Full wwPDB X-ray Structure Validation Report ⓘ

Mar 20, 2026 – 04:32 AM UTC

PDB ID	:	6BUW / pdb_00006buw
Title	:	Thermus thermophilus 70S complex containing 16S G299A ram mutation and empty A site.
Authors	:	Hoffer, E.D.; Maehigashi, T.; Fagan, C.E.; Dunham, C.M.
Deposited on	:	2017-12-11
Resolution	:	3.50 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:

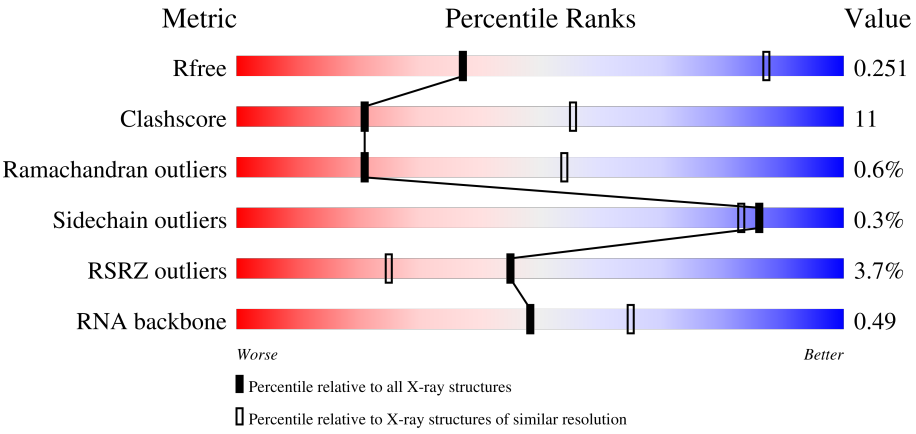
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

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 3.50 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	1085 (3.54-3.46)
Clashscore	190562	1140 (3.54-3.46)
Ramachandran outliers	187476	1113 (3.54-3.46)
Sidechain outliers	187428	1114 (3.54-3.46)
RSRZ outliers	180081	1084 (3.54-3.46)
RNA backbone	3983	1010 (3.98-3.02)

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	48% 43% 9%
1	XA	1508	48% 42% 9%
2	QB	256	58% 34% 8%
2	XB	256	61% 30% 8%

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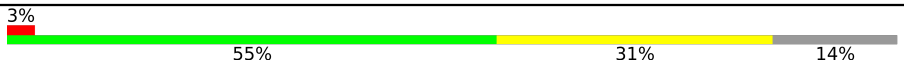
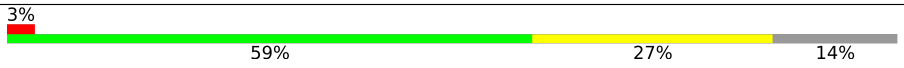
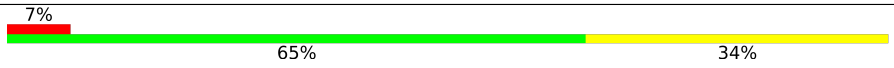
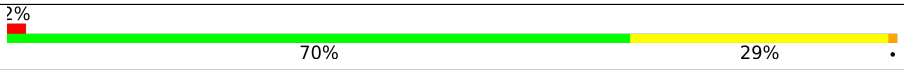
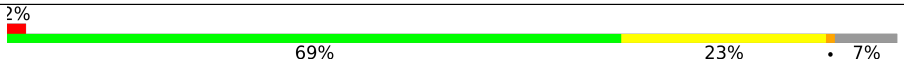
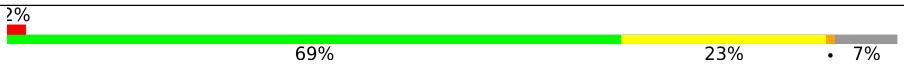
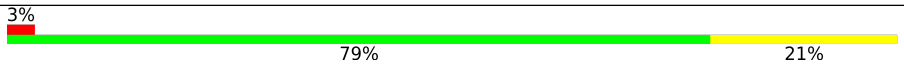
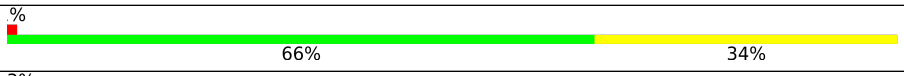
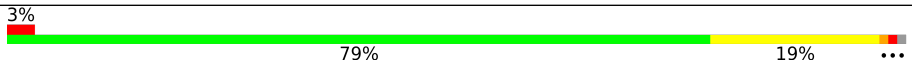
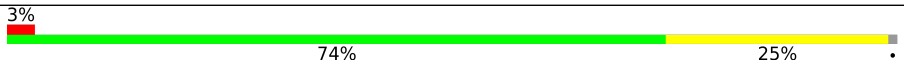
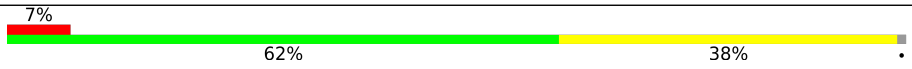
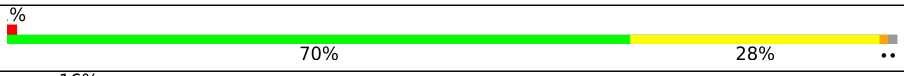
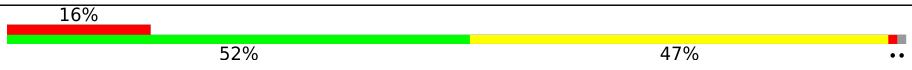
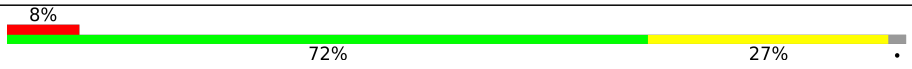
Mol	Chain	Length	Quality of chain
3	QC	239	
3	XC	239	
4	QD	209	
4	XD	209	
5	QE	162	
5	XE	162	
6	QF	101	
6	XF	101	
7	QG	156	
7	XG	156	
8	QH	138	
8	XH	138	
9	QI	128	
9	XI	128	
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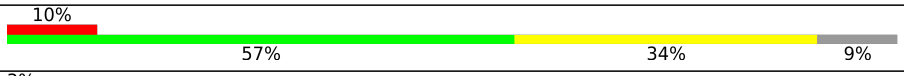
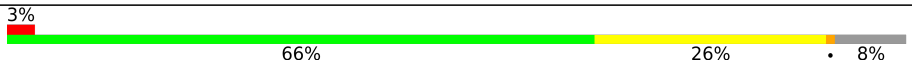
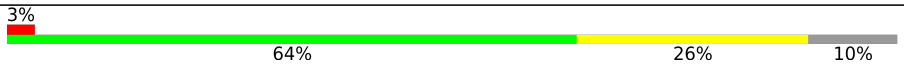
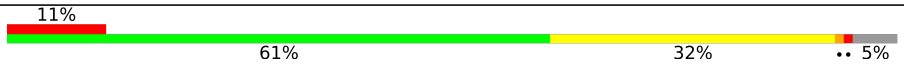
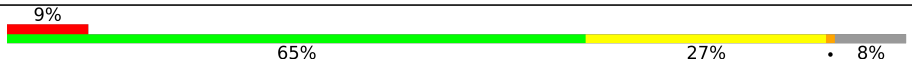
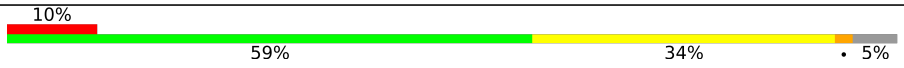
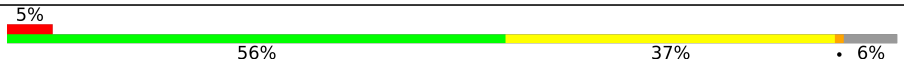
10	XJ	105	
11	QK	129	
11	XK	129	
12	QL	132	
12	XL	132	
13	QM	126	
13	XM	126	
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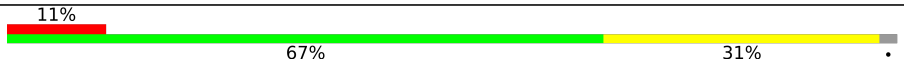
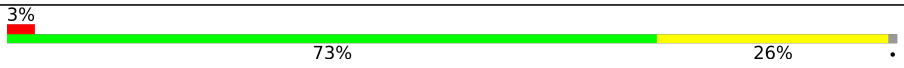
14	XN	61	
15	QO	89	

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Mol	Chain	Length	Quality of chain
15	XO	89	76% 21%
16	QP	88	80% 16% 5%
16	XP	88	10% 67% 28% 5%
17	QQ	105	71% 24% 5%
17	XQ	105	6% 67% 29% 5%
18	QR	88	52% 27% 20%
18	XR	88	55% 24% 20%
19	QS	93	12% 49% 34% 11%
19	XS	93	4% 60% 30% 10%
20	QT	106	6% 61% 30% 7%
20	XT	106	19% 59% 31% 7%
21	QU	27	19% 70% 22% 7%
21	XU	27	11% 67% 26% 7%
22	QV	77	55% 34% 12%
22	XV	77	3% 65% 26% 9%
23	QX	25	32% 16% 28% 52%
23	XX	25	32% 12% 24% 8% 56%
24	RA	2915	51% 39% 8%
24	YA	2915	49% 40% 10%
25	RB	122	51% 34% 14%
25	YB	122	50% 39% 10%
26	RD	276	4% 70% 28%
26	YD	276	3% 68% 30%
27	RE	206	3% 63% 33%
27	YE	206	4% 63% 35%

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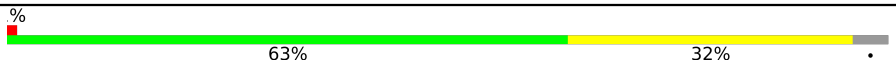
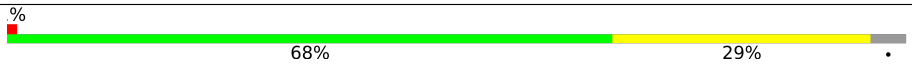
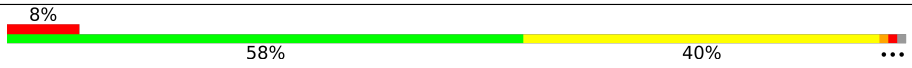
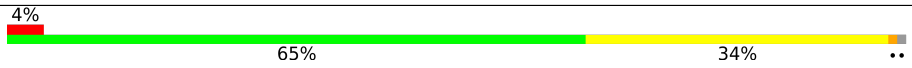
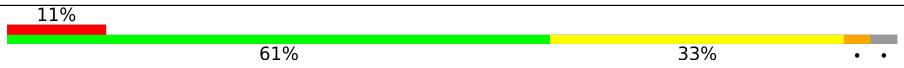
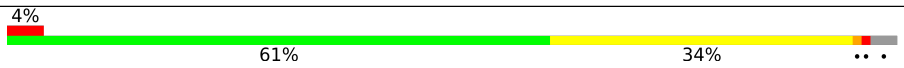
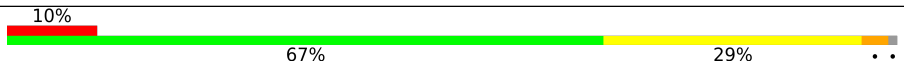
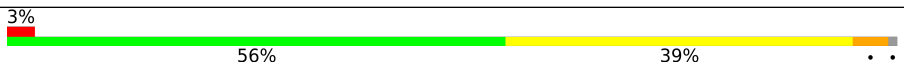
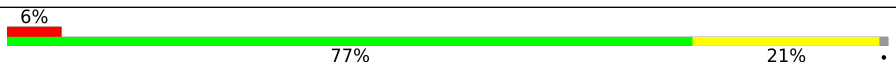
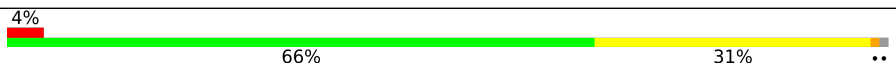
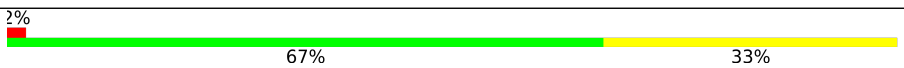
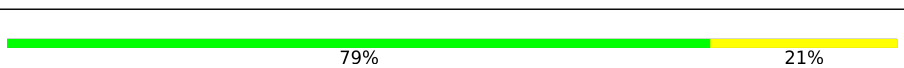
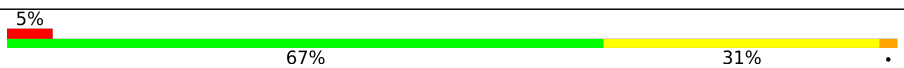
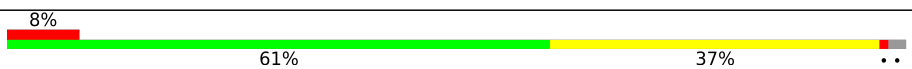
Mol	Chain	Length	Quality of chain
28	RF	210	
28	YF	210	
29	RG	182	
29	YG	182	
30	RH	180	
30	YH	180	
31	RI	148	
31	YI	148	
32	RN	140	
32	YN	140	
33	RO	122	
33	YO	122	
34	RP	150	
34	YP	150	
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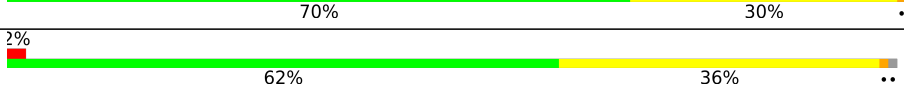
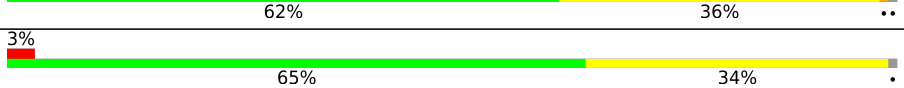
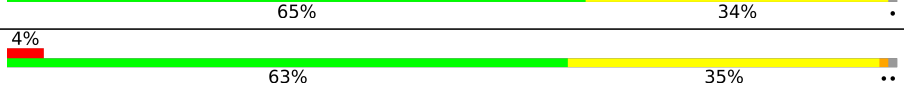
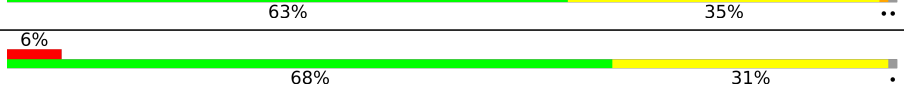
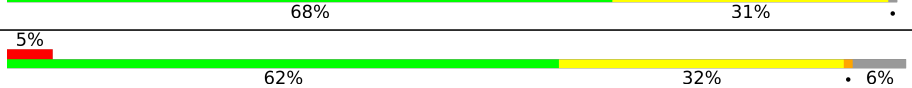
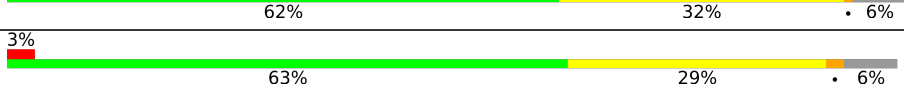
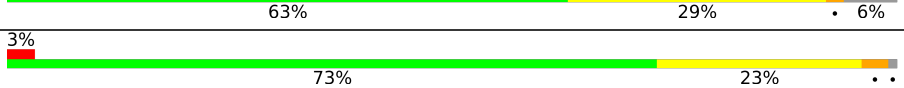
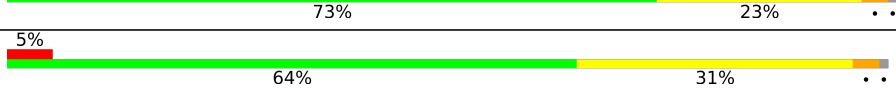
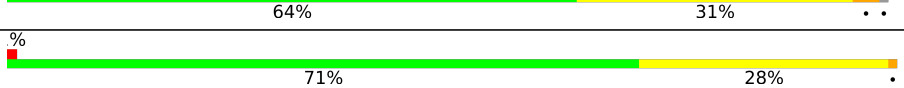
36	RR	118	
36	YR	118	
37	RS	112	
37	YS	112	
38	RT	146	
38	YT	146	
39	RU	118	
39	YU	118	
40	RV	101	

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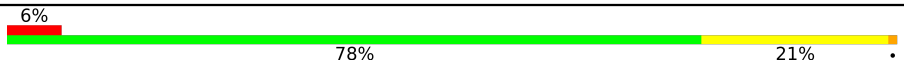
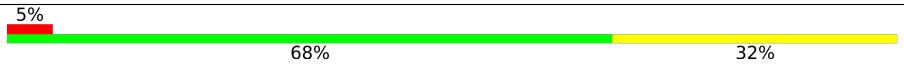
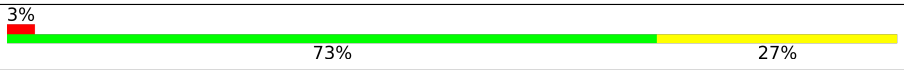
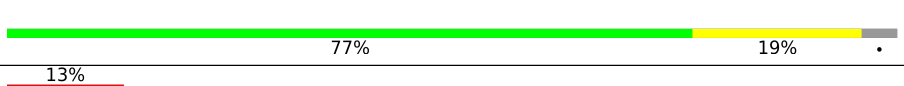
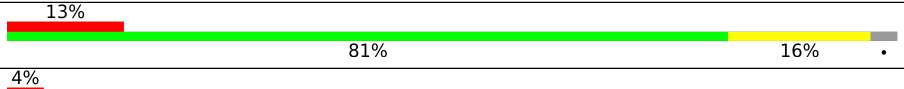
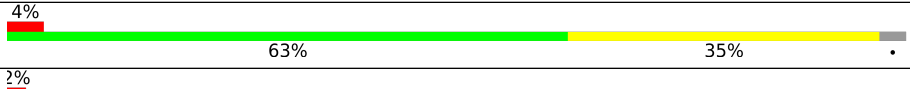
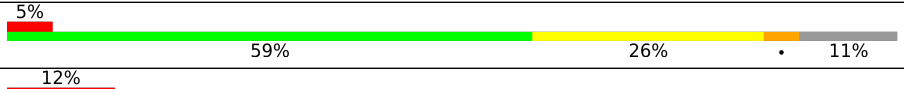
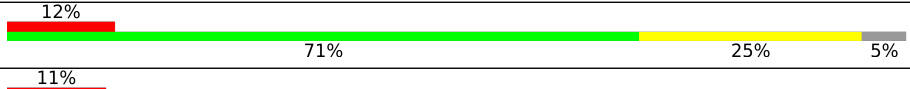
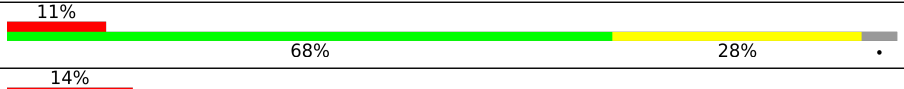
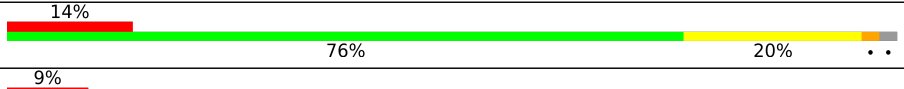
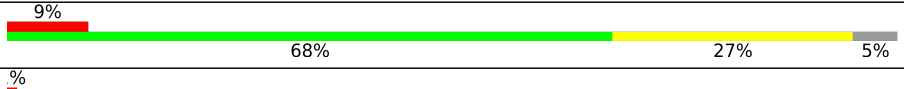
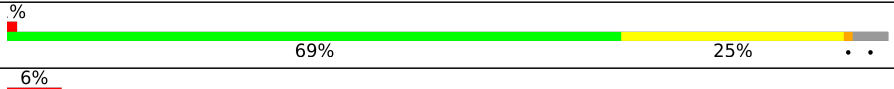
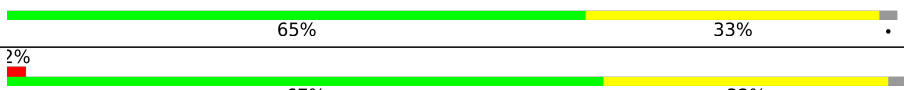
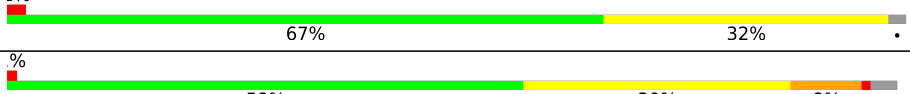
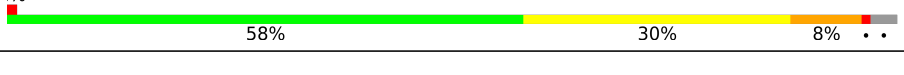
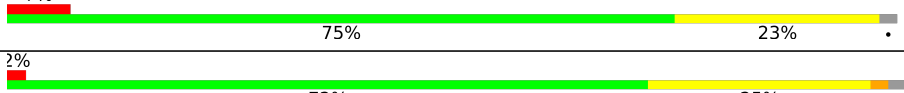
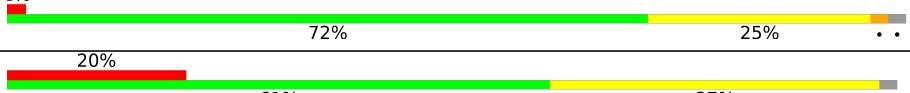
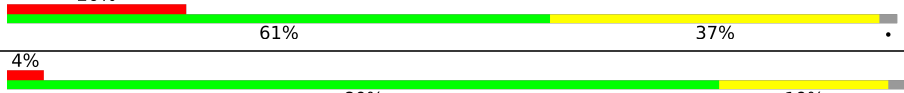
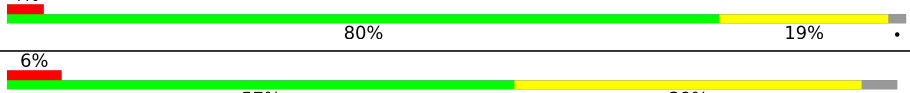
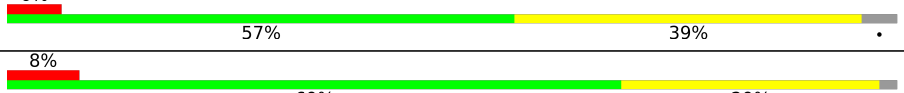
Mol	Chain	Length	Quality of chain
40	YV	101	
41	RW	113	
41	YW	113	
42	RX	96	
42	YX	96	
43	RY	110	
43	YY	110	
44	RZ	206	
44	YZ	206	
45	R0	85	
45	Y0	85	
46	R1	98	
46	Y1	98	
47	R2	72	
47	Y2	72	
48	R3	60	
48	Y3	60	
49	R4	71	
49	Y4	71	
50	R5	60	
50	Y5	60	
51	R6	54	
51	Y6	54	
52	R7	49	
52	Y7	49	

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Mol	Chain	Length	Quality of chain
53	R8	65	14% 57% 37%
53	Y8	65	12% 63% 35%
54	R9	37	24% 78% 22%
54	Y9	37	8% 65% 32%

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
55	MG	QV	106	-	-	-	X
55	MG	RA	3383	-	-	-	X
56	SF4	XD	301	-	-	X	-

2 Entry composition (i)

There are 57 unique types of molecules in this entry. The entry contains 291948 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 32246	C 14353	N 5981	O 10413	P 1499	0	0	0
1	XA	1500	Total 32248	C 14354	N 5984	O 10411	P 1499	0	0	0

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 1907	C 1217	N 342	O 343	S 5	0	0	0
2	XB	236	Total 1915	C 1223	N 343	O 344	S 5	0	0	0

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

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

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

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

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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 734	C 459	N 147	O 126	S 2	0	0	0
15	XO	87	Total 729	C 457	N 146	O 124	S 2	0	0	0

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

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

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

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

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

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

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

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

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

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

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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 P-site 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	XV	77	Total	C	N	O	P	0	0	0
			1644	732	297	538	77			

- Molecule 23 is a RNA chain called messenger RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	QX	12	Total	C	N	O	P	0	0	0
			261	117	51	81	12			
23	XX	11	Total	C	N	O	P	0	0	0
			239	107	46	75	11			

- Molecule 24 is a RNA chain called 23S rRNA.

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

- Molecule 25 is a RNA chain called 5S rRNA.

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

- Molecule 26 is a protein called 50S ribosomal protein L2.

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

- Molecule 27 is a protein called 50S ribosomal protein L3.

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

- Molecule 28 is a protein called 50S ribosomal protein L4.

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

- Molecule 29 is a protein called 50S ribosomal protein L5.

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

- Molecule 30 is a protein called 50S ribosomal protein L6.

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

- Molecule 31 is a protein called 50S ribosomal protein L9.

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

- Molecule 32 is a protein called 50S ribosomal protein L13.

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

- Molecule 33 is a protein called 50S ribosomal protein L14.

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

- Molecule 34 is a protein called 50S ribosomal protein L15.

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

- Molecule 35 is a protein called 50S ribosomal protein L16.

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

- Molecule 36 is a protein called 50S ribosomal protein L17.

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

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

- Molecule 37 is a protein called 50S ribosomal protein L18.

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

- Molecule 38 is a protein called 50S ribosomal protein L19.

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

- Molecule 39 is a protein called 50S ribosomal protein L20.

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

- Molecule 40 is a protein called 50S ribosomal protein L21.

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

- Molecule 41 is a protein called 50S ribosomal protein L22.

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

- Molecule 42 is a protein called 50S ribosomal protein L23.

