XA	1027	C
1	XA	1065	U
1	XA	1200	C
1	XA	1285	A
1	XA	1297	C
1	XA	1301	U
1	XA	1336	C
1	XA	1446	A
1	XA	1498	U
22	XV	20	G
22	XV	35	C
22	XV	53	G

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Mol	Chain	Res	Type
22	XW	8	U
22	XW	59	A
25	YA	99	U
25	YA	195	A
25	YA	221	A
25	YA	222	A
25	YA	229	A
25	YA	241	A
25	YA	242	G
25	YA	271(B)	G
25	YA	278	A
25	YA	372	G
25	YA	404	C
25	YA	503	A
25	YA	587	C
25	YA	637	A
25	YA	752	A
25	YA	846	C
25	YA	856	C
25	YA	859	G
25	YA	974(A)	C
25	YA	1012	U
25	YA	1022	G
25	YA	1026	U
25	YA	1045	A
25	YA	1078	U
25	YA	1085	A
25	YA	1109	C
25	YA	1178	C
25	YA	1210	A
25	YA	1379	A
25	YA	1427	A
25	YA	1558	A
25	YA	1653	G
25	YA	1694	C
25	YA	1698	A
25	YA	1799	G
25	YA	1819	A
25	YA	1930	G
25	YA	1992	G
25	YA	2126	A
25	YA	2212	A

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Mol	Chain	Res	Type
25	YA	2439	A
25	YA	2566	A
25	YA	2610	C
25	YA	2681	C
25	YA	2712	U
25	YA	2743	C
25	YA	2776	A
25	YA	2867	G
26	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 1301 ligands modelled in this entry, 1299 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	$\#\|Z\| > 2$
57	SF4	XD	301	4	0,12,12	-	-	-		
57	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
57	SF4	XD	301	4	-	-	0/6/5/5
57	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 1 short contact:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
57	QD	301	SF4	1	0

5.7 Other polymers (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

6 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	1500/1508 (99%)	-0.00	14 (0%) 81 57	53, 99, 184, 366	0
1	XA	1500/1508 (99%)	0.03	9 (0%) 85 65	51, 103, 201, 351	0
2	QB	235/256 (91%)	0.47	7 (2%) 52 32	89, 156, 228, 293	0
2	XB	236/256 (92%)	0.59	11 (4%) 36 23	66, 143, 208, 250	0
3	QC	205/239 (85%)	0.63	9 (4%) 39 24	76, 139, 197, 252	0
3	XC	205/239 (85%)	0.60	13 (6%) 26 18	72, 119, 188, 249	0
4	QD	208/209 (99%)	0.72	14 (6%) 24 17	67, 120, 188, 230	0
4	XD	208/209 (99%)	0.55	14 (6%) 24 17	56, 100, 153, 214	0
5	QE	151/162 (93%)	0.71	11 (7%) 21 16	70, 114, 162, 200	0
5	XE	151/162 (93%)	0.39	6 (3%) 42 26	48, 100, 152, 188	0
6	QF	101/101 (100%)	0.23	0 100 100	71, 106, 148, 187	0
6	XF	101/101 (100%)	0.49	5 (4%) 34 22	56, 108, 160, 225	0
7	QG	155/156 (99%)	0.43	7 (4%) 38 24	69, 122, 177, 218	0
7	XG	155/156 (99%)	0.55	5 (3%) 50 31	82, 137, 183, 233	0
8	QH	137/138 (99%)	0.28	2 (1%) 72 46	68, 112, 157, 196	0
8	XH	137/138 (99%)	0.44	5 (3%) 46 29	69, 112, 158, 198	0
9	QI	127/128 (99%)	0.52	10 (7%) 18 14	90, 149, 209, 294	0
9	XI	126/128 (98%)	0.77	14 (11%) 10 11	77, 141, 201, 223	0
10	QJ	99/105 (94%)	1.09	13 (13%) 7 8	126, 168, 245, 271	0
10	XJ	96/105 (91%)	0.92	12 (12%) 8 9	93, 143, 207, 249	0
11	QK	119/129 (92%)	0.63	10 (8%) 17 13	59, 110, 173, 201	0
11	XK	116/129 (89%)	0.72	10 (8%) 16 13	57, 112, 175, 202	0
12	QL	125/132 (94%)	0.59	9 (7%) 21 16	53, 92, 149, 227	0
12	XL	122/132 (92%)	0.69	12 (9%) 13 12	42, 87, 138, 224	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	QM	120/126 (95%)	0.78	14 (11%) 9 10	105, 151, 207, 252	0
13	XM	119/126 (94%)	0.47	8 (6%) 24 17	78, 125, 180, 232	0
14	QN	60/61 (98%)	1.27	11 (18%) 3 4	115, 150, 215, 252	0
14	XN	60/61 (98%)	0.73	1 (1%) 69 43	66, 116, 175, 203	0
15	QO	88/89 (98%)	0.24	0 100 100	66, 106, 156, 181	0
15	XO	87/89 (97%)	0.33	2 (2%) 61 37	63, 97, 158, 203	0
16	QP	84/88 (95%)	0.41	1 (1%) 76 51	54, 97, 139, 208	0
16	XP	84/88 (95%)	0.62	2 (2%) 59 36	71, 113, 160, 187	0
17	QQ	100/105 (95%)	0.75	7 (7%) 22 16	61, 105, 145, 171	0
17	XQ	100/105 (95%)	0.64	3 (3%) 52 32	54, 110, 179, 207	0
18	QR	70/88 (79%)	0.11	0 100 100	59, 103, 140, 184	0
18	XR	70/88 (79%)	0.50	3 (4%) 40 25	67, 109, 173, 208	0
19	QS	83/93 (89%)	0.87	6 (7%) 21 16	103, 158, 216, 269	0
19	XS	84/93 (90%)	0.32	1 (1%) 76 51	77, 135, 192, 309	0
20	QT	99/106 (93%)	0.56	4 (4%) 42 26	62, 106, 167, 228	0
20	XT	99/106 (93%)	0.87	8 (8%) 18 14	68, 138, 223, 257	0
21	QU	25/27 (92%)	0.81	0 100 100	103, 152, 212, 213	0
21	XU	25/27 (92%)	0.40	0 100 100	97, 120, 167, 202	0
22	QV	77/77 (100%)	0.33	2 (2%) 57 35	64, 106, 171, 214	0
22	QW	76/77 (98%)	1.24	12 (15%) 5 6	158, 288, 392, 433	0
22	XV	77/77 (100%)	0.68	4 (5%) 33 21	63, 99, 150, 175	0
22	XW	76/77 (98%)	1.17	10 (13%) 7 8	167, 367, 436, 475	0
23	QX	8/25 (32%)	0.29	0 100 100	59, 74, 126, 131	0
23	XX	10/25 (40%)	0.83	3 (30%) 1 1	67, 82, 178, 179	0
24	QY	17/17 (100%)	0.05	0 100 100	84, 120, 193, 210	0
24	XY	17/17 (100%)	-0.02	0 100 100	79, 110, 181, 187	0
25	RA	2882/2915 (98%)	-0.00	25 (0%) 81 57	38, 73, 224, 388	0
25	YA	2883/2915 (98%)	0.02	28 (0%) 79 55	38, 73, 230, 444	0
26	RB	120/122 (98%)	-0.07	0 100 100	74, 114, 153, 206	0
26	YB	120/122 (98%)	0.01	1 (0%) 82 60	84, 128, 183, 206	0
27	RD	272/276 (98%)	0.66	22 (8%) 18 14	29, 64, 113, 186	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
27	YD	272/276 (98%)	0.59	21 (7%) 19 15	31, 66, 122, 251	0
28	RE	205/206 (99%)	0.50	8 (3%) 43 27	32, 81, 157, 251	0
28	YE	205/206 (99%)	0.56	8 (3%) 43 27	17, 96, 177, 238	0
29	RF	202/210 (96%)	0.52	7 (3%) 47 29	42, 86, 154, 228	0
29	YF	202/210 (96%)	0.38	8 (3%) 42 26	32, 75, 135, 196	0
30	RG	181/182 (99%)	0.41	8 (4%) 39 24	72, 123, 190, 214	0
30	YG	181/182 (99%)	0.54	5 (2%) 55 33	71, 128, 189, 250	0
31	RH	174/180 (96%)	0.98	20 (11%) 9 10	116, 185, 256, 288	0
31	YH	174/180 (96%)	0.69	17 (9%) 13 12	68, 122, 225, 348	0
32	RI	146/148 (98%)	1.36	38 (26%) 1 2	78, 147, 231, 273	0
32	YI	146/148 (98%)	0.62	4 (2%) 56 34	58, 131, 192, 250	0
33	RN	138/140 (98%)	0.47	2 (1%) 73 47	42, 88, 157, 212	0
33	YN	138/140 (98%)	0.71	8 (5%) 29 19	52, 93, 152, 215	0
34	RO	122/122 (100%)	0.30	3 (2%) 58 36	41, 78, 119, 154	0
34	YO	122/122 (100%)	0.39	2 (1%) 70 44	45, 73, 118, 145	0
35	RP	150/150 (100%)	0.92	14 (9%) 14 13	50, 99, 165, 218	0
35	YP	147/150 (98%)	0.88	13 (8%) 15 13	36, 85, 154, 201	0
36	RQ	141/141 (100%)	0.77	17 (12%) 8 9	53, 94, 174, 222	0
36	YQ	141/141 (100%)	0.73	17 (12%) 8 9	28, 83, 165, 218	0
37	RR	117/118 (99%)	0.19	4 (3%) 48 29	35, 68, 116, 179	0
37	YR	117/118 (99%)	0.57	4 (3%) 48 29	45, 87, 145, 196	0
38	RS	111/112 (99%)	0.51	6 (5%) 31 21	83, 120, 188, 214	0
38	YS	111/112 (99%)	0.39	3 (2%) 56 34	90, 129, 208, 296	0
39	RT	137/146 (93%)	0.49	5 (3%) 46 29	54, 92, 181, 245	0
39	YT	137/146 (93%)	0.37	5 (3%) 46 29	54, 100, 188, 219	0
40	RU	117/118 (99%)	0.37	3 (2%) 57 35	39, 84, 153, 216	0
40	YU	117/118 (99%)	0.70	8 (6%) 23 17	39, 81, 152, 278	0
41	RV	101/101 (100%)	0.59	5 (4%) 34 22	50, 107, 183, 274	0
41	YV	101/101 (100%)	0.75	9 (8%) 15 13	38, 97, 160, 282	0
42	RW	113/113 (100%)	0.28	3 (2%) 56 34	20, 62, 123, 201	0
42	YW	113/113 (100%)	0.52	10 (8%) 15 13	31, 67, 139, 226	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
43	RX	92/96 (95%)	0.22	3 (3%) 49 30	46, 76, 126, 170	0
43	YX	92/96 (95%)	0.17	2 (2%) 62 39	30, 67, 105, 153	0
44	RY	107/110 (97%)	0.98	15 (14%) 6 7	55, 98, 150, 219	0
44	YY	107/110 (97%)	0.58	8 (7%) 20 15	52, 88, 145, 185	0
45	RZ	183/206 (88%)	0.68	7 (3%) 44 28	82, 145, 213, 258	0
45	YZ	183/206 (88%)	0.62	13 (7%) 22 16	75, 130, 195, 234	0
46	R0	81/85 (95%)	0.86	7 (8%) 16 13	43, 93, 145, 197	0
46	Y0	75/85 (88%)	0.60	2 (2%) 56 34	54, 87, 146, 166	0
47	R1	97/98 (98%)	0.93	13 (13%) 7 8	33, 82, 168, 218	0
47	Y1	93/98 (94%)	0.53	6 (6%) 25 17	33, 77, 151, 185	0
48	R2	69/72 (95%)	0.33	0 100 100	51, 108, 175, 234	0
48	Y2	69/72 (95%)	0.57	3 (4%) 40 25	41, 77, 145, 212	0
49	R3	59/60 (98%)	0.53	1 (1%) 69 43	56, 89, 162, 202	0
49	Y3	59/60 (98%)	0.37	2 (3%) 48 29	48, 101, 157, 207	0
50	R4	69/71 (97%)	0.62	0 100 100	120, 178, 245, 302	0
50	Y4	69/71 (97%)	0.43	0 100 100	108, 152, 245, 300	0
51	R5	59/60 (98%)	0.18	0 100 100	33, 76, 168, 209	0
51	Y5	59/60 (98%)	0.71	5 (8%) 16 13	36, 91, 188, 216	0
52	R6	53/54 (98%)	1.38	9 (16%) 4 5	137, 226, 325, 346	0
52	Y6	53/54 (98%)	1.27	11 (20%) 2 3	140, 214, 285, 320	0
53	R7	47/49 (95%)	0.23	1 (2%) 63 40	26, 63, 90, 138	0
53	Y7	48/49 (97%)	0.10	0 100 100	20, 54, 97, 133	0
54	R8	64/65 (98%)	1.14	14 (21%) 2 3	45, 86, 143, 250	0
54	Y8	64/65 (98%)	0.90	11 (17%) 4 5	56, 83, 134, 258	0
55	R9	37/37 (100%)	2.04	19 (51%) 0 0	164, 238, 310, 331	0
55	Y9	37/37 (100%)	1.20	6 (16%) 4 6	146, 215, 372, 394	0
All	All	21011/21610 (97%)	0.35	843 (4%) 42 26	17, 98, 209, 475	0

All (843) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
32	RI	16	GLY	11.0
7	XG	5	ARG	10.1

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Mol	Chain	Res	Type	RSRZ
35	RP	13	ASN	8.1
46	R0	4	LYS	7.3
27	YD	2	ALA	7.2
10	QJ	58	ASP	6.6
31	YH	144	VAL	6.2
31	YH	148	ILE	6.2
36	YQ	88	GLY	6.2
25	YA	2526	G	6.1
46	R0	3	HIS	6.1
22	QW	76	C	6.0
47	R1	95	LEU	5.8
25	YA	2743	C	5.8
10	XJ	54	PHE	5.7
36	YQ	80	GLU	5.4
27	RD	26	LYS	5.4
32	RI	18	VAL	5.3
27	YD	34	VAL	5.3
22	XV	1	C	5.2
22	XW	35	C	5.1
25	YA	2744	G	5.0
10	QJ	46	ARG	5.0
12	QL	21	LYS	5.0
22	XW	76	C	4.9
46	R0	5	LYS	4.8
10	XJ	55	LYS	4.8
35	RP	61	ARG	4.8
35	YP	24	GLY	4.7
25	YA	2525	G	4.7
40	YU	97	ASP	4.7
32	RI	2	LYS	4.7
52	Y6	2	ALA	4.6
1	QA	631	G	4.5
12	XL	28	LYS	4.5
2	QB	196	LEU	4.5
13	QM	102	ARG	4.5
35	YP	65	ARG	4.4
36	YQ	90	VAL	4.4
27	YD	176	ARG	4.4
12	XL	27	LEU	4.4
41	YV	36	PRO	4.4
36	YQ	86	GLY	4.3
55	R9	27	CYS	4.3

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Mol	Chain	Res	Type	RSRZ
35	YP	110	TYR	4.3
10	QJ	55	LYS	4.3
29	YF	131	GLY	4.3
35	YP	13	ASN	4.3
10	QJ	85	LEU	4.3
25	YA	2758	A	4.2
32	RI	1	MET	4.1
2	QB	168	THR	4.1
44	RY	10	GLY	4.1
27	RD	33	LEU	4.1
31	RH	148	ILE	4.1
27	RD	34	VAL	4.0
54	Y8	65	GLU	4.0
47	R1	96	LYS	4.0
47	Y1	91	LYS	4.0
32	RI	20	ASP	4.0
39	RT	11	GLU	4.0
9	QI	128	ARG	4.0
35	RP	15	ARG	4.0
27	RD	38	LYS	3.9
2	XB	120	ALA	3.9
2	XB	27	LYS	3.9
28	RE	187	ALA	3.9
20	QT	73	HIS	3.9
35	RP	16	ARG	3.9
31	RH	144	VAL	3.9
12	XL	104	VAL	3.8
27	YD	36	PRO	3.8
55	R9	3	VAL	3.8
35	YP	66	GLY	3.8
52	R6	11	LEU	3.8
2	QB	215	LEU	3.7
33	YN	138	LEU	3.7
35	RP	74	GLU	3.7
23	XX	15	A	3.7
25	RA	1031	G	3.7
43	RX	69	TYR	3.7
8	XH	79	VAL	3.7
30	RG	28	VAL	3.7
2	QB	218	ALA	3.7
54	R8	64	TYR	3.7
19	QS	15	LEU	3.7

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Mol	Chain	Res	Type	RSRZ
20	XT	99	LEU	3.6
12	XL	26	ALA	3.6
13	QM	106	ASN	3.6
27	YD	26	LYS	3.6
31	RH	64	LEU	3.6
32	RI	12	LEU	3.6
10	QJ	64	GLU	3.6
44	RY	29	GLU	3.6
12	QL	19	ARG	3.6
20	XT	80	ARG	3.6
22	XW	75	C	3.5
44	YY	64	GLU	3.5
41	RV	48	GLY	3.5
9	XI	126	SER	3.5
22	QV	77	A	3.5
5	QE	20	GLN	3.5
55	R9	24	TYR	3.5
32	YI	40	THR	3.5
25	YA	2602	A	3.5
28	YE	187	ALA	3.5
29	RF	85	GLY	3.5
47	R1	92	LYS	3.5
43	RX	66	LEU	3.5
25	YA	2741	A	3.5
1	QA	630	G	3.5
9	QI	126	SER	3.5
28	RE	130	GLY	3.5
3	QC	10	PHE	3.4
27	YD	38	LYS	3.4
48	Y2	72	ALA	3.4
39	RT	115	ARG	3.4
9	XI	118	LYS	3.4
5	QE	50	GLU	3.4
39	YT	1	MET	3.4
19	QS	76	PRO	3.4
36	RQ	80	GLU	3.3
41	YV	34	GLU	3.3
54	R8	59	LYS	3.4
13	QM	113	PRO	3.3
13	XM	8	GLU	3.3
22	XW	1	C	3.3
28	RE	79	ARG	3.3