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

- Molecule 43 is a protein called 50S ribosomal protein L24.

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

- Molecule 44 is a protein called 50S ribosomal protein L25.

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

- Molecule 45 is a protein called 50S ribosomal protein L27.

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

- Molecule 46 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	R1	96	Total	C	N	O	S	0	0	0
			755	475	149	130	1			
46	Y1	93	Total	C	N	O	S	0	0	0
			729	457	145	126	1			

- Molecule 47 is a protein called 50S ribosomal protein L29.

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

- Molecule 48 is a protein called 50S ribosomal protein L30.

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

- Molecule 49 is a protein called 50S ribosomal protein L31.

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

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

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

- Molecule 51 is a protein called 50S ribosomal protein L33.

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

- Molecule 52 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	R7	47	Total	C	N	O	S	0	0	0
			409	251	102	54	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	Y7	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			

- Molecule 53 is a protein called 50S ribosomal protein L35.

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

- Molecule 54 is a protein called 50S ribosomal protein L36.

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

- Molecule 55 is MAGNESIUM ION (CCD ID: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	QA	180	Total	Mg	0	0
			180	180		
55	QC	1	Total	Mg	0	0
			1	1		
55	QF	1	Total	Mg	0	0
			1	1		
55	QH	1	Total	Mg	0	0
			1	1		
55	QL	1	Total	Mg	0	0
			1	1		
55	QV	6	Total	Mg	0	0
			6	6		
55	QX	2	Total	Mg	0	0
			2	2		
55	RA	493	Total	Mg	0	0
			493	493		
55	RB	10	Total	Mg	0	0
			10	10		
55	RD	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	RE	4	Total Mg 4 4	0	0
55	RF	1	Total Mg 1 1	0	0
55	RI	1	Total Mg 1 1	0	0
55	RN	1	Total Mg 1 1	0	0
55	RO	1	Total Mg 1 1	0	0
55	RP	3	Total Mg 3 3	0	0
55	RQ	2	Total Mg 2 2	0	0
55	RT	1	Total Mg 1 1	0	0
55	RU	1	Total Mg 1 1	0	0
55	RW	1	Total Mg 1 1	0	0
55	RX	1	Total Mg 1 1	0	0
55	RY	1	Total Mg 1 1	0	0
55	R0	2	Total Mg 2 2	0	0
55	R1	2	Total Mg 2 2	0	0
55	R5	1	Total Mg 1 1	0	0
55	XA	171	Total Mg 171 171	0	0
55	XE	2	Total Mg 2 2	0	0
55	XL	1	Total Mg 1 1	0	0
55	XM	1	Total Mg 1 1	0	0
55	XQ	1	Total Mg 1 1	0	0
55	XS	1	Total Mg 1 1	0	0

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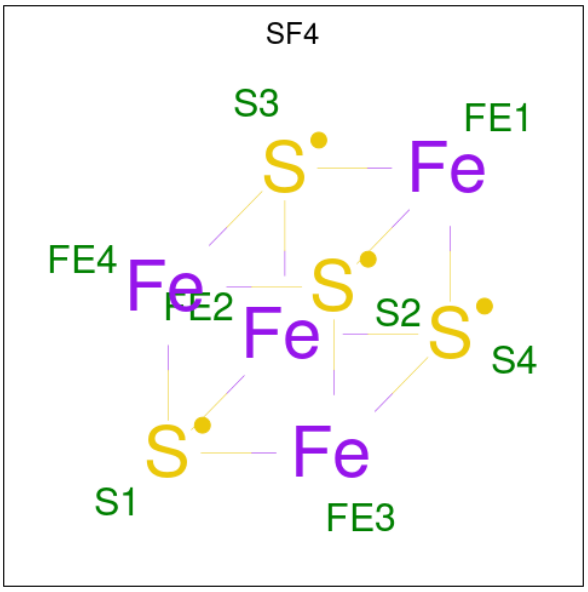
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
55	XV	8	Total Mg 8 8	0	0
55	YA	515	Total Mg 515 515	0	0
55	YB	10	Total Mg 10 10	0	0
55	YD	2	Total Mg 2 2	0	0
55	YE	4	Total Mg 4 4	0	0
55	YO	1	Total Mg 1 1	0	0
55	YP	3	Total Mg 3 3	0	0
55	YQ	3	Total Mg 3 3	0	0
55	YU	1	Total Mg 1 1	0	0
55	YX	2	Total Mg 2 2	0	0
55	YY	1	Total Mg 1 1	0	0
55	Y0	1	Total Mg 1 1	0	0
55	Y5	1	Total Mg 1 1	0	0
55	Y7	1	Total Mg 1 1	0	0
55	Y8	1	Total Mg 1 1	0	0

- Molecule 56 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



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

- Molecule 57 is ZINC ION (CCD ID: ZN) (formula: Zn).

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

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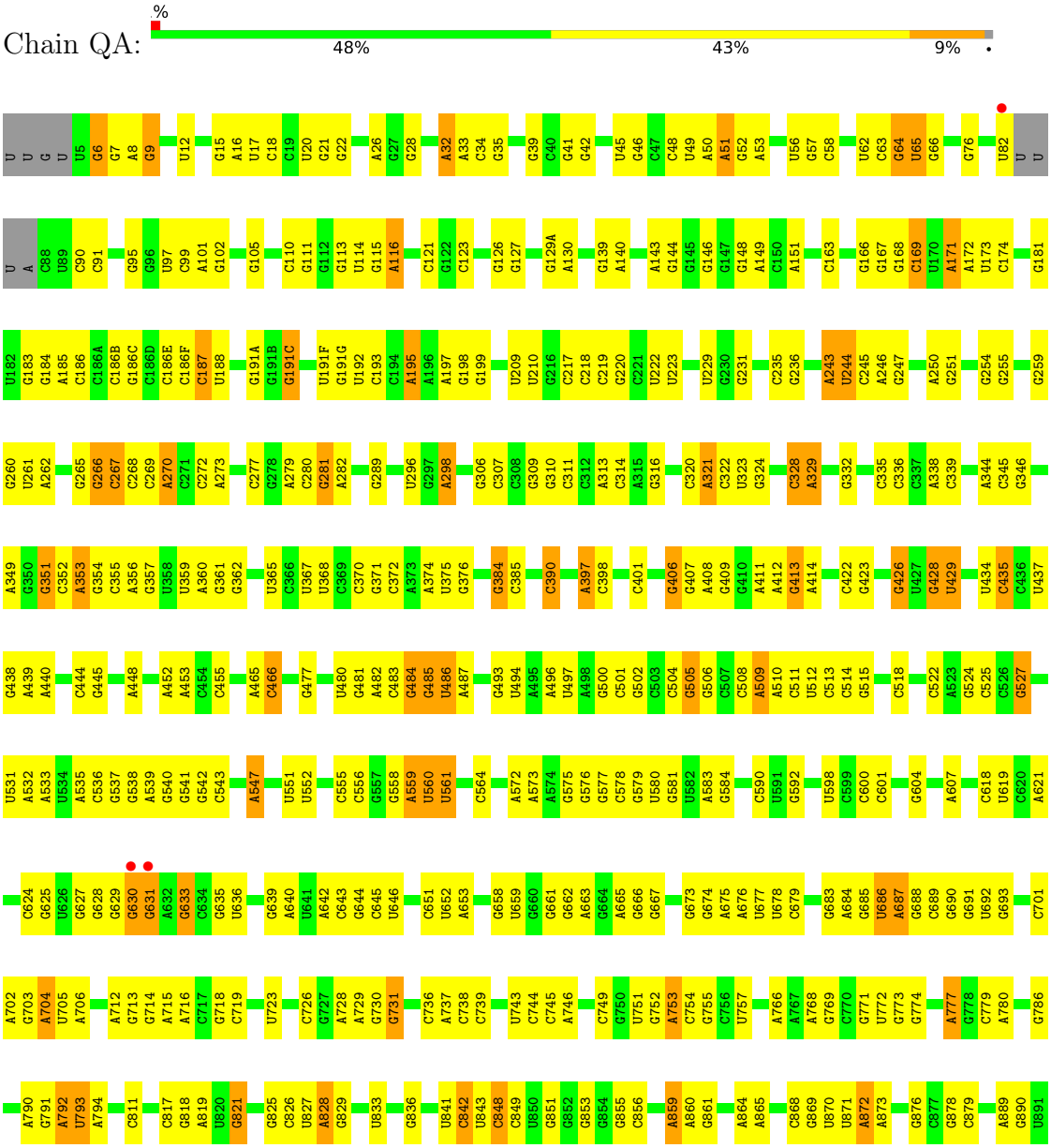
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	Y6	1	Total Zn 1 1	0	0
57	Y9	1	Total Zn 1 1	0	0

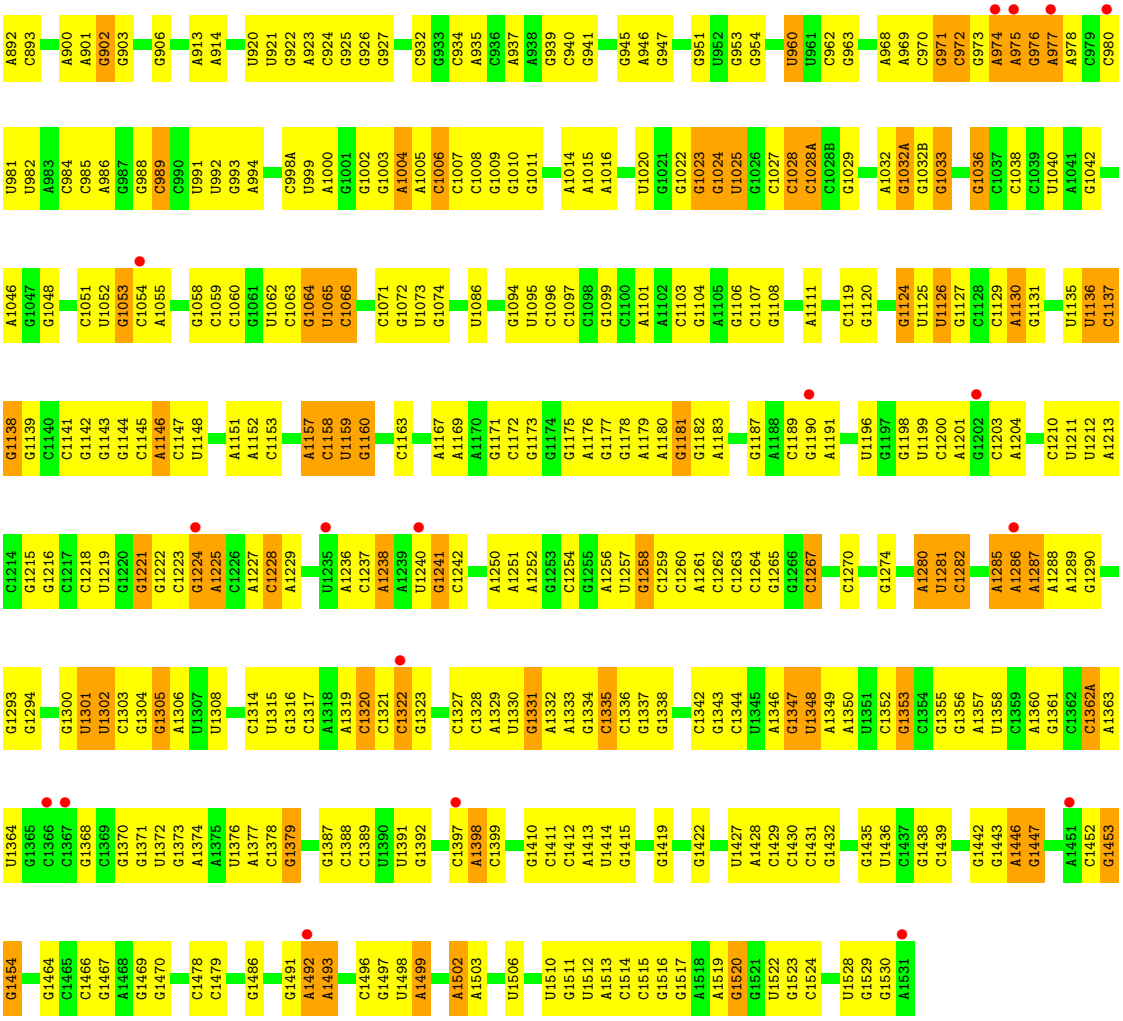
3 Residue-property plots (i)

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

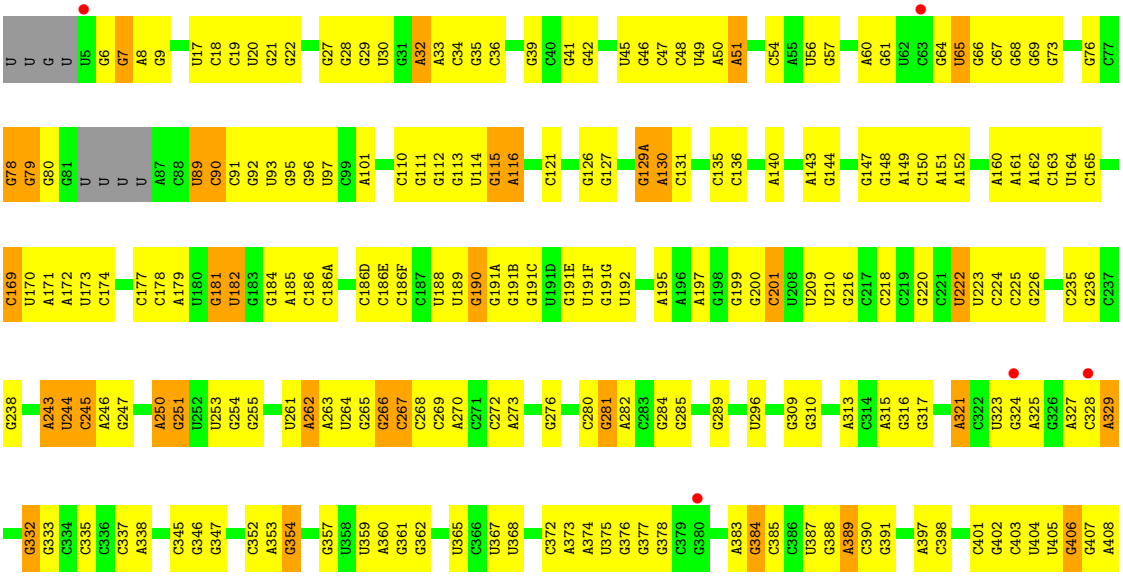
Chain QA:

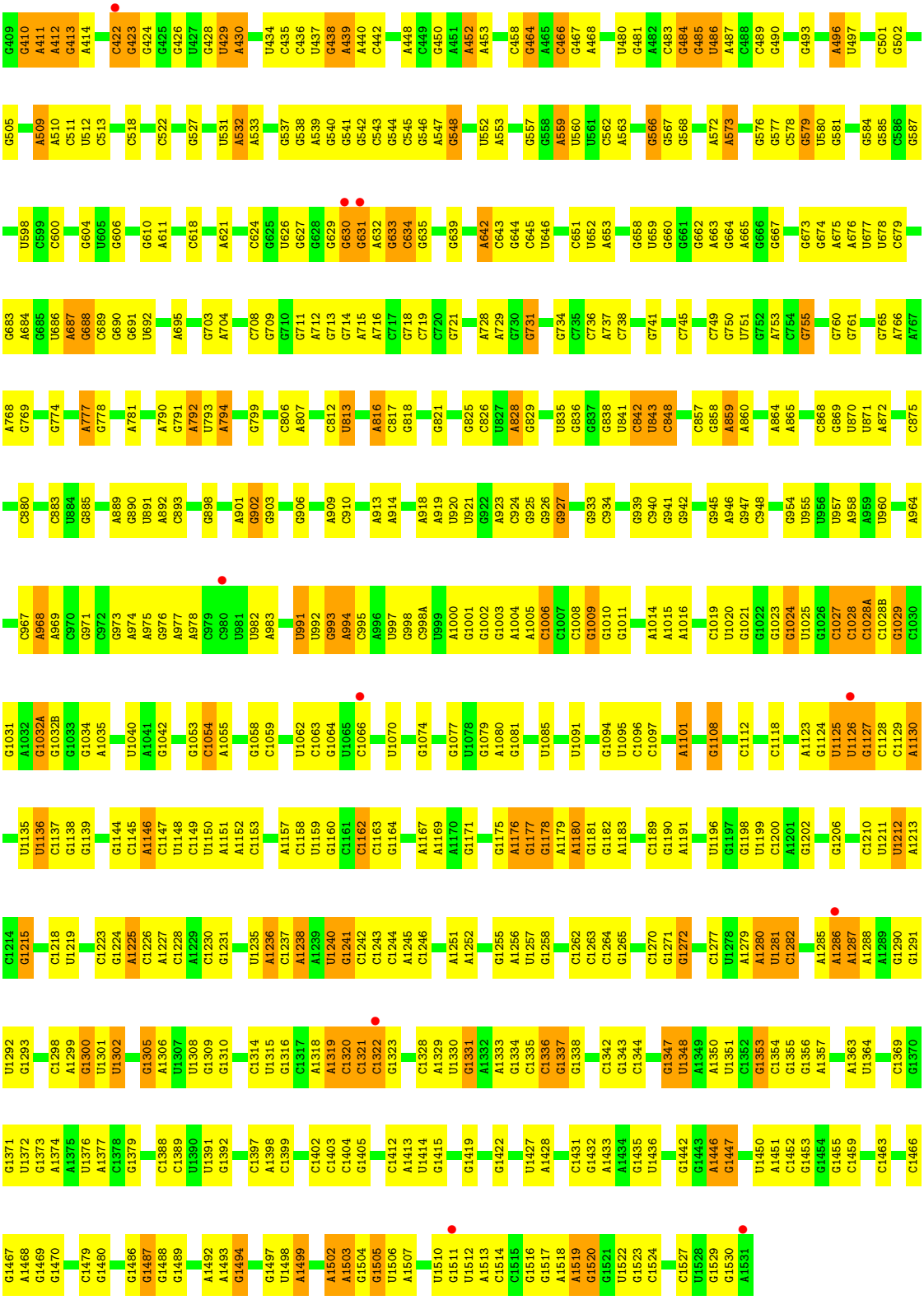




• Molecule 1: 16S rRNA

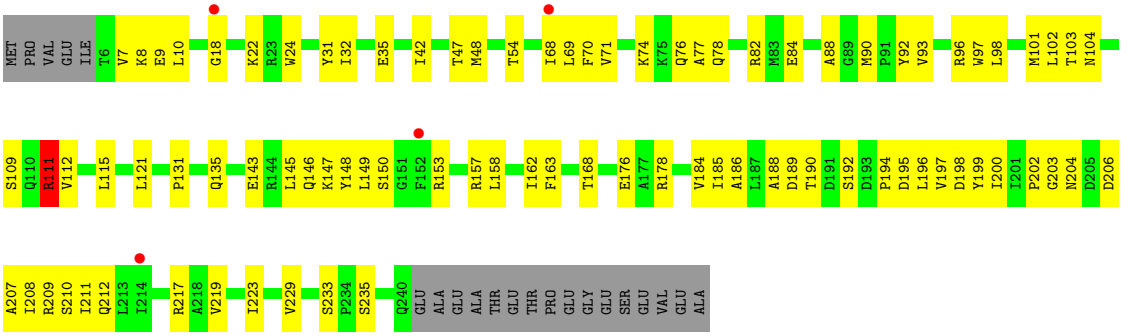
Chain XA:





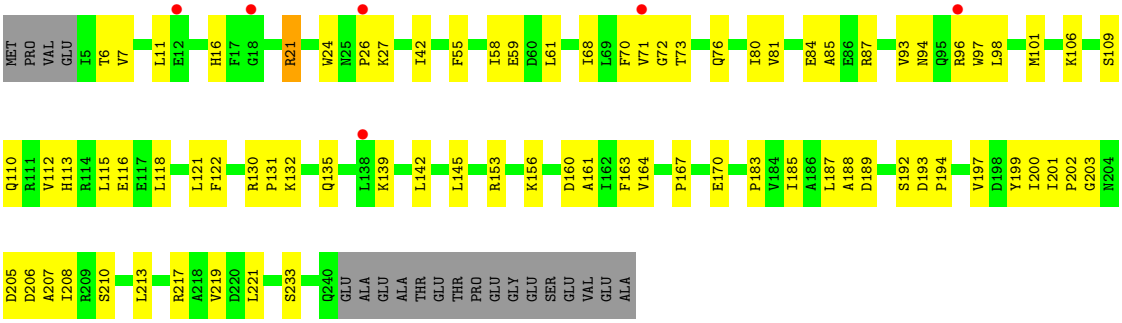
• Molecule 2: 30S ribosomal protein S2

Chain QB:



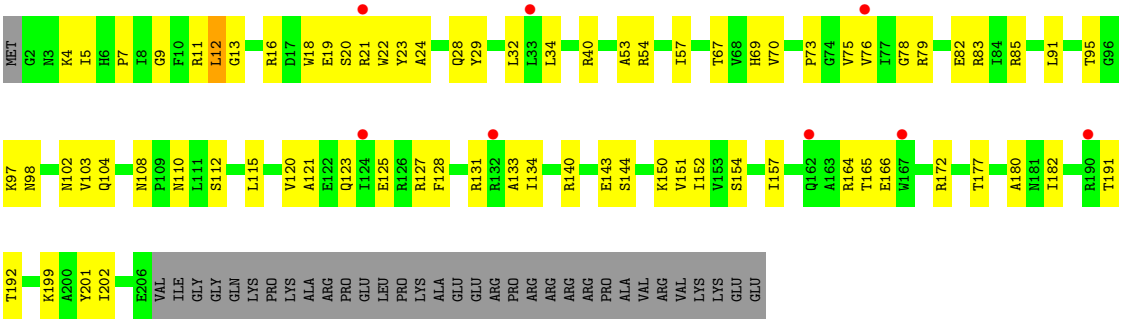
• Molecule 2: 30S ribosomal protein S2

Chain XB:



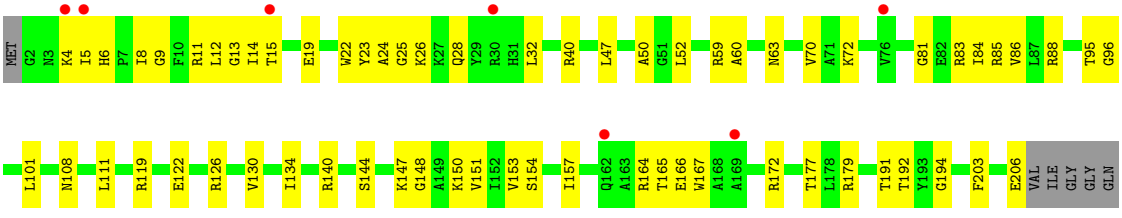
• Molecule 3: 30S ribosomal protein S3

Chain QC:



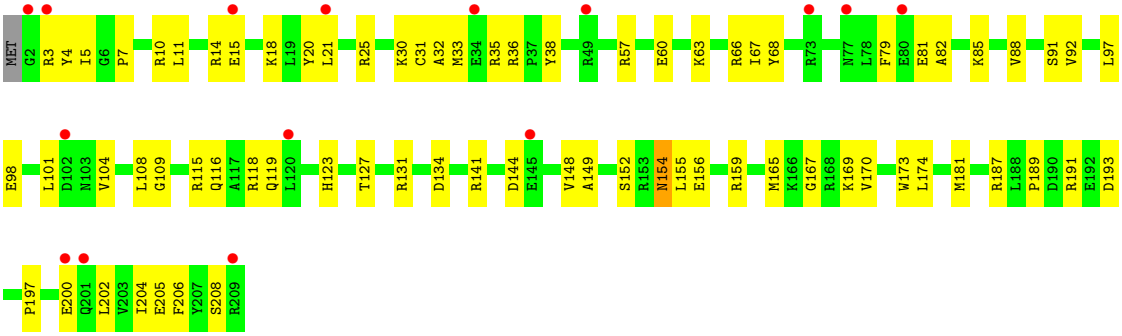
• Molecule 3: 30S ribosomal protein S3

Chain XC:



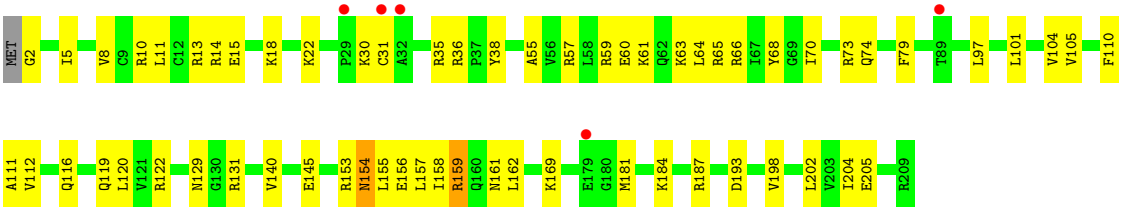
• Molecule 4: 30S ribosomal protein S4

Chain QD:



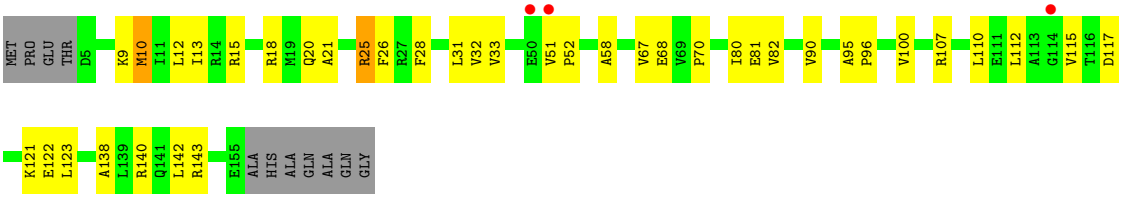
• Molecule 4: 30S ribosomal protein S4

Chain XD:



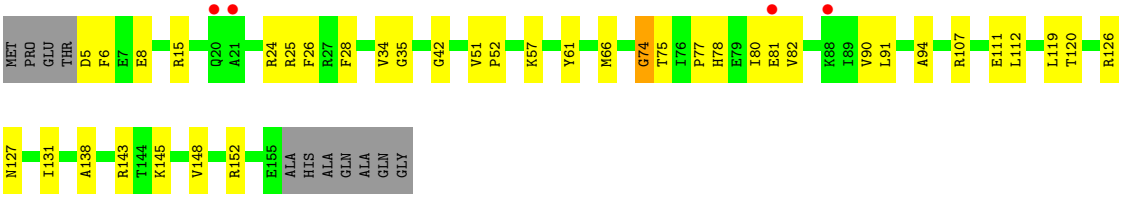
• Molecule 5: 30S ribosomal protein S5

Chain QE:



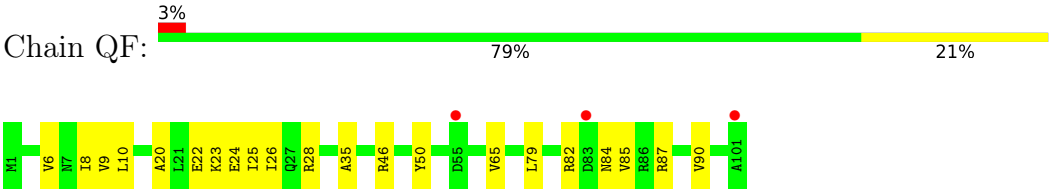
• Molecule 5: 30S ribosomal protein S5

Chain XE:



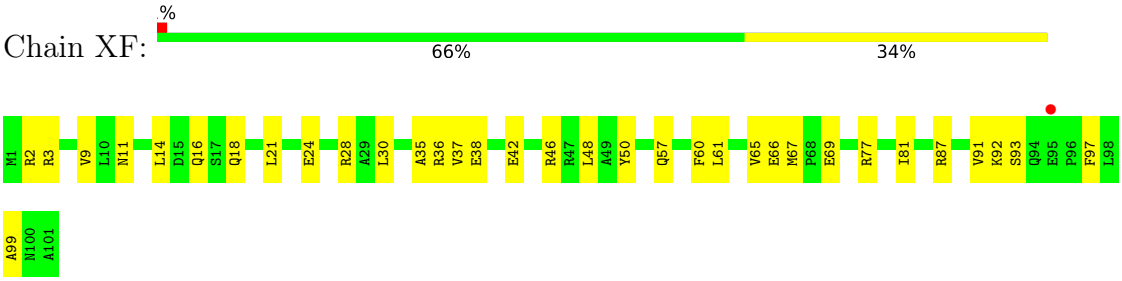
• Molecule 6: 30S ribosomal protein S6

Chain QF:



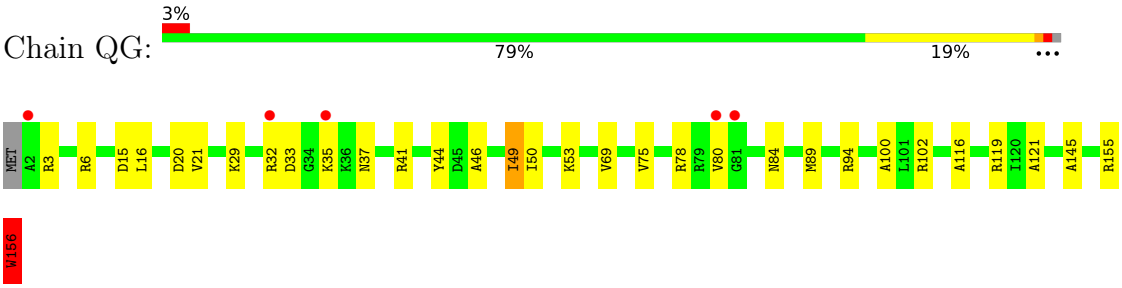
• Molecule 6: 30S ribosomal protein S6

Chain XF:



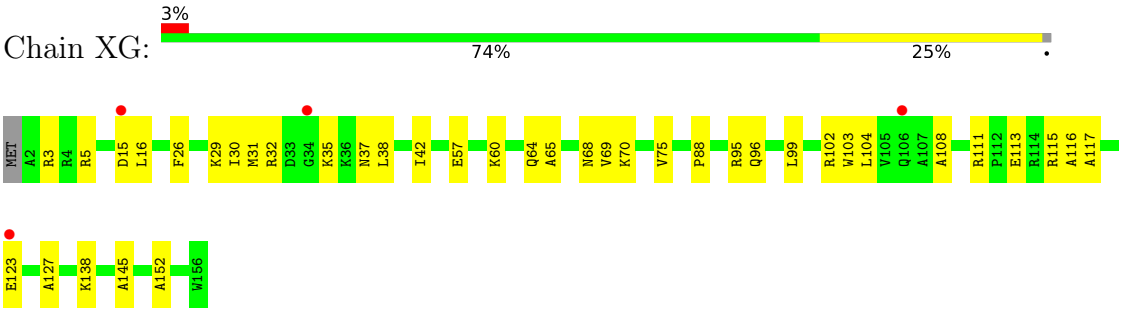
• Molecule 7: 30S ribosomal protein S7

Chain QG:



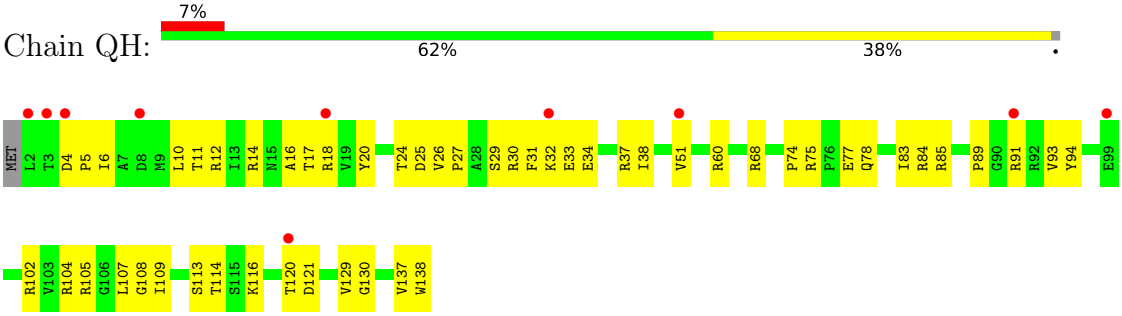
• Molecule 7: 30S ribosomal protein S7

Chain XG:



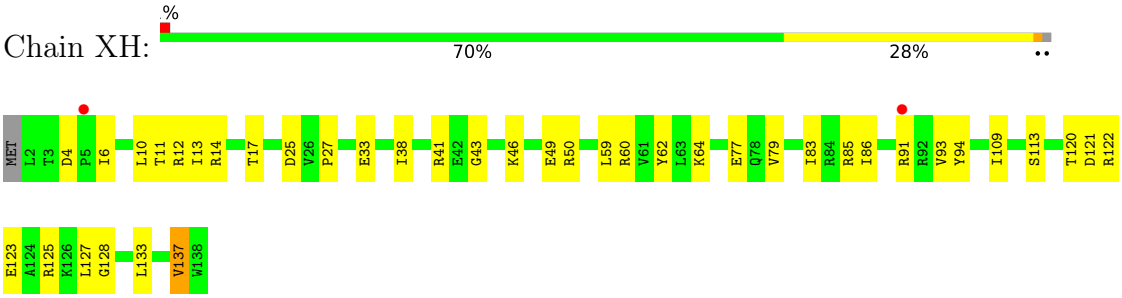
• Molecule 8: 30S ribosomal protein S8

Chain QH:



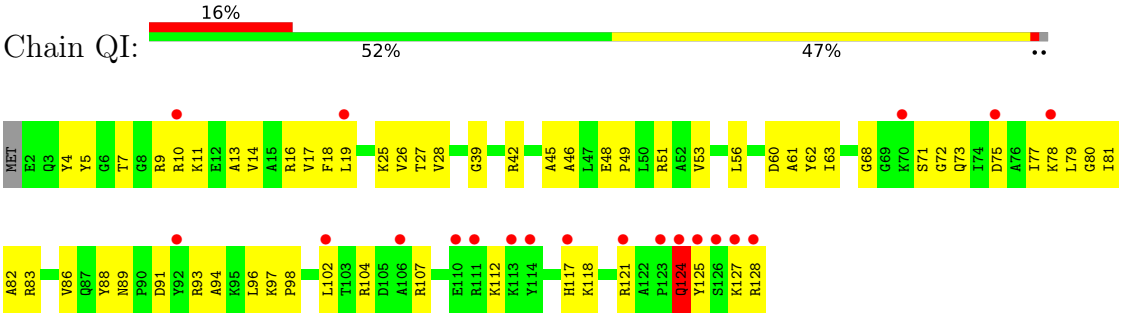
• Molecule 8: 30S ribosomal protein S8

Chain XH:



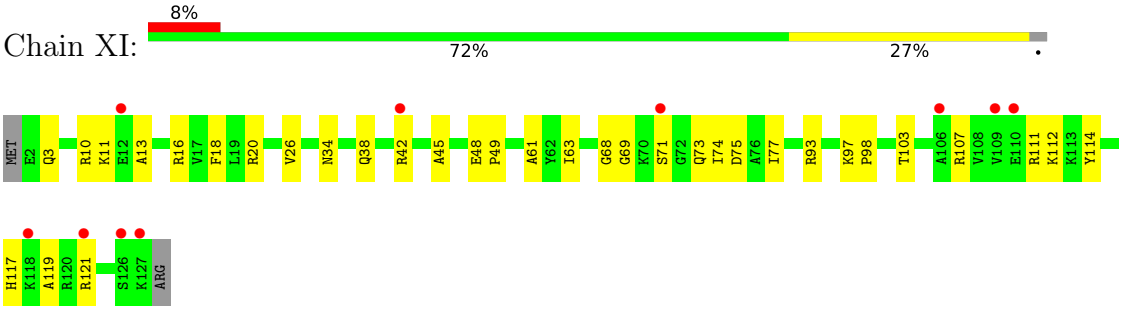
• Molecule 9: 30S ribosomal protein S9

Chain QI:



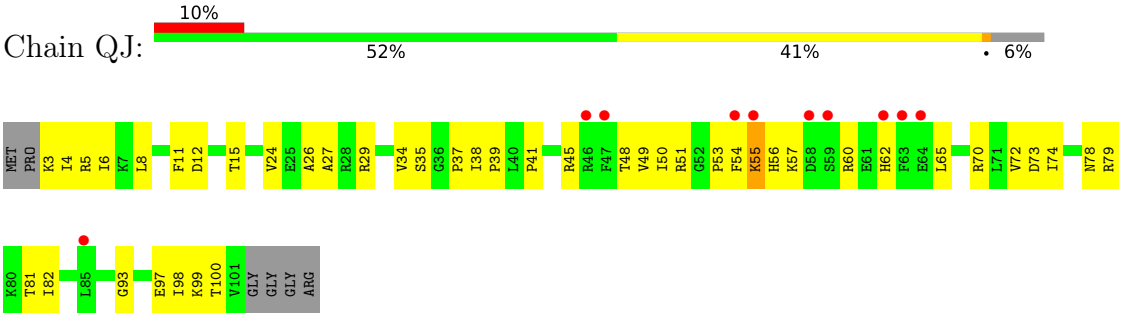
• Molecule 9: 30S ribosomal protein S9

Chain XI:



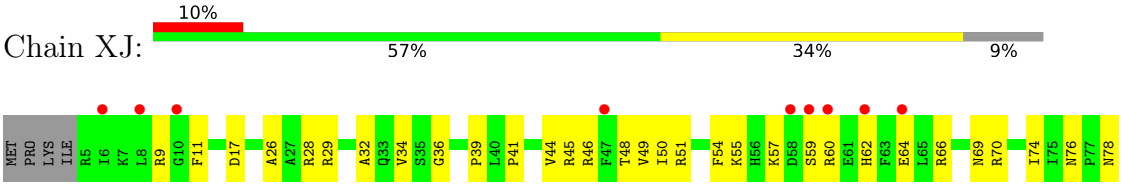
• Molecule 10: 30S ribosomal protein S10

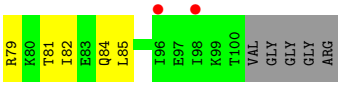
Chain QJ:



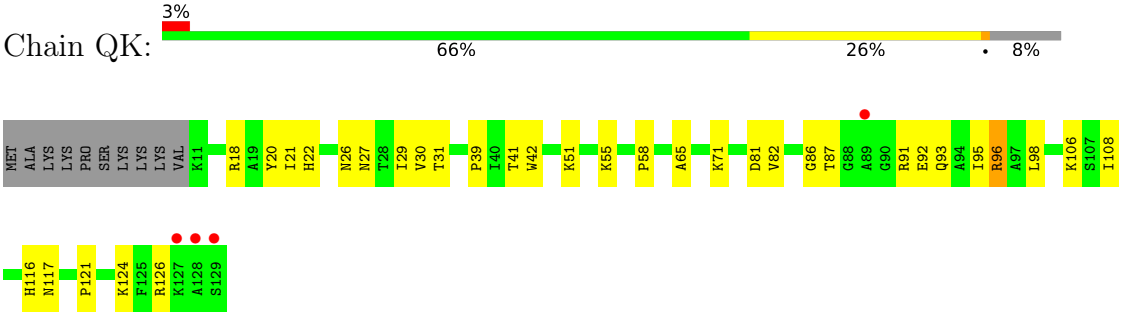
• Molecule 10: 30S ribosomal protein S10

Chain XJ:

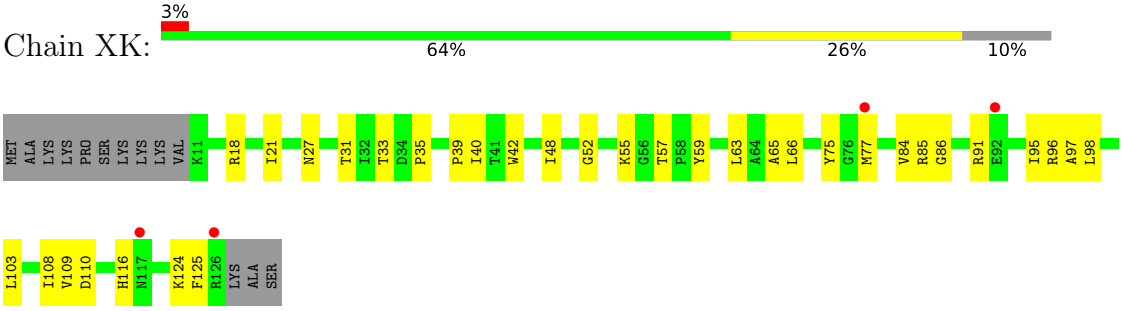




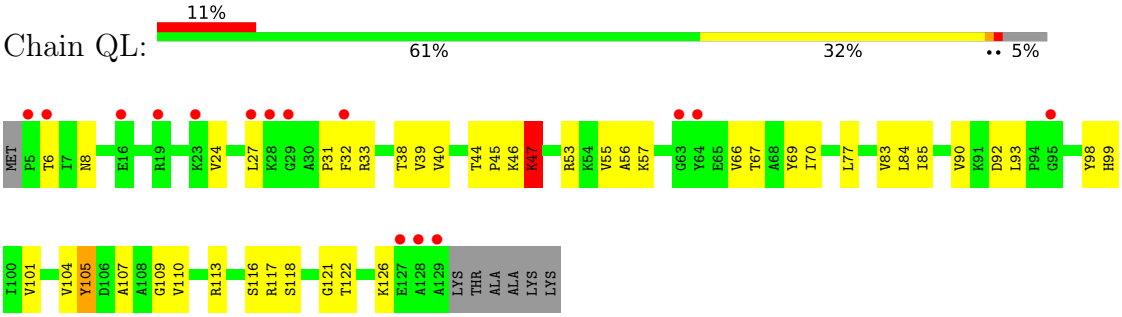
• Molecule 11: 30S ribosomal protein S11



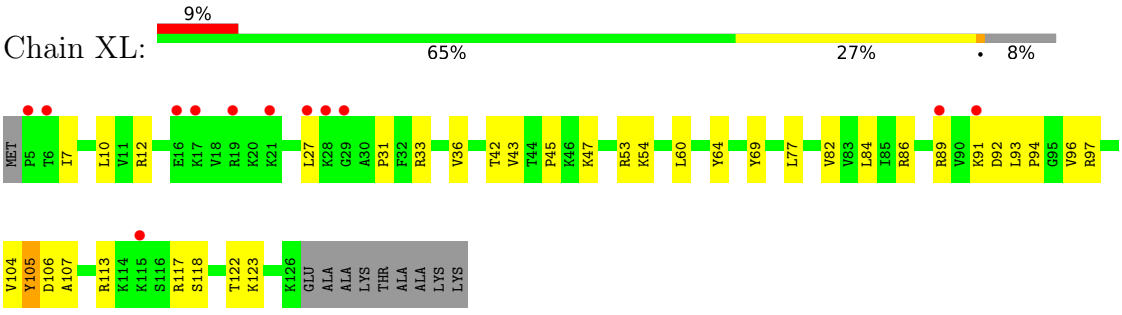
• Molecule 11: 30S ribosomal protein S11



• Molecule 12: 30S ribosomal protein S12

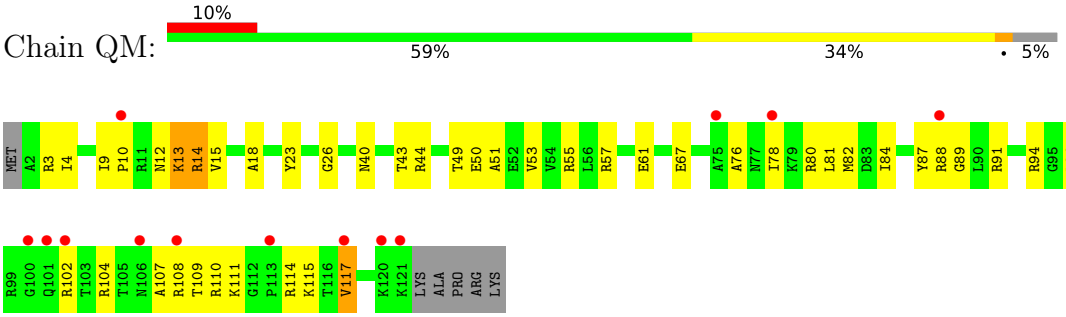


• Molecule 12: 30S ribosomal protein S12



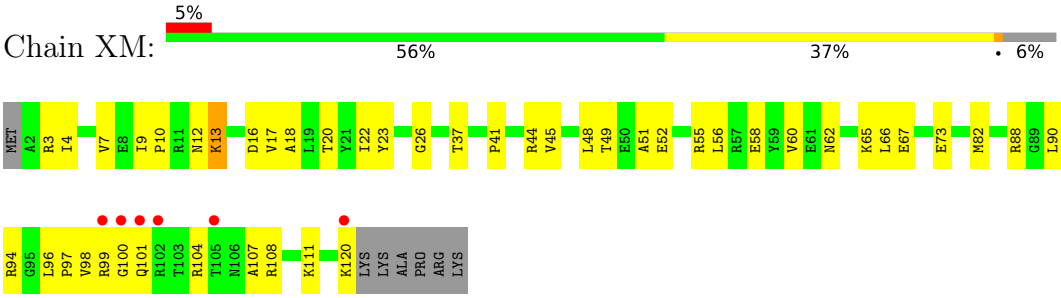
• Molecule 13: 30S ribosomal protein S13

Chain QM:



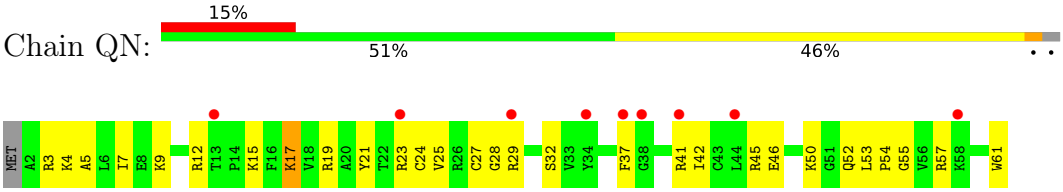
• Molecule 13: 30S ribosomal protein S13

Chain XM:



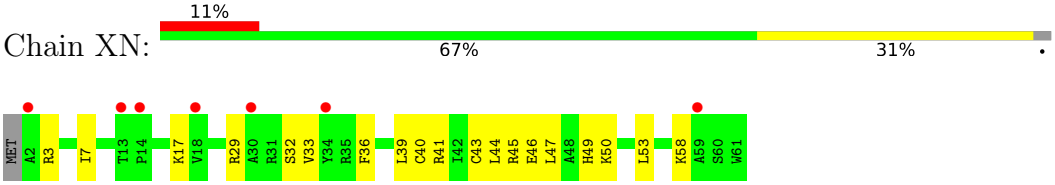
• Molecule 14: 30S ribosomal protein S14 type Z

Chain QN:



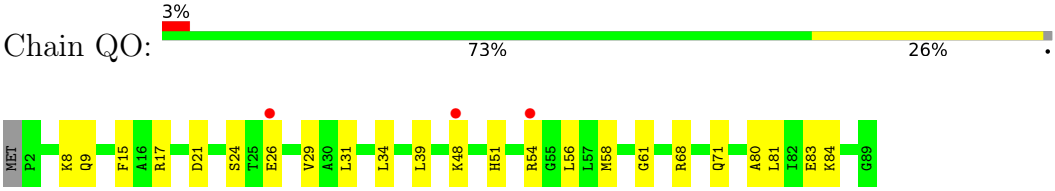
• Molecule 14: 30S ribosomal protein S14 type Z

Chain XN:



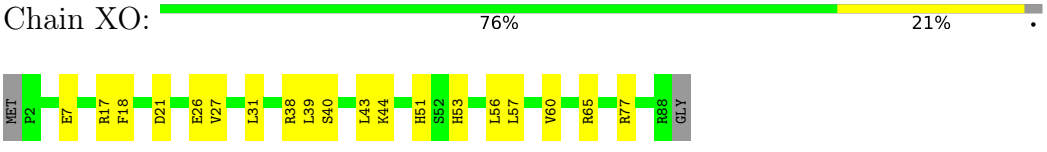
• Molecule 15: 30S ribosomal protein S15

Chain QO:



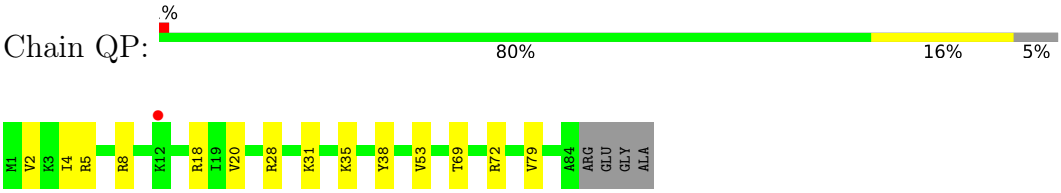
• Molecule 15: 30S ribosomal protein S15

Chain XO:



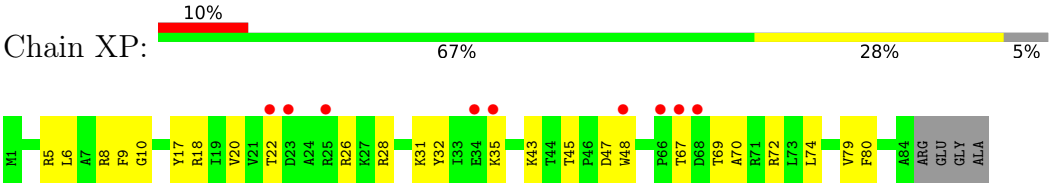
• Molecule 16: 30S ribosomal protein S16

Chain QP:



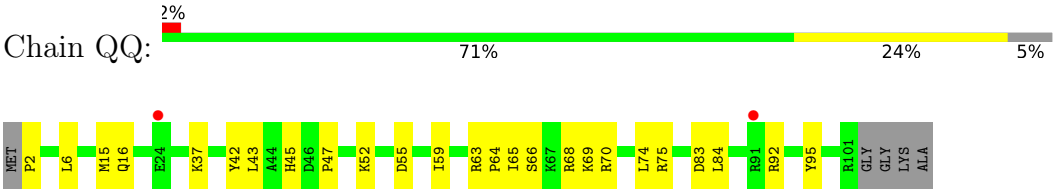
• Molecule 16: 30S ribosomal protein S16

Chain XP:



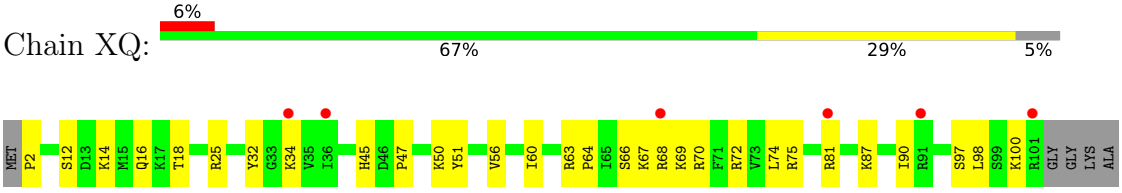
• Molecule 17: 30S ribosomal protein S17