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Mol	Chain	Res	Type	RSRZ
45	RZ	98	MET	3.3
25	RA	214	G	3.3
32	RI	37	VAL	3.3
25	YA	2757	A	3.3
27	YD	259	THR	3.3
36	YQ	139	GLU	3.3
44	RY	64	GLU	3.3
45	RZ	169	GLU	3.3
10	XJ	59	SER	3.3
25	RA	1176	G	3.3
32	RI	3	VAL	3.3
13	QM	120	LYS	3.3
52	R6	2	ALA	3.2
2	XB	15	VAL	3.2
39	RT	106	SER	3.2
4	QD	87	GLY	3.2
13	XM	85	GLY	3.2
31	YH	147	ASN	3.2
18	XR	82	THR	3.2
32	RI	10	GLU	3.2
55	R9	36	GLN	3.2
10	XJ	60	ARG	3.2
5	QE	21	ALA	3.2
3	QC	182	ILE	3.2
1	QA	1054	C	3.2
3	QC	3	ASN	3.2
10	QJ	57	LYS	3.2
32	RI	22	LYS	3.2
36	RQ	91	GLU	3.2
22	QV	1	C	3.1
22	QW	74	A	3.1
13	QM	121	LYS	3.1
25	YA	2761	G	3.1
10	QJ	54	PHE	3.1
26	YB	1	U	3.1
6	XF	16	GLN	3.1
51	Y5	2	ALA	3.1
2	XB	222	ILE	3.1
11	QK	128	ALA	3.1
32	RI	23	PRO	3.1
42	YW	92	ARG	3.1
52	R6	23	THR	3.1

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Mol	Chain	Res	Type	RSRZ
25	RA	2062	A	3.1
36	RQ	90	VAL	3.1
3	XC	90	GLU	3.1
37	RR	102	GLU	3.1
32	RI	35	LEU	3.1
22	XW	47	G	3.1
31	RH	149	ARG	3.1
39	YT	112	ARG	3.1
32	RI	44	LEU	3.1
41	YV	45	THR	3.1
31	YH	150	ALA	3.0
44	YY	94	LYS	3.0
3	XC	166	GLU	3.0
37	YR	102	GLU	3.0
5	QE	12	LEU	3.0
1	QA	1202	G	3.0
7	QG	81	GLY	3.0
31	RH	139	GLN	3.0
22	XV	77	A	3.0
27	YD	251	GLY	3.0
32	RI	4	ILE	3.0
32	RI	17	GLN	3.0
4	XD	48	ALA	3.0
36	YQ	140	ALA	3.0
9	XI	121	ARG	3.0
32	RI	38	LEU	3.0
14	QN	14	PRO	3.0
54	R8	63	PRO	3.0
54	Y8	53	PRO	3.0
19	QS	40	ILE	3.0
25	YA	2527	C	3.0
13	QM	103	THR	3.0
44	YY	1	MET	3.0
52	Y6	36	LEU	3.0
42	YW	111	HIS	3.0
4	QD	67	ILE	3.0
1	XA	1437	C	3.0
32	RI	15	VAL	3.0
45	YZ	166	SER	3.0
25	YA	2506	U	3.0
27	YD	122	ASP	3.0
4	QD	24	GLU	2.9

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Mol	Chain	Res	Type	RSRZ
44	RY	63	LYS	2.9
19	QS	10	PHE	2.9
4	QD	47	ARG	2.9
48	Y2	69	ARG	2.9
25	RA	2145	C	2.9
54	Y8	64	TYR	2.9
43	RX	68	ARG	2.9
36	YQ	104	PHE	2.9
55	R9	4	ARG	2.9
40	RU	90	VAL	2.9
55	Y9	3	VAL	2.9
1	XA	631	G	2.9
32	RI	26	ALA	2.9
3	XC	201	TYR	2.9
27	YD	28	GLU	2.9
9	XI	120	ARG	2.9
46	Y0	11	ARG	2.9
5	QE	29	GLY	2.9
47	R1	53	VAL	2.9
14	QN	2	ALA	2.9
47	R1	94	LEU	2.9
52	Y6	10	LEU	2.9
55	Y9	14	CYS	2.9
36	YQ	83	MET	2.9
41	RV	50	PRO	2.9
49	R3	2	PRO	2.9
25	YA	2402	C	2.9
49	Y3	56	VAL	2.9
4	QD	195	ALA	2.9
11	XK	26	ASN	2.9
29	YF	96	ASP	2.8
40	YU	90	VAL	2.8
4	QD	32	ALA	2.8
22	QW	41	C	2.8
22	QW	75	C	2.8
45	RZ	167	PRO	2.8
31	RH	86	GLU	2.8
32	RI	42	SER	2.8
9	QI	117	HIS	2.8
41	YV	68	LYS	2.8
47	Y1	92	LYS	2.8
17	XQ	35	VAL	2.8

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Mol	Chain	Res	Type	RSRZ
14	QN	38	GLY	2.8
20	XT	103	GLY	2.8
33	YN	36	GLY	2.8
5	XE	135	THR	2.8
32	RI	39	ALA	2.8
7	QG	79	ARG	2.8
22	QW	47	G	2.8
44	RY	90	LEU	2.8
9	XI	114	TYR	2.8
55	R9	23	VAL	2.8
5	XE	22	GLY	2.8
35	RP	43	GLY	2.8
28	RE	204	ALA	2.8
29	YF	70	THR	2.8
4	XD	12	CYS	2.8
31	RH	152	ARG	2.8
25	YA	2746	U	2.8
32	RI	116	LEU	2.8
32	RI	21	VAL	2.8
32	YI	143	SER	2.8
52	R6	21	TYR	2.8
9	XI	115	GLY	2.8
9	XI	52	ALA	2.8
20	QT	25	ARG	2.8
12	XL	7	ILE	2.8
5	XE	111	GLU	2.8
41	YV	48	GLY	2.8
31	YH	149	ARG	2.7
54	Y8	50	LEU	2.7
13	QM	10	PRO	2.7
13	QM	117	VAL	2.7
28	RE	116	VAL	2.7
32	RI	92	VAL	2.7
36	RQ	27	VAL	2.7
54	R8	53	PRO	2.7
14	QN	8	GLU	2.7
41	YV	53	GLU	2.7
27	YD	25	THR	2.7
5	QE	24	ARG	2.7
54	R8	62	LEU	2.7
44	RY	99	CYS	2.7
2	XB	188	ALA	2.7

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Mol	Chain	Res	Type	RSRZ
34	YO	36	GLY	2.7
22	QW	40	C	2.7
27	YD	262	ARG	2.7
2	XB	214	ILE	2.7
27	RD	72	LYS	2.7
33	RN	66	LYS	2.7
36	YQ	87	LYS	2.7
45	RZ	166	SER	2.7
55	R9	1	MET	2.7
32	RI	111	PRO	2.7
9	QI	125	TYR	2.7
55	R9	34	GLN	2.7
34	RO	45	GLU	2.7
27	YD	270	ILE	2.7
36	YQ	1	MET	2.7
35	RP	146	VAL	2.7
54	R8	34	TRP	2.7
25	YA	2742	C	2.7
9	QI	115	GLY	2.7
10	XJ	45	ARG	2.7
13	XM	94	ARG	2.7
31	RH	150	ALA	2.7
18	XR	83	GLU	2.7
46	Y0	35	ASN	2.7
4	QD	169	LYS	2.7
51	Y5	60	VAL	2.7
25	RA	2211	G	2.7
11	QK	36	ASP	2.7
44	RY	58	GLY	2.7
39	YT	109	GLU	2.7
25	RA	34	C	2.7
4	QD	194	LEU	2.7
30	RG	91	ARG	2.6
29	YF	207	GLY	2.6
41	YV	49	THR	2.6
11	QK	92	GLU	2.6
1	XA	5	U	2.6
31	YH	87	LEU	2.6
11	XK	126	ARG	2.6
28	YE	79	ARG	2.6
54	R8	46	ARG	2.6
55	R9	26	ILE	2.6

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Mol	Chain	Res	Type	RSRZ
31	RH	173	PRO	2.6
2	XB	218	ALA	2.6
4	QD	164	ALA	2.6
7	QG	82	GLY	2.6
28	RE	152	LYS	2.6
37	RR	106	GLY	2.6
25	YA	2760	C	2.6
55	Y9	28	GLU	2.6
52	R6	36	LEU	2.6
20	XT	9	ASN	2.6
23	XX	13	A	2.6
32	RI	88	ILE	2.6
25	YA	1026	U	2.6
28	RE	203	LYS	2.6
4	XD	130	GLY	2.6
35	YP	28	GLY	2.6
1	XA	926	G	2.6
5	XE	11	ILE	2.6
27	YD	35	LYS	2.6
54	R8	29	LYS	2.6
12	QL	129	ALA	2.6
19	QS	83	HIS	2.6
31	YH	39	PRO	2.6
44	YY	51	VAL	2.6
32	RI	30	LEU	2.6
54	Y8	35	GLN	2.6
54	Y8	62	LEU	2.6
55	R9	37	GLY	2.6
4	QD	49	ARG	2.6
8	XH	25	ASP	2.6
35	RP	131	SER	2.6
25	YA	2142	C	2.6
35	YP	76	LYS	2.6
36	RQ	5	ARG	2.6
55	R9	12	ASP	2.6
29	RF	40	GLN	2.6
3	XC	46	GLU	2.5
9	XI	110	GLU	2.5
30	RG	84	LYS	2.5
31	YH	53	GLU	2.5
35	RP	21	ARG	2.5
2	QB	195	ASP	2.5

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Mol	Chain	Res	Type	RSRZ
27	RD	122	ASP	2.5
14	QN	30	ALA	2.5
30	RG	26	GLN	2.5
28	YE	153	GLY	2.5
2	XB	16	HIS	2.5
44	RY	6	HIS	2.5
12	QL	64	TYR	2.5
36	RQ	130	LYS	2.5
35	RP	18	ARG	2.5
52	Y6	5	VAL	2.5
25	RA	1032	A	2.5
30	YG	82	LEU	2.5
30	RG	86	MET	2.5
3	QC	53	ALA	2.5
7	QG	88	PRO	2.5
52	R6	30	THR	2.5
4	XD	163	GLU	2.5
44	RY	62	GLU	2.5
52	R6	24	GLU	2.5
40	YU	91	ASP	2.5
9	XI	119	ALA	2.5
38	RS	2	ALA	2.5
41	RV	36	PRO	2.5
32	RI	120	ILE	2.5
39	RT	69	GLY	2.5
5	XE	24	ARG	2.5
13	QM	15	VAL	2.5
11	XK	123	LYS	2.5
42	YW	94	ASP	2.5
55	Y9	11	CYS	2.5
11	QK	90	GLY	2.5
8	QH	102	ARG	2.5
9	XI	102	LEU	2.5
18	XR	85	LEU	2.5
54	R8	30	ARG	2.5
52	Y6	23	THR	2.5
10	QJ	62	HIS	2.5
45	RZ	151	HIS	2.5
1	QA	1397	C	2.5
25	YA	1533	C	2.5
27	RD	181	GLU	2.5
45	YZ	178	GLU	2.5

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Mol	Chain	Res	Type	RSRZ
51	Y5	48	GLU	2.5
22	XW	37	U	2.5
1	QA	1032	A	2.5
33	YN	109	LYS	2.5
48	Y2	15	LYS	2.5
29	YF	198	ALA	2.5
31	YH	143	GLN	2.5
36	RQ	140	ALA	2.5
10	XJ	53	PRO	2.5
27	RD	35	LYS	2.4
27	YD	82	ILE	2.4
3	XC	3	ASN	2.4
4	XD	201	GLN	2.4
10	XJ	88	LEU	2.4
45	YZ	155	LEU	2.4
22	QW	33	C	2.4
27	RD	171	ASP	2.4
36	YQ	135	ASP	2.4
7	QG	77	SER	2.4
25	RA	2166	G	2.4
31	YH	141	VAL	2.4
9	XI	125	TYR	2.4
10	XJ	62	HIS	2.4
27	RD	188	GLU	2.4
2	XB	69	LEU	2.4
7	XG	99	LEU	2.4
12	QL	27	LEU	2.4
14	QN	6	LEU	2.4
52	Y6	42	TRP	2.4
27	RD	19	ALA	2.4
3	QC	164	ARG	2.4
14	QN	31	ARG	2.4
8	XH	101	PRO	2.4
9	QI	105	ASP	2.4
36	RQ	25	ASP	2.4
38	YS	42	ASP	2.4
31	RH	169	VAL	2.4
54	R8	39	LYS	2.4
55	R9	25	VAL	2.4
3	QC	193	TYR	2.4
4	QD	34	GLU	2.4
44	YY	62	GLU	2.4

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Mol	Chain	Res	Type	RSRZ
25	YA	277	C	2.4
1	XA	1531	A	2.4
15	XO	86	GLY	2.4
25	RA	530	G	2.4
25	RA	1059	G	2.4
52	R6	5	VAL	2.4
3	XC	161	GLU	2.4
51	Y5	59	GLU	2.4
30	RG	16	ARG	2.4
31	YH	165	ALA	2.4
42	YW	93	ALA	2.4
10	QJ	52	GLY	2.4
11	QK	129	SER	2.4
36	YQ	21	THR	2.4
41	RV	46	VAL	2.4
54	Y8	48	PHE	2.4
25	RA	2506	U	2.4
3	QC	33	LEU	2.4
33	RN	1	MET	2.4
55	R9	32	HIS	2.4
25	YA	2155	G	2.4
12	XL	8	ASN	2.4
35	RP	145	PRO	2.4
38	YS	22	GLY	2.4
46	R0	12	ASN	2.4
54	Y8	63	PRO	2.4
17	QQ	99	SER	2.4
13	QM	48	LEU	2.4
27	YD	33	LEU	2.4
16	QP	68	ASP	2.4
3	XC	89	GLU	2.4
25	RA	614	U	2.3
28	YE	130	GLY	2.3
37	YR	7	GLY	2.3
1	QA	975	A	2.3
25	RA	2320	A	2.3
25	YA	2179	C	2.3
39	YT	106	SER	2.3
54	Y8	34	TRP	2.3
31	RH	43	VAL	2.3
5	QE	19	MET	2.3
34	RO	1	MET	2.3

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Mol	Chain	Res	Type	RSRZ
45	YZ	28	MET	2.3
25	RA	2319	G	2.3
31	YH	64	LEU	2.3
47	Y1	87	PRO	2.3
5	QE	100	VAL	2.3
11	XK	87	THR	2.3
17	XQ	81	ARG	2.3
22	XW	74	A	2.3
25	RA	1536	A	2.3
25	RA	2602	A	2.3
44	YY	57	GLN	2.3
20	QT	13	LEU	2.3
17	QQ	97	SER	2.3
29	RF	133	ASN	2.3
2	QB	24	TRP	2.3
3	XC	4	LYS	2.3
55	R9	33	LYS	2.3
11	QK	25	TYR	2.3
3	QC	162	GLN	2.3
4	XD	24	GLU	2.3
27	RD	28	GLU	2.3
29	YF	56	GLU	2.3
40	RU	91	ASP	2.3
42	YW	78	GLU	2.3
45	YZ	169	GLU	2.3
12	QL	22	SER	2.3
45	YZ	92	SER	2.3
52	Y6	3	SER	2.3
35	RP	24	GLY	2.3
35	RP	126	VAL	2.3
3	XC	15	THR	2.3
27	YD	50	THR	2.3
6	XF	46	ARG	2.3
9	XI	127	LYS	2.3
17	QQ	40	LYS	2.3
22	XW	38	A	2.3
25	YA	2799	A	2.3
31	YH	140	LYS	2.3
44	RY	54	LYS	2.3
54	Y8	46	ARG	2.3
22	QW	1	C	2.3
35	RP	62	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
12	QL	128	ALA	2.3
43	YX	69	TYR	2.3
54	R8	40	GLU	2.3
27	YD	139	GLY	2.3
20	XT	87	LYS	2.3
11	XK	117	ASN	2.3
30	YG	86	MET	2.3
35	YP	84	ASN	2.3
36	RQ	83	MET	2.3
51	Y5	29	THR	2.3
22	QW	10	G	2.3
13	XM	96	LEU	2.3
14	QN	16	PHE	2.3
13	XM	87	TYR	2.3
27	RD	240	ALA	2.3
32	YI	94	ALA	2.3
34	RO	41	ALA	2.3
38	RS	105	ALA	2.3
31	RH	143	GLN	2.3
27	RD	169	GLU	2.3
29	RF	161	GLU	2.3
6	XF	51	PRO	2.3
12	QL	48	PRO	2.3
14	XN	18	VAL	2.3
19	QS	9	VAL	2.3
27	RD	36	PRO	2.3
29	YF	6	VAL	2.3
30	YG	47	LYS	2.3
54	R8	15	LYS	2.3
8	QH	52	ASP	2.3
13	XM	102	ARG	2.3
27	RD	262	ARG	2.3
32	RI	14	ASP	2.3
36	YQ	138	ASP	2.3
7	XG	59	LEU	2.2
35	YP	62	LEU	2.2
47	R1	90	ILE	2.2
45	RZ	99	TYR	2.2
45	YZ	181	GLU	2.2
5	XE	10	MET	2.2
29	RF	194	MET	2.2
4	XD	141	ARG	2.2

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Mol	Chain	Res	Type	RSRZ
6	XF	47	ARG	2.2
32	RI	134	PRO	2.2
32	RI	142	VAL	2.2
25	YA	2167	U	2.2
36	YQ	6	ARG	2.2
32	RI	40	THR	2.2
32	RI	72	LEU	2.2
55	Y9	29	ASN	2.2
9	QI	127	LYS	2.2
40	YU	54	LYS	2.2
2	XB	66	GLY	2.2
11	QK	47	VAL	2.2
13	XM	24	GLY	2.2
14	QN	29	ARG	2.2
15	XO	60	VAL	2.2
30	YG	30	GLU	2.2
36	YQ	91	GLU	2.2
40	YU	108	GLU	2.2
31	YH	166	GLY	2.2
32	RI	5	LEU	2.2
36	RQ	92	GLY	2.2
41	RV	63	GLY	2.2
47	R1	26	ARG	2.2
33	YN	93	THR	2.2
12	XL	17	LYS	2.2
38	RS	11	LYS	2.2
1	XA	925	G	2.2
1	XA	1026	G	2.2
25	YA	2121	G	2.2
25	YA	2154	G	2.2
4	QD	198	VAL	2.2
4	XD	157	LEU	2.2
31	RH	141	VAL	2.2
23	XX	14	A	2.2
25	RA	1095	A	2.2
45	YZ	167	PRO	2.2
55	R9	17	ILE	2.2
1	QA	1113	C	2.2
11	XK	124	LYS	2.2
14	QN	4	LYS	2.2
42	RW	113	LYS	2.2
7	QG	156	TRP	2.2

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Mol	Chain	Res	Type	RSRZ
28	YE	205	ALA	2.2
33	YN	1	MET	2.2
4	XD	20	TYR	2.2
7	XG	85	TYR	2.2
11	XK	25	TYR	2.2
11	XK	98	LEU	2.2
31	RH	155	SER	2.2
12	XL	98	TYR	2.2
33	YN	61	ARG	2.2
45	YZ	41	LEU	2.2
52	R6	6	ARG	2.2
31	RH	107	VAL	2.2
4	XD	81	GLU	2.2
10	QJ	61	GLU	2.2
33	YN	19	GLU	2.2
47	R1	93	GLU	2.2
36	RQ	104	PHE	2.2
4	XD	46	LYS	2.2
11	QK	55	LYS	2.2
42	YW	113	LYS	2.2
6	XF	55	ASP	2.2
7	QG	2	ALA	2.2
41	YV	77	ALA	2.2
45	YZ	179	ASP	2.2
1	QA	1531	A	2.2
22	QW	73	A	2.2
22	XW	36	A	2.2
4	QD	50	ARG	2.2
20	QT	8	ARG	2.2
36	RQ	6	ARG	2.2
55	R9	6	SER	2.2
10	XJ	34	VAL	2.2
1	QA	63	C	2.2
9	QI	77	ILE	2.2
22	XV	41	C	2.2
52	Y6	24	GLU	2.2
54	R8	9	GLY	2.2
11	XK	89	ALA	2.1
32	RI	140	LEU	2.2
45	YZ	183	LEU	2.2
4	XD	49	ARG	2.1
27	RD	20	ASP	2.1

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Mol	Chain	Res	Type	RSRZ
30	RG	97	ASP	2.1
47	Y1	38	SER	2.1
52	Y6	28	ARG	2.1
55	R9	20	HIS	2.1
3	XC	193	TYR	2.1
17	QQ	27	PHE	2.1
4	XD	156	GLU	2.1
9	QI	116	LYS	2.1
20	XT	98	PRO	2.1
32	YI	134	PRO	2.1
44	YY	77	PRO	2.1
22	XW	32	G	2.1
25	RA	82	G	2.1
42	RW	92	ARG	2.1
47	R1	11	ARG	2.1
47	R1	56	GLN	2.1
31	RH	136	ILE	2.1
35	YP	87	ASP	2.1
38	YS	82	ILE	2.1
41	YV	51	VAL	2.1
27	YD	97	TYR	2.1
40	YU	16	LYS	2.1
55	R9	31	LYS	2.1
28	YE	10	GLY	2.1
10	XJ	61	GLU	2.1
31	YH	21	PRO	2.1
1	QA	950	U	2.1
10	QJ	20	ALA	2.1
14	QN	12	ARG	2.1
32	RI	83	ALA	2.1
37	RR	33	ARG	2.1
43	YX	60	ARG	2.1
8	XH	61	VAL	2.1
12	QL	46	LYS	2.1
38	RS	85	VAL	2.1
4	XD	80	GLU	2.1
42	YW	19	LEU	2.1
47	R1	89	GLU	2.1
1	XA	1029	G	2.1
25	RA	2141	G	2.1
25	YA	2759	G	2.1
28	RE	117	MET	2.1

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Mol	Chain	Res	Type	RSRZ
25	RA	974(A)	C	2.1
17	XQ	101	ARG	2.1
44	YY	50	ARG	2.1
31	RH	96	ALA	2.1
3	XC	152	ILE	2.1
17	QQ	36	ILE	2.1
46	R0	50	ASN	2.1
9	QI	95	LYS	2.1
42	YW	72	LYS	2.1
25	RA	1026	U	2.1
25	YA	1535	U	2.1
28	YE	47	VAL	2.1
45	YZ	165	VAL	2.1
49	Y3	9	VAL	2.1
2	XB	148	TYR	2.1
3	XC	167	TRP	2.1
12	XL	120	TYR	2.1
31	RH	137	ASP	2.1
8	XH	72	PRO	2.1
28	YE	53	PRO	2.1
31	RH	116	GLU	2.1
35	YP	117	GLU	2.1
36	RQ	139	GLU	2.1
27	RD	268	ARG	2.1
35	YP	61	ARG	2.1
29	RF	141	ALA	2.1
32	RI	97	ILE	2.1
31	YH	153	LYS	2.1
37	YR	101	ALA	2.1
27	YD	12	SER	2.1
12	XL	101	VAL	2.1
30	RG	34	LEU	2.1
47	Y1	82	LEU	2.1
1	QA	980	C	2.1
1	XA	328	C	2.1
1	QA	963	G	2.1
25	YA	1176	G	2.1
46	R0	53	MET	2.1
9	XI	49	PRO	2.1
10	QJ	12	ASP	2.1
44	RY	107	ASP	2.1
13	QM	116	THR	2.1

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Mol	Chain	Res	Type	RSRZ
27	RD	101	GLU	2.1
32	RI	41	GLU	2.1
5	QE	126	ARG	2.1
7	XG	4	ARG	2.1
13	QM	88	ARG	2.1
17	QQ	101	ARG	2.1
29	RF	72	ARG	2.1
34	YO	97	ARG	2.1
36	YQ	5	ARG	2.1
3	XC	200	ALA	2.1
9	XI	45	ALA	2.1
40	RU	46	ALA	2.1
52	Y6	22	ALA	2.1
13	QM	101	GLN	2.1
17	QQ	93	GLN	2.1
29	YF	133	ASN	2.1
45	YZ	70	LEU	2.1
44	RY	1	MET	2.1
22	QW	38	A	2.0
27	RD	97	TYR	2.0
27	YD	180	GLY	2.0
36	RQ	84	GLY	2.0
10	XJ	48	THR	2.0
13	QM	109	THR	2.0
37	YR	72	ASP	2.0
11	QK	124	LYS	2.0
16	XP	54	GLU	2.0
40	YU	37	GLU	2.0
46	R0	44	ARG	2.0
27	RD	261	LYS	2.0
30	YG	140	ILE	2.0
54	R8	54	GLU	2.0
10	QJ	47	PHE	2.0
31	YH	155	SER	2.0
13	XM	7	VAL	2.0
22	QW	17	C	2.0
40	YU	95	LEU	2.0
55	Y9	27	CYS	2.0
27	RD	44	ASN	2.0
53	R7	1	MET	2.0
1	QA	5	U	2.0
35	YP	22	GLY	2.0

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Mol	Chain	Res	Type	RSRZ
42	RW	112	GLY	2.0
4	QD	209	ARG	2.0
11	XK	120	ARG	2.0
44	RY	32	PRO	2.0
16	XP	19	ILE	2.0
20	XT	55	ILE	2.0
47	R1	91	LYS	2.0
47	Y1	88	LYS	2.0
52	Y6	7	ILE	2.0
3	QC	166	GLU	2.0
42	YW	30	GLU	2.0
42	YW	31	GLU	2.0
10	XJ	47	PHE	2.0
19	XS	71	LEU	2.0
47	R1	98	LEU	2.0
11	QK	104	GLN	2.0
25	RA	2758	A	2.0
31	RH	115	VAL	2.0
32	RI	144	VAL	2.0
36	RQ	81	VAL	2.0
36	YQ	132	VAL	2.0
5	QE	133	TYR	2.0
12	XL	19	ARG	2.0
33	YN	134	ARG	2.0
36	RQ	10	ARG	2.0
36	RQ	86	GLY	2.0
38	RS	104	GLY	2.0
38	RS	108	GLY	2.0
44	RY	88	LYS	2.0
55	R9	8	LYS	2.0
12	XL	64	TYR	2.0
39	YT	100	TYR	2.0
2	QB	107	THR	2.0
25	RA	790	C	2.0
25	RA	2142	C	2.0
54	Y8	54	GLU	2.0
20	XT	12	ALA	2.0
37	RR	69	ASP	2.0
39	RT	124	ASP	2.0
44	RY	105	ALA	2.0
45	RZ	154	ASP	2.0
22	XV	48	U	2.0