Chain QQ:



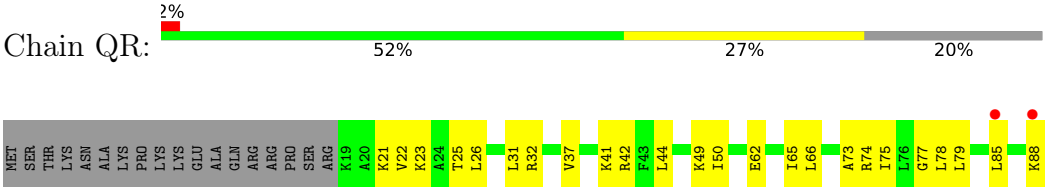
• Molecule 17: 30S ribosomal protein S17

Chain XQ:



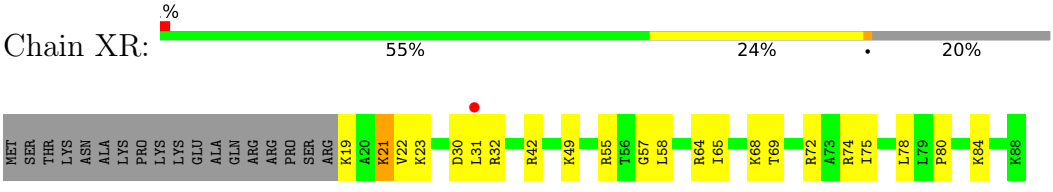
• Molecule 18: 30S ribosomal protein S18

Chain QR:



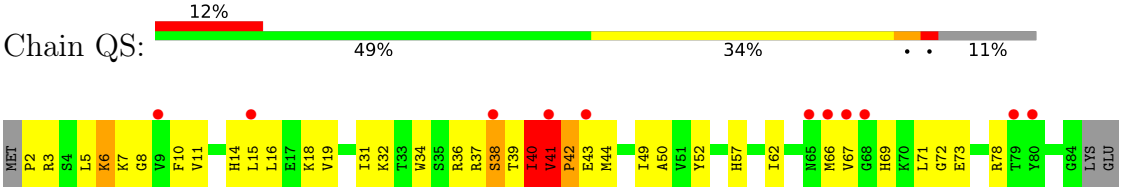
• Molecule 18: 30S ribosomal protein S18

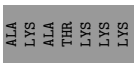
Chain XR:



• Molecule 19: 30S ribosomal protein S19

Chain QS:



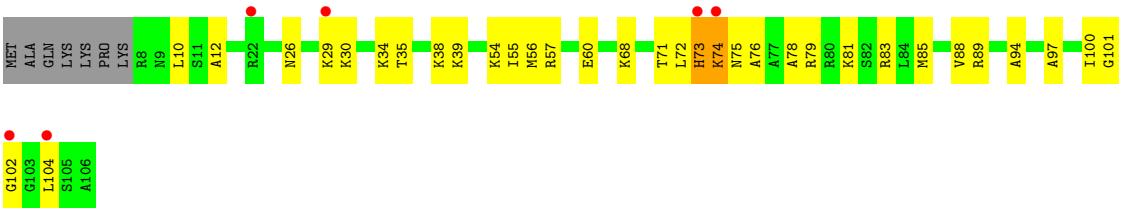


• Molecule 19: 30S ribosomal protein S19

Chain XS:

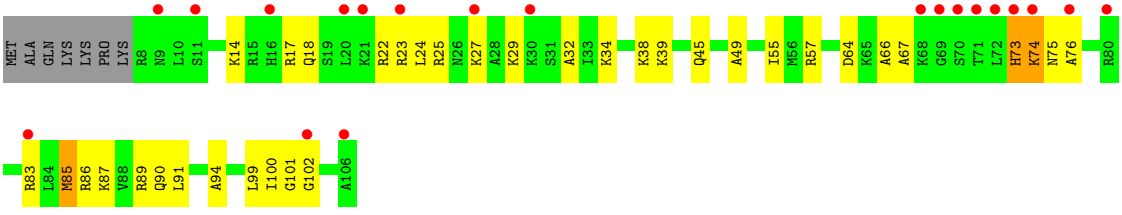
• Molecule 20: 30S ribosomal protein S20

Chain QT:



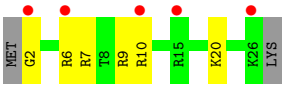
• Molecule 20: 30S ribosomal protein S20

Chain XT:



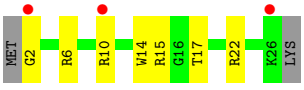
• Molecule 21: 30S ribosomal protein Thx

Chain QU:



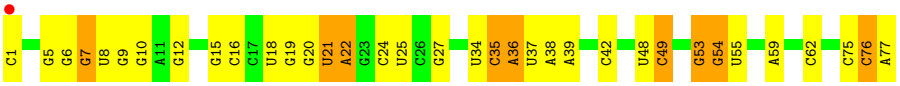
• Molecule 21: 30S ribosomal protein Thx

Chain XU:



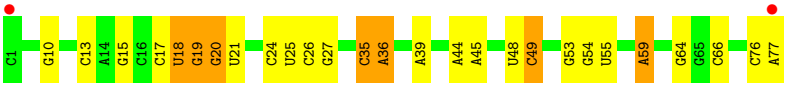
• Molecule 22: P-site tRNA fMet

Chain QV:



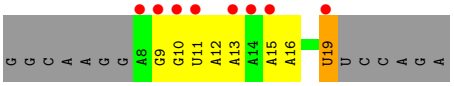
• Molecule 22: P-site tRNA fMet

Chain XV:



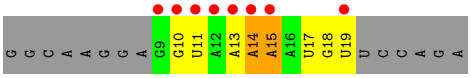
• Molecule 23: messenger RNA

Chain QX:



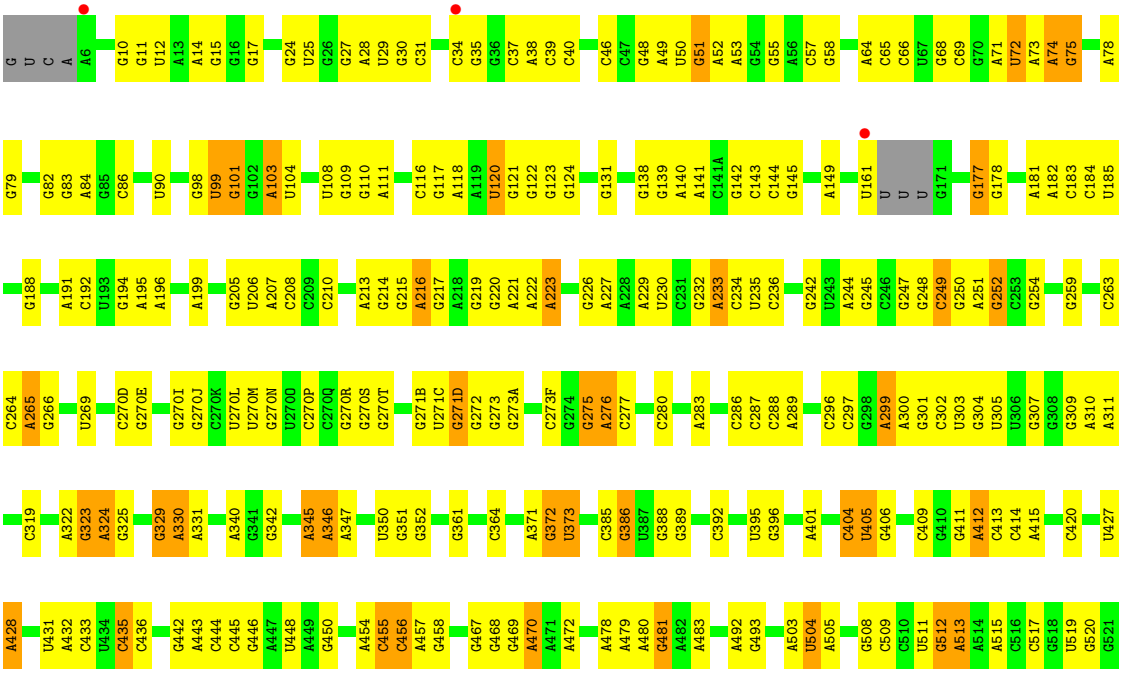
• Molecule 23: messenger RNA

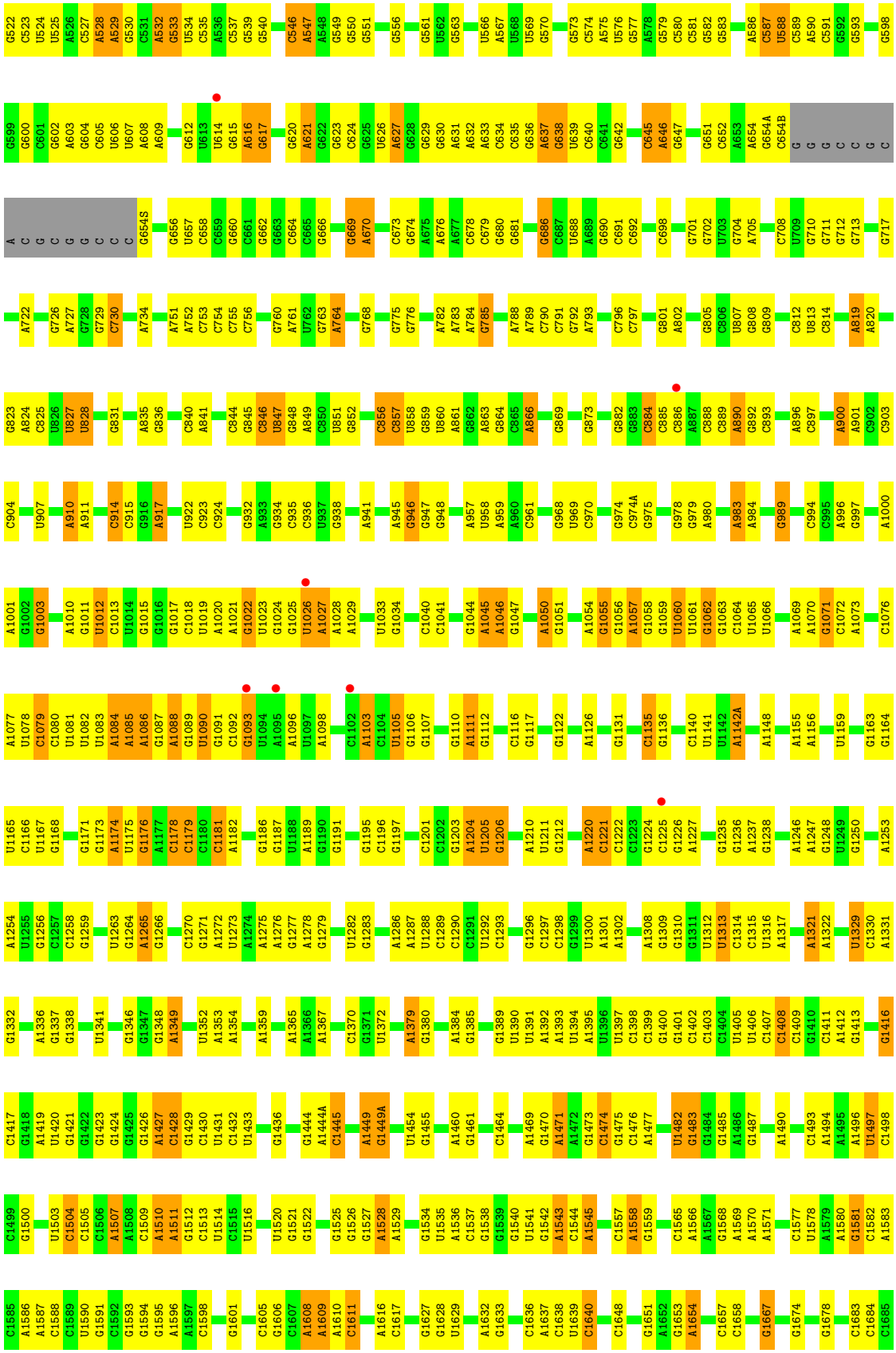
Chain XX:



• Molecule 24: 23S rRNA

Chain RA:




G522 C523 U524 U525 A526 C527 A528 A529 G530 C531 A532 G533 U534 C535 A536 C537 G539 G540 C546 A547 A548 G549 G550 G551 G556 G561 U562 G563 U566 A567 U568 U569 G570 G573 C574 A575 U576 G577 A578 G579 C580 C581 G582 G583 A586 C587 U588 C589 A590 C591 G592 G593 G598
G599 G600 C601 G602 A603 G604 C605 U606 U607 A608 A609 G612 U613 U614 G615 A616 G617 G620 A621 G622 G623 C624 G625 U626 A627 G628 G629 G630 A631 A632 A633 C634 C635 G636 A637 G638 U639 C640 C641 G642 C645 A646 G647 G651 C652 A653 A654 G654A C654B G G G C C G C
A C G C G C C C G654S G656 U657 C658 C659 G660 C661 G662 G663 C664 C665 G666 G669 A670 C673 G674 A675 A676 A677 C678 C679 G680 G681 G686 C687 U688 A689 G690 C691 C692 C698 G701 G702 U703 G704 A705 C708 U709 G710 G711 G712 G713 G717
A22 G726 A727 G728 G729 C730 A734 A751 A752 C753 C754 C755 C756 G760 A761 U762 G763 A764 G768 G775 G776 A782 A783 A784 G785 A788 A789 C790 C791 G792 A793 C796 C797 G801 A802 G805 C806 U807 G808 G809 C812 U813 C814 A819 A820
G823 A824 C825 U826 U827 U828 G831 A835 G836 C840 A841 C844 G845 C846 U847 G848 A849 C850 U851 G852 C856 C857 U858 G859 U860 A861 G862 A863 G864 C865 A866 G869 G873 G882 G883 C884 C885 C886 A887 C888 C889 A890 G892 C893 A896 C897 A900 A901 C902 C903
C904 U907 A910 A911 C914 C915 G916 A917 U922 C923 C924 G932 A933 G934 C935 C936 U937 G938 A941 A945 G946 G947 G948 A957 U958 A959 A960 C961 G968 U969 C970 G974 C974A G975 G978 G979 A980 A983 A984 G989 C994 C995 A996 G997 A1000
A1001 G1002 G1003 A1010 G1011 U1012 C1013 U1014 G1015 G1016 G1017 C1018 U1019 A1020 A1021 G1022 U1023 G1024 G1025 U1026 A1027 A1028 A1029 U1033 G1034 C1040 C1041 G1044 A1045 A1046 G1047 A1050 G1051 A1054 G1055 G1056 A1057 G1058 G1059 U1060 U1061 G1062 G1063 C1064 U1065 U1066 A1069 A1070 G1071 C1072 A1073 C1076
A1077 U1078 C1079 C1080 U1081 U1082 U1083 A1084 A1085 A1086 G1087 A1088 G1089 U1090 G1091 C1092 G1093 U1094 A1095 A1096 U1097 A1098 C1102 A1103 C1104 U1105 G1106 G1107 G1110 A1111 G1112 C1116 G1117 G1122 A1126 G1131 C1135 G1136 C1140 U1141 U1142 A1142A A1148 A1155 A1156 U1159 G1163 G1164
U1165 C1166 U1167 G1168 G1171 G1173 A1174 U1175 G1176 A1177 C1178 C1179 C1180 C1181 A1182 G1186 G1187 U1188 A1189 G1190 G1191 G1195 C1196 G1197 C1201 C1202 G1203 A1204 U1205 G1206 A1210 U1211 G1212 A1220 C1221 C1222 C1223 G1224 C1225 G1226 A1227 G1235 G1236 A1237 G1238 A1246 A1247 G1248 U1249 G1250 A1253
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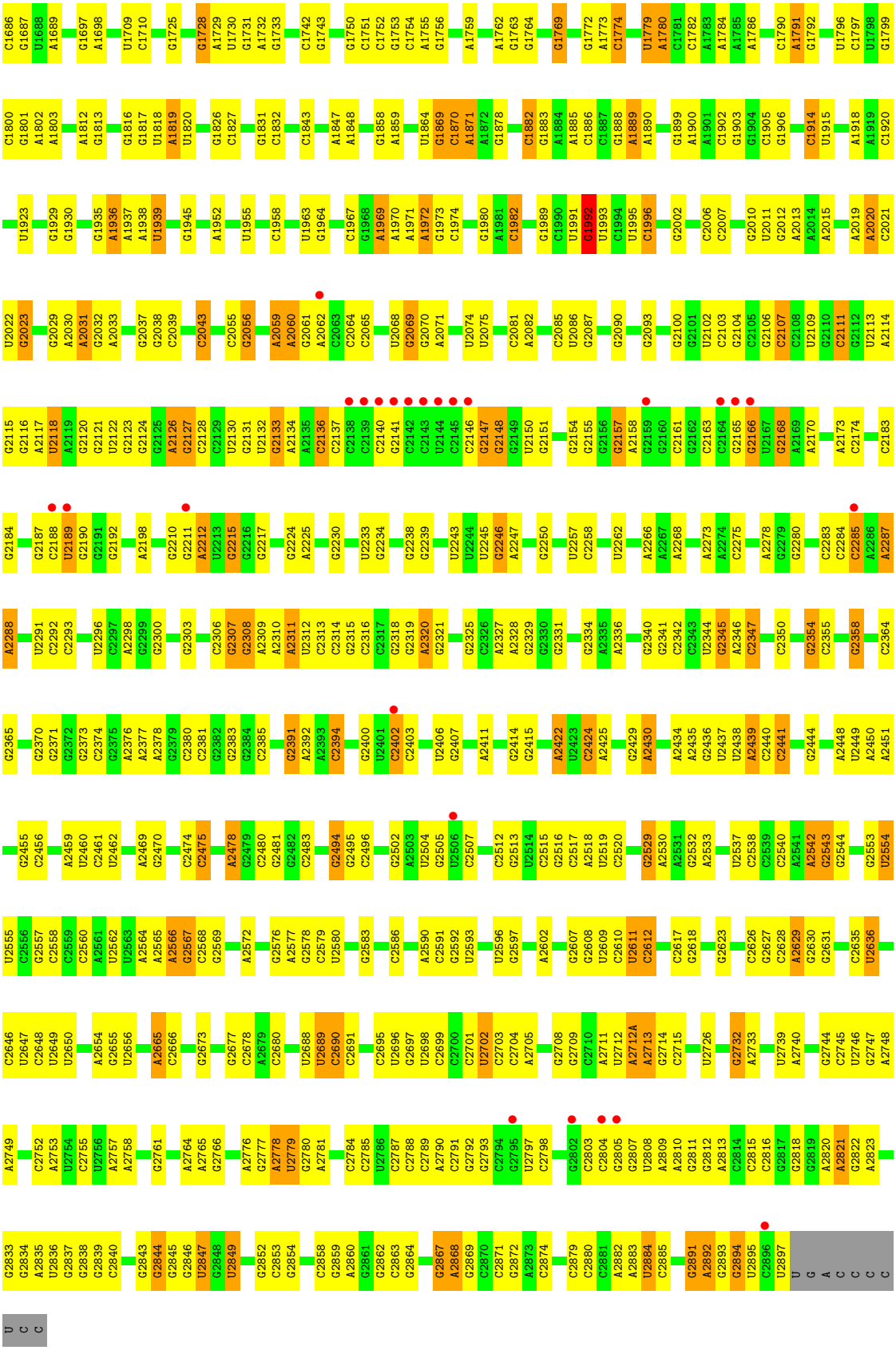
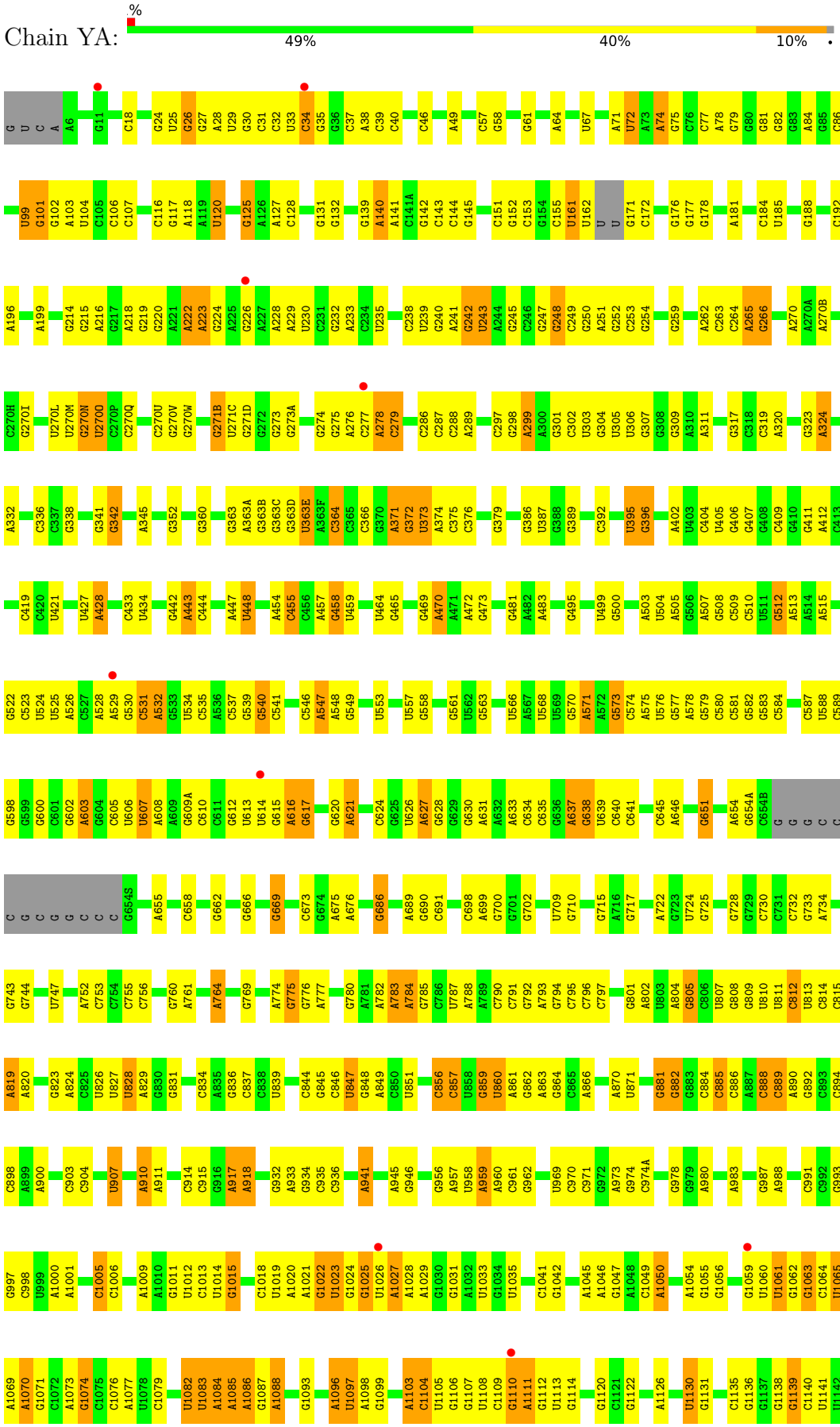
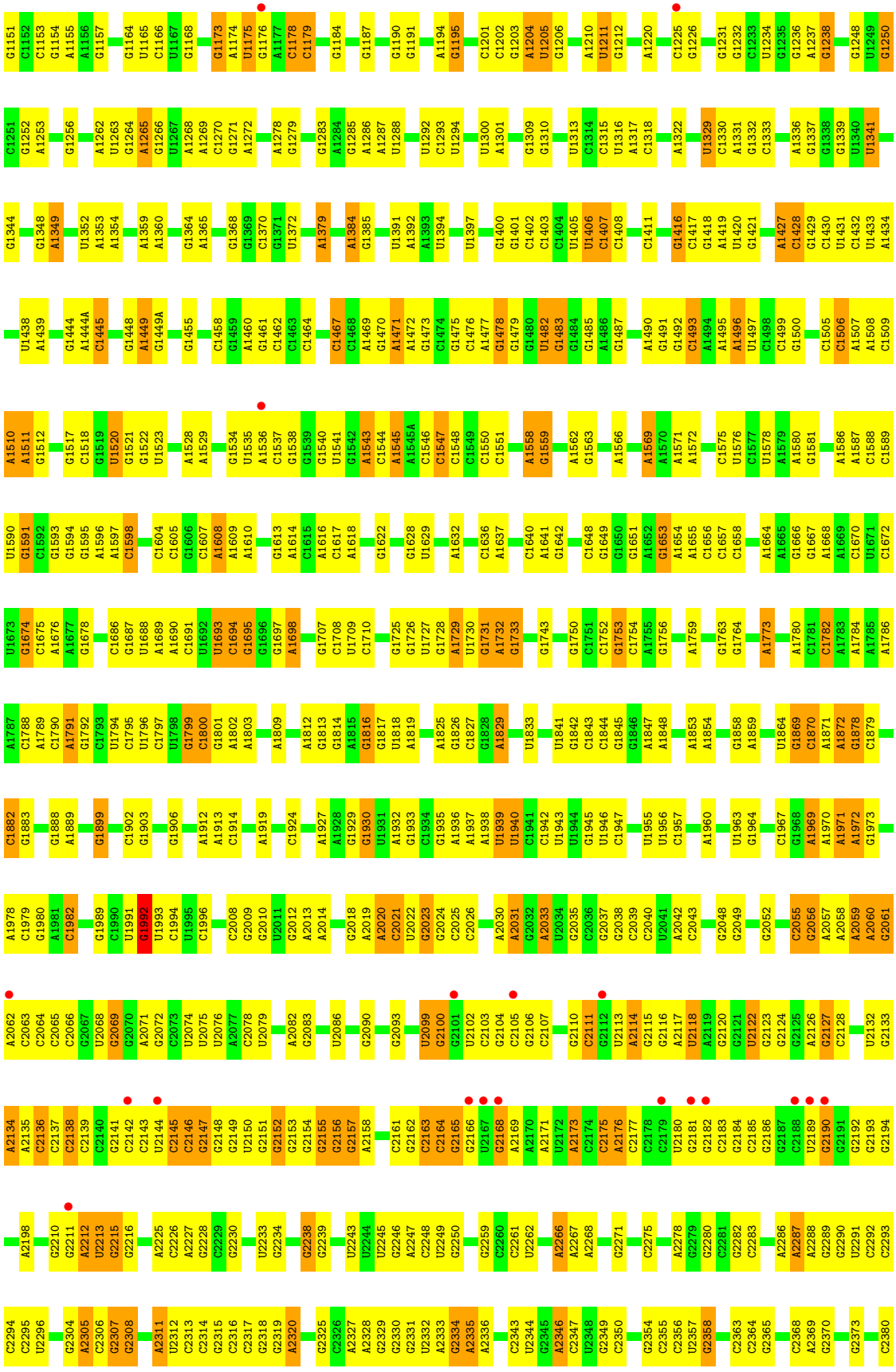
G1332 A1336 G1337 G1338 U1341 G1346 G1347 G1348 A1349 U1352 A1353 A1354 A1359 A1365 A1366 A1367 C1370 G1371 U1372 A1379 G1380 A1384 G1385 G1389 U1390 U1391 A1392 A1393 U1394 A1395 U1396 U1397 C1398 C1399 G1400 G1401 C1402 C1403 C1404 U1405 U1406 C1407 C1408 C1409 G1410 C1411 A1412 G1413 G1416
C1417 G1418 A1419 U1420 G1421 G1422 G1423 G1424 G1425 G1426 A1427 C1428 G1429 C1430 U1431 C1432 U1433 G1436 G1444 A1444A C1445 A1449 G1449A U1454 G1455 A1460 G1461 C1464 A1469 G1470 A1471 A1472 G1473 C1474 G1475 C1476 A1477 U1482 G1483 G1484 G1485 A1486 G1487 A1490 C1493 A1494 A1495 A1496 U1497 C1498
C1499 G1500 U1503 C1504 C1505 C1506 A1507 A1508 C1509 A1510 A1511 G1512 C1513 U1514 C1515 U1516 U1520 G1521 G1522 G1525 G1526 G1527 A1528 A1529 G1534 U1535 A1536 C1537 G1538 G1539 G1540 U1541 G1542 A1543 C1544 A1545 C1557 A1558 G1559 C1565 A1566 A1567 G1568 A1569 A1570 A1571 C1577 U1578 A1579 A1580 G1581 C1582 A1583
C1585 A1586 A1587 C1588 C1589 U1590 G1591 C1592 G1593 G1594 G1595 A1596 A1597 C1598 G1601 C1605 G1606 C1607 A1608 A1609 A1610 C1611 A1616 C1617 G1627 G1628 U1629 A1632 G1633 C1636 A1637 C1638 U1639 C1640 C1648 G1651 A1652 G1653 A1654 C1657 C1658 G1667 G1674 G1678 C1683 C1684 C1685