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Mol	Chain	Res	Type	RSRZ
5	QE	51	VAL	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 oligosaccharides 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
56	MG	YA	3018	1/1	0.38	0.45	61,61,61,61	0
58	ZN	Y9	102	1/1	0.43	0.28	194,194,194,194	0
56	MG	RA	3438	1/1	0.46	0.14	58,58,58,58	0
56	MG	XM	201	1/1	0.47	0.12	87,87,87,87	0
56	MG	YA	3332	1/1	0.49	0.16	60,60,60,60	0
56	MG	YA	3220	1/1	0.53	0.12	59,59,59,59	0
56	MG	RA	3340	1/1	0.56	0.13	67,67,67,67	0
56	MG	YA	3268	1/1	0.56	0.36	56,56,56,56	0
56	MG	YA	3397	1/1	0.57	0.14	85,85,85,85	0
56	MG	RA	3257	1/1	0.58	0.24	51,51,51,51	0
56	MG	YA	3011	1/1	0.58	0.40	66,66,66,66	0
56	MG	YA	3017	1/1	0.58	0.49	63,63,63,63	0
56	MG	RA	3142	1/1	0.60	0.30	52,52,52,52	0
56	MG	YA	3260	1/1	0.60	0.42	56,56,56,56	0
56	MG	RA	3301	1/1	0.60	0.22	75,75,75,75	0
56	MG	YA	3402	1/1	0.61	0.12	53,53,53,53	0
56	MG	RA	3457	1/1	0.61	0.23	62,62,62,62	0
56	MG	RA	3482	1/1	0.62	0.23	94,94,94,94	0
56	MG	QQ	201	1/1	0.62	0.11	68,68,68,68	0
56	MG	RA	3350	1/1	0.62	0.12	68,68,68,68	0
58	ZN	R5	501	1/1	0.63	0.21	243,243,243,243	0
56	MG	RA	3318	1/1	0.64	0.17	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3061	1/1	0.64	0.70	59,59,59,59	0
56	MG	RA	3484	1/1	0.64	0.19	70,70,70,70	0
56	MG	YA	3190	1/1	0.65	0.20	66,66,66,66	0
56	MG	YA	3405	1/1	0.65	0.12	65,65,65,65	0
56	MG	RA	3243	1/1	0.65	0.42	66,66,66,66	0
56	MG	YA	3086	1/1	0.65	0.40	63,63,63,63	0
56	MG	QV	104	1/1	0.66	0.45	58,58,58,58	0
56	MG	YA	3095	1/1	0.66	0.24	61,61,61,61	0
56	MG	RA	3016	1/1	0.67	0.41	54,54,54,54	0
56	MG	RA	3497	1/1	0.67	0.38	62,62,62,62	0
56	MG	YA	3161	1/1	0.67	0.47	64,64,64,64	0
56	MG	YA	3312	1/1	0.67	0.20	65,65,65,65	0
58	ZN	R9	102	1/1	0.67	0.31	211,211,211,211	0
56	MG	YA	3035	1/1	0.67	0.58	65,65,65,65	0
56	MG	RA	3494	1/1	0.68	0.58	61,61,61,61	0
56	MG	YA	3100	1/1	0.68	0.33	56,56,56,56	0
56	MG	YA	3455	1/1	0.68	0.12	63,63,63,63	0
56	MG	RA	3081	1/1	0.68	0.56	67,67,67,67	0
56	MG	RA	3024	1/1	0.68	0.53	49,49,49,49	0
56	MG	RA	3022	1/1	0.68	0.38	61,61,61,61	0
56	MG	YA	3048	1/1	0.69	0.37	54,54,54,54	0
56	MG	YA	3407	1/1	0.69	0.09	62,62,62,62	0
56	MG	YA	3180	1/1	0.69	0.27	55,55,55,55	0
56	MG	RA	3313	1/1	0.69	0.23	61,61,61,61	0
56	MG	QA	1660	1/1	0.69	0.27	69,69,69,69	0
56	MG	RA	3091	1/1	0.69	0.28	56,56,56,56	0
56	MG	RA	3468	1/1	0.70	0.11	57,57,57,57	0
56	MG	YA	3426	1/1	0.70	0.58	53,53,53,53	0
56	MG	YA	3394	1/1	0.70	0.15	67,67,67,67	0
56	MG	YA	3069	1/1	0.70	0.32	63,63,63,63	0
56	MG	YA	3031	1/1	0.70	0.42	63,63,63,63	0
56	MG	XS	101	1/1	0.70	0.09	66,66,66,66	0
56	MG	RA	3242	1/1	0.71	0.28	66,66,66,66	0
56	MG	RA	3206	1/1	0.71	0.21	63,63,63,63	0
56	MG	XA	1682	1/1	0.71	0.09	77,77,77,77	0
56	MG	YA	3535	1/1	0.71	0.18	66,66,66,66	0
56	MG	RA	3402	1/1	0.71	0.17	69,69,69,69	0
56	MG	RA	3212	1/1	0.71	0.23	56,56,56,56	0
56	MG	YA	3155	1/1	0.71	0.23	65,65,65,65	0
56	MG	YA	3231	1/1	0.72	0.17	54,54,54,54	0
56	MG	YA	3246	1/1	0.72	0.21	66,66,66,66	0
56	MG	QA	1631	1/1	0.72	0.43	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	XA	1611	1/1	0.72	0.23	63,63,63,63	0
56	MG	YA	3174	1/1	0.72	0.32	64,64,64,64	0
56	MG	YA	3020	1/1	0.72	0.54	51,51,51,51	0
56	MG	YA	3335	1/1	0.72	0.25	72,72,72,72	0
58	ZN	R6	101	1/1	0.72	0.21	211,211,211,211	0
56	MG	XV	101	1/1	0.72	0.27	50,50,50,50	0
56	MG	RA	3119	1/1	0.72	0.46	67,67,67,67	0
56	MG	RA	3014	1/1	0.73	0.30	61,61,61,61	0
56	MG	YA	3456	1/1	0.73	0.12	85,85,85,85	0
56	MG	YA	3502	1/1	0.73	0.10	59,59,59,59	0
56	MG	YA	3380	1/1	0.73	0.26	49,49,49,49	0
56	MG	RA	3466	1/1	0.74	0.18	54,54,54,54	0
56	MG	YA	3187	1/1	0.74	0.29	55,55,55,55	0
56	MG	YA	3047	1/1	0.74	0.60	48,48,48,48	0
56	MG	QA	1610	1/1	0.74	0.40	51,51,51,51	0
56	MG	YA	3222	1/1	0.74	0.23	47,47,47,47	0
56	MG	RA	3009	1/1	0.74	0.40	54,54,54,54	0
56	MG	YA	3005	1/1	0.74	0.27	56,56,56,56	0
56	MG	QA	1656	1/1	0.74	0.20	66,66,66,66	0
56	MG	RA	3035	1/1	0.74	0.22	60,60,60,60	0
56	MG	YA	3287	1/1	0.74	0.08	67,67,67,67	0
56	MG	YB	211	1/1	0.74	0.08	65,65,65,65	0
56	MG	RA	3039	1/1	0.74	0.31	65,65,65,65	0
56	MG	RA	3199	1/1	0.74	0.20	55,55,55,55	0
56	MG	YA	3168	1/1	0.74	0.10	66,66,66,66	0
56	MG	RA	3305	1/1	0.74	0.13	57,57,57,57	0
56	MG	YA	3453	1/1	0.75	0.16	67,67,67,67	0
56	MG	YA	3363	1/1	0.75	0.30	63,63,63,63	0
56	MG	YA	3118	1/1	0.75	0.34	67,67,67,67	0
56	MG	RA	3219	1/1	0.75	0.11	64,64,64,64	0
56	MG	YA	3022	1/1	0.75	0.28	64,64,64,64	0
56	MG	RA	3042	1/1	0.75	0.53	66,66,66,66	0
56	MG	RA	3122	1/1	0.75	0.40	52,52,52,52	0
56	MG	RA	3013	1/1	0.75	0.43	60,60,60,60	0
56	MG	YA	3361	1/1	0.75	0.08	59,59,59,59	0
56	MG	YA	3450	1/1	0.75	0.20	74,74,74,74	0
56	MG	QC	301	1/1	0.76	0.13	87,87,87,87	0
56	MG	YA	3024	1/1	0.76	0.35	55,55,55,55	0
56	MG	RA	3344	1/1	0.76	0.21	54,54,54,54	0
56	MG	YA	3399	1/1	0.76	0.14	65,65,65,65	0
56	MG	RA	3056	1/1	0.76	0.54	57,57,57,57	0
56	MG	XA	1621	1/1	0.76	0.21	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3207	1/1	0.76	0.16	60,60,60,60	0
56	MG	YA	3229	1/1	0.76	0.21	60,60,60,60	0
56	MG	YA	3054	1/1	0.76	0.22	57,57,57,57	0
56	MG	RA	3429	1/1	0.76	0.23	54,54,54,54	0
56	MG	RA	3208	1/1	0.76	0.25	58,58,58,58	0
56	MG	YA	3267	1/1	0.76	0.30	63,63,63,63	0
56	MG	RA	3453	1/1	0.76	0.12	54,54,54,54	0
56	MG	RA	3162	1/1	0.76	0.24	54,54,54,54	0
56	MG	RA	3178	1/1	0.76	0.15	58,58,58,58	0
56	MG	YA	3125	1/1	0.76	0.38	79,79,79,79	0
56	MG	RA	3317	1/1	0.76	0.16	62,62,62,62	0
56	MG	RA	3230	1/1	0.76	0.33	63,63,63,63	0
56	MG	RA	3322	1/1	0.76	0.19	62,62,62,62	0
56	MG	YA	3374	1/1	0.77	0.18	55,55,55,55	0
56	MG	RA	3351	1/1	0.77	0.29	57,57,57,57	0
56	MG	YA	3045	1/1	0.77	0.26	66,66,66,66	0
56	MG	RA	3001	1/1	0.77	0.32	84,84,84,84	0
56	MG	RA	3416	1/1	0.77	0.07	62,62,62,62	0
56	MG	RA	3008	1/1	0.77	0.26	68,68,68,68	0
56	MG	YA	3403	1/1	0.77	0.15	67,67,67,67	0
56	MG	YA	3226	1/1	0.77	0.11	70,70,70,70	0
56	MG	RA	3065	1/1	0.77	0.28	54,54,54,54	0
56	MG	RA	3441	1/1	0.77	0.12	53,53,53,53	0
56	MG	YA	3234	1/1	0.77	0.33	67,67,67,67	0
56	MG	YA	3093	1/1	0.77	0.27	60,60,60,60	0
56	MG	RA	3202	1/1	0.77	0.26	64,64,64,64	0
56	MG	RA	3072	1/1	0.77	0.37	55,55,55,55	0
56	MG	QA	1651	1/1	0.77	0.12	79,79,79,79	0
56	MG	YA	3526	1/1	0.77	0.39	61,61,61,61	0
56	MG	RA	3012	1/1	0.77	0.52	54,54,54,54	0
56	MG	RA	3037	1/1	0.77	0.48	63,63,63,63	0
56	MG	YA	3157	1/1	0.77	0.22	66,66,66,66	0
56	MG	QA	1603	1/1	0.77	0.25	67,67,67,67	0
56	MG	QA	1636	1/1	0.77	0.22	63,63,63,63	0
58	ZN	Y4	500	1/1	0.77	0.15	206,206,206,206	0
56	MG	RA	3148	1/1	0.77	0.41	65,65,65,65	0
56	MG	RA	3050	1/1	0.78	0.48	57,57,57,57	0
56	MG	RA	3096	1/1	0.78	0.46	63,63,63,63	0
56	MG	YA	3007	1/1	0.78	0.17	57,57,57,57	0
56	MG	RA	3238	1/1	0.78	0.33	62,62,62,62	0
56	MG	YA	3104	1/1	0.78	0.24	60,60,60,60	0
56	MG	YA	3250	1/1	0.78	0.34	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3196	1/1	0.78	0.32	64,64,64,64	0
56	MG	RA	3100	1/1	0.78	0.23	59,59,59,59	0
56	MG	YA	3129	1/1	0.78	0.34	63,63,63,63	0
56	MG	RA	3251	1/1	0.78	0.37	63,63,63,63	0
56	MG	RA	3397	1/1	0.78	0.22	49,49,49,49	0
56	MG	RA	3071	1/1	0.78	0.41	61,61,61,61	0
56	MG	RB	201	1/1	0.78	0.13	67,67,67,67	0
56	MG	R8	101	1/1	0.78	0.44	61,61,61,61	0
56	MG	QA	1663	1/1	0.78	0.12	61,61,61,61	0
56	MG	RA	3025	1/1	0.78	0.31	52,52,52,52	0
56	MG	RA	3086	1/1	0.78	0.39	51,51,51,51	0
56	MG	RA	3155	1/1	0.78	0.43	60,60,60,60	0
56	MG	RA	3446	1/1	0.78	0.16	60,60,60,60	0
56	MG	RA	3304	1/1	0.79	0.23	64,64,64,64	0
56	MG	RA	3448	1/1	0.79	0.09	65,65,65,65	0
56	MG	YA	3396	1/1	0.79	0.36	66,66,66,66	0
56	MG	YA	3478	1/1	0.79	0.15	53,53,53,53	0
56	MG	YA	3496	1/1	0.79	0.23	72,72,72,72	0
56	MG	RA	3274	1/1	0.79	0.33	58,58,58,58	0
56	MG	RA	3478	1/1	0.79	0.16	67,67,67,67	0
56	MG	YA	3528	1/1	0.79	0.48	65,65,65,65	0
56	MG	XA	1624	1/1	0.79	0.20	63,63,63,63	0
56	MG	XA	1635	1/1	0.79	0.21	50,50,50,50	0
58	ZN	R4	102	1/1	0.79	0.11	257,257,257,257	0
56	MG	YA	3027	1/1	0.79	0.28	53,53,53,53	0
56	MG	YA	3078	1/1	0.79	0.48	66,66,66,66	0
56	MG	YA	3422	1/1	0.79	0.06	63,63,63,63	0
56	MG	YA	3200	1/1	0.79	0.09	96,96,96,96	0
58	ZN	Y6	101	1/1	0.79	0.26	245,245,245,245	0
56	MG	YA	3375	1/1	0.79	0.32	62,62,62,62	0
56	MG	RA	3332	1/1	0.80	0.21	69,69,69,69	0
56	MG	RA	3087	1/1	0.80	0.36	62,62,62,62	0
56	MG	RA	3044	1/1	0.80	0.41	60,60,60,60	0
56	MG	RA	3067	1/1	0.80	0.28	50,50,50,50	0
56	MG	QA	1664	1/1	0.80	0.23	67,67,67,67	0
56	MG	RA	3106	1/1	0.80	0.26	63,63,63,63	0
56	MG	RE	302	1/1	0.80	0.10	107,107,107,107	0
56	MG	YA	3383	1/1	0.80	0.11	59,59,59,59	0
56	MG	YA	3150	1/1	0.80	0.38	59,59,59,59	0
56	MG	R0	103	1/1	0.80	0.11	60,60,60,60	0
56	MG	YA	3050	1/1	0.80	0.44	63,63,63,63	0
56	MG	RA	3401	1/1	0.80	0.31	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	XA	1603	1/1	0.80	0.40	65,65,65,65	0
56	MG	RA	3228	1/1	0.80	0.43	55,55,55,55	0
56	MG	YA	3176	1/1	0.80	0.20	64,64,64,64	0
56	MG	RA	3229	1/1	0.80	0.28	56,56,56,56	0
58	ZN	Y5	501	1/1	0.80	0.20	170,170,170,170	0
56	MG	YA	3183	1/1	0.80	0.19	58,58,58,58	0
56	MG	YA	3316	1/1	0.80	0.24	62,62,62,62	0
56	MG	YA	3249	1/1	0.81	0.25	56,56,56,56	0
56	MG	RA	3252	1/1	0.81	0.30	56,56,56,56	0
56	MG	RA	3256	1/1	0.81	0.18	66,66,66,66	0
56	MG	QA	1628	1/1	0.81	0.09	66,66,66,66	0
56	MG	YA	3432	1/1	0.81	0.38	56,56,56,56	0
56	MG	YA	3449	1/1	0.81	0.08	55,55,55,55	0
56	MG	YA	3040	1/1	0.81	0.32	49,49,49,49	0
56	MG	YA	3280	1/1	0.81	0.24	60,60,60,60	0
56	MG	RA	3220	1/1	0.81	0.16	67,67,67,67	0
56	MG	XA	1646	1/1	0.81	0.11	63,63,63,63	0
56	MG	RA	3286	1/1	0.81	0.14	66,66,66,66	0
56	MG	YA	3488	1/1	0.81	0.05	66,66,66,66	0
56	MG	RA	3377	1/1	0.81	0.31	59,59,59,59	0
56	MG	YA	3499	1/1	0.81	0.24	66,66,66,66	0
56	MG	YA	3501	1/1	0.81	0.16	59,59,59,59	0
56	MG	QH	201	1/1	0.81	0.07	71,71,71,71	0
56	MG	YA	3511	1/1	0.81	0.15	64,64,64,64	0
56	MG	YA	3519	1/1	0.81	0.31	67,67,67,67	0
56	MG	RA	3031	1/1	0.81	0.51	61,61,61,61	0
56	MG	YA	3076	1/1	0.81	0.20	59,59,59,59	0
56	MG	RA	3145	1/1	0.81	0.35	60,60,60,60	0
56	MG	RA	3098	1/1	0.81	0.14	62,62,62,62	0
56	MG	RA	3507	1/1	0.81	0.42	67,67,67,67	0
56	MG	RA	3417	1/1	0.81	0.07	54,54,54,54	0
56	MG	YA	3096	1/1	0.81	0.51	65,65,65,65	0
56	MG	RA	3316	1/1	0.81	0.16	68,68,68,68	0
56	MG	RA	3150	1/1	0.81	0.22	64,64,64,64	0
56	MG	RA	3062	1/1	0.81	0.31	66,66,66,66	0
56	MG	YA	3237	1/1	0.81	0.15	60,60,60,60	0
56	MG	QA	1616	1/1	0.81	0.10	51,51,51,51	0
56	MG	RA	3428	1/1	0.82	0.14	56,56,56,56	0
56	MG	RA	3033	1/1	0.82	0.44	65,65,65,65	0
56	MG	RA	3498	1/1	0.82	0.34	48,48,48,48	0
56	MG	RA	3505	1/1	0.82	0.33	54,54,54,54	0
56	MG	YA	3002	1/1	0.82	0.32	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3088	1/1	0.82	0.46	62,62,62,62	0
56	MG	YA	3423	1/1	0.82	0.15	68,68,68,68	0
56	MG	RA	3279	1/1	0.82	0.06	58,58,58,58	0
56	MG	RA	3354	1/1	0.82	0.30	52,52,52,52	0
56	MG	YA	3009	1/1	0.82	0.42	54,54,54,54	0
56	MG	RA	3372	1/1	0.82	0.14	54,54,54,54	0
56	MG	RR	201	1/1	0.82	0.12	58,58,58,58	0
56	MG	QA	1602	1/1	0.82	0.31	54,54,54,54	0
56	MG	RA	3090	1/1	0.82	0.52	59,59,59,59	0
56	MG	YA	3460	1/1	0.82	0.16	64,64,64,64	0
56	MG	YA	3476	1/1	0.82	0.19	61,61,61,61	0
56	MG	RA	3331	1/1	0.82	0.15	57,57,57,57	0
56	MG	YA	3486	1/1	0.82	0.21	64,64,64,64	0
56	MG	YA	3131	1/1	0.82	0.17	61,61,61,61	0
56	MG	YA	3283	1/1	0.82	0.29	64,64,64,64	0
56	MG	YA	3140	1/1	0.82	0.19	53,53,53,53	0
56	MG	YA	3145	1/1	0.82	0.34	50,50,50,50	0
56	MG	YA	3313	1/1	0.82	0.10	57,57,57,57	0
56	MG	YA	3315	1/1	0.82	0.10	49,49,49,49	0
56	MG	RA	3078	1/1	0.82	0.48	62,62,62,62	0
56	MG	RA	3403	1/1	0.82	0.23	60,60,60,60	0
56	MG	RA	3414	1/1	0.82	0.29	63,63,63,63	0
56	MG	YA	3033	1/1	0.82	0.31	66,66,66,66	0
56	MG	YA	3540	1/1	0.82	0.33	52,52,52,52	0
56	MG	XA	1628	1/1	0.82	0.21	56,56,56,56	0
56	MG	XA	1632	1/1	0.82	0.26	64,64,64,64	0
56	MG	QA	1612	1/1	0.82	0.25	57,57,57,57	0
56	MG	RA	3085	1/1	0.82	0.35	64,64,64,64	0
56	MG	YA	3381	1/1	0.82	0.08	73,73,73,73	0
56	MG	XA	1654	1/1	0.82	0.20	53,53,53,53	0
56	MG	YA	3049	1/1	0.82	0.32	54,54,54,54	0
56	MG	XA	1662	1/1	0.82	0.12	53,53,53,53	0
56	MG	YA	3198	1/1	0.82	0.37	57,57,57,57	0
56	MG	YA	3003	1/1	0.83	0.12	79,79,79,79	0
56	MG	QA	1604	1/1	0.83	0.24	54,54,54,54	0
56	MG	YA	3413	1/1	0.83	0.49	61,61,61,61	0
56	MG	RA	3028	1/1	0.83	0.21	58,58,58,58	0
56	MG	RA	3248	1/1	0.83	0.30	65,65,65,65	0
56	MG	YA	3425	1/1	0.83	0.09	48,48,48,48	0
56	MG	RB	204	1/1	0.83	0.23	73,73,73,73	0
56	MG	RA	3030	1/1	0.83	0.55	62,62,62,62	0
56	MG	RA	3020	1/1	0.83	0.39	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3126	1/1	0.83	0.41	65,65,65,65	0
56	MG	RA	3049	1/1	0.83	0.41	50,50,50,50	0
56	MG	RA	3160	1/1	0.83	0.36	62,62,62,62	0
56	MG	YA	3132	1/1	0.83	0.19	62,62,62,62	0
56	MG	YA	3136	1/1	0.83	0.19	62,62,62,62	0
56	MG	QA	1611	1/1	0.83	0.38	56,56,56,56	0
56	MG	RA	3227	1/1	0.83	0.13	58,58,58,58	0
56	MG	YA	3029	1/1	0.83	0.27	51,51,51,51	0
56	MG	RA	3282	1/1	0.83	0.24	66,66,66,66	0
56	MG	XA	1622	1/1	0.83	0.11	50,50,50,50	0
56	MG	YA	3325	1/1	0.83	0.33	58,58,58,58	0
56	MG	RA	3353	1/1	0.83	0.18	62,62,62,62	0
56	MG	QA	1622	1/1	0.83	0.12	56,56,56,56	0
56	MG	XA	1629	1/1	0.83	0.16	68,68,68,68	0
56	MG	YA	3515	1/1	0.83	0.15	62,62,62,62	0
56	MG	RA	3363	1/1	0.83	0.18	82,82,82,82	0
56	MG	YA	3364	1/1	0.83	0.20	70,70,70,70	0
56	MG	YA	3178	1/1	0.83	0.23	66,66,66,66	0
56	MG	RA	3371	1/1	0.83	0.38	61,61,61,61	0
56	MG	YA	3379	1/1	0.83	0.20	57,57,57,57	0
56	MG	YA	3544	1/1	0.83	0.12	62,62,62,62	0
56	MG	YB	207	1/1	0.83	0.06	58,58,58,58	0
56	MG	RA	3057	1/1	0.83	0.35	63,63,63,63	0
56	MG	YB	212	1/1	0.83	0.35	103,103,103,103	0
58	ZN	RY	202	1/1	0.83	0.17	258,258,258,258	0
56	MG	RA	3197	1/1	0.83	0.30	62,62,62,62	0
56	MG	RA	3380	1/1	0.83	0.15	50,50,50,50	0
56	MG	RA	3388	1/1	0.83	0.38	51,51,51,51	0
56	MG	RA	3492	1/1	0.83	0.46	55,55,55,55	0
56	MG	YA	3217	1/1	0.83	0.25	58,58,58,58	0
56	MG	RA	3395	1/1	0.83	0.15	56,56,56,56	0
56	MG	RA	3235	1/1	0.83	0.10	58,58,58,58	0
56	MG	RA	3036	1/1	0.83	0.25	49,49,49,49	0
56	MG	RA	3088	1/1	0.84	0.45	61,61,61,61	0
56	MG	YA	3401	1/1	0.84	0.13	56,56,56,56	0
56	MG	YA	3206	1/1	0.84	0.18	57,57,57,57	0
56	MG	YA	3080	1/1	0.84	0.23	47,47,47,47	0
56	MG	RA	3123	1/1	0.84	0.15	62,62,62,62	0
56	MG	XV	106	1/1	0.84	0.27	49,49,49,49	0
56	MG	RA	3339	1/1	0.84	0.18	53,53,53,53	0
56	MG	RA	3136	1/1	0.84	0.23	56,56,56,56	0
56	MG	RB	205	1/1	0.84	0.17	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3097	1/1	0.84	0.26	58,58,58,58	0
56	MG	RA	3427	1/1	0.84	0.32	48,48,48,48	0
56	MG	YA	3242	1/1	0.84	0.55	50,50,50,50	0
56	MG	YA	3243	1/1	0.84	0.18	64,64,64,64	0
56	MG	YA	3245	1/1	0.84	0.17	53,53,53,53	0
56	MG	RA	3018	1/1	0.84	0.47	54,54,54,54	0
56	MG	YA	3454	1/1	0.84	0.10	68,68,68,68	0
56	MG	RY	201	1/1	0.84	0.23	121,121,121,121	0
56	MG	RA	3349	1/1	0.84	0.21	67,67,67,67	0
56	MG	YA	3259	1/1	0.84	0.15	62,62,62,62	0
56	MG	YA	3465	1/1	0.84	0.10	62,62,62,62	0
56	MG	YA	3466	1/1	0.84	0.22	55,55,55,55	0
56	MG	R0	104	1/1	0.84	0.22	65,65,65,65	0
56	MG	YA	3128	1/1	0.84	0.33	54,54,54,54	0
56	MG	YA	3481	1/1	0.84	0.22	57,57,57,57	0
56	MG	RA	3079	1/1	0.84	0.33	60,60,60,60	0
56	MG	RA	3051	1/1	0.84	0.40	59,59,59,59	0
56	MG	RA	3084	1/1	0.84	0.34	57,57,57,57	0
56	MG	RA	3151	1/1	0.84	0.31	67,67,67,67	0
56	MG	RA	3224	1/1	0.84	0.24	59,59,59,59	0
56	MG	YA	3144	1/1	0.84	0.34	48,48,48,48	0
56	MG	QA	1626	1/1	0.84	0.16	60,60,60,60	0
56	MG	RA	3104	1/1	0.84	0.39	64,64,64,64	0
56	MG	RA	3105	1/1	0.84	0.18	50,50,50,50	0
56	MG	RA	3379	1/1	0.84	0.18	56,56,56,56	0
56	MG	YA	3158	1/1	0.84	0.27	59,59,59,59	0
56	MG	YA	3344	1/1	0.84	0.12	55,55,55,55	0
56	MG	YA	3349	1/1	0.84	0.07	57,57,57,57	0
56	MG	RA	3168	1/1	0.84	0.32	57,57,57,57	0
56	MG	RA	3234	1/1	0.84	0.26	56,56,56,56	0
56	MG	QE	201	1/1	0.84	0.20	59,59,59,59	0
56	MG	YA	3371	1/1	0.84	0.27	60,60,60,60	0
56	MG	YQ	203	1/1	0.84	0.31	58,58,58,58	0
56	MG	RA	3116	1/1	0.84	0.30	50,50,50,50	0
56	MG	YA	3177	1/1	0.84	0.14	63,63,63,63	0
56	MG	XA	1673	1/1	0.84	0.47	66,66,66,66	0
56	MG	YA	3179	1/1	0.84	0.26	57,57,57,57	0
56	MG	YA	3053	1/1	0.84	0.25	66,66,66,66	0
56	MG	RA	3239	1/1	0.84	0.21	54,54,54,54	0
56	MG	YA	3059	1/1	0.84	0.35	62,62,62,62	0
56	MG	XL	201	1/1	0.84	0.16	55,55,55,55	0
56	MG	QA	1661	1/1	0.84	0.37	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3075	1/1	0.85	0.47	53,53,53,53	0
56	MG	RA	3063	1/1	0.85	0.23	53,53,53,53	0
56	MG	YA	3275	1/1	0.85	0.21	51,51,51,51	0
56	MG	YA	3444	1/1	0.85	0.15	50,50,50,50	0
56	MG	RA	3045	1/1	0.85	0.32	52,52,52,52	0
56	MG	RB	207	1/1	0.85	0.16	80,80,80,80	0
56	MG	YA	3160	1/1	0.85	0.32	47,47,47,47	0
56	MG	YA	3296	1/1	0.85	0.29	57,57,57,57	0
56	MG	YA	3300	1/1	0.85	0.25	60,60,60,60	0
56	MG	YA	3057	1/1	0.85	0.28	56,56,56,56	0
56	MG	YA	3163	1/1	0.85	0.26	55,55,55,55	0
56	MG	RA	3019	1/1	0.85	0.25	55,55,55,55	0
56	MG	YA	3061	1/1	0.85	0.36	52,52,52,52	0
56	MG	YA	3062	1/1	0.85	0.33	61,61,61,61	0
56	MG	YA	3326	1/1	0.85	0.24	65,65,65,65	0
56	MG	YA	3480	1/1	0.85	0.23	54,54,54,54	0
56	MG	RA	3137	1/1	0.85	0.25	52,52,52,52	0
56	MG	YA	3071	1/1	0.85	0.29	63,63,63,63	0
56	MG	YA	3337	1/1	0.85	0.31	50,50,50,50	0
56	MG	RA	3385	1/1	0.85	0.13	65,65,65,65	0
56	MG	RA	3269	1/1	0.85	0.24	49,49,49,49	0
56	MG	YA	3355	1/1	0.85	0.18	54,54,54,54	0
56	MG	RA	3461	1/1	0.85	0.16	57,57,57,57	0
56	MG	RA	3002	1/1	0.85	0.16	53,53,53,53	0
56	MG	RA	3167	1/1	0.85	0.22	52,52,52,52	0
56	MG	YA	3516	1/1	0.85	0.14	65,65,65,65	0
56	MG	XA	1605	1/1	0.85	0.23	59,59,59,59	0
56	MG	YA	3094	1/1	0.85	0.35	50,50,50,50	0
56	MG	RA	3472	1/1	0.85	0.17	50,50,50,50	0
56	MG	YA	3529	1/1	0.85	0.38	59,59,59,59	0
56	MG	XA	1619	1/1	0.85	0.18	64,64,64,64	0
56	MG	YA	3537	1/1	0.85	0.09	70,70,70,70	0
56	MG	RA	3236	1/1	0.85	0.39	63,63,63,63	0
56	MG	RA	3144	1/1	0.85	0.15	70,70,70,70	0
56	MG	YB	205	1/1	0.85	0.14	48,48,48,48	0
56	MG	RA	3215	1/1	0.85	0.32	55,55,55,55	0
56	MG	YA	3108	1/1	0.85	0.39	65,65,65,65	0
56	MG	YA	3025	1/1	0.85	0.36	54,54,54,54	0
56	MG	RA	3491	1/1	0.85	0.47	60,60,60,60	0
56	MG	RA	3407	1/1	0.85	0.14	67,67,67,67	0
56	MG	RA	3029	1/1	0.85	0.30	61,61,61,61	0
56	MG	RA	3181	1/1	0.85	0.25	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3312	1/1	0.85	0.29	54,54,54,54	0
56	MG	RA	3504	1/1	0.85	0.21	51,51,51,51	0
56	MG	XA	1656	1/1	0.85	0.13	51,51,51,51	0
56	MG	YA	3046	1/1	0.85	0.26	55,55,55,55	0
56	MG	RA	3247	1/1	0.85	0.17	52,52,52,52	0
56	MG	RA	3368	1/1	0.85	0.21	63,63,63,63	0
56	MG	YA	3323	1/1	0.86	0.22	54,54,54,54	0
56	MG	RB	203	1/1	0.86	0.18	49,49,49,49	0
56	MG	QA	1635	1/1	0.86	0.22	64,64,64,64	0
56	MG	YA	3099	1/1	0.86	0.45	66,66,66,66	0
56	MG	YA	3038	1/1	0.86	0.56	59,59,59,59	0
56	MG	YA	3102	1/1	0.86	0.30	61,61,61,61	0
56	MG	YA	3039	1/1	0.86	0.34	51,51,51,51	0
56	MG	YA	3348	1/1	0.86	0.12	63,63,63,63	0
56	MG	XA	1666	1/1	0.86	0.04	56,56,56,56	0
56	MG	RA	3156	1/1	0.86	0.22	59,59,59,59	0
56	MG	YA	3356	1/1	0.86	0.07	78,78,78,78	0
56	MG	YA	3484	1/1	0.86	0.18	60,60,60,60	0
56	MG	RA	3097	1/1	0.86	0.23	52,52,52,52	0
56	MG	YA	3487	1/1	0.86	0.20	54,54,54,54	0
56	MG	YA	3362	1/1	0.86	0.07	61,61,61,61	0
56	MG	RA	3463	1/1	0.86	0.07	68,68,68,68	0
56	MG	YA	3127	1/1	0.86	0.35	66,66,66,66	0
56	MG	RA	3298	1/1	0.86	0.38	60,60,60,60	0
56	MG	RA	3040	1/1	0.86	0.28	64,64,64,64	0
56	MG	YA	3507	1/1	0.86	0.18	60,60,60,60	0
56	MG	RA	3469	1/1	0.86	0.09	64,64,64,64	0
56	MG	YA	3051	1/1	0.86	0.40	48,48,48,48	0
56	MG	RA	3213	1/1	0.86	0.28	69,69,69,69	0
56	MG	RA	3352	1/1	0.86	0.25	68,68,68,68	0
56	MG	YA	3525	1/1	0.86	0.51	54,54,54,54	0
56	MG	RA	3041	1/1	0.86	0.29	67,67,67,67	0
56	MG	RA	3027	1/1	0.86	0.33	57,57,57,57	0
56	MG	RA	3176	1/1	0.86	0.11	66,66,66,66	0
56	MG	YA	3151	1/1	0.86	0.19	67,67,67,67	0
56	MG	RA	3424	1/1	0.86	0.28	55,55,55,55	0
56	MG	RA	3143	1/1	0.86	0.19	70,70,70,70	0
56	MG	RA	3073	1/1	0.86	0.28	52,52,52,52	0
56	MG	RA	3015	1/1	0.86	0.26	59,59,59,59	0
56	MG	RA	3499	1/1	0.86	0.16	64,64,64,64	0
56	MG	RA	3501	1/1	0.86	0.07	78,78,78,78	0
56	MG	YA	3408	1/1	0.86	0.09	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3411	1/1	0.86	0.38	55,55,55,55	0
56	MG	RA	3108	1/1	0.86	0.18	53,53,53,53	0
56	MG	YA	3087	1/1	0.86	0.30	54,54,54,54	0
56	MG	YA	3298	1/1	0.86	0.19	57,57,57,57	0
56	MG	RA	3007	1/1	0.86	0.23	66,66,66,66	0
56	MG	YA	3089	1/1	0.86	0.17	61,61,61,61	0
56	MG	QA	1657	1/1	0.86	0.07	61,61,61,61	0
56	MG	XA	1653	1/1	0.86	0.17	57,57,57,57	0
56	MG	RA	3338	1/1	0.86	0.21	65,65,65,65	0
56	MG	YA	3322	1/1	0.86	0.27	56,56,56,56	0
56	MG	RA	3034	1/1	0.87	0.29	51,51,51,51	0
56	MG	RA	3149	1/1	0.87	0.36	61,61,61,61	0
56	MG	YA	3240	1/1	0.87	0.34	56,56,56,56	0
56	MG	YA	3101	1/1	0.87	0.36	53,53,53,53	0
56	MG	RA	3237	1/1	0.87	0.31	67,67,67,67	0
56	MG	YA	3026	1/1	0.87	0.36	49,49,49,49	0
56	MG	YA	3106	1/1	0.87	0.22	60,60,60,60	0
56	MG	YA	3248	1/1	0.87	0.52	49,49,49,49	0
56	MG	RA	3311	1/1	0.87	0.30	61,61,61,61	0
56	MG	YA	3115	1/1	0.87	0.33	65,65,65,65	0
56	MG	YA	3255	1/1	0.87	0.45	63,63,63,63	0
56	MG	RA	3038	1/1	0.87	0.42	63,63,63,63	0
56	MG	YA	3439	1/1	0.87	0.21	49,49,49,49	0
56	MG	YA	3443	1/1	0.87	0.15	64,64,64,64	0
56	MG	RA	3475	1/1	0.87	0.21	63,63,63,63	0
56	MG	QA	1653	1/1	0.87	0.05	58,58,58,58	0
56	MG	RA	3315	1/1	0.87	0.12	47,47,47,47	0
56	MG	RA	3153	1/1	0.87	0.30	58,58,58,58	0
56	MG	RA	3489	1/1	0.87	0.16	57,57,57,57	0
56	MG	RA	3076	1/1	0.87	0.24	53,53,53,53	0
56	MG	YA	3042	1/1	0.87	0.28	67,67,67,67	0
56	MG	XA	1636	1/1	0.87	0.26	55,55,55,55	0
56	MG	YA	3461	1/1	0.87	0.09	79,79,79,79	0
56	MG	YA	3297	1/1	0.87	0.12	57,57,57,57	0
56	MG	XA	1638	1/1	0.87	0.18	61,61,61,61	0
56	MG	YA	3468	1/1	0.87	0.46	49,49,49,49	0
56	MG	XA	1643	1/1	0.87	0.18	64,64,64,64	0
56	MG	YA	3307	1/1	0.87	0.14	52,52,52,52	0
56	MG	RA	3209	1/1	0.87	0.17	51,51,51,51	0
56	MG	XA	1649	1/1	0.87	0.15	62,62,62,62	0
56	MG	RA	3131	1/1	0.87	0.27	48,48,48,48	0
56	MG	RA	3329	1/1	0.87	0.08	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3132	1/1	0.87	0.32	68,68,68,68	0
56	MG	RA	3135	1/1	0.87	0.36	56,56,56,56	0
56	MG	RA	3101	1/1	0.87	0.25	48,48,48,48	0
56	MG	RA	3052	1/1	0.87	0.16	59,59,59,59	0
56	MG	RA	3258	1/1	0.87	0.17	65,65,65,65	0
56	MG	RA	3342	1/1	0.87	0.27	64,64,64,64	0
56	MG	YA	3506	1/1	0.87	0.31	53,53,53,53	0
56	MG	YA	3173	1/1	0.87	0.29	56,56,56,56	0
56	MG	YA	3064	1/1	0.87	0.25	51,51,51,51	0
56	MG	RA	3263	1/1	0.87	0.18	50,50,50,50	0
56	MG	YA	3070	1/1	0.87	0.21	63,63,63,63	0
56	MG	RA	3169	1/1	0.87	0.34	55,55,55,55	0
56	MG	YA	3521	1/1	0.87	0.25	49,49,49,49	0
56	MG	YA	3072	1/1	0.87	0.37	65,65,65,65	0
56	MG	YA	3360	1/1	0.87	0.39	62,62,62,62	0
56	MG	YA	3527	1/1	0.87	0.49	50,50,50,50	0
56	MG	RA	3430	1/1	0.87	0.19	48,48,48,48	0
56	MG	QA	1625	1/1	0.87	0.19	60,60,60,60	0
56	MG	YA	3534	1/1	0.87	0.26	61,61,61,61	0
56	MG	RA	3276	1/1	0.87	0.31	47,47,47,47	0
56	MG	RA	3278	1/1	0.87	0.21	50,50,50,50	0
56	MG	YA	3367	1/1	0.87	0.14	56,56,56,56	0
56	MG	RO	201	1/1	0.87	0.24	53,53,53,53	0
56	MG	RA	3048	1/1	0.87	0.17	51,51,51,51	0
56	MG	RA	3092	1/1	0.87	0.41	50,50,50,50	0
56	MG	YA	3376	1/1	0.87	0.20	55,55,55,55	0
56	MG	YA	3377	1/1	0.87	0.17	68,68,68,68	0
56	MG	YA	3212	1/1	0.87	0.07	48,48,48,48	0
56	MG	Y9	101	1/1	0.87	0.10	92,92,92,92	0
56	MG	RA	3454	1/1	0.87	0.09	59,59,59,59	0
56	MG	YA	3218	1/1	0.87	0.14	65,65,65,65	0
56	MG	YA	3013	1/1	0.87	0.56	48,48,48,48	0
56	MG	YA	3391	1/1	0.87	0.07	48,48,48,48	0
56	MG	RA	3187	1/1	0.87	0.09	51,51,51,51	0