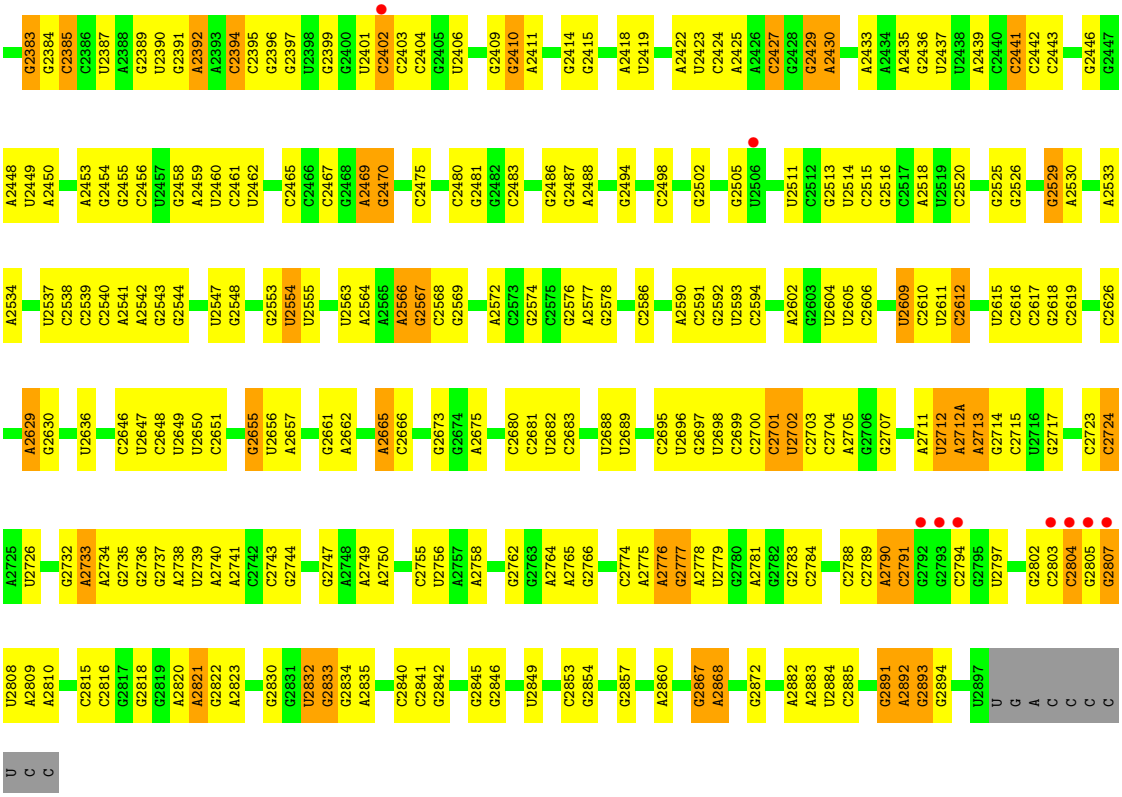


• Molecule 24: 23S rRNA

Chain YA:

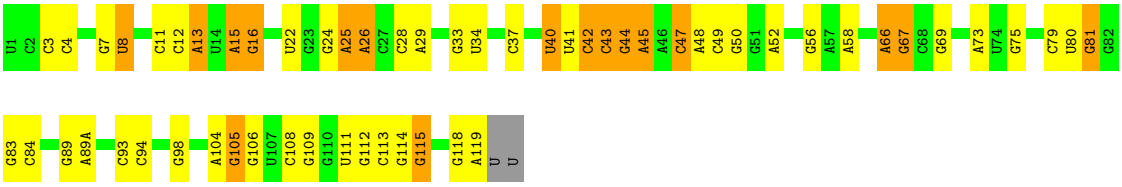






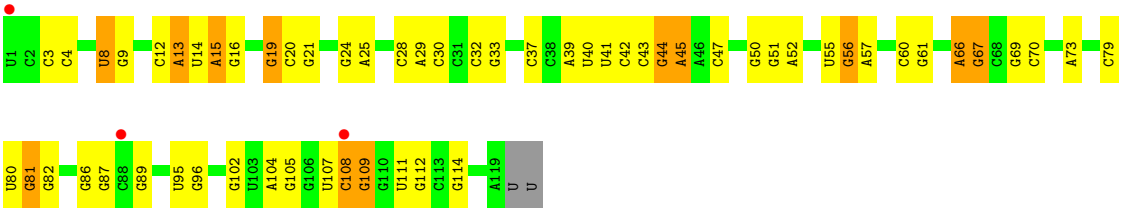
• Molecule 25: 5S rRNA

Chain RB:



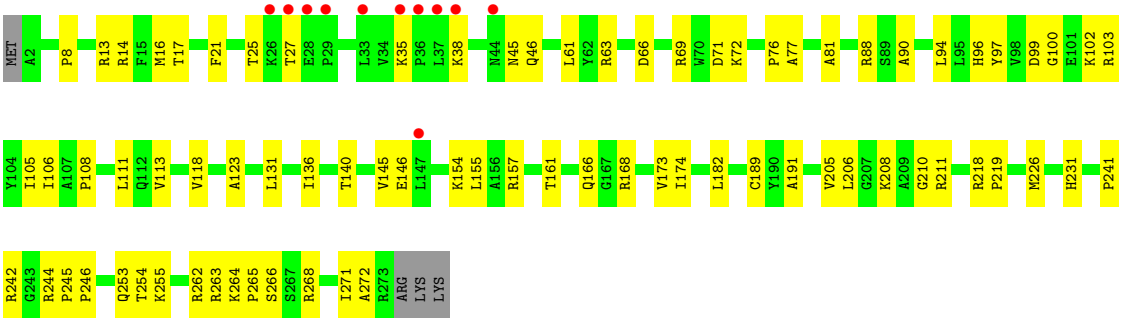
• Molecule 25: 5S rRNA

Chain YB:

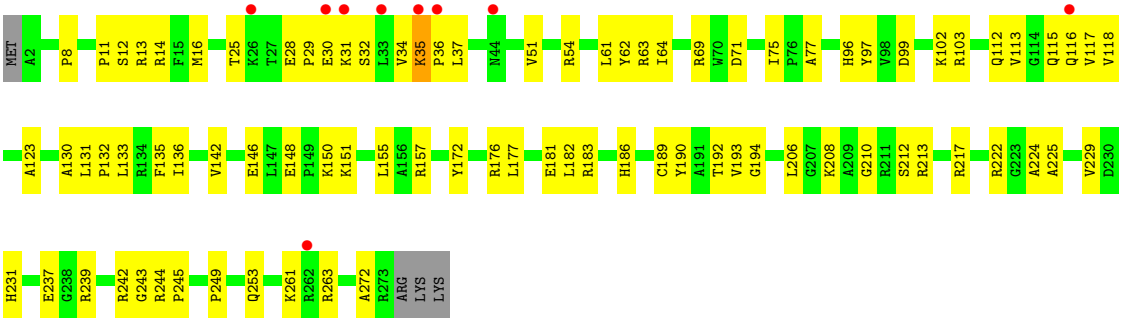


• Molecule 26: 50S ribosomal protein L2

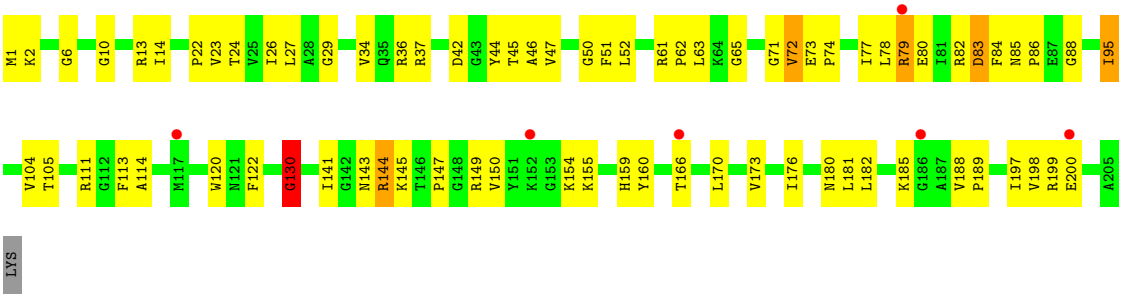
Chain RD:



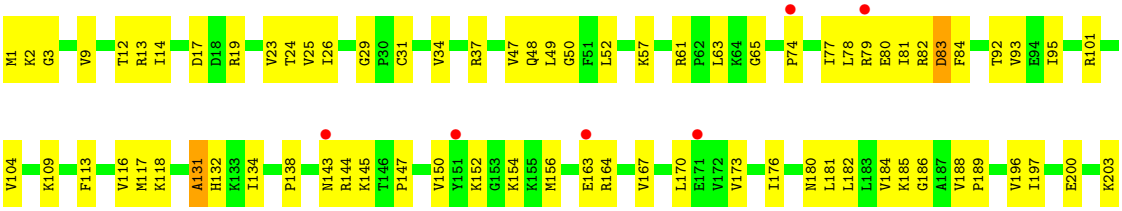
• Molecule 26: 50S ribosomal protein L2



• Molecule 27: 50S ribosomal protein L3

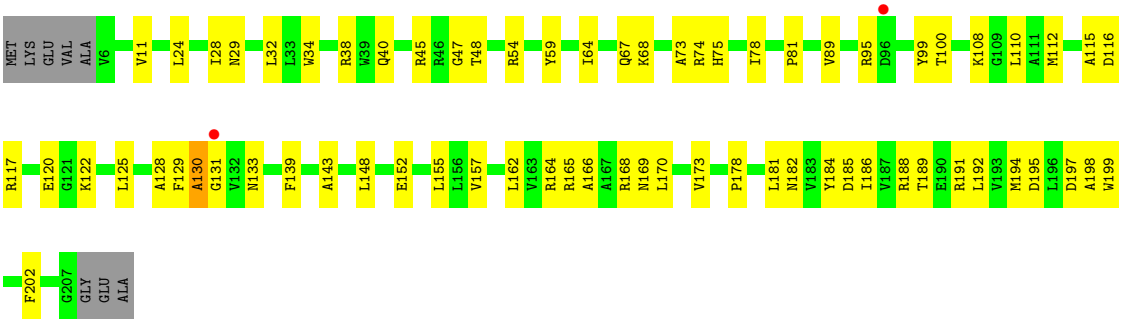


• Molecule 27: 50S ribosomal protein L3



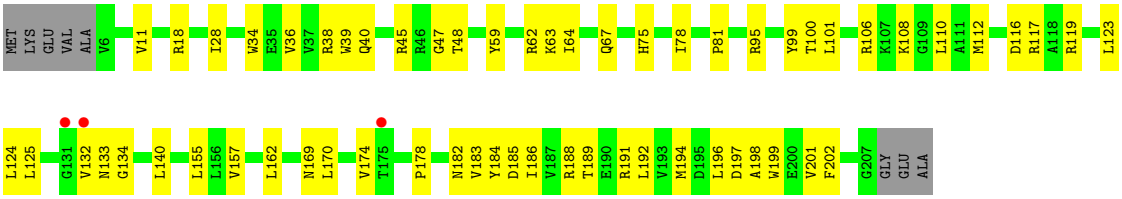
• Molecule 28: 50S ribosomal protein L4

Chain RF:



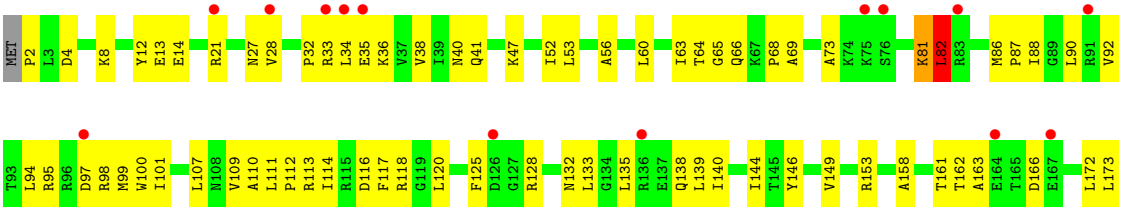
• Molecule 28: 50S ribosomal protein L4

Chain YF:



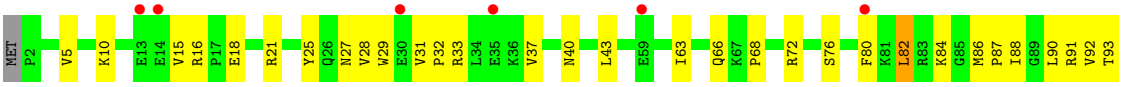
• Molecule 29: 50S ribosomal protein L5

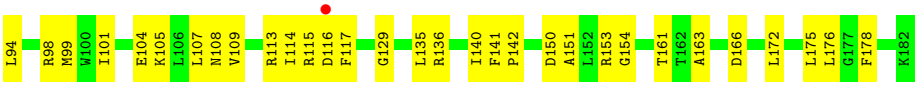
Chain RG:



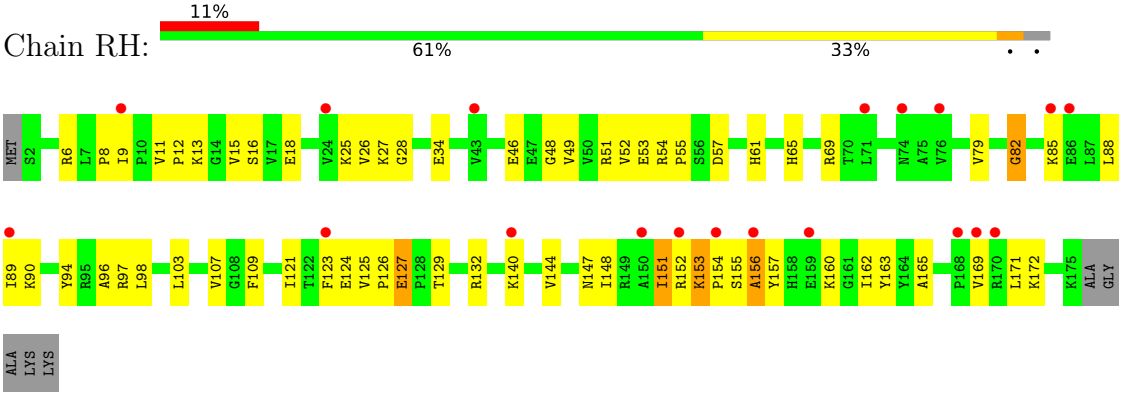
• Molecule 29: 50S ribosomal protein L5

Chain YG:

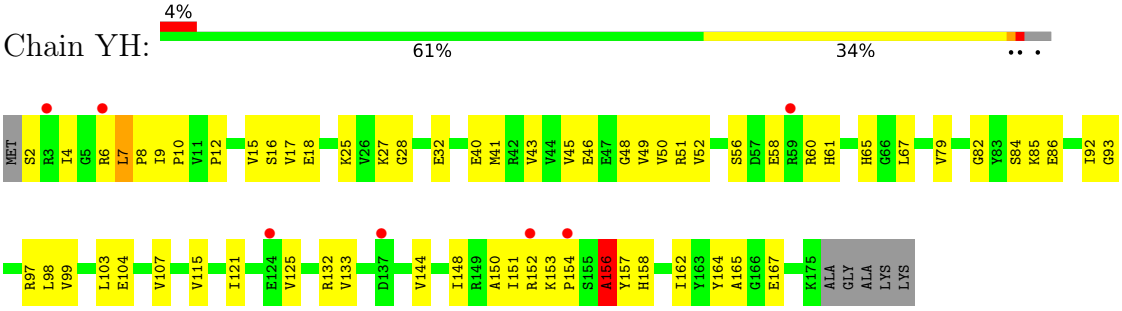




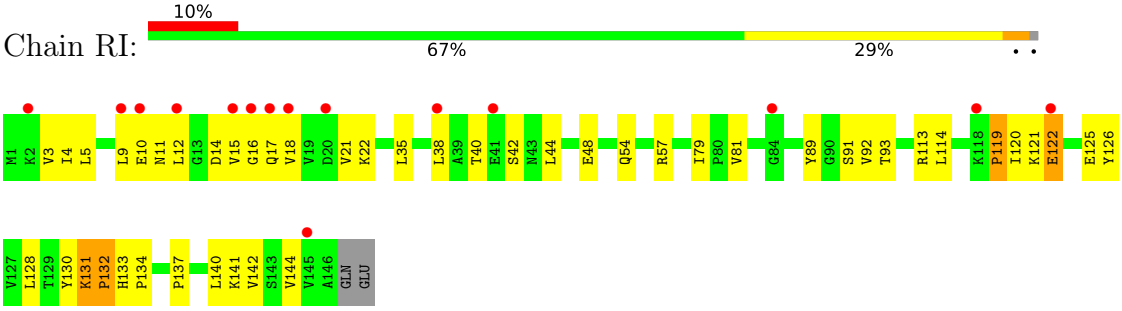
• Molecule 30: 50S ribosomal protein L6



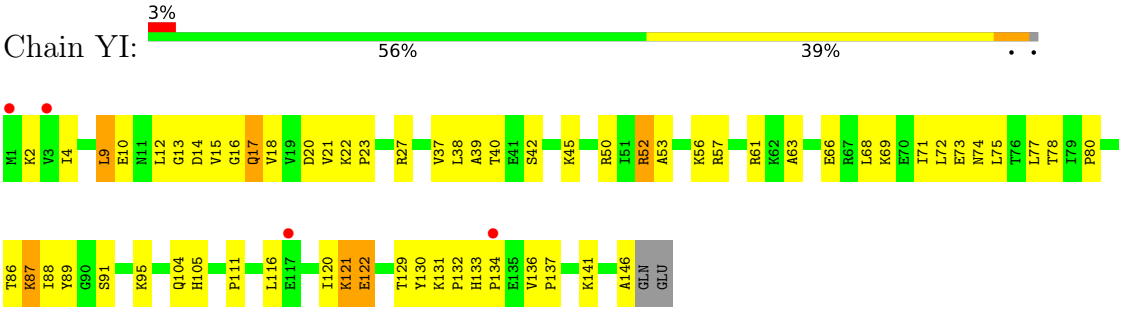
• Molecule 30: 50S ribosomal protein L6



• Molecule 31: 50S ribosomal protein L9

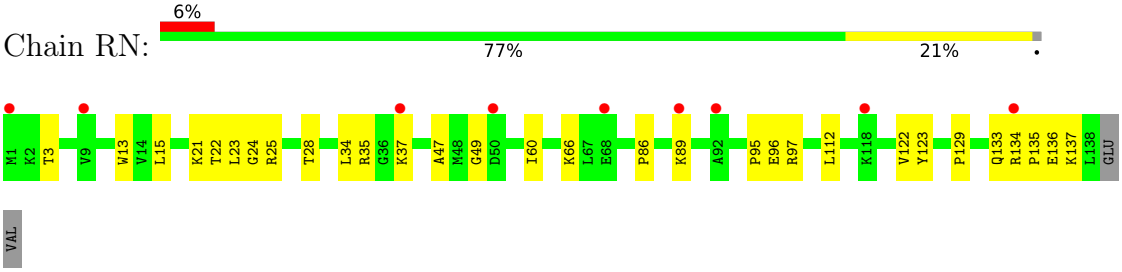


• Molecule 31: 50S ribosomal protein L9



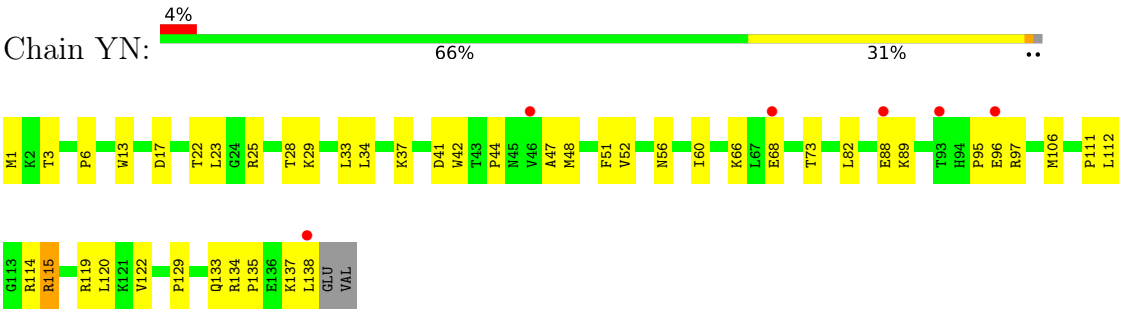
• Molecule 32: 50S ribosomal protein L13

Chain RN:



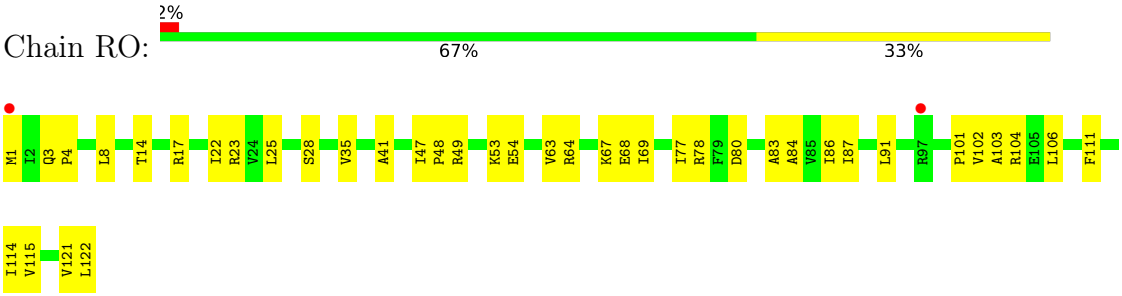
• Molecule 32: 50S ribosomal protein L13

Chain YN:



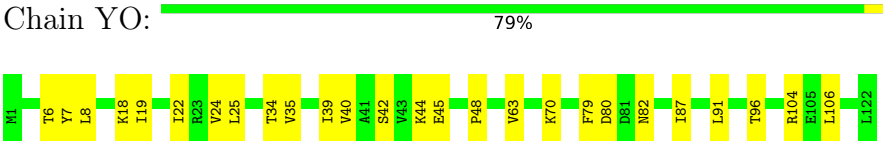
• Molecule 33: 50S ribosomal protein L14

Chain RO:



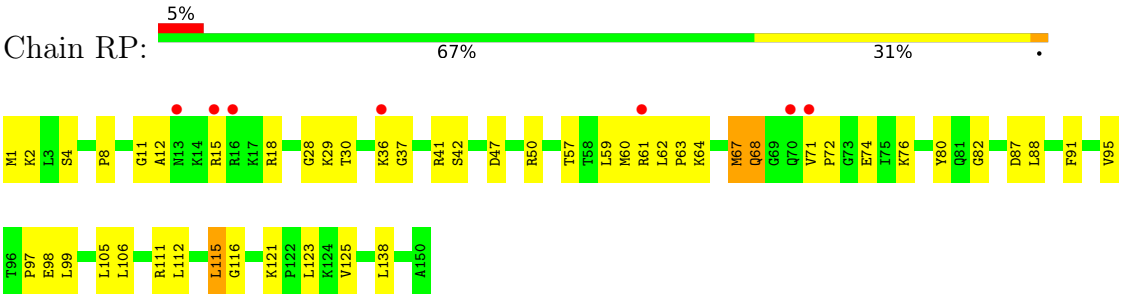
• Molecule 33: 50S ribosomal protein L14

Chain YO:

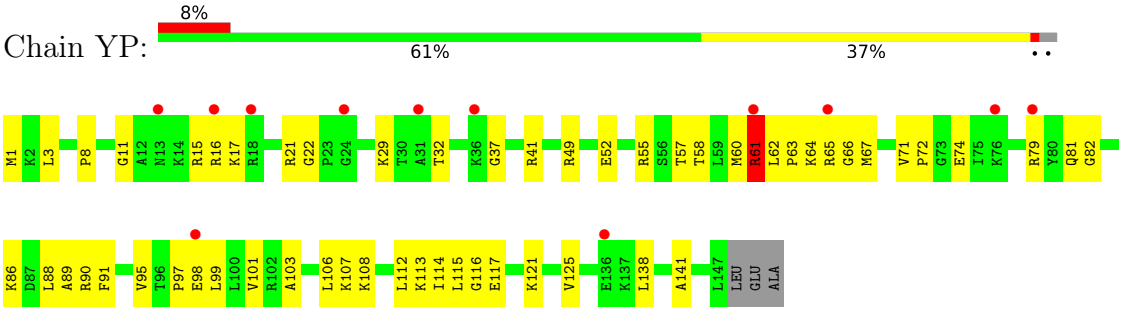


• Molecule 34: 50S ribosomal protein L15

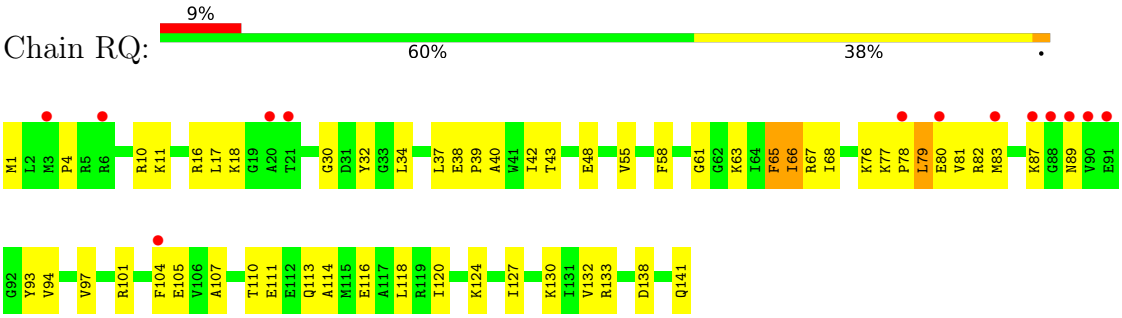
Chain RP:



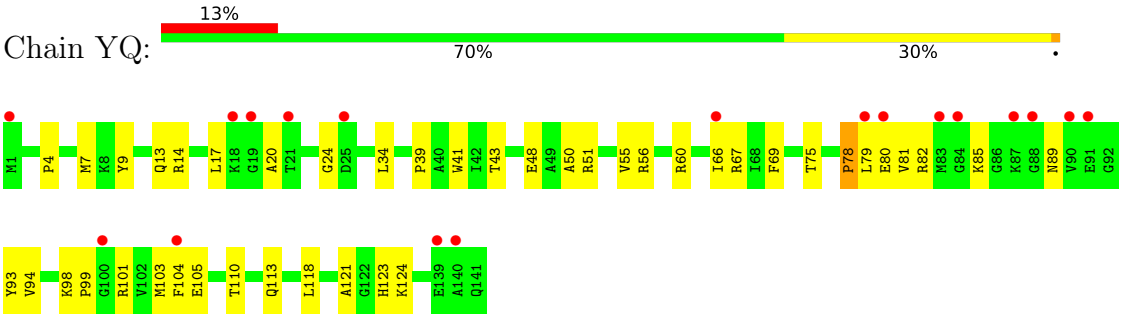
• Molecule 34: 50S ribosomal protein L15



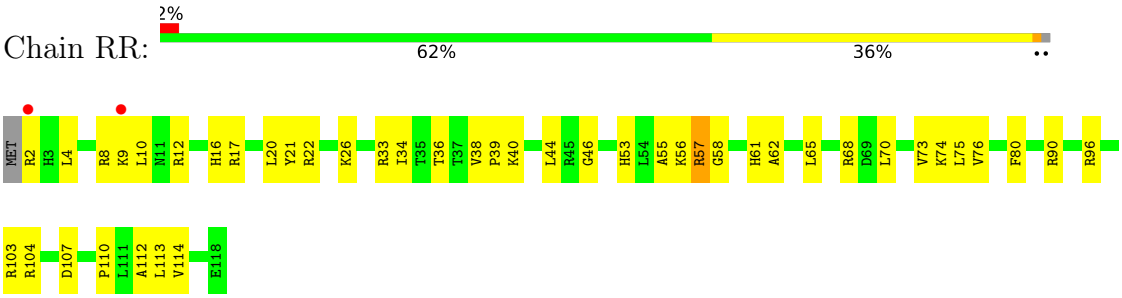
• Molecule 35: 50S ribosomal protein L16



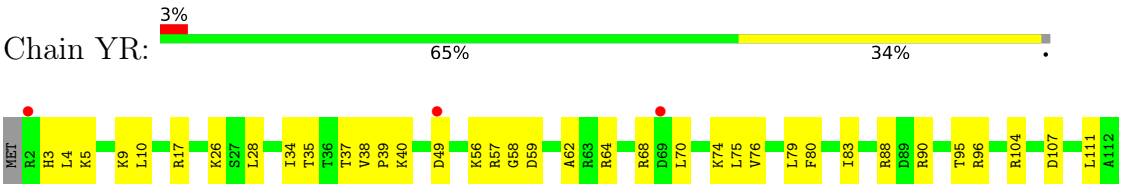
• Molecule 35: 50S ribosomal protein L16



• Molecule 36: 50S ribosomal protein L17

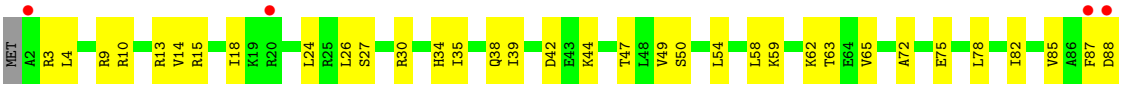


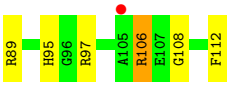
• Molecule 36: 50S ribosomal protein L17



• Molecule 37: 50S ribosomal protein L18

Chain RS:



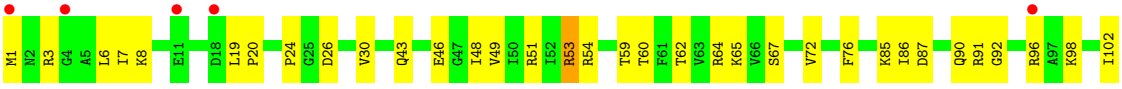


• Molecule 37: 50S ribosomal protein L18

Chain YS:

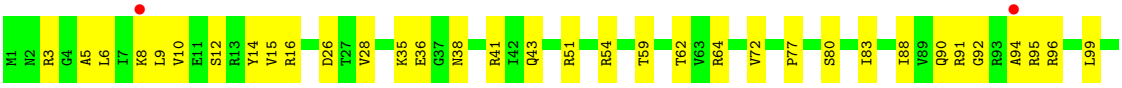
• Molecule 38: 50S ribosomal protein L19

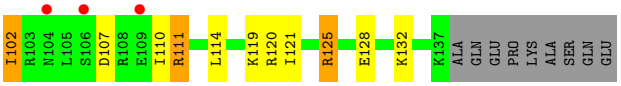
Chain RT:



• Molecule 38: 50S ribosomal protein L19

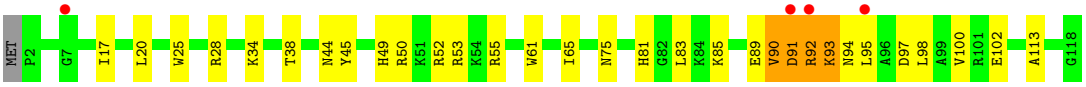
Chain YT:



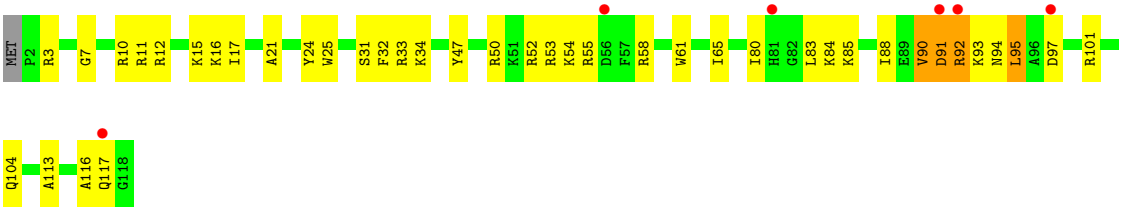


• Molecule 39: 50S ribosomal protein L20

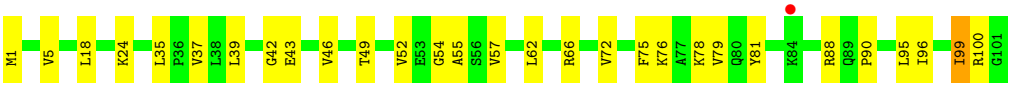
Chain RU:



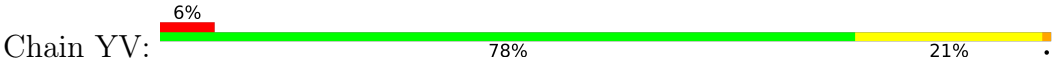
• Molecule 39: 50S ribosomal protein L20

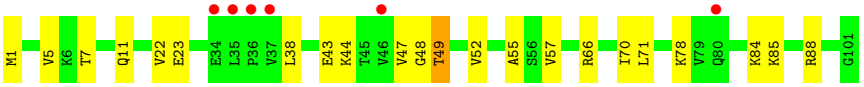


• Molecule 40: 50S ribosomal protein L21

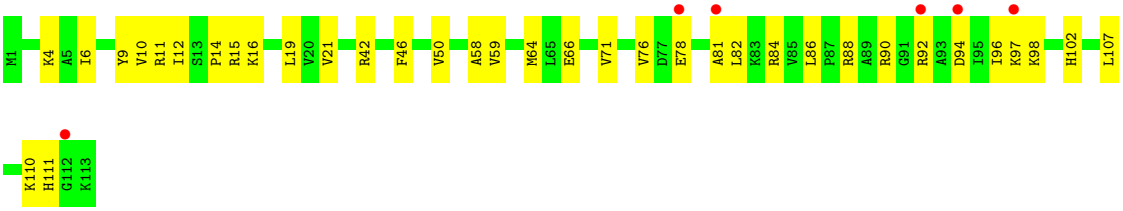


• Molecule 40: 50S ribosomal protein L21

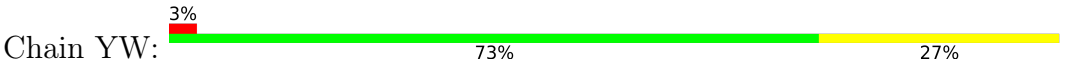




• Molecule 41: 50S ribosomal protein L22

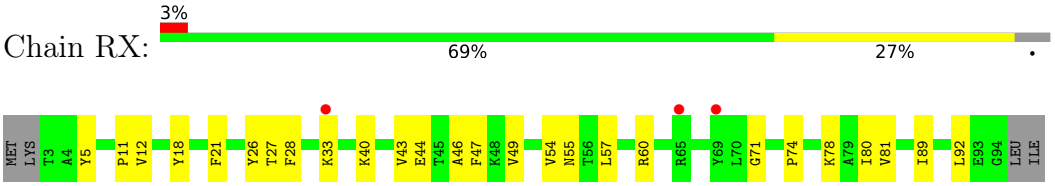


• Molecule 41: 50S ribosomal protein L22



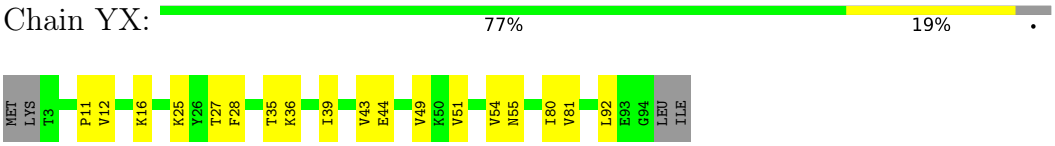
• Molecule 42: 50S ribosomal protein L23

Chain RX:



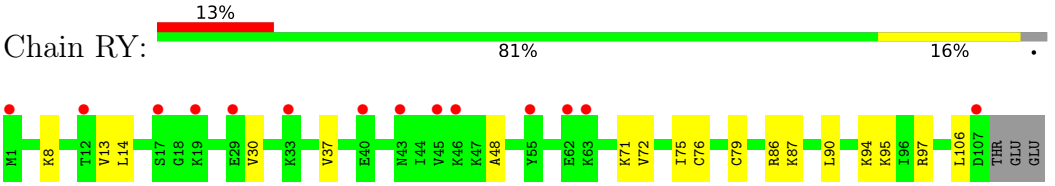
• Molecule 42: 50S ribosomal protein L23

Chain YX:



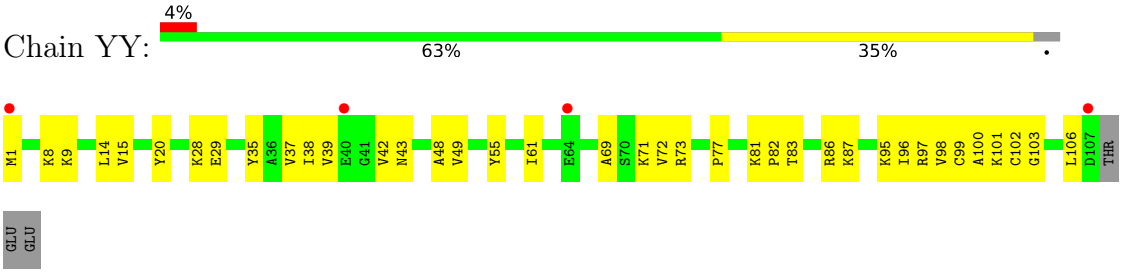
• Molecule 43: 50S ribosomal protein L24

Chain RY:



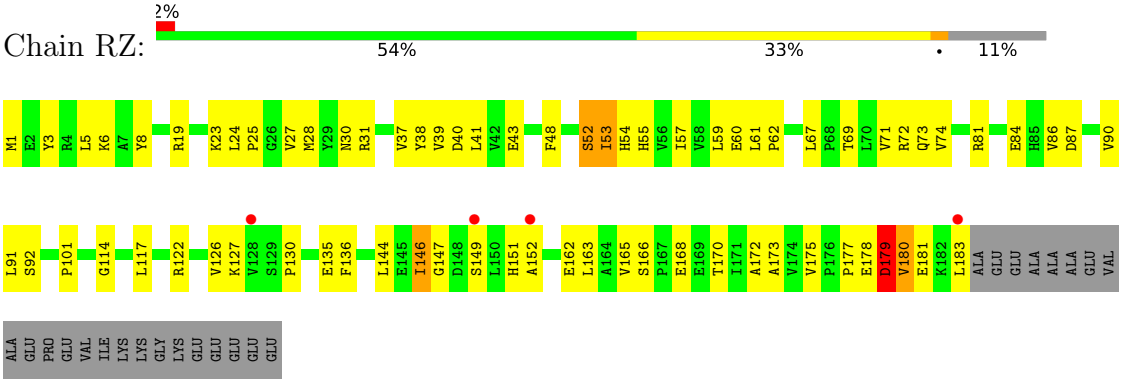
• Molecule 43: 50S ribosomal protein L24

Chain YY:



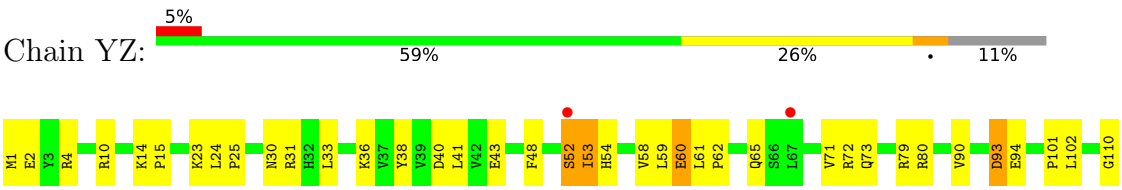
• Molecule 44: 50S ribosomal protein L25

Chain RZ:



• Molecule 44: 50S ribosomal protein L25

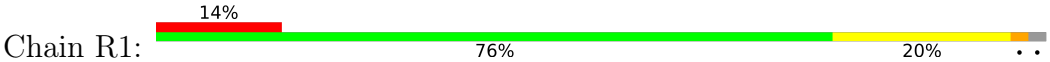
Chain YZ:



• Molecule 45: 50S ribosomal protein L27

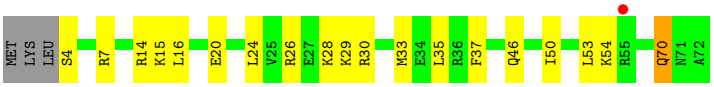
• Molecule 45: 50S ribosomal protein L27

• Molecule 46: 50S ribosomal protein L28

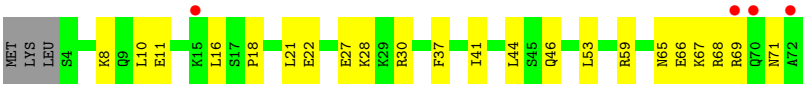


• Molecule 46: 50S ribosomal protein L28

• Molecule 47: 50S ribosomal protein L29

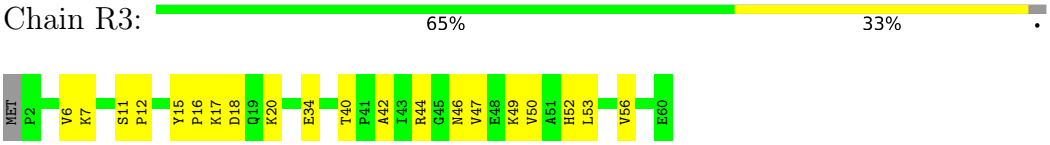


• Molecule 47: 50S ribosomal protein L29



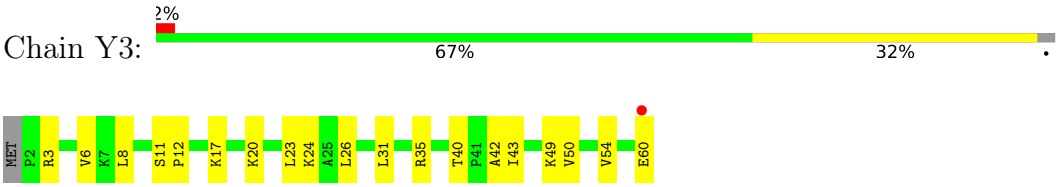
• Molecule 48: 50S ribosomal protein L30

Chain R3:



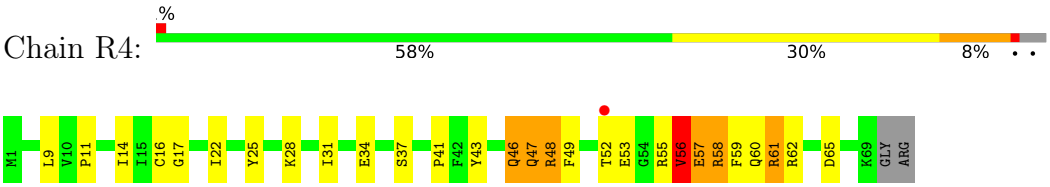
• Molecule 48: 50S ribosomal protein L30

Chain Y3:



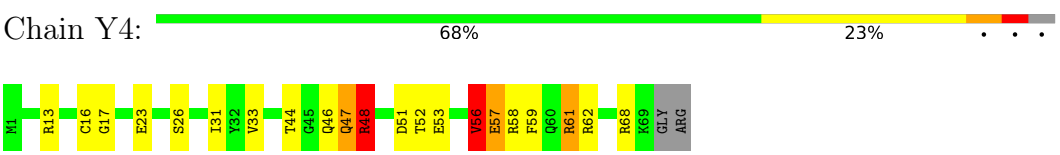
• Molecule 49: 50S ribosomal protein L31

Chain R4:



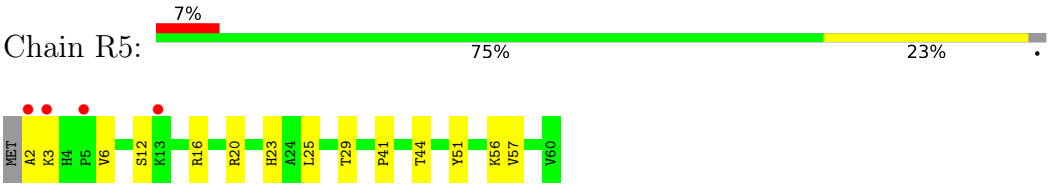
• Molecule 49: 50S ribosomal protein L31

Chain Y4:



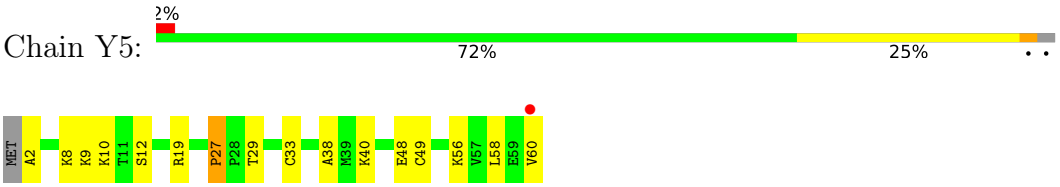
• Molecule 50: 50S ribosomal protein L32

Chain R5:



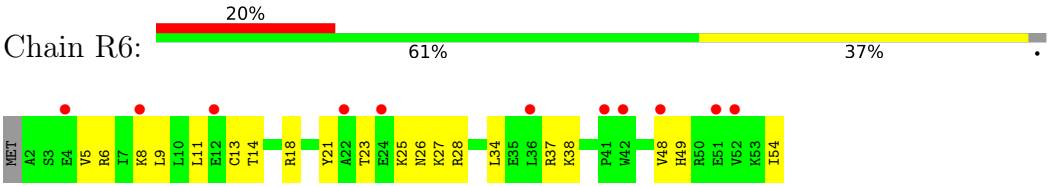
• Molecule 50: 50S ribosomal protein L32

Chain Y5:



• Molecule 51: 50S ribosomal protein L33

Chain R6:

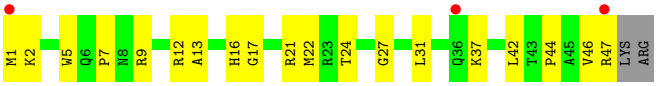


• Molecule 51: 50S ribosomal protein L33

Chain Y6:

• Molecule 52: 50S ribosomal protein L34

Chain R7:

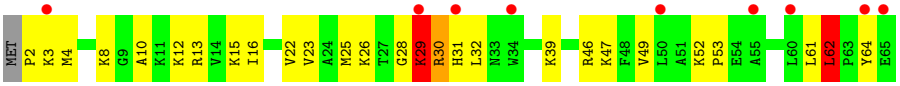


• Molecule 52: 50S ribosomal protein L34

Chain Y7:

• Molecule 53: 50S ribosomal protein L35

Chain R8:

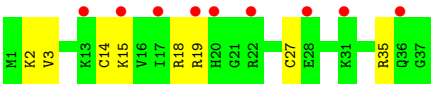


• Molecule 53: 50S ribosomal protein L35

Chain Y8:

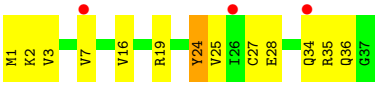
• Molecule 54: 50S ribosomal protein L36

Chain R9:



• Molecule 54: 50S ribosomal protein L36

Chain Y9:


M1
K2
V3
V7
V16
R19
Y24
V25
I26
C27
E28
Q34
R35
Q36
G37

4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	210.24Å 449.36Å 618.47Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	121.99 – 3.50 121.99 – 3.50	Depositor EDS
% Data completeness (in resolution range)	97.9 (121.99-3.50) 97.9 (121.99-3.50)	Depositor EDS
R_{merge}	0.17	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.45 (at 3.26Å)	Xtriage
Refinement program	PHENIX 1.12-2829	Depositor
R, R_{free}	0.207 , 0.250 0.208 , 0.251	Depositor DCC
R_{free} test set	38831 reflections (4.54%)	wwPDB-VP
Wilson B-factor (Å^2)	86.9	Xtriage
Anisotropy	0.138	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.30 , 99.1	EDS
L-test for twinning[2]	$< \|L\| > = 0.41$, $< L^2 > = 0.23$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.92	EDS
Total number of atoms	291948	wwPDB-VP
Average B, all atoms (Å^2)	97.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.72% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#$\|Z\|$ >5	RMSZ	#$\|Z\|$ >5
1	QA	0.17	0/36097	0.37	0/56339
1	XA	0.18	0/36100	0.39	0/56344
2	QB	0.18	0/1942	0.53	2/2619 (0.1%)
2	XB	0.18	0/1950	0.49	0/2630
3	QC	0.17	0/1629	0.49	0/2195
3	XC	0.16	0/1629	0.45	0/2195
4	QD	0.19	0/1733	0.54	0/2318
4	XD	0.28	1/1733 (0.1%)	0.59	2/2318 (0.1%)
5	QE	0.21	0/1171	0.50	0/1576
5	XE	0.17	0/1171	0.49	0/1576
6	QF	0.17	0/856	0.47	0/1154
6	XF	0.16	0/856	0.48	0/1154
7	QG	0.18	0/1276	0.50	1/1709 (0.1%)
7	XG	0.17	0/1276	0.46	0/1709
8	QH	0.16	0/1128	0.46	0/1517
8	XH	0.16	0/1128	0.47	0/1517
9	QI	0.26	0/1029	0.61	1/1379 (0.1%)
9	XI	0.22	0/1017	0.52	0/1365
10	QJ	0.17	0/814	0.55	0/1095
10	XJ	0.17	0/790	0.48	0/1063
11	QK	0.14	0/900	0.41	0/1213
11	XK	0.13	0/879	0.35	0/1187
12	QL	0.17	0/991	0.51	0/1327
12	XL	0.16	0/972	0.49	0/1301
13	QM	0.17	0/965	0.52	0/1292
13	XM	0.21	0/956	0.58	0/1281
14	QN	0.20	0/501	0.58	0/664
14	XN	0.18	0/501	0.55	0/664
15	QO	0.17	0/745	0.45	0/992
15	XO	0.17	0/740	0.46	0/987
16	QP	0.15	0/721	0.44	0/970
16	XP	0.16	0/721	0.48	0/970

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\|>5$	RMSZ	$\#\|Z\|>5$
17	QQ	0.17	0/847	0.48	1/1131 (0.1%)
17	XQ	0.15	0/847	0.50	0/1131
18	QR	0.17	0/579	0.44	0/768
18	XR	0.15	0/579	0.46	0/768
19	QS	0.19	0/680	0.67	3/915 (0.3%)
19	XS	0.15	0/689	0.56	0/926
20	QT	0.20	0/765	0.62	0/1007
20	XT	0.20	0/765	0.62	0/1007
21	QU	0.16	0/221	0.43	0/288
21	XU	0.37	0/221	0.60	0/288
22	QV	0.18	0/1836	0.37	0/2859
22	XV	0.19	0/1836	0.39	0/2859
23	QX	0.13	0/293	0.24	0/455
23	XX	0.13	0/268	0.25	0/416
24	RA	0.20	0/69521	0.41	1/108529 (0.0%)
24	YA	0.22	0/69543	0.43	3/108563 (0.0%)
25	RB	0.18	0/2878	0.36	0/4490
25	YB	0.19	0/2878	0.40	0/4490
26	RD	0.18	0/2165	0.50	0/2919
26	YD	0.18	0/2165	0.49	0/2919
27	RE	0.19	0/1601	0.59	0/2160
27	YE	0.61	1/1601 (0.1%)	0.61	0/2160
28	RF	0.20	0/1620	0.46	0/2194
28	YF	0.18	0/1620	0.47	0/2194
29	RG	0.24	0/1499	0.63	1/2016 (0.0%)
29	YG	0.19	0/1499	0.55	1/2016 (0.0%)
30	RH	0.20	0/1362	0.60	1/1841 (0.1%)
30	YH	0.20	0/1362	0.61	2/1841 (0.1%)
31	RI	0.22	0/1151	0.62	0/1558
31	YI	0.26	0/1151	0.67	2/1558 (0.1%)
32	RN	0.17	0/1131	0.47	0/1525
32	YN	0.17	0/1131	0.50	0/1525
33	RO	0.16	0/943	0.40	0/1269
33	YO	0.14	0/943	0.44	0/1269
34	RP	0.54	3/1162 (0.3%)	0.68	1/1544 (0.1%)
34	YP	0.22	0/1139	0.67	2/1514 (0.1%)
35	RQ	0.19	0/1143	0.58	0/1527
35	YQ	0.17	0/1143	0.51	0/1527
36	RR	0.22	0/974	0.57	0/1302
36	YR	0.34	1/974 (0.1%)	0.58	0/1302
37	RS	0.21	0/892	0.56	0/1187
37	YS	0.23	0/892	0.55	0/1187
38	RT	0.19	0/1155	0.54	0/1542

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	YT	0.20	0/1155	0.58	1/1542 (0.1%)
39	RU	0.19	0/982	0.58	0/1306
39	YU	0.19	0/982	0.59	0/1306
40	RV	0.17	0/790	0.52	0/1057
40	YV	0.19	0/790	0.57	0/1057
41	RW	0.19	0/911	0.49	0/1220
41	YW	0.17	0/911	0.54	0/1220
42	RX	0.14	0/739	0.39	0/993
42	YX	0.16	0/739	0.44	0/993
43	RY	0.15	0/831	0.40	0/1108
43	YY	0.17	0/831	0.45	0/1108
44	RZ	0.21	0/1493	0.73	3/2026 (0.1%)
44	YZ	0.21	0/1493	0.70	5/2026 (0.2%)
45	R0	0.17	0/652	0.43	0/867
45	Y0	0.23	0/657	0.48	0/874
46	R1	0.19	0/761	0.47	0/1008
46	Y1	0.20	0/736	0.46	0/978
47	R2	0.19	0/583	0.54	0/771
47	Y2	0.19	0/583	0.51	0/771
48	R3	0.16	0/474	0.41	0/635
48	Y3	0.16	0/474	0.44	0/635
49	R4	0.20	0/578	0.73	0/776
49	Y4	0.20	0/578	0.66	2/776 (0.3%)
50	R5	0.14	0/473	0.40	0/639
50	Y5	0.78	2/473 (0.4%)	0.88	1/639 (0.2%)
51	R6	0.14	0/460	0.39	0/613
51	Y6	0.39	0/460	0.62	1/613 (0.2%)
52	R7	0.16	0/417	0.51	0/550
52	Y7	0.17	0/426	0.45	0/561
53	R8	0.48	1/525 (0.2%)	0.62	0/691
53	Y8	0.20	0/525	0.64	0/691
54	R9	0.14	0/310	0.43	0/407
54	Y9	0.15	0/310	0.48	0/407
All	All	0.21	9/315683 (0.0%)	0.44	37/471970 (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
2	XB	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
3	QC	0	1
4	QD	0	1
5	QE	0	2
5	XE	0	2
7	QG	0	1
7	XG	0	1
9	QI	0	1
12	QL	0	2
12	XL	0	2
13	QM	0	1
18	QR	0	1
18	XR	0	1
19	QS	0	5
20	QT	0	3
20	XT	0	3
26	YD	0	2
27	RE	0	3
27	YE	0	2
29	RG	0	4
29	YG	0	1
30	RH	0	7
30	YH	0	9
31	RI	0	7
31	YI	0	4
32	RN	0	2
32	YN	0	2
33	YO	0	1
34	RP	0	1
34	YP	0	2
35	RQ	0	3
35	YQ	0	2
36	RR	0	1
38	RT	0	1
38	YT	0	2
39	RU	0	1
39	YU	0	1
40	RV	0	2
40	YV	0	2
44	RZ	0	5
44	YZ	0	4
46	R1	0	1
46	Y1	0	1

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Mol	Chain	#Chirality outliers	#Planarity outliers
47	R2	0	2
47	Y2	0	1
49	R4	0	4
49	Y4	0	3
53	R8	0	3
53	Y8	0	1
54	Y9	0	1
All	All	0	116

All (9) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
27	YE	109	LYS	C-N	22.66	1.45	1.33
50	Y5	27	PRO	CA-C	15.18	1.62	1.52
34	RP	68	GLN	CG-CD	-10.83	1.25	1.52
53	R8	62	LEU	C-O	-9.06	1.19	1.23
36	YR	38	VAL	CA-CB	-7.81	1.50	1.54
34	RP	68	GLN	CA-C	5.80	1.62	1.52
34	RP	68	GLN	CA-CB	5.25	1.59	1.53
50	Y5	27	PRO	C-O	-5.08	1.20	1.24
4	XD	159	ARG	CZ-NH1	-5.04	1.25	1.32

All (37) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
50	Y5	27	PRO	O-C-N	16.93	129.11	121.15
44	RZ	179	ASP	CA-C-N	9.08	138.31	121.97
44	RZ	179	ASP	C-N-CA	9.08	138.31	121.97
38	YT	125	ARG	N-CA-C	-8.96	104.41	114.62
4	XD	159	ARG	NE-CZ-NH2	-8.93	111.16	119.20
44	YZ	179	ASP	CA-C-N	8.51	137.28	121.97
44	YZ	179	ASP	C-N-CA	8.51	137.28	121.97
51	Y6	27	LYS	CG-CD-CE	7.80	129.25	111.30
29	RG	21	ARG	NE-CZ-NH2	7.08	125.57	119.20
34	YP	61	ARG	CG-CD-NE	7.08	127.57	112.00
17	QQ	65	ILE	N-CA-C	-6.98	105.98	112.96
29	YG	82	LEU	N-CA-C	6.67	118.71	110.91
30	RH	82	GLY	N-CA-C	6.22	123.59	111.34
19	QS	41	VAL	N-CA-C	6.09	122.03	108.88
2	QB	111	ARG	CB-CG-CD	-6.08	97.31	111.30
4	XD	159	ARG	NE-CZ-NH1	5.98	127.48	121.50
9	QI	124	GLN	OE1-CD-NE2	-5.81	116.79	122.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
44	RZ	180	VAL	N-CA-C	5.70	121.20	109.34
44	YZ	180	VAL	N-CA-C	5.70	121.19	109.34
2	QB	111	ARG	CG-CD-NE	5.55	124.20	112.00
31	YI	10	GLU	CA-C-N	5.48	132.00	121.54
31	YI	10	GLU	C-N-CA	5.48	132.00	121.54
49	Y4	56	VAL	CA-C-N	5.44	131.93	121.54
49	Y4	56	VAL	C-N-CA	5.44	131.93	121.54
30	YH	8	PRO	CA-C-N	-5.42	118.61	123.33
30	YH	8	PRO	C-N-CA	-5.42	118.61	123.33
44	YZ	177	PRO	CA-C-N	5.42	131.89	121.54
44	YZ	177	PRO	C-N-CA	5.42	131.89	121.54
7	QG	156	TRP	CA-CB-CG	5.33	123.73	113.60
34	YP	61	ARG	CB-CG-CD	-5.25	99.21	111.30
24	RA	1992	G	C2'-C3'-O3'	5.24	117.36	109.50
24	YA	1992	G	C2'-C3'-O3'	5.19	117.29	109.50
34	RP	67	MET	CA-CB-CG	5.17	124.43	114.10
19	QS	40	ILE	CA-C-N	5.15	131.65	122.13
19	QS	40	ILE	C-N-CA	5.15	131.65	122.13
24	YA	271(B)	G	P-O3'-C3'	5.13	125.86	119.70
24	YA	1653	G	C2'-C3'-O3'	5.05	117.07	109.50

There are no chirality outliers.

All (116) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
3	QC	143	GLU	Peptide
4	QD	33	MET	Peptide
5	QE	10	MET	Peptide
5	QE	25	ARG	Peptide
7	QG	155	ARG	Peptide
9	QI	124	GLN	Sidechain
12	QL	104	VAL	Peptide
12	QL	47	LYS	Peptide
13	QM	117	VAL	Peptide
18	QR	21	LYS	Peptide
19	QS	38	SER	Peptide
19	QS	40	ILE	Peptide
19	QS	41	VAL	Peptide
19	QS	5	LEU	Peptide
19	QS	6	LYS	Peptide
20	QT	73	HIS	Peptide
20	QT	94	ALA	Peptide

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Mol	Chain	Res	Type	Group
20	QT	97	ALA	Peptide
46	R1	87	PRO	Peptide
47	R2	46	GLN	Peptide
47	R2	70	GLN	Peptide
49	R4	46	GLN	Peptide
49	R4	56	VAL	Peptide
49	R4	57	GLU	Peptide
49	R4	61	ARG	Peptide
53	R8	28	GLY	Peptide
53	R8	29	LYS	Peptide
53	R8	62	LEU	Peptide
27	RE	130	GLY	Peptide
27	RE	72	VAL	Peptide
27	RE	79	ARG	Peptide
29	RG	4	ASP	Peptide
29	RG	52	ILE	Peptide
29	RG	81	LYS	Peptide
29	RG	82	LEU	Peptide
30	RH	127	GLU	Peptide
30	RH	151	ILE	Peptide
30	RH	153	LYS	Peptide
30	RH	154	PRO	Peptide
30	RH	156	ALA	Peptide
30	RH	82	GLY	Peptide
30	RH	85	LYS	Peptide
31	RI	10	GLU	Peptide
31	RI	11	ASN	Peptide
31	RI	119	PRO	Peptide
31	RI	130	TYR	Peptide
31	RI	131	LYS	Peptide
31	RI	144	VAL	Peptide
31	RI	17	GLN	Peptide
32	RN	21	LYS	Peptide
32	RN	22	THR	Peptide
34	RP	115	LEU	Peptide
35	RQ	104	PHE	Peptide
35	RQ	65	PHE	Peptide
35	RQ	89	ASN	Peptide
36	RR	57	ARG	Peptide
38	RT	122	ASP	Peptide
39	RU	95	LEU	Peptide
40	RV	43	GLU	Peptide

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Mol	Chain	Res	Type	Group
40	RV	49	THR	Peptide
44	RZ	136	PHE	Peptide
44	RZ	146	ILE	Peptide
44	RZ	179	ASP	Peptide
44	RZ	52	SER	Peptide
44	RZ	62	PRO	Peptide
2	XB	233	SER	Peptide
5	XE	26	PHE	Peptide
5	XE	74	GLY	Peptide
7	XG	5	ARG	Peptide
12	XL	104	VAL	Peptide
12	XL	47	LYS	Peptide
18	XR	21	LYS	Peptide
20	XT	73	HIS	Peptide
20	XT	85	MET	Peptide
20	XT	94	ALA	Peptide
46	Y1	40	ARG	Peptide
47	Y2	46	GLN	Peptide
49	Y4	48	ARG	Peptide
49	Y4	56	VAL	Peptide
49	Y4	61	ARG	Peptide
53	Y8	62	LEU	Peptide
54	Y9	24	TYR	Peptide
26	YD	237	GLU	Peptide
26	YD	35	LYS	Peptide
27	YE	131	ALA	Peptide
27	YE	57	LYS	Peptide
29	YG	116	ASP	Peptide
30	YH	150	ALA	Peptide
30	YH	151	ILE	Peptide
30	YH	152	ARG	Peptide
30	YH	153	LYS	Peptide
30	YH	154	PRO	Peptide
30	YH	156	ALA	Peptide
30	YH	7	LEU	Peptide
30	YH	82	GLY	Peptide
30	YH	85	LYS	Peptide
31	YI	121	LYS	Peptide
31	YI	17	GLN	Peptide
31	YI	86	THR	Peptide
31	YI	9	LEU	Peptide
32	YN	115	ARG	Peptide

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Mol	Chain	Res	Type	Group
32	YN	22	THR	Peptide
33	YO	96	THR	Peptide
34	YP	107	LYS	Peptide
34	YP	115	LEU	Peptide
35	YQ	104	PHE	Peptide
35	YQ	89	ASN	Peptide
38	YT	111	ARG	Peptide
38	YT	5	ALA	Peptide
39	YU	95	LEU	Peptide
40	YV	47	VAL	Peptide
40	YV	49	THR	Peptide
44	YZ	179	ASP	Peptide
44	YZ	52	SER	Peptide
44	YZ	62	PRO	Peptide
44	YZ	93	ASP	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	QA	32246	0	16278	581	0
1	XA	32248	0	16279	548	2
2	QB	1907	0	1958	60	0
2	XB	1915	0	1969	58	0
3	QC	1605	0	1668	59	0
3	XC	1605	0	1668	49	0
4	QD	1703	0	1766	64	0
4	XD	1703	0	1767	53	1
5	QE	1155	0	1213	27	0
5	XE	1155	0	1213	23	0
6	QF	843	0	857	15	0
6	XF	843	0	857	29	0
7	QG	1257	0	1296	24	0
7	XG	1257	0	1296	28	0
8	QH	1108	0	1165	45	0
8	XH	1108	0	1165	37	0
9	QI	1010	0	1037	59	0
9	XI	998	0	1024	32	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
10	QJ	801	0	849	43	0
10	XJ	777	0	816	38	0
11	QK	885	0	904	26	0
11	XK	864	0	881	26	0
12	QL	975	0	1062	34	0
12	XL	956	0	1046	27	0
13	QM	955	0	1021	42	0
13	XM	946	0	1007	37	0
14	QN	492	0	529	27	0
14	XN	492	0	529	16	0
15	QO	734	0	771	20	0
15	XO	729	0	768	12	0
16	QP	705	0	725	12	0
16	XP	705	0	725	25	0
17	QQ	834	0	904	22	0
17	XQ	834	0	904	24	0
18	QR	574	0	644	16	0
18	XR	574	0	644	20	0
19	QS	665	0	686	43	0
19	XS	674	0	699	25	0
20	QT	763	0	861	25	0
20	XT	763	0	861	26	0
21	QU	217	0	234	6	0
21	XU	217	0	234	6	0
22	QV	1644	0	836	23	0
22	XV	1644	0	836	16	0
23	QX	261	0	130	2	0
23	XX	239	0	119	3	0
24	RA	62071	0	31291	867	2
24	YA	62091	0	31301	973	0
25	RB	2573	0	1306	45	0
25	YB	2573	0	1306	47	0
26	RD	2115	0	2195	57	0
26	YD	2115	0	2195	79	0
27	RE	1568	0	1634	54	0
27	YE	1568	0	1634	66	0
28	RF	1585	0	1632	55	0
28	YF	1585	0	1632	44	0
29	RG	1474	0	1535	64	0
29	YG	1474	0	1535	51	0
30	RH	1336	0	1418	40	0
30	YH	1336	0	1418	40	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
31	RI	1136	0	1223	26	2
31	YI	1136	0	1223	42	0
32	RN	1104	0	1180	18	0
32	YN	1104	0	1180	33	0
33	RO	933	0	996	27	0
33	YO	933	0	996	17	0
34	RP	1145	0	1228	46	0
34	YP	1122	0	1206	59	0
35	RQ	1122	0	1179	52	0
35	YQ	1122	0	1179	33	0
36	RR	960	0	1021	38	0
36	YR	960	0	1021	30	0
37	RS	882	0	943	33	0
37	YS	882	0	943	33	0
38	RT	1141	0	1202	40	0
38	YT	1141	0	1202	40	0
39	RU	964	0	1022	33	0
39	YU	964	0	1022	41	0
40	RV	779	0	852	24	0
40	YV	779	0	852	19	1
41	RW	900	0	964	26	0
41	YW	900	0	964	23	0
42	RX	725	0	778	24	0
42	YX	725	0	778	14	0
43	RY	818	0	911	12	0
43	YY	818	0	912	27	0
44	RZ	1461	0	1493	59	0
44	YZ	1461	0	1493	46	0
45	R0	643	0	667	19	0
45	Y0	648	0	672	24	0
46	R1	755	0	836	16	0
46	Y1	729	0	802	20	0
47	R2	581	0	629	14	0
47	Y2	581	0	629	12	1
48	R3	469	0	518	13	0
48	Y3	469	0	518	14	0
49	R4	565	0	560	31	0
49	Y4	565	0	559	20	0
50	R5	459	0	476	18	0
50	Y5	459	0	478	13	1
51	R6	453	0	475	16	0
51	Y6	453	0	474	12	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
52	R7	409	0	454	15	0
52	Y7	418	0	467	10	0
53	R8	517	0	582	26	0
53	Y8	517	0	582	24	0
54	R9	307	0	336	6	0
54	Y9	307	0	335	13	0
55	QA	180	0	0	0	0
55	QC	1	0	0	0	0
55	QF	1	0	0	0	0
55	QH	1	0	0	0	0
55	QL	1	0	0	0	0
55	QV	6	0	0	0	0
55	QX	2	0	0	0	0
55	R0	2	0	0	0	0
55	R1	2	0	0	0	0
55	R5	1	0	0	0	0
55	RA	493	0	0	0	0
55	RB	10	0	0	0	0
55	RD	1	0	0	0	0
55	RE	4	0	0	0	0
55	RF	1	0	0	0	0
55	RI	1	0	0	0	0
55	RN	1	0	0	0	0
55	RO	1	0	0	0	0
55	RP	3	0	0	0	0
55	RQ	2	0	0	0	0
55	RT	1	0	0	0	0
55	RU	1	0	0	0	0
55	RW	1	0	0	0	0
55	RX	1	0	0	0	0
55	RY	1	0	0	0	0
55	XA	171	0	0	0	0
55	XE	2	0	0	0	0
55	XL	1	0	0	0	0
55	XM	1	0	0	0	0
55	XQ	1	0	0	0	0
55	XS	1	0	0	0	0
55	XV	8	0	0	0	0
55	Y0	1	0	0	0	0
55	Y5	1	0	0	0	0
55	Y7	1	0	0	0	0
55	Y8	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
55	YA	515	0	0	0	0
55	YB	10	0	0	0	0
55	YD	2	0	0	0	0
55	YE	4	0	0	0	0
55	YO	1	0	0	0	0
55	YP	3	0	0	0	0
55	YQ	3	0	0	0	0
55	YU	1	0	0	0	0
55	YX	2	0	0	0	0
55	YY	1	0	0	0	0
56	QD	8	0	0	1	0
56	XD	8	0	0	2	0
57	QN	1	0	0	0	0
57	R4	1	0	0	0	0
57	R5	1	0	0	0	0
57	R6	1	0	0	0	0
57	R9	1	0	0	0	0
57	RY	1	0	0	0	0
57	XN	1	0	0	0	0
57	Y4	1	0	0	0	0
57	Y5	1	0	0	0	0
57	Y6	1	0	0	0	0
57	Y9	1	0	0	0	0
57	YY	1	0	0	0	0
All	All	291948	0	197745	5298	5

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 11.