56	MG	R4	101	1/1	0.87	0.05	51,51,51,51	0
56	MG	YA	3228	1/1	0.87	0.38	63,63,63,63	0
56	MG	RA	3114	1/1	0.87	0.16	52,52,52,52	0
56	MG	YA	3098	1/1	0.87	0.18	50,50,50,50	0
56	MG	YA	3419	1/1	0.88	0.39	60,60,60,60	0
56	MG	QA	1641	1/1	0.88	0.18	50,50,50,50	0
56	MG	RA	3026	1/1	0.88	0.28	53,53,53,53	0
56	MG	YA	3424	1/1	0.88	0.18	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	QA	1643	1/1	0.88	0.10	57,57,57,57	0
56	MG	RA	3452	1/1	0.88	0.15	62,62,62,62	0
56	MG	XA	1664	1/1	0.88	0.24	65,65,65,65	0
56	MG	YA	3433	1/1	0.88	0.32	58,58,58,58	0
56	MG	QA	1609	1/1	0.88	0.25	53,53,53,53	0
56	MG	RB	206	1/1	0.88	0.22	64,64,64,64	0
56	MG	QA	1623	1/1	0.88	0.15	57,57,57,57	0
56	MG	YA	3060	1/1	0.88	0.24	66,66,66,66	0
56	MG	RA	3064	1/1	0.88	0.24	54,54,54,54	0
56	MG	YA	3311	1/1	0.88	0.21	64,64,64,64	0
56	MG	RA	3333	1/1	0.88	0.45	62,62,62,62	0
56	MG	RP	201	1/1	0.88	0.23	64,64,64,64	0
56	MG	YA	3171	1/1	0.88	0.11	53,53,53,53	0
56	MG	RA	3334	1/1	0.88	0.31	59,59,59,59	0
56	MG	YA	3319	1/1	0.88	0.25	64,64,64,64	0
56	MG	XV	102	1/1	0.88	0.22	62,62,62,62	0
56	MG	RA	3391	1/1	0.88	0.14	67,67,67,67	0
56	MG	R0	102	1/1	0.88	0.28	65,65,65,65	0
56	MG	RA	3172	1/1	0.88	0.15	58,58,58,58	0
56	MG	YA	3330	1/1	0.88	0.27	61,61,61,61	0
56	MG	RA	3287	1/1	0.88	0.14	64,64,64,64	0
56	MG	RA	3117	1/1	0.88	0.26	47,47,47,47	0
56	MG	YA	3482	1/1	0.88	0.23	49,49,49,49	0
56	MG	YA	3082	1/1	0.88	0.28	50,50,50,50	0
56	MG	YA	3343	1/1	0.88	0.26	56,56,56,56	0
56	MG	RA	3146	1/1	0.88	0.19	58,58,58,58	0
56	MG	YA	3346	1/1	0.88	0.24	60,60,60,60	0
56	MG	YA	3188	1/1	0.88	0.18	60,60,60,60	0
56	MG	RA	3302	1/1	0.88	0.21	59,59,59,59	0
56	MG	YA	3351	1/1	0.88	0.25	62,62,62,62	0
56	MG	YA	3354	1/1	0.88	0.16	64,64,64,64	0
56	MG	YA	3503	1/1	0.88	0.22	63,63,63,63	0
56	MG	YA	3505	1/1	0.88	0.07	74,74,74,74	0
56	MG	YA	3197	1/1	0.88	0.34	55,55,55,55	0
56	MG	QA	1638	1/1	0.88	0.12	63,63,63,63	0
56	MG	YA	3199	1/1	0.88	0.12	65,65,65,65	0
56	MG	RA	3409	1/1	0.88	0.28	53,53,53,53	0
56	MG	XA	1615	1/1	0.88	0.26	55,55,55,55	0
56	MG	RA	3488	1/1	0.88	0.23	58,58,58,58	0
56	MG	QV	106	1/1	0.88	0.20	57,57,57,57	0
56	MG	RA	3254	1/1	0.88	0.31	48,48,48,48	0
56	MG	RA	3099	1/1	0.88	0.18	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3068	1/1	0.88	0.23	52,52,52,52	0
56	MG	RA	3495	1/1	0.88	0.25	50,50,50,50	0
56	MG	YA	3028	1/1	0.88	0.41	53,53,53,53	0
56	MG	QA	1666	1/1	0.88	0.28	79,79,79,79	0
56	MG	RA	3357	1/1	0.88	0.16	48,48,48,48	0
56	MG	YA	3232	1/1	0.88	0.20	49,49,49,49	0
56	MG	YA	3032	1/1	0.88	0.54	57,57,57,57	0
56	MG	RA	3358	1/1	0.88	0.14	63,63,63,63	0
56	MG	YA	3034	1/1	0.88	0.16	50,50,50,50	0
56	MG	RA	3500	1/1	0.88	0.19	66,66,66,66	0
56	MG	YB	208	1/1	0.88	0.18	63,63,63,63	0
56	MG	YA	3036	1/1	0.88	0.45	58,58,58,58	0
56	MG	YA	3124	1/1	0.88	0.20	58,58,58,58	0
56	MG	XA	1641	1/1	0.88	0.19	48,48,48,48	0
56	MG	YA	3400	1/1	0.88	0.30	53,53,53,53	0
56	MG	RA	3134	1/1	0.88	0.13	62,62,62,62	0
56	MG	XA	1645	1/1	0.88	0.15	55,55,55,55	0
56	MG	YA	3041	1/1	0.88	0.29	67,67,67,67	0
56	MG	RA	3364	1/1	0.88	0.21	65,65,65,65	0
56	MG	RA	3440	1/1	0.88	0.35	65,65,65,65	0
56	MG	XA	1650	1/1	0.88	0.15	59,59,59,59	0
56	MG	YA	3261	1/1	0.88	0.20	50,50,50,50	0
56	MG	XA	1651	1/1	0.88	0.12	108,108,108,108	0
56	MG	YA	3414	1/1	0.88	0.06	62,62,62,62	0
56	MG	RA	3154	1/1	0.89	0.17	51,51,51,51	0
56	MG	YA	3015	1/1	0.89	0.34	60,60,60,60	0
56	MG	YA	3169	1/1	0.89	0.36	58,58,58,58	0
56	MG	YA	3429	1/1	0.89	0.19	63,63,63,63	0
56	MG	YA	3170	1/1	0.89	0.12	58,58,58,58	0
56	MG	YA	3302	1/1	0.89	0.23	49,49,49,49	0
56	MG	YA	3438	1/1	0.89	0.15	64,64,64,64	0
56	MG	YA	3016	1/1	0.89	0.36	62,62,62,62	0
56	MG	RA	3426	1/1	0.89	0.05	58,58,58,58	0
56	MG	RA	3023	1/1	0.89	0.14	47,47,47,47	0
56	MG	YA	3448	1/1	0.89	0.07	69,69,69,69	0
56	MG	RA	3496	1/1	0.89	0.16	65,65,65,65	0
56	MG	QA	1645	1/1	0.89	0.14	58,58,58,58	0
56	MG	XA	1631	1/1	0.89	0.13	63,63,63,63	0
56	MG	QV	101	1/1	0.89	0.35	65,65,65,65	0
56	MG	YA	3321	1/1	0.89	0.21	58,58,58,58	0
56	MG	QA	1665	1/1	0.89	0.23	55,55,55,55	0
56	MG	RA	3433	1/1	0.89	0.13	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3184	1/1	0.89	0.27	63,63,63,63	0
56	MG	RA	3268	1/1	0.89	0.33	60,60,60,60	0
56	MG	YA	3328	1/1	0.89	0.28	65,65,65,65	0
56	MG	RA	3439	1/1	0.89	0.16	58,58,58,58	0
56	MG	YA	3470	1/1	0.89	0.39	67,67,67,67	0
56	MG	YA	3475	1/1	0.89	0.25	58,58,58,58	0
56	MG	RA	3093	1/1	0.89	0.37	50,50,50,50	0
56	MG	YA	3191	1/1	0.89	0.18	51,51,51,51	0
56	MG	RA	3319	1/1	0.89	0.15	66,66,66,66	0
56	MG	RA	3271	1/1	0.89	0.20	68,68,68,68	0
56	MG	RA	3273	1/1	0.89	0.17	58,58,58,58	0
56	MG	RA	3451	1/1	0.89	0.09	55,55,55,55	0
56	MG	YA	3347	1/1	0.89	0.12	66,66,66,66	0
56	MG	RA	3126	1/1	0.89	0.23	54,54,54,54	0
56	MG	YA	3103	1/1	0.89	0.13	89,89,89,89	0
56	MG	RA	3127	1/1	0.89	0.21	56,56,56,56	0
56	MG	YA	3353	1/1	0.89	0.21	61,61,61,61	0
56	MG	YA	3105	1/1	0.89	0.25	50,50,50,50	0
56	MG	YA	3219	1/1	0.89	0.30	64,64,64,64	0
56	MG	RA	3170	1/1	0.89	0.17	63,63,63,63	0
56	MG	RA	3387	1/1	0.89	0.15	67,67,67,67	0
56	MG	YA	3110	1/1	0.89	0.22	59,59,59,59	0
56	MG	YA	3114	1/1	0.89	0.22	53,53,53,53	0
56	MG	YA	3509	1/1	0.89	0.12	61,61,61,61	0
56	MG	XA	1657	1/1	0.89	0.19	51,51,51,51	0
56	MG	XA	1658	1/1	0.89	0.07	57,57,57,57	0
56	MG	YA	3120	1/1	0.89	0.52	47,47,47,47	0
56	MG	RN	201	1/1	0.89	0.09	53,53,53,53	0
56	MG	RA	3241	1/1	0.89	0.20	48,48,48,48	0
56	MG	RA	3130	1/1	0.89	0.16	64,64,64,64	0
56	MG	RA	3464	1/1	0.89	0.31	58,58,58,58	0
56	MG	RA	3043	1/1	0.89	0.26	64,64,64,64	0
56	MG	R0	101	1/1	0.89	0.31	53,53,53,53	0
56	MG	RA	3006	1/1	0.89	0.19	61,61,61,61	0
56	MG	RA	3110	1/1	0.89	0.32	67,67,67,67	0
56	MG	RA	3343	1/1	0.89	0.10	59,59,59,59	0
56	MG	YA	3389	1/1	0.89	0.43	65,65,65,65	0
56	MG	YA	3538	1/1	0.89	0.21	105,105,105,105	0
56	MG	RA	3250	1/1	0.89	0.22	59,59,59,59	0
56	MG	YA	3542	1/1	0.89	0.23	52,52,52,52	0
56	MG	YA	3251	1/1	0.89	0.27	57,57,57,57	0
56	MG	YA	3143	1/1	0.89	0.24	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3258	1/1	0.89	0.42	55,55,55,55	0
56	MG	RA	3405	1/1	0.89	0.54	76,76,76,76	0
56	MG	YB	209	1/1	0.89	0.09	53,53,53,53	0
56	MG	RA	3347	1/1	0.89	0.18	60,60,60,60	0
56	MG	RA	3053	1/1	0.89	0.46	66,66,66,66	0
56	MG	YA	3262	1/1	0.89	0.32	66,66,66,66	0
56	MG	Y0	101	1/1	0.89	0.12	58,58,58,58	0
56	MG	XA	1607	1/1	0.89	0.13	57,57,57,57	0
56	MG	YA	3063	1/1	0.89	0.19	55,55,55,55	0
56	MG	RA	3189	1/1	0.89	0.12	61,61,61,61	0
56	MG	YA	3276	1/1	0.89	0.45	61,61,61,61	0
56	MG	RA	3253	1/1	0.89	0.23	64,64,64,64	0
56	MG	YA	3010	1/1	0.89	0.20	62,62,62,62	0
56	MG	RA	3308	1/1	0.89	0.20	53,53,53,53	0
56	MG	YA	3288	1/1	0.89	0.12	48,48,48,48	0
56	MG	YA	3289	1/1	0.89	0.12	59,59,59,59	0
56	MG	YA	3295	1/1	0.89	0.29	51,51,51,51	0
56	MG	RA	3413	1/1	0.90	0.15	52,52,52,52	0
56	MG	YA	3146	1/1	0.90	0.24	51,51,51,51	0
56	MG	RA	3211	1/1	0.90	0.15	60,60,60,60	0
56	MG	RA	3366	1/1	0.90	0.09	60,60,60,60	0
56	MG	YA	3023	1/1	0.90	0.23	61,61,61,61	0
56	MG	XA	1647	1/1	0.90	0.23	65,65,65,65	0
56	MG	YA	3467	1/1	0.90	0.16	55,55,55,55	0
56	MG	RA	3473	1/1	0.90	0.18	67,67,67,67	0
56	MG	RA	3367	1/1	0.90	0.20	57,57,57,57	0
56	MG	RA	3420	1/1	0.90	0.20	63,63,63,63	0
56	MG	YA	3162	1/1	0.90	0.27	56,56,56,56	0
56	MG	QA	1652	1/1	0.90	0.06	67,67,67,67	0
56	MG	RA	3337	1/1	0.90	0.07	65,65,65,65	0
56	MG	YA	3091	1/1	0.90	0.17	56,56,56,56	0
56	MG	RA	3485	1/1	0.90	0.11	69,69,69,69	0
56	MG	QA	1662	1/1	0.90	0.14	84,84,84,84	0
56	MG	YA	3485	1/1	0.90	0.17	65,65,65,65	0
56	MG	RA	3306	1/1	0.90	0.21	53,53,53,53	0
56	MG	YA	3372	1/1	0.90	0.15	56,56,56,56	0
56	MG	RA	3191	1/1	0.90	0.26	61,61,61,61	0
56	MG	XA	1663	1/1	0.90	0.18	64,64,64,64	0
56	MG	YA	3273	1/1	0.90	0.33	63,63,63,63	0
56	MG	RA	3195	1/1	0.90	0.09	56,56,56,56	0
56	MG	R9	101	1/1	0.90	0.09	66,66,66,66	0
56	MG	RA	3493	1/1	0.90	0.53	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3381	1/1	0.90	0.15	52,52,52,52	0
56	MG	YA	3382	1/1	0.90	0.20	66,66,66,66	0
56	MG	QA	1624	1/1	0.90	0.07	51,51,51,51	0
56	MG	RA	3221	1/1	0.90	0.09	50,50,50,50	0
56	MG	YA	3510	1/1	0.90	0.16	76,76,76,76	0
56	MG	YA	3043	1/1	0.90	0.25	65,65,65,65	0
56	MG	YA	3512	1/1	0.90	0.21	58,58,58,58	0
56	MG	YA	3514	1/1	0.90	0.13	50,50,50,50	0
56	MG	RA	3060	1/1	0.90	0.54	48,48,48,48	0
56	MG	XA	1616	1/1	0.90	0.28	54,54,54,54	0
56	MG	YA	3517	1/1	0.90	0.23	64,64,64,64	0
56	MG	RA	3390	1/1	0.90	0.23	62,62,62,62	0
56	MG	YA	3520	1/1	0.90	0.23	56,56,56,56	0
56	MG	RA	3171	1/1	0.90	0.11	48,48,48,48	0
56	MG	RA	3200	1/1	0.90	0.20	65,65,65,65	0
56	MG	RA	3010	1/1	0.90	0.16	63,63,63,63	0
56	MG	YA	3305	1/1	0.90	0.23	65,65,65,65	0
56	MG	XA	1627	1/1	0.90	0.25	57,57,57,57	0
56	MG	YA	3202	1/1	0.90	0.09	55,55,55,55	0
56	MG	YA	3532	1/1	0.90	0.24	60,60,60,60	0
56	MG	YA	3533	1/1	0.90	0.15	59,59,59,59	0
56	MG	YA	3204	1/1	0.90	0.22	64,64,64,64	0
56	MG	YA	3052	1/1	0.90	0.34	50,50,50,50	0
56	MG	YA	3314	1/1	0.90	0.30	48,48,48,48	0
56	MG	YA	3208	1/1	0.90	0.20	61,61,61,61	0
56	MG	YA	3006	1/1	0.90	0.19	50,50,50,50	0
56	MG	YA	3418	1/1	0.90	0.13	51,51,51,51	0
56	MG	YA	3213	1/1	0.90	0.16	65,65,65,65	0
56	MG	YA	3546	1/1	0.90	0.38	61,61,61,61	0
56	MG	YB	201	1/1	0.90	0.12	57,57,57,57	0
56	MG	YA	3214	1/1	0.90	0.07	65,65,65,65	0
56	MG	RA	3129	1/1	0.90	0.22	53,53,53,53	0
56	MG	YA	3055	1/1	0.90	0.45	54,54,54,54	0
56	MG	YA	3008	1/1	0.90	0.28	61,61,61,61	0
56	MG	QA	1654	1/1	0.90	0.09	61,61,61,61	0
56	MG	RA	3326	1/1	0.90	0.18	49,49,49,49	0
56	MG	YP	203	1/1	0.90	0.29	56,56,56,56	0
56	MG	YA	3430	1/1	0.90	0.28	50,50,50,50	0
56	MG	RA	3288	1/1	0.90	0.18	51,51,51,51	0
56	MG	YA	3331	1/1	0.90	0.19	49,49,49,49	0
56	MG	RA	3406	1/1	0.90	0.10	53,53,53,53	0
56	MG	YA	3333	1/1	0.90	0.39	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3334	1/1	0.90	0.16	53,53,53,53	0
56	MG	YA	3014	1/1	0.90	0.25	64,64,64,64	0
56	MG	RA	3180	1/1	0.90	0.12	49,49,49,49	0
56	MG	YA	3338	1/1	0.90	0.09	58,58,58,58	0
56	MG	YA	3340	1/1	0.90	0.24	48,48,48,48	0
56	MG	RA	3165	1/1	0.90	0.16	66,66,66,66	0
56	MG	RA	3412	1/1	0.90	0.18	61,61,61,61	0
56	MG	YA	3004	1/1	0.91	0.43	50,50,50,50	0
56	MG	YA	3472	1/1	0.91	0.12	66,66,66,66	0
56	MG	XA	1601	1/1	0.91	0.34	58,58,58,58	0
56	MG	YA	3357	1/1	0.91	0.15	53,53,53,53	0
56	MG	RA	3292	1/1	0.91	0.36	66,66,66,66	0
56	MG	YA	3154	1/1	0.91	0.14	49,49,49,49	0
56	MG	RA	3481	1/1	0.91	0.21	50,50,50,50	0
56	MG	RA	3244	1/1	0.91	0.22	50,50,50,50	0
56	MG	RA	3300	1/1	0.91	0.17	54,54,54,54	0
56	MG	RA	3109	1/1	0.91	0.33	48,48,48,48	0
56	MG	RA	3486	1/1	0.91	0.22	49,49,49,49	0
56	MG	QF	201	1/1	0.91	0.10	66,66,66,66	0
56	MG	YA	3265	1/1	0.91	0.30	63,63,63,63	0
56	MG	YA	3490	1/1	0.91	0.09	56,56,56,56	0
56	MG	YA	3495	1/1	0.91	0.21	65,65,65,65	0
56	MG	RA	3216	1/1	0.91	0.09	56,56,56,56	0
56	MG	YA	3167	1/1	0.91	0.17	56,56,56,56	0
56	MG	YA	3272	1/1	0.91	0.14	55,55,55,55	0
56	MG	RA	3218	1/1	0.91	0.16	63,63,63,63	0
56	MG	RA	3184	1/1	0.91	0.17	70,70,70,70	0
56	MG	RA	3307	1/1	0.91	0.22	65,65,65,65	0
56	MG	RA	3113	1/1	0.91	0.20	50,50,50,50	0
56	MG	RA	3310	1/1	0.91	0.39	59,59,59,59	0
56	MG	YA	3285	1/1	0.91	0.22	51,51,51,51	0
56	MG	XA	1630	1/1	0.91	0.18	61,61,61,61	0
56	MG	YA	3090	1/1	0.91	0.23	60,60,60,60	0
56	MG	QA	1601	1/1	0.91	0.24	59,59,59,59	0
56	MG	YA	3290	1/1	0.91	0.12	56,56,56,56	0
56	MG	QA	1606	1/1	0.91	0.21	66,66,66,66	0
56	MG	RA	3226	1/1	0.91	0.32	60,60,60,60	0
56	MG	RA	3194	1/1	0.91	0.08	58,58,58,58	0
56	MG	YA	3518	1/1	0.91	0.08	64,64,64,64	0
56	MG	RA	3157	1/1	0.91	0.26	50,50,50,50	0
56	MG	RA	3264	1/1	0.91	0.37	57,57,57,57	0
56	MG	RA	3503	1/1	0.91	0.08	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3523	1/1	0.91	0.45	52,52,52,52	0
56	MG	RA	3046	1/1	0.91	0.36	66,66,66,66	0
56	MG	RA	3138	1/1	0.91	0.14	59,59,59,59	0
56	MG	RA	3443	1/1	0.91	0.20	58,58,58,58	0
56	MG	RA	3508	1/1	0.91	0.22	47,47,47,47	0
56	MG	RA	3444	1/1	0.91	0.12	59,59,59,59	0
56	MG	YA	3530	1/1	0.91	0.19	54,54,54,54	0
56	MG	RA	3320	1/1	0.91	0.13	56,56,56,56	0
56	MG	RA	3231	1/1	0.91	0.30	65,65,65,65	0
56	MG	RA	3450	1/1	0.91	0.19	67,67,67,67	0
56	MG	RA	3141	1/1	0.91	0.08	63,63,63,63	0
56	MG	RA	3058	1/1	0.91	0.36	52,52,52,52	0
56	MG	RA	3275	1/1	0.91	0.29	61,61,61,61	0
56	MG	XA	1659	1/1	0.91	0.06	52,52,52,52	0
56	MG	YA	3116	1/1	0.91	0.24	54,54,54,54	0
56	MG	RA	3120	1/1	0.91	0.25	52,52,52,52	0
56	MG	RA	3456	1/1	0.91	0.10	63,63,63,63	0
56	MG	RO	202	1/1	0.91	0.22	60,60,60,60	0
56	MG	YA	3436	1/1	0.91	0.10	64,64,64,64	0
56	MG	RA	3059	1/1	0.91	0.10	48,48,48,48	0
56	MG	RQ	201	1/1	0.91	0.17	57,57,57,57	0
56	MG	YA	3441	1/1	0.91	0.15	65,65,65,65	0
56	MG	RA	3393	1/1	0.91	0.26	60,60,60,60	0
56	MG	YA	3223	1/1	0.91	0.20	51,51,51,51	0
56	MG	YD	302	1/1	0.91	0.33	55,55,55,55	0
56	MG	QA	1659	1/1	0.91	0.05	56,56,56,56	0
56	MG	YQ	201	1/1	0.91	0.19	55,55,55,55	0
56	MG	RA	3280	1/1	0.91	0.28	53,53,53,53	0
56	MG	YX	101	1/1	0.91	0.12	51,51,51,51	0
56	MG	RA	3398	1/1	0.91	0.20	62,62,62,62	0
56	MG	Y8	101	1/1	0.91	0.11	66,66,66,66	0
56	MG	RA	3089	1/1	0.91	0.29	56,56,56,56	0
56	MG	YA	3133	1/1	0.91	0.08	54,54,54,54	0
56	MG	RA	3017	1/1	0.91	0.35	50,50,50,50	0
56	MG	RA	3011	1/1	0.91	0.25	58,58,58,58	0
56	MG	YA	3141	1/1	0.91	0.15	60,60,60,60	0
56	MG	YA	3142	1/1	0.91	0.18	75,75,75,75	0
58	ZN	YY	202	1/1	0.91	0.13	189,189,189,189	0
56	MG	YA	3058	1/1	0.91	0.52	57,57,57,57	0
56	MG	QV	102	1/1	0.91	0.10	61,61,61,61	0
56	MG	RA	3290	1/1	0.91	0.21	61,61,61,61	0
56	MG	YA	3247	1/1	0.91	0.23	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	XA	1680	1/1	0.92	0.18	57,57,57,57	0
56	MG	YA	3270	1/1	0.92	0.08	52,52,52,52	0
56	MG	QA	1668	1/1	0.92	0.06	57,57,57,57	0
56	MG	RA	3294	1/1	0.92	0.19	57,57,57,57	0
56	MG	XA	1612	1/1	0.92	0.21	47,47,47,47	0
56	MG	YA	3365	1/1	0.92	0.15	47,47,47,47	0
56	MG	RA	3361	1/1	0.92	0.18	67,67,67,67	0
56	MG	YA	3277	1/1	0.92	0.24	61,61,61,61	0
56	MG	YA	3278	1/1	0.92	0.38	48,48,48,48	0
56	MG	RA	3404	1/1	0.92	0.39	60,60,60,60	0
56	MG	YA	3282	1/1	0.92	0.19	61,61,61,61	0
56	MG	XA	1618	1/1	0.92	0.20	52,52,52,52	0
56	MG	YA	3284	1/1	0.92	0.12	60,60,60,60	0
56	MG	XV	103	1/1	0.92	0.09	59,59,59,59	0
56	MG	YA	3497	1/1	0.92	0.18	67,67,67,67	0
56	MG	YA	3498	1/1	0.92	0.08	66,66,66,66	0
56	MG	YA	3189	1/1	0.92	0.10	65,65,65,65	0
56	MG	RA	3502	1/1	0.92	0.35	65,65,65,65	0
56	MG	YA	3001	1/1	0.92	0.36	60,60,60,60	0
56	MG	RA	3362	1/1	0.92	0.20	61,61,61,61	0
56	MG	YA	3385	1/1	0.92	0.18	61,61,61,61	0
56	MG	YA	3291	1/1	0.92	0.22	64,64,64,64	0
56	MG	RA	3296	1/1	0.92	0.23	58,58,58,58	0
56	MG	QA	1620	1/1	0.92	0.06	62,62,62,62	0
56	MG	YA	3395	1/1	0.92	0.27	64,64,64,64	0
56	MG	RA	3299	1/1	0.92	0.24	48,48,48,48	0
56	MG	YA	3123	1/1	0.92	0.38	67,67,67,67	0
56	MG	YA	3513	1/1	0.92	0.17	67,67,67,67	0
56	MG	YA	3398	1/1	0.92	0.12	50,50,50,50	0
56	MG	QA	1649	1/1	0.92	0.13	70,70,70,70	0
56	MG	RA	3003	1/1	0.92	0.33	49,49,49,49	0
56	MG	YA	3303	1/1	0.92	0.18	54,54,54,54	0
56	MG	RA	3004	1/1	0.92	0.30	60,60,60,60	0
56	MG	RA	3179	1/1	0.92	0.12	67,67,67,67	0
56	MG	RA	3373	1/1	0.92	0.12	69,69,69,69	0
56	MG	YA	3406	1/1	0.92	0.21	58,58,58,58	0
56	MG	YA	3522	1/1	0.92	0.32	79,79,79,79	0
56	MG	RA	3419	1/1	0.92	0.24	63,63,63,63	0
56	MG	YA	3012	1/1	0.92	0.20	62,62,62,62	0
56	MG	RA	3374	1/1	0.92	0.12	59,59,59,59	0
56	MG	RA	3225	1/1	0.92	0.20	50,50,50,50	0
56	MG	YA	3134	1/1	0.92	0.19	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3416	1/1	0.92	0.07	67,67,67,67	0
56	MG	RA	3476	1/1	0.92	0.17	57,57,57,57	0
56	MG	YA	3320	1/1	0.92	0.18	56,56,56,56	0
56	MG	YA	3421	1/1	0.92	0.14	70,70,70,70	0
56	MG	RA	3246	1/1	0.92	0.22	51,51,51,51	0
56	MG	RA	3480	1/1	0.92	0.05	57,57,57,57	0
56	MG	QA	1621	1/1	0.92	0.15	53,53,53,53	0
56	MG	YA	3019	1/1	0.92	0.35	54,54,54,54	0
56	MG	YA	3074	1/1	0.92	0.48	48,48,48,48	0
56	MG	YA	3327	1/1	0.92	0.18	61,61,61,61	0
56	MG	QA	1618	1/1	0.92	0.09	73,73,73,73	0
56	MG	YA	3233	1/1	0.92	0.06	48,48,48,48	0
56	MG	YA	3077	1/1	0.92	0.38	56,56,56,56	0
56	MG	RA	3277	1/1	0.92	0.26	53,53,53,53	0
56	MG	YB	206	1/1	0.92	0.13	49,49,49,49	0
56	MG	RT	201	1/1	0.92	0.13	62,62,62,62	0
56	MG	RU	201	1/1	0.92	0.24	65,65,65,65	0
56	MG	YA	3083	1/1	0.92	0.22	52,52,52,52	0
56	MG	YB	210	1/1	0.92	0.08	78,78,78,78	0
56	MG	YA	3084	1/1	0.92	0.24	66,66,66,66	0
56	MG	RA	3249	1/1	0.92	0.40	51,51,51,51	0
56	MG	RA	3182	1/1	0.92	0.07	77,77,77,77	0
56	MG	YO	201	1/1	0.92	0.25	65,65,65,65	0
56	MG	YA	3342	1/1	0.92	0.14	61,61,61,61	0
56	MG	RA	3436	1/1	0.92	0.11	61,61,61,61	0
56	MG	YA	3451	1/1	0.92	0.20	62,62,62,62	0
56	MG	QA	1627	1/1	0.92	0.11	59,59,59,59	0
56	MG	YX	102	1/1	0.92	0.20	63,63,63,63	0
56	MG	YA	3345	1/1	0.92	0.10	70,70,70,70	0
56	MG	RA	3210	1/1	0.92	0.21	58,58,58,58	0
56	MG	YA	3030	1/1	0.92	0.56	60,60,60,60	0
56	MG	YA	3459	1/1	0.92	0.19	58,58,58,58	0
56	MG	RA	3392	1/1	0.92	0.18	58,58,58,58	0
56	MG	QA	1639	1/1	0.92	0.12	61,61,61,61	0
56	MG	RA	3394	1/1	0.92	0.06	65,65,65,65	0
56	MG	QA	1619	1/1	0.92	0.13	48,48,48,48	0
56	MG	QA	1629	1/1	0.92	0.07	67,67,67,67	0
56	MG	XA	1668	1/1	0.92	0.08	59,59,59,59	0
56	MG	YA	3175	1/1	0.92	0.13	61,61,61,61	0
56	MG	YA	3471	1/1	0.92	0.07	65,65,65,65	0
56	MG	QV	105	1/1	0.92	0.23	54,54,54,54	0
56	MG	XA	1660	1/1	0.93	0.18	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3285	1/1	0.93	0.11	58,58,58,58	0
56	MG	YA	3230	1/1	0.93	0.10	66,66,66,66	0
56	MG	RA	3205	1/1	0.93	0.30	61,61,61,61	0
56	MG	RA	3082	1/1	0.93	0.10	53,53,53,53	0
56	MG	XA	1665	1/1	0.93	0.07	60,60,60,60	0
56	MG	RA	3124	1/1	0.93	0.11	54,54,54,54	0
56	MG	RA	3479	1/1	0.93	0.18	57,57,57,57	0
56	MG	YA	3239	1/1	0.93	0.26	50,50,50,50	0
56	MG	RA	3321	1/1	0.93	0.20	57,57,57,57	0
56	MG	XA	1674	1/1	0.93	0.07	56,56,56,56	0
56	MG	XA	1676	1/1	0.93	0.10	50,50,50,50	0
56	MG	XA	1678	1/1	0.93	0.12	62,62,62,62	0
56	MG	YA	3135	1/1	0.93	0.14	55,55,55,55	0
56	MG	RA	3158	1/1	0.93	0.07	61,61,61,61	0
56	MG	XA	1681	1/1	0.93	0.10	61,61,61,61	0
56	MG	RA	3324	1/1	0.93	0.14	50,50,50,50	0
56	MG	XE	201	1/1	0.93	0.05	53,53,53,53	0
56	MG	RA	3291	1/1	0.93	0.30	54,54,54,54	0
56	MG	YA	3253	1/1	0.93	0.19	60,60,60,60	0
56	MG	YA	3366	1/1	0.93	0.04	62,62,62,62	0
56	MG	RA	3328	1/1	0.93	0.22	48,48,48,48	0
56	MG	QA	1615	1/1	0.93	0.17	57,57,57,57	0
56	MG	XA	1602	1/1	0.93	0.19	61,61,61,61	0
56	MG	RA	3330	1/1	0.93	0.13	53,53,53,53	0
56	MG	RA	3293	1/1	0.93	0.24	61,61,61,61	0
56	MG	XV	104	1/1	0.93	0.07	49,49,49,49	0
56	MG	YA	3264	1/1	0.93	0.16	51,51,51,51	0
56	MG	YA	3378	1/1	0.93	0.13	58,58,58,58	0
56	MG	XA	1606	1/1	0.93	0.30	60,60,60,60	0
56	MG	YA	3067	1/1	0.93	0.49	63,63,63,63	0
56	MG	QA	1634	1/1	0.93	0.13	52,52,52,52	0
56	MG	RA	3431	1/1	0.93	0.06	53,53,53,53	0
56	MG	RA	3163	1/1	0.93	0.16	52,52,52,52	0
56	MG	RA	3297	1/1	0.93	0.19	55,55,55,55	0
56	MG	YA	3386	1/1	0.93	0.17	66,66,66,66	0
56	MG	YA	3388	1/1	0.93	0.20	54,54,54,54	0
56	MG	YA	3073	1/1	0.93	0.11	64,64,64,64	0
56	MG	RA	3386	1/1	0.93	0.20	55,55,55,55	0
56	MG	YA	3392	1/1	0.93	0.10	66,66,66,66	0
56	MG	RA	3262	1/1	0.93	0.21	48,48,48,48	0
56	MG	RA	3188	1/1	0.93	0.20	62,62,62,62	0
56	MG	RA	3389	1/1	0.93	0.18	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3281	1/1	0.93	0.19	62,62,62,62	0
56	MG	RA	3112	1/1	0.93	0.10	55,55,55,55	0
56	MG	YA	3172	1/1	0.93	0.56	66,66,66,66	0
56	MG	YA	3081	1/1	0.93	0.48	49,49,49,49	0
56	MG	RA	3021	1/1	0.93	0.15	63,63,63,63	0
56	MG	RA	3032	1/1	0.93	0.32	51,51,51,51	0
56	MG	RA	3447	1/1	0.93	0.26	48,48,48,48	0
56	MG	RA	3217	1/1	0.93	0.11	50,50,50,50	0
56	MG	RA	3272	1/1	0.93	0.33	59,59,59,59	0
56	MG	RA	3066	1/1	0.93	0.40	57,57,57,57	0
56	MG	YA	3293	1/1	0.93	0.16	56,56,56,56	0
56	MG	RA	3396	1/1	0.93	0.20	59,59,59,59	0
56	MG	YA	3181	1/1	0.93	0.30	50,50,50,50	0
56	MG	YA	3182	1/1	0.93	0.06	51,51,51,51	0
56	MG	XA	1633	1/1	0.93	0.18	50,50,50,50	0
56	MG	YA	3417	1/1	0.93	0.23	48,48,48,48	0
56	MG	XA	1634	1/1	0.93	0.11	60,60,60,60	0
56	MG	YA	3185	1/1	0.93	0.17	66,66,66,66	0
56	MG	YA	3186	1/1	0.93	0.18	65,65,65,65	0
56	MG	QA	1605	1/1	0.93	0.31	47,47,47,47	0
56	MG	QA	1667	1/1	0.93	0.14	70,70,70,70	0
56	MG	YA	3021	1/1	0.93	0.33	47,47,47,47	0
56	MG	RB	202	1/1	0.93	0.08	49,49,49,49	0
56	MG	XA	1640	1/1	0.93	0.25	48,48,48,48	0
56	MG	RA	3309	1/1	0.93	0.17	53,53,53,53	0
56	MG	RA	3245	1/1	0.93	0.16	60,60,60,60	0
56	MG	RA	3460	1/1	0.93	0.09	47,47,47,47	0
56	MG	RA	3080	1/1	0.93	0.23	64,64,64,64	0
56	MG	RA	3223	1/1	0.93	0.41	55,55,55,55	0
56	MG	RA	3121	1/1	0.93	0.24	57,57,57,57	0
56	MG	RF	301	1/1	0.93	0.15	50,50,50,50	0
56	MG	RA	3069	1/1	0.93	0.15	61,61,61,61	0
56	MG	YA	3209	1/1	0.93	0.14	56,56,56,56	0
56	MG	XA	1652	1/1	0.93	0.17	53,53,53,53	0
56	MG	RA	3467	1/1	0.93	0.19	52,52,52,52	0
56	MG	Y7	101	1/1	0.93	0.10	63,63,63,63	0
56	MG	RA	3360	1/1	0.93	0.14	61,61,61,61	0
56	MG	YA	3216	1/1	0.93	0.15	60,60,60,60	0
56	MG	YA	3112	1/1	0.93	0.14	55,55,55,55	0
56	MG	YA	3452	1/1	0.93	0.17	65,65,65,65	0
56	MG	RA	3204	1/1	0.93	0.15	61,61,61,61	0
56	MG	RA	3470	1/1	0.93	0.08	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3037	1/1	0.93	0.33	63,63,63,63	0
56	MG	RQ	202	1/1	0.93	0.23	56,56,56,56	0
56	MG	RA	3411	1/1	0.93	0.30	53,53,53,53	0
56	MG	YA	3225	1/1	0.93	0.17	57,57,57,57	0
56	MG	YA	3121	1/1	0.93	0.14	56,56,56,56	0
56	MG	YA	3464	1/1	0.93	0.06	57,57,57,57	0
56	MG	QA	1642	1/1	0.94	0.07	54,54,54,54	0
56	MG	YA	3107	1/1	0.94	0.09	61,61,61,61	0
56	MG	RA	3421	1/1	0.94	0.15	61,61,61,61	0
56	MG	XA	1637	1/1	0.94	0.10	51,51,51,51	0
56	MG	RA	3183	1/1	0.94	0.05	59,59,59,59	0
56	MG	YA	3113	1/1	0.94	0.13	49,49,49,49	0
56	MG	XA	1639	1/1	0.94	0.04	54,54,54,54	0
56	MG	YA	3431	1/1	0.94	0.20	52,52,52,52	0
56	MG	RA	3201	1/1	0.94	0.08	62,62,62,62	0
56	MG	RA	3266	1/1	0.94	0.34	65,65,65,65	0
56	MG	YA	3117	1/1	0.94	0.23	54,54,54,54	0
56	MG	QA	1650	1/1	0.94	0.07	61,61,61,61	0
56	MG	YA	3119	1/1	0.94	0.26	66,66,66,66	0
56	MG	YA	3440	1/1	0.94	0.11	47,47,47,47	0
56	MG	QA	1614	1/1	0.94	0.14	50,50,50,50	0
56	MG	YA	3442	1/1	0.94	0.23	69,69,69,69	0
56	MG	YA	3075	1/1	0.94	0.15	48,48,48,48	0
56	MG	YA	3373	1/1	0.94	0.21	57,57,57,57	0
56	MG	YA	3241	1/1	0.94	0.28	57,57,57,57	0
56	MG	RA	3270	1/1	0.94	0.33	56,56,56,56	0
56	MG	RA	3159	1/1	0.94	0.12	58,58,58,58	0
56	MG	RA	3432	1/1	0.94	0.20	67,67,67,67	0
56	MG	RA	3506	1/1	0.94	0.08	104,104,104,104	0
56	MG	RA	3094	1/1	0.94	0.23	51,51,51,51	0
56	MG	RA	3474	1/1	0.94	0.08	61,61,61,61	0
56	MG	RA	3369	1/1	0.94	0.17	54,54,54,54	0
56	MG	RA	3370	1/1	0.94	0.17	64,64,64,64	0
56	MG	RA	3295	1/1	0.94	0.34	65,65,65,65	0
56	MG	YA	3252	1/1	0.94	0.31	59,59,59,59	0
56	MG	RA	3161	1/1	0.94	0.09	54,54,54,54	0
56	MG	YA	3387	1/1	0.94	0.29	57,57,57,57	0
56	MG	RA	3193	1/1	0.94	0.25	51,51,51,51	0
56	MG	YA	3324	1/1	0.94	0.14	61,61,61,61	0
56	MG	RA	3152	1/1	0.94	0.14	56,56,56,56	0
56	MG	YB	203	1/1	0.94	0.04	66,66,66,66	0
56	MG	RA	3240	1/1	0.94	0.22	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3137	1/1	0.94	0.20	49,49,49,49	0
56	MG	XA	1661	1/1	0.94	0.12	52,52,52,52	0
56	MG	RA	3378	1/1	0.94	0.20	51,51,51,51	0
56	MG	YA	3263	1/1	0.94	0.19	67,67,67,67	0
56	MG	RA	3408	1/1	0.94	0.13	68,68,68,68	0
56	MG	XA	1623	1/1	0.94	0.07	66,66,66,66	0
56	MG	RA	3255	1/1	0.94	0.22	59,59,59,59	0
56	MG	QA	1608	1/1	0.94	0.14	52,52,52,52	0
56	MG	YE	301	1/1	0.94	0.22	62,62,62,62	0
56	MG	RA	3128	1/1	0.94	0.28	64,64,64,64	0
56	MG	YP	201	1/1	0.94	0.06	56,56,56,56	0
56	MG	YA	3271	1/1	0.94	0.23	50,50,50,50	0
56	MG	YA	3404	1/1	0.94	0.12	66,66,66,66	0
56	MG	YA	3148	1/1	0.94	0.12	54,54,54,54	0
56	MG	YA	3056	1/1	0.94	0.08	48,48,48,48	0
56	MG	RA	3490	1/1	0.94	0.17	59,59,59,59	0
56	MG	YA	3489	1/1	0.94	0.38	67,67,67,67	0
56	MG	RA	3383	1/1	0.94	0.07	52,52,52,52	0
56	MG	YA	3491	1/1	0.94	0.09	56,56,56,56	0
56	MG	YA	3494	1/1	0.94	0.12	55,55,55,55	0
56	MG	RA	3303	1/1	0.94	0.41	64,64,64,64	0
56	MG	YA	3215	1/1	0.94	0.22	51,51,51,51	0
56	MG	YA	3156	1/1	0.94	0.21	61,61,61,61	0
56	MG	YA	3415	1/1	0.94	0.06	48,48,48,48	0
56	MG	QA	1647	1/1	0.94	0.11	55,55,55,55	0
56	MG	RA	3355	1/1	0.94	0.07	59,59,59,59	0
56	MG	YA	3350	1/1	0.94	0.06	81,81,81,81	0
56	MG	YA	3159	1/1	0.94	0.10	65,65,65,65	0
56	MG	YA	3504	1/1	0.94	0.14	58,58,58,58	0
56	MG	RA	3260	1/1	0.94	0.27	64,64,64,64	0
56	MG	RA	3356	1/1	0.95	0.15	64,64,64,64	0
56	MG	XA	1667	1/1	0.95	0.10	56,56,56,56	0
56	MG	RA	3164	1/1	0.95	0.14	60,60,60,60	0
56	MG	XA	1669	1/1	0.95	0.09	50,50,50,50	0
56	MG	XA	1670	1/1	0.95	0.10	70,70,70,70	0
56	MG	XA	1672	1/1	0.95	0.06	53,53,53,53	0
56	MG	YA	3192	1/1	0.95	0.13	55,55,55,55	0
56	MG	YA	3336	1/1	0.95	0.06	52,52,52,52	0
56	MG	YA	3195	1/1	0.95	0.08	48,48,48,48	0
56	MG	RA	3203	1/1	0.95	0.09	54,54,54,54	0
56	MG	RA	3327	1/1	0.95	0.21	59,59,59,59	0
56	MG	YA	3341	1/1	0.95	0.13	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	XA	1626	1/1	0.95	0.10	65,65,65,65	0
56	MG	YA	3269	1/1	0.95	0.35	57,57,57,57	0
56	MG	YA	3138	1/1	0.95	0.20	66,66,66,66	0
56	MG	XA	1677	1/1	0.95	0.05	73,73,73,73	0
56	MG	YA	3203	1/1	0.95	0.25	61,61,61,61	0
56	MG	RE	301	1/1	0.95	0.17	59,59,59,59	0
56	MG	YA	3274	1/1	0.95	0.31	49,49,49,49	0
56	MG	YA	3205	1/1	0.95	0.14	57,57,57,57	0
56	MG	RA	3103	1/1	0.95	0.18	50,50,50,50	0
56	MG	YA	3427	1/1	0.95	0.09	57,57,57,57	0
56	MG	RA	3166	1/1	0.95	0.20	54,54,54,54	0
56	MG	YA	3352	1/1	0.95	0.08	62,62,62,62	0
56	MG	QA	1630	1/1	0.95	0.06	60,60,60,60	0
56	MG	RA	3125	1/1	0.95	0.09	56,56,56,56	0
56	MG	RA	3118	1/1	0.95	0.15	66,66,66,66	0
56	MG	YA	3434	1/1	0.95	0.09	56,56,56,56	0
56	MG	YA	3435	1/1	0.95	0.07	56,56,56,56	0
56	MG	RA	3400	1/1	0.95	0.05	52,52,52,52	0
56	MG	RA	3095	1/1	0.95	0.09	53,53,53,53	0
56	MG	YA	3358	1/1	0.95	0.28	49,49,49,49	0
56	MG	RA	3232	1/1	0.95	0.30	66,66,66,66	0
56	MG	YA	3153	1/1	0.95	0.15	59,59,59,59	0
56	MG	RA	3335	1/1	0.95	0.04	53,53,53,53	0
56	MG	RA	3190	1/1	0.95	0.07	53,53,53,53	0
56	MG	RA	3147	1/1	0.95	0.34	64,64,64,64	0
56	MG	YA	3447	1/1	0.95	0.08	55,55,55,55	0
56	MG	RA	3284	1/1	0.95	0.08	62,62,62,62	0
56	MG	RA	3192	1/1	0.95	0.15	66,66,66,66	0
56	MG	YA	3541	1/1	0.95	0.18	57,57,57,57	0
56	MG	RA	3341	1/1	0.95	0.23	58,58,58,58	0
56	MG	YA	3368	1/1	0.95	0.13	57,57,57,57	0
56	MG	YA	3369	1/1	0.95	0.10	52,52,52,52	0
56	MG	YA	3370	1/1	0.95	0.20	50,50,50,50	0
56	MG	YA	3294	1/1	0.95	0.09	55,55,55,55	0
56	MG	YB	204	1/1	0.95	0.23	58,58,58,58	0
56	MG	RA	3376	1/1	0.95	0.19	67,67,67,67	0
56	MG	RA	3047	1/1	0.95	0.12	59,59,59,59	0
56	MG	R1	102	1/1	0.95	0.23	60,60,60,60	0
56	MG	RA	3455	1/1	0.95	0.06	50,50,50,50	0
56	MG	XA	1648	1/1	0.95	0.08	61,61,61,61	0
56	MG	YA	3463	1/1	0.95	0.09	55,55,55,55	0
56	MG	RA	3259	1/1	0.95	0.10	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3174	1/1	0.95	0.10	65,65,65,65	0
56	MG	YD	301	1/1	0.95	0.24	62,62,62,62	0
56	MG	RA	3458	1/1	0.95	0.08	53,53,53,53	0
56	MG	RA	3261	1/1	0.95	0.20	56,56,56,56	0
56	MG	YA	3309	1/1	0.95	0.29	49,49,49,49	0
56	MG	YA	3310	1/1	0.95	0.38	63,63,63,63	0
56	MG	YP	202	1/1	0.95	0.27	66,66,66,66	0
56	MG	RA	3175	1/1	0.95	0.10	63,63,63,63	0
56	MG	YA	3384	1/1	0.95	0.39	61,61,61,61	0
56	MG	YQ	202	1/1	0.95	0.18	52,52,52,52	0
56	MG	YA	3473	1/1	0.95	0.14	63,63,63,63	0
56	MG	YA	3474	1/1	0.95	0.13	64,64,64,64	0
56	MG	RA	3382	1/1	0.95	0.07	59,59,59,59	0
56	MG	RA	3418	1/1	0.95	0.09	54,54,54,54	0
56	MG	QA	1613	1/1	0.95	0.10	50,50,50,50	0
56	MG	XA	1610	1/1	0.95	0.13	59,59,59,59	0
56	MG	YA	3244	1/1	0.95	0.23	51,51,51,51	0
56	MG	YA	3318	1/1	0.95	0.09	65,65,65,65	0
56	MG	RA	3384	1/1	0.95	0.05	65,65,65,65	0
56	MG	YA	3066	1/1	0.95	0.22	58,58,58,58	0
56	MG	RA	3177	1/1	0.95	0.06	59,59,59,59	0
56	MG	YA	3068	1/1	0.95	0.14	55,55,55,55	0
56	MG	XA	1614	1/1	0.95	0.18	53,53,53,53	0
56	MG	RA	3198	1/1	0.95	0.12	55,55,55,55	0
56	MG	RA	3139	1/1	0.95	0.24	60,60,60,60	0
56	MG	RA	3140	1/1	0.95	0.23	66,66,66,66	0
56	MG	RA	3115	1/1	0.95	0.14	54,54,54,54	0
56	MG	RA	3437	1/1	0.96	0.18	66,66,66,66	0
56	MG	XA	1679	1/1	0.96	0.04	58,58,58,58	0
56	MG	YA	3458	1/1	0.96	0.20	62,62,62,62	0
56	MG	RA	3465	1/1	0.96	0.16	65,65,65,65	0
56	MG	YA	3292	1/1	0.96	0.07	58,58,58,58	0
56	MG	XA	1613	1/1	0.96	0.07	51,51,51,51	0
56	MG	YA	3462	1/1	0.96	0.14	54,54,54,54	0
56	MG	QV	103	1/1	0.96	0.07	58,58,58,58	0
56	MG	RA	3111	1/1	0.96	0.09	56,56,56,56	0
56	MG	YA	3065	1/1	0.96	0.13	47,47,47,47	0
56	MG	YA	3149	1/1	0.96	0.09	63,63,63,63	0
56	MG	RA	3005	1/1	0.96	0.33	57,57,57,57	0
56	MG	XA	1617	1/1	0.96	0.09	67,67,67,67	0
56	MG	YA	3152	1/1	0.96	0.07	53,53,53,53	0
56	MG	RP	202	1/1	0.96	0.06	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3409	1/1	0.96	0.13	58,58,58,58	0
56	MG	YA	3304	1/1	0.96	0.09	65,65,65,65	0
56	MG	YA	3109	1/1	0.96	0.28	59,59,59,59	0
56	MG	RA	3289	1/1	0.96	0.27	65,65,65,65	0
56	MG	YA	3359	1/1	0.96	0.20	55,55,55,55	0
56	MG	YA	3477	1/1	0.96	0.06	65,65,65,65	0
56	MG	YA	3545	1/1	0.96	0.17	48,48,48,48	0
56	MG	YA	3308	1/1	0.96	0.10	49,49,49,49	0
56	MG	YA	3479	1/1	0.96	0.27	66,66,66,66	0
56	MG	YB	202	1/1	0.96	0.15	66,66,66,66	0
56	MG	XA	1620	1/1	0.96	0.08	63,63,63,63	0
56	MG	YA	3256	1/1	0.96	0.36	50,50,50,50	0
56	MG	RA	3083	1/1	0.96	0.19	66,66,66,66	0
56	MG	YA	3483	1/1	0.96	0.04	51,51,51,51	0
56	MG	XA	1655	1/1	0.96	0.10	60,60,60,60	0
56	MG	YA	3207	1/1	0.96	0.24	67,67,67,67	0
56	MG	XV	105	1/1	0.96	0.07	67,67,67,67	0
56	MG	RA	3471	1/1	0.96	0.17	47,47,47,47	0
56	MG	YA	3211	1/1	0.96	0.07	54,54,54,54	0
56	MG	YA	3317	1/1	0.96	0.27	56,56,56,56	0
56	MG	RA	3102	1/1	0.96	0.13	55,55,55,55	0
56	MG	RA	3375	1/1	0.96	0.04	65,65,65,65	0
56	MG	YA	3493	1/1	0.96	0.22	49,49,49,49	0
56	MG	YE	302	1/1	0.96	0.10	63,63,63,63	0
56	MG	QA	1633	1/1	0.96	0.13	64,64,64,64	0
56	MG	QA	1607	1/1	0.96	0.06	60,60,60,60	0
56	MG	QA	1648	1/1	0.96	0.04	60,60,60,60	0
56	MG	RA	3423	1/1	0.96	0.41	65,65,65,65	0
56	MG	QA	1617	1/1	0.96	0.20	57,57,57,57	0
56	MG	RA	3107	1/1	0.96	0.06	50,50,50,50	0
56	MG	QA	1655	1/1	0.96	0.12	63,63,63,63	0
56	MG	YA	3437	1/1	0.96	0.15	50,50,50,50	0
56	MG	RA	3133	1/1	0.96	0.07	56,56,56,56	0
56	MG	RA	3233	1/1	0.96	0.53	67,67,67,67	0
56	MG	YA	3329	1/1	0.96	0.16	48,48,48,48	0
56	MG	RA	3281	1/1	0.96	0.16	56,56,56,56	0
56	MG	RA	3173	1/1	0.96	0.09	57,57,57,57	0
56	MG	RA	3487	1/1	0.96	0.17	66,66,66,66	0
56	MG	XA	1671	1/1	0.96	0.05	64,64,64,64	0
56	MG	RA	3265	1/1	0.96	0.19	56,56,56,56	0
56	MG	QA	1644	1/1	0.96	0.05	60,60,60,60	0
56	MG	RA	3462	1/1	0.96	0.16	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	XA	1675	1/1	0.96	0.08	54,54,54,54	0
56	MG	RA	3323	1/1	0.96	0.20	52,52,52,52	0
56	MG	YA	3286	1/1	0.96	0.34	54,54,54,54	0
56	MG	YA	3139	1/1	0.96	0.14	60,60,60,60	0
56	MG	XA	1642	1/1	0.96	0.06	56,56,56,56	0
56	MG	XA	1625	1/1	0.97	0.07	51,51,51,51	0
56	MG	RA	3442	1/1	0.97	0.34	52,52,52,52	0
56	MG	YA	3193	1/1	0.97	0.23	52,52,52,52	0
56	MG	YA	3279	1/1	0.97	0.44	55,55,55,55	0
56	MG	YA	3194	1/1	0.97	0.09	57,57,57,57	0
56	MG	YA	3235	1/1	0.97	0.10	63,63,63,63	0
56	MG	YA	3536	1/1	0.97	0.18	77,77,77,77	0
56	MG	RA	3054	1/1	0.97	0.16	61,61,61,61	0
56	MG	YA	3238	1/1	0.97	0.19	55,55,55,55	0
56	MG	YA	3196	1/1	0.97	0.26	88,88,88,88	0
56	MG	YA	3130	1/1	0.97	0.05	51,51,51,51	0
56	MG	RA	3422	1/1	0.97	0.10	63,63,63,63	0
56	MG	YA	3543	1/1	0.97	0.17	49,49,49,49	0
56	MG	RA	3055	1/1	0.97	0.19	50,50,50,50	0
56	MG	YA	3164	1/1	0.97	0.17	67,67,67,67	0
56	MG	YA	3201	1/1	0.97	0.06	48,48,48,48	0
56	MG	YA	3165	1/1	0.97	0.09	60,60,60,60	0
56	MG	RA	3348	1/1	0.97	0.04	55,55,55,55	0
56	MG	RA	3185	1/1	0.97	0.09	66,66,66,66	0
56	MG	YA	3492	1/1	0.97	0.14	53,53,53,53	0
56	MG	RA	3449	1/1	0.97	0.04	84,84,84,84	0
56	MG	XQ	201	1/1	0.97	0.04	51,51,51,51	0
56	MG	RA	3186	1/1	0.97	0.28	67,67,67,67	0
56	MG	YA	3390	1/1	0.97	0.07	51,51,51,51	0
56	MG	XA	1608	1/1	0.97	0.08	62,62,62,62	0
56	MG	XA	1609	1/1	0.97	0.14	65,65,65,65	0
56	MG	YA	3210	1/1	0.97	0.12	57,57,57,57	0
56	MG	RA	3214	1/1	0.97	0.09	62,62,62,62	0
56	MG	YA	3301	1/1	0.97	0.29	47,47,47,47	0
56	MG	RA	3410	1/1	0.97	0.22	61,61,61,61	0
56	MG	YA	3257	1/1	0.97	0.10	58,58,58,58	0
56	MG	QA	1632	1/1	0.97	0.10	55,55,55,55	0
56	MG	RA	3267	1/1	0.97	0.18	57,57,57,57	0
56	MG	YA	3306	1/1	0.97	0.09	65,65,65,65	0
56	MG	YA	3508	1/1	0.97	0.06	80,80,80,80	0
56	MG	RA	3074	1/1	0.97	0.11	49,49,49,49	0
56	MG	YA	3085	1/1	0.97	0.13	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3314	1/1	0.97	0.25	63,63,63,63	0
56	MG	RA	3434	1/1	0.97	0.24	50,50,50,50	0
56	MG	RA	3435	1/1	0.97	0.17	57,57,57,57	0
56	MG	RA	3483	1/1	0.97	0.11	53,53,53,53	0
56	MG	YY	201	1/1	0.97	0.10	53,53,53,53	0
56	MG	YA	3266	1/1	0.97	0.02	49,49,49,49	0
56	MG	RA	3415	1/1	0.97	0.13	54,54,54,54	0
56	MG	YA	3410	1/1	0.97	0.10	55,55,55,55	0
56	MG	RA	3399	1/1	0.97	0.07	50,50,50,50	0
56	MG	YA	3412	1/1	0.97	0.15	64,64,64,64	0
56	MG	YA	3224	1/1	0.97	0.13	60,60,60,60	0
56	MG	YA	3122	1/1	0.97	0.07	57,57,57,57	0
56	MG	YA	3469	1/1	0.97	0.08	64,64,64,64	0
56	MG	QA	1640	1/1	0.97	0.09	56,56,56,56	0
56	MG	YA	3524	1/1	0.97	0.27	48,48,48,48	0
56	MG	YA	3227	1/1	0.97	0.08	56,56,56,56	0
56	MG	RA	3070	1/1	0.97	0.13	49,49,49,49	0
56	MG	RA	3077	1/1	0.97	0.16	54,54,54,54	0
56	MG	RA	3359	1/1	0.97	0.05	56,56,56,56	0
56	MG	RA	3346	1/1	0.98	0.29	59,59,59,59	0
56	MG	YA	3221	1/1	0.98	0.04	58,58,58,58	0
56	MG	RA	3459	1/1	0.98	0.09	63,63,63,63	0
56	MG	YA	3500	1/1	0.98	0.10	66,66,66,66	0
56	MG	YA	3339	1/1	0.98	0.11	82,82,82,82	0
56	MG	YA	3531	1/1	0.98	0.07	59,59,59,59	0
56	MG	RA	3283	1/1	0.98	0.26	53,53,53,53	0
56	MG	YA	3445	1/1	0.98	0.03	59,59,59,59	0
56	MG	QA	1646	1/1	0.98	0.22	48,48,48,48	0
56	MG	YA	3092	1/1	0.98	0.09	64,64,64,64	0
56	MG	YA	3393	1/1	0.98	0.07	51,51,51,51	0
56	MG	RA	3365	1/1	0.98	0.06	55,55,55,55	0
56	MG	YA	3166	1/1	0.98	0.07	48,48,48,48	0
56	MG	YA	3147	1/1	0.98	0.07	50,50,50,50	0
56	MG	YA	3111	1/1	0.98	0.08	48,48,48,48	0
56	MG	RA	3325	1/1	0.98	0.07	58,58,58,58	0
56	MG	YA	3299	1/1	0.98	0.04	58,58,58,58	0
56	MG	XA	1604	1/1	0.98	0.05	57,57,57,57	0
56	MG	YA	3457	1/1	0.98	0.12	59,59,59,59	0
56	MG	YA	3254	1/1	0.98	0.35	57,57,57,57	0
57	SF4	QD	301	8/8	0.98	0.05	61,75,124,143	0
56	MG	YA	3079	1/1	0.98	0.09	49,49,49,49	0
56	MG	RA	3336	1/1	0.98	0.10	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3477	1/1	0.98	0.04	59,59,59,59	0
56	MG	QA	1637	1/1	0.98	0.06	65,65,65,65	0
56	MG	YA	3236	1/1	0.98	0.10	89,89,89,89	0
56	MG	RA	3222	1/1	0.98	0.42	47,47,47,47	0
56	MG	RA	3345	1/1	0.98	0.05	55,55,55,55	0
56	MG	RA	3445	1/1	0.98	0.09	55,55,55,55	0
56	MG	R1	101	1/1	0.98	0.23	48,48,48,48	0
56	MG	RA	3425	1/1	0.98	0.08	62,62,62,62	0
56	MG	YA	3428	1/1	0.99	0.05	51,51,51,51	0
56	MG	YA	3539	1/1	0.99	0.07	58,58,58,58	0
56	MG	QY	101	1/1	0.99	0.03	50,50,50,50	0
56	MG	QA	1658	1/1	0.99	0.05	62,62,62,62	0
56	MG	YA	3420	1/1	0.99	0.03	56,56,56,56	0
58	ZN	XN	101	1/1	0.99	0.03	75,75,75,75	0
56	MG	YA	3044	1/1	0.99	0.06	66,66,66,66	0
56	MG	XA	1644	1/1	0.99	0.03	64,64,64,64	0
56	MG	YA	3446	1/1	0.99	0.05	54,54,54,54	0
57	SF4	XD	301	8/8	0.99	0.05	53,60,74,96	0
58	ZN	QN	101	1/1	0.99	0.03	115,115,115,115	0

6.5 Other polymers (i)

There are no such residues in this entry.