All (5298) 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)
24:RA:2285:C:OP2	51:R6:6:ARG:NH2	1.85	1.08
24:RA:2068:U:H3	24:RA:2430:A:H2	1.11	0.99
24:RA:676:A:H8	24:RA:2069:G:H21	1.04	0.98
10:QJ:4:ILE:HG22	10:QJ:74:ILE:HG12	1.46	0.96
1:XA:686:U:H1'	11:XK:42:TRP:HE1	1.31	0.93
1:QA:426:G:OP2	4:QD:36:ARG:NH1	2.03	0.92
25:YB:8:U:H3	25:YB:112:G:H1	0.98	0.92
1:QA:481:G:HO2'	1:QA:482:A:H8	0.99	0.91
24:YA:1138:G:H21	32:YN:106:MET:HE3	1.35	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:2470:G:H5'	35:YQ:56:ARG:HH21	1.36	0.90
34:YP:61:ARG:HH21	53:Y8:13:ARG:HD2	1.35	0.90
49:Y4:61:ARG:HH11	49:Y4:62:ARG:HA	1.34	0.90
27:YE:78:LEU:HD23	27:YE:79:ARG:HG2	1.50	0.90
2:XB:185:ILE:HG22	2:XB:199:TYR:HB2	1.54	0.89
49:Y4:57:GLU:HG2	49:Y4:61:ARG:HB3	1.54	0.89
24:YA:2304:G:H22	24:YA:2312:U:H3	1.21	0.88
24:RA:884:C:O2	24:RA:892:G:N2	2.07	0.88
4:QD:30:LYS:HG2	4:QD:35:ARG:HD2	1.57	0.87
24:YA:888:C:H3'	24:YA:889:C:H4'	1.57	0.87
30:RH:18:GLU:HB2	30:RH:25:LYS:HB2	1.57	0.87
24:RA:1899:G:N2	24:RA:1902:C:H41	1.72	0.86
1:XA:1356:G:H2'	1:XA:1357:A:H8	1.39	0.85
25:RB:37:C:O2	37:RS:95:HIS:NE2	2.10	0.85
49:R4:55:ARG:O	49:R4:60:GLN:NE2	2.10	0.85
1:QA:259:G:OP2	20:QT:83:ARG:NH1	2.10	0.84
8:XH:109:ILE:HG23	8:XH:137:VAL:HG13	1.59	0.84
19:QS:19:VAL:HG21	19:QS:44:MET:HG2	1.59	0.84
49:R4:61:ARG:HH11	49:R4:62:ARG:HA	1.42	0.84
24:RA:1568:G:H5"	26:RD:61:LEU:HD23	1.60	0.83
45:R0:10:THR:HG22	45:R0:12:ASN:H	1.42	0.83
10:QJ:29:ARG:NH2	1:XA:1164:G:OP1	2.11	0.83
13:QM:23:TYR:HB3	13:QM:67:GLU:HG3	1.61	0.83
1:XA:1348:U:H3	1:XA:1374:A:H2	1.23	0.83
4:QD:18:LYS:NZ	4:QD:31:CYS:SG	2.52	0.82
24:RA:27:G:N2	24:RA:513:A:OP2	2.11	0.82
24:RA:819:A:OP2	24:RA:1187:G:N2	2.12	0.82
24:YA:270(O):U:H2'	31:YI:52:ARG:HH22	1.43	0.82
24:YA:2245:U:H5'	24:YA:2246:G:H5'	1.60	0.82
13:XM:3:ARG:HG3	13:XM:9:ILE:HG21	1.60	0.82
24:YA:259:G:H21	24:YA:621:A:H8	1.25	0.82
24:YA:996:A:OP2	39:YU:92:ARG:NH2	2.12	0.82
41:RW:4:LYS:HE3	41:RW:6:ILE:HD11	1.60	0.81
1:XA:1127:G:N2	1:XA:1145:C:C2	2.48	0.81
1:QA:1422:G:H5"	33:RO:48:PRO:HB3	1.63	0.81
1:QA:559:A:H4'	1:QA:560:U:H3'	1.62	0.81
24:RA:1485:G:H1	24:RA:1504:C:H42	1.29	0.81
1:QA:501:C:H2'	1:QA:502:G:H8	1.46	0.81
34:YP:61:ARG:NH2	53:Y8:13:ARG:HD2	1.96	0.81
24:RA:2285:C:P	51:R6:6:ARG:HH22	2.05	0.80
24:YA:2701:C:H3'	24:YA:2702:U:H5"	1.60	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:1800:C:OP2	26:YD:183:ARG:NH1	2.14	0.80
24:YA:1062:G:H1	24:YA:1076:C:H42	1.26	0.80
27:RE:2:LYS:HD2	27:RE:95:ILE:HG23	1.64	0.80
31:RI:4:ILE:HG22	31:RI:18:VAL:HG22	1.64	0.80
24:YA:2296:U:OP2	37:YS:9:ARG:NH2	2.13	0.80
1:XA:1028(A):C:O2	1:XA:1032(B):G:N2	2.15	0.80
26:RD:8:PRO:HB3	26:RD:14:ARG:HB3	1.63	0.80
1:QA:1306:A:N6	1:QA:1331:G:O2'	2.15	0.79
24:RA:2102:U:H3	24:RA:2187:G:H1	1.27	0.79
24:YA:141:A:H8	24:YA:1595:G:H21	1.30	0.79
24:YA:2068:U:H3	24:YA:2430:A:H2	1.29	0.79
24:YA:1649:G:O2'	36:YR:107:ASP:OD1	2.00	0.79
37:YS:10:ARG:NH1	37:YS:91:PRO:O	2.16	0.79
1:QA:932:C:OP2	7:QG:3:ARG:NH1	2.16	0.79
1:XA:1028(A):C:N3	1:XA:1032(B):G:N1	2.31	0.79
1:XA:1291:G:O2'	9:XI:38:GLN:NE2	2.16	0.79
1:QA:1002:G:H1	1:QA:1038:C:H42	1.29	0.79
27:YE:104:VAL:HG11	27:YE:188:VAL:HG12	1.65	0.79
1:QA:951:G:OP2	13:QM:102:ARG:NH2	2.16	0.78
14:QN:4:LYS:HA	14:QN:7:ILE:HG12	1.65	0.78
1:QA:448:A:OP2	1:QA:485:G:N2	2.15	0.78
24:YA:2327:A:H2'	24:YA:2328:A:C8	2.18	0.78
49:Y4:13:ARG:HH12	49:Y4:23:GLU:HG3	1.48	0.78
2:QB:8:LYS:HD3	2:QB:10:LEU:H	1.47	0.78
33:RO:35:VAL:HG11	33:RO:103:ALA:HB3	1.64	0.78
24:YA:2646:C:OP2	24:YA:2732:G:O2'	2.01	0.78
27:YE:144:ARG:HG3	27:YE:145:LYS:H	1.48	0.78
15:QO:29:VAL:HG21	15:QO:81:LEU:HD21	1.66	0.78
44:RZ:166:SER:HB3	44:RZ:168:GLU:H	1.46	0.78
24:YA:958:U:OP2	35:YQ:14:ARG:NH1	2.16	0.78
35:RQ:81:VAL:O	35:RQ:82:ARG:NE	2.17	0.78
1:XA:1446:A:H4'	38:YT:125:ARG:HH22	1.49	0.78
24:RA:593:G:H4'	53:R8:61:LEU:HD12	1.63	0.78
9:XI:111:ARG:NH1	9:XI:112:LYS:O	2.16	0.78
1:QA:1222:G:H5"	19:QS:78:ARG:HH12	1.47	0.78
24:YA:1109:C:O2'	24:YA:1110:G:O4'	2.00	0.78
29:YG:29:TRP:O	29:YG:33:ARG:NH1	2.17	0.78
17:QQ:66:SER:O	17:QQ:70:ARG:NH1	2.17	0.78
13:XM:49:THR:HG22	13:XM:51:ALA:H	1.49	0.78
24:RA:2882:A:OP1	36:RR:96:ARG:NH1	2.15	0.77
44:RZ:53:ILE:HG22	44:RZ:71:VAL:HG13	1.64	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:2783:G:H21	27:YE:37:ARG:HH22	1.32	0.77
45:Y0:10:THR:HG22	45:Y0:12:ASN:H	1.49	0.77
25:RB:40:U:O2	25:RB:45:A:N6	2.17	0.77
25:YB:40:U:O2	25:YB:45:A:N6	2.17	0.77
24:RA:1012:U:OP1	39:RU:75:ASN:ND2	2.18	0.77
9:QI:117:HIS:HB2	9:QI:121:ARG:HE	1.49	0.77
9:QI:125:TYR:HE2	9:QI:127:LYS:HE2	1.49	0.77
27:YE:24:THR:HG23	27:YE:186:GLY:HA2	1.67	0.77
1:XA:719:C:H1'	18:XR:49:LYS:HB2	1.66	0.77
39:RU:90:VAL:O	39:RU:92:ARG:N	2.18	0.77
24:YA:2794:C:O2	24:YA:2802:G:N2	2.18	0.77
1:QA:414:A:OP2	1:QA:428:G:N2	2.17	0.77
24:RA:2483:C:N3	35:RQ:124:LYS:NZ	2.33	0.77
24:YA:249:C:O2	53:Y8:12:LYS:NZ	2.16	0.76
24:YA:1689:A:H62	24:YA:1698:A:H2	1.31	0.76
24:RA:807:U:H2'	24:RA:808:G:H8	1.50	0.76
48:R3:7:LYS:HG2	48:R3:34:GLU:HG3	1.67	0.76
1:QA:714:G:H2'	1:QA:715:A:C8	2.21	0.76
8:QH:102:ARG:HH22	8:QH:105:ARG:HG3	1.50	0.76
24:RA:2844:G:H3'	24:RA:2845:G:H8	1.49	0.76
38:RT:102:ILE:HG23	38:RT:110:ILE:HD12	1.64	0.76
49:Y4:51:ASP:HB2	49:Y4:53:GLU:HG2	1.67	0.76
24:YA:2724:C:OP1	27:YE:118:LYS:NZ	2.18	0.76
5:QE:10:MET:HE1	5:QE:13:ILE:HG12	1.66	0.76
1:XA:559:A:OP1	5:XE:126:ARG:NH2	2.17	0.76
1:XA:675:A:H1'	11:XK:116:HIS:CD2	2.21	0.76
29:RG:47:LYS:HB3	29:RG:81:LYS:HD2	1.67	0.76
24:YA:2134:A:N6	24:YA:2156:G:O2'	2.19	0.76
1:QA:1350:A:OP1	9:QI:121:ARG:NH1	2.18	0.76
4:QD:31:CYS:SG	4:QD:32:ALA:N	2.58	0.76
24:RA:2701:C:H3'	24:RA:2702:U:H5"	1.68	0.75
24:YA:1607:C:N4	24:YA:1622:G:OP2	2.19	0.75
41:RW:11:ARG:HH21	41:RW:98:LYS:HD2	1.51	0.75
25:YB:80:U:H2'	25:YB:81:G:H21	1.52	0.75
24:YA:24:G:O2'	41:YW:78:GLU:O	2.04	0.75
24:RA:414:C:O2	24:RA:1864:U:O2'	2.04	0.75
1:XA:410:G:O3'	4:XD:30:LYS:NZ	2.19	0.75
10:QJ:3:LYS:N	10:QJ:74:ILE:O	2.19	0.75
24:YA:676:A:H8	24:YA:2069:G:H21	1.34	0.75
4:QD:11:LEU:HD13	4:QD:66:ARG:HD2	1.68	0.75
31:RI:79:ILE:HD11	31:RI:142:VAL:HG12	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1267:C:H2'	21:QU:20:LYS:HE3	1.69	0.75
10:QJ:4:ILE:HG13	10:QJ:100:THR:HB	1.67	0.75
30:RH:152:ARG:HD2	30:RH:153:LYS:HG3	1.69	0.75
24:YA:1859:A:N6	24:YA:1883:G:O2'	2.20	0.75
44:RZ:166:SER:HB3	44:RZ:168:GLU:N	2.02	0.74
1:XA:1003:G:H21	1:XA:1005:A:H5'	1.52	0.74
54:Y9:25:VAL:HG22	54:Y9:34:GLN:HB3	1.68	0.74
1:QA:1023:G:H3'	1:QA:1024:G:H5"	1.70	0.74
24:RA:2134:A:N7	24:RA:2157:G:O2'	2.21	0.74
26:YD:8:PRO:HB3	26:YD:14:ARG:HG2	1.70	0.74
1:QA:1178:G:OP2	9:QI:93:ARG:NH2	2.21	0.74
19:QS:39:THR:HG22	19:QS:40:ILE:H	1.52	0.74
7:XG:69:VAL:HG21	7:XG:104:LEU:HD21	1.68	0.74
24:RA:1542:G:O6	24:RA:1543:A:N6	2.20	0.74
24:RA:662:G:OP1	34:RP:15:ARG:NH1	2.20	0.74
24:RA:1980:G:O2'	24:RA:1982:C:OP2	2.03	0.74
24:YA:1899:G:H21	24:YA:1902:C:H41	1.35	0.74
1:QA:1347:G:N2	1:QA:1374:A:OP2	2.18	0.74
51:Y6:25:LYS:HZ1	51:Y6:34:LEU:HD11	1.53	0.74
24:RA:2245:U:H5'	24:RA:2246:G:H5'	1.68	0.74
24:YA:2349:G:N2	24:YA:2368:C:O2	2.18	0.74
24:RA:2392:A:H2	24:RA:2424:C:H42	1.36	0.74
24:YA:2294:C:H5'	37:YS:93:LYS:HE3	1.69	0.74
44:YZ:166:SER:HB2	44:YZ:168:GLU:N	2.03	0.74
45:Y0:47:PRO:HD3	45:Y0:53:MET:HE3	1.69	0.74
29:RG:101:ILE:HD11	49:R4:25:TYR:HB2	1.67	0.73
44:YZ:53:ILE:HG22	44:YZ:71:VAL:HG13	1.68	0.73
12:QL:113:ARG:HH21	12:QL:116:SER:HB2	1.52	0.73
24:RA:1403:C:H5"	24:RA:1471:A:H1'	1.68	0.73
39:YU:90:VAL:O	39:YU:92:ARG:N	2.20	0.73
24:RA:1359:A:H62	24:RA:1372:U:H3	1.35	0.73
2:XB:115:LEU:HD23	2:XB:153:ARG:HD2	1.69	0.73
24:YA:1155:A:H5"	39:YU:55:ARG:HH11	1.53	0.73
1:XA:1318:A:H4'	19:XS:11:VAL:HG11	1.70	0.73
27:RE:36:ARG:NH2	27:RE:88:GLY:HA2	2.03	0.73
1:XA:838:G:H1	1:XA:848:C:H42	1.36	0.73
31:RI:133:HIS:HB3	31:RI:134:PRO:HD3	1.71	0.73
41:RW:81:ALA:HB3	41:RW:97:LYS:HE2	1.71	0.73
2:XB:118:LEU:HD13	2:XB:142:LEU:HA	1.68	0.73
1:QA:501:C:H2'	1:QA:502:G:C8	2.23	0.73
24:RA:2867:G:OP2	38:RT:119:LYS:NZ	2.18	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:1667:G:O2'	24:RA:1991:U:O4	2.06	0.73
1:XA:1127:G:H1'	1:XA:1147:C:H42	1.53	0.73
5:XE:35:GLY:HA3	5:XE:112:LEU:HB3	1.69	0.73
1:QA:17:U:H2'	1:QA:18:C:C6	2.24	0.72
1:QA:713:G:H2'	1:QA:714:G:C8	2.24	0.72
1:QA:376:G:H5"	16:QP:5:ARG:HD2	1.72	0.72
1:QA:542:G:OP1	4:QD:10:ARG:NH1	2.21	0.72
10:QJ:24:VAL:HG21	10:QJ:37:PRO:HG3	1.71	0.72
12:XL:27:LEU:HD22	12:XL:33:ARG:HH12	1.53	0.72
24:YA:994:C:OP1	39:YU:53:ARG:NH2	2.22	0.72
41:YW:110:LYS:HG3	41:YW:111:HIS:H	1.54	0.72
34:RP:88:LEU:HD11	34:RP:95:VAL:HG11	1.70	0.72
35:RQ:17:LEU:HD13	35:RQ:39:PRO:HB2	1.71	0.72
2:QB:96:ARG:NH1	2:QB:97:TRP:O	2.22	0.72
44:YZ:52:SER:O	44:YZ:54:HIS:N	2.22	0.72
24:RA:2580:U:H4'	27:RE:130:GLY:HA3	1.71	0.72
29:RG:82:LEU:HD21	29:RG:88:ILE:HD13	1.71	0.72
6:XF:11:ASN:HB3	6:XF:14:LEU:HD13	1.70	0.72
6:XF:87:ARG:NH1	18:XR:75:ILE:O	2.22	0.72
24:YA:28:A:N6	24:YA:512:G:O2'	2.22	0.72
2:XB:27:LYS:HG3	2:XB:194:PRO:HD2	1.70	0.72
17:XQ:66:SER:O	17:XQ:70:ARG:NH1	2.23	0.72
24:YA:270(Q):C:OP1	31:YI:45:LYS:NZ	2.23	0.72
24:YA:2577:A:H5"	24:YA:2578:G:H5'	1.72	0.72
25:RB:48:A:OP2	37:RS:30:ARG:NH2	2.23	0.72
29:RG:41:GLN:HB3	29:RG:90:LEU:HB2	1.71	0.72
1:XA:1347:G:N2	1:XA:1374:A:OP2	2.22	0.72
26:YD:182:LEU:H	26:YD:272:ALA:HB3	1.54	0.72
24:RA:2680:C:H5'	27:RE:189:PRO:HA	1.72	0.72
1:XA:438:G:O2'	1:XA:496:A:N6	2.22	0.72
24:YA:1449:A:C4	24:YA:1529:A:H2	2.08	0.72
19:QS:67:VAL:HB	49:R4:58:ARG:HB3	1.71	0.71
24:RA:2296:U:OP2	37:RS:9:ARG:NH1	2.23	0.71
24:RA:2517:C:N3	24:RA:2542:A:N6	2.37	0.71
39:RU:50:ARG:HH22	40:RV:72:VAL:HG22	1.55	0.71
1:XA:1356:G:H2'	1:XA:1357:A:C8	2.25	0.71
1:QA:790:A:OP1	22:QV:39:A:O2'	2.08	0.71
24:RA:265:A:N6	24:RA:427:U:O2'	2.23	0.71
1:XA:880:C:OP1	12:XL:12:ARG:NH1	2.19	0.71
1:XA:1095:U:OP1	1:XA:1108:G:N2	2.22	0.71
4:QD:98:GLU:HG2	4:QD:189:PRO:HG3	1.72	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:QC:134:ILE:HG13	3:QC:151:VAL:HG13	1.72	0.71
52:R7:24:THR:HG23	52:R7:27:GLY:H	1.55	0.71
1:XA:17:U:H2'	1:XA:18:C:C6	2.25	0.71
1:XA:73:G:H1	1:XA:97:U:H3	1.36	0.71
1:QA:974:A:OP2	14:QN:41:ARG:NH2	2.23	0.71
24:RA:2612:C:H5'	50:R5:2:ALA:HB2	1.72	0.71
46:Y1:87:PRO:HA	46:Y1:90:ILE:HG22	1.72	0.71
24:YA:662:G:OP1	34:YP:15:ARG:NH1	2.24	0.71
3:XC:14:ILE:HG12	3:XC:15:THR:HG23	1.73	0.71
24:YA:571:A:H5'	24:YA:2030:A:H62	1.56	0.71
24:YA:2306:C:H3'	24:YA:2307:G:H5"	1.73	0.71
3:QC:76:VAL:HG21	3:QC:103:VAL:HG21	1.73	0.71
14:QN:46:GLU:HG2	14:QN:50:LYS:HE2	1.73	0.71
34:RP:62:LEU:HD12	53:R8:30:ARG:HH21	1.55	0.70
1:XA:191(G):G:O2'	20:XT:101:GLY:O	2.09	0.70
10:XJ:34:VAL:HG22	10:XJ:74:ILE:HG22	1.71	0.70
24:YA:1341:U:OP2	24:YA:1394:U:O2'	2.09	0.70
43:YY:14:LEU:HD22	43:YY:82:PRO:HG3	1.72	0.70
9:QI:7:THR:HG23	9:QI:83:ARG:HH11	1.55	0.70
29:RG:112:PRO:HG3	49:R4:43:TYR:HE2	1.56	0.70
3:QC:9:GLY:HA2	3:QC:12:LEU:HD13	1.73	0.70
1:QA:1119:C:OP2	9:QI:9:ARG:NH2	2.24	0.70
7:QG:16:LEU:HD22	9:QI:42:ARG:HA	1.73	0.70
1:XA:714:G:H2'	1:XA:715:A:C8	2.27	0.70
36:RR:20:LEU:HD21	36:RR:40:LYS:HE3	1.73	0.70
1:QA:673:G:H2'	1:QA:674:G:C8	2.27	0.70
24:RA:1062:G:H2'	24:RA:1063:G:H8	1.57	0.70
24:YA:270(N):G:N3	31:YI:50:ARG:NH2	2.38	0.70
28:YF:125:LEU:HA	28:YF:194:MET:O	1.91	0.70
47:Y2:22:GLU:OE2	47:Y2:68:ARG:NH2	2.24	0.70
13:QM:94:ARG:HB3	13:QM:96:LEU:HD23	1.73	0.70
24:RA:2438:U:O3'	24:RA:2439:A:H3'	1.92	0.70
26:RD:136:ILE:HG22	26:RD:140:THR:HG21	1.74	0.70
32:RN:3:THR:HG21	39:RU:61:TRP:HE1	1.57	0.70
41:RW:110:LYS:HG3	41:RW:111:HIS:H	1.57	0.70
49:Y4:56:VAL:HG12	49:Y4:57:GLU:H	1.56	0.70
1:XA:1062:U:H2'	1:XA:1063:C:C6	2.27	0.70
1:QA:407:G:O4'	4:QD:119:GLN:NE2	2.25	0.70
19:QS:41:VAL:HA	19:QS:44:MET:HE3	1.74	0.69
30:RH:153:LYS:HA	30:RH:155:SER:HB3	1.74	0.69
22:XV:15:G:H1	22:XV:49:C:H5	1.39	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:YZ:52:SER:O	44:YZ:54:HIS:ND1	2.25	0.69
24:YA:997:G:OP1	39:YU:93:LYS:HD3	1.92	0.69
24:YA:2655:G:N2	24:YA:2665:A:OP2	2.25	0.69
11:QK:58:PRO:HB2	11:QK:93:GLN:HG3	1.73	0.69
16:XP:20:VAL:HG23	16:XP:35:LYS:HA	1.74	0.69
1:QA:947:G:O3'	13:QM:109:THR:OG1	2.10	0.69
1:XA:243:A:H4'	1:XA:244:U:H3'	1.75	0.69
27:RE:36:ARG:HH22	27:RE:88:GLY:HA2	1.58	0.69
1:XA:673:G:H2'	1:XA:674:G:C8	2.27	0.69
1:QA:1004:A:O2'	1:QA:1036:G:N2	2.25	0.69
24:RA:2331:G:H4'	45:R0:43:THR:H	1.55	0.69
53:R8:29:LYS:O	53:R8:31:HIS:N	2.25	0.69
24:YA:933:A:OP1	48:Y3:24:LYS:NZ	2.26	0.69
29:YG:18:GLU:OE2	29:YG:21:ARG:NH2	2.24	0.69
44:YZ:4:ARG:NH1	44:YZ:60:GLU:OE2	2.26	0.69
1:QA:409:G:H5'	4:QD:25:ARG:HG3	1.74	0.69
10:QJ:45:ARG:HB3	10:QJ:65:LEU:HB3	1.75	0.69
24:RA:442:G:H1'	28:RF:48:THR:HG21	1.73	0.69
24:RA:581:C:H2'	24:RA:582:G:H8	1.57	0.69
24:RA:1818:U:OP2	26:RD:157:ARG:NH1	2.26	0.69
24:RA:2013:A:O2'	41:RW:94:ASP:OD2	2.10	0.69
27:RE:176:ILE:HD11	27:RE:181:LEU:HD12	1.73	0.69
3:XC:150:LYS:HD2	3:XC:167:TRP:HE1	1.58	0.69
24:YA:1028:A:H2'	24:YA:1029:A:C8	2.27	0.69
28:YF:198:ALA:HA	28:YF:201:VAL:HG12	1.75	0.69
35:YQ:20:ALA:HB1	35:YQ:99:PRO:HD2	1.74	0.69
4:XD:18:LYS:NZ	56:XD:301:SF4:S3	2.65	0.69
24:RA:1142(A):A:H4'	32:RN:25:ARG:HH22	1.56	0.69
3:XC:19:GLU:HG2	3:XC:40:ARG:HH21	1.57	0.69
35:RQ:34:LEU:HB2	35:RQ:118:LEU:HD12	1.75	0.68
24:YA:598:G:H5'	34:YP:11:GLY:HA3	1.75	0.68
24:RA:49:A:H61	24:RA:177:G:H2'	1.59	0.68
4:QD:148:VAL:HG11	4:QD:181:MET:HE2	1.73	0.68
24:RA:2262:U:OP1	45:R0:19:LYS:NZ	2.26	0.68
35:RQ:138:ASP:O	35:RQ:141:GLN:NE2	2.25	0.68
1:XA:403:C:OP2	4:XD:74:GLN:NE2	2.26	0.68
24:YA:288:C:H2'	24:YA:289:A:H8	1.58	0.68
1:QA:266:G:H5'	1:QA:268:C:H41	1.58	0.68
1:QA:501:C:OP1	12:QL:117:ARG:NH2	2.26	0.68
13:XM:13:LYS:HA	13:XM:44:ARG:HD2	1.75	0.68
24:YA:882:G:H22	24:YA:894:C:H42	1.41	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:QM:107:ALA:HB3	13:QM:111:LYS:HE2	1.74	0.68
17:QQ:92:ARG:HD3	17:QQ:95:TYR:HE2	1.57	0.68
1:XA:1422:G:H5"	33:YO:48:PRO:HB3	1.76	0.68
6:QF:24:GLU:OE1	6:QF:28:ARG:NH1	2.25	0.68
17:QQ:6:LEU:HD22	17:QQ:42:TYR:HE2	1.57	0.68
24:RA:1310:G:OP2	52:R7:9:ARG:NE	2.20	0.68
8:QH:104:ARG:HB3	8:QH:108:GLY:H	1.59	0.68
45:R0:47:PRO:HD3	45:R0:53:MET:HE3	1.75	0.68
2:XB:68:ILE:HG22	2:XB:161:ALA:HB3	1.76	0.68
24:YA:1789:A:OP2	26:YD:222:ARG:NH1	2.25	0.68
24:YA:1899:G:H21	24:YA:1902:C:N4	1.91	0.68
29:RG:47:LYS:HE3	29:RG:81:LYS:HG2	1.74	0.68
29:RG:56:ALA:HB2	29:RG:153:ARG:HH21	1.59	0.68
38:RT:20:PRO:HD2	38:RT:86:ILE:HG23	1.76	0.68
1:XA:946:A:H2'	1:XA:947:G:C8	2.28	0.68
8:XH:4:ASP:OD2	8:XH:85:ARG:NH1	2.27	0.68
24:YA:2313:C:O4'	29:YG:40:ASN:ND2	2.27	0.68
18:QR:32:ARG:HD3	18:QR:65:ILE:HG12	1.75	0.67
33:RO:87:ILE:HD12	33:RO:91:LEU:HA	1.76	0.67
1:XA:130:A:OP2	17:XQ:63:ARG:NH1	2.26	0.67
2:XB:163:PHE:HA	2:XB:185:ILE:O	1.93	0.67
24:YA:1728:G:N1	24:YA:1730:U:OP2	2.27	0.67
24:YA:2293:C:H5"	37:YS:89:ARG:HH22	1.59	0.67
1:QA:218:C:H5'	1:QA:466:C:H42	1.60	0.67
9:QI:94:ALA:HA	9:QI:97:LYS:HE3	1.76	0.67
24:RA:664:C:OP1	34:RP:18:ARG:NH2	2.28	0.67
28:RF:157:VAL:HB	28:RF:194:MET:HG2	1.76	0.67
44:RZ:69:THR:HG22	44:RZ:90:VAL:HG12	1.77	0.67
27:YE:25:VAL:HG22	27:YE:181:LEU:HD12	1.76	0.67
34:YP:97:PRO:O	34:YP:98:GLU:HG3	1.95	0.67
42:RX:60:ARG:HH12	52:R7:47:ARG:HH22	1.38	0.67
13:XM:23:TYR:HB3	13:XM:67:GLU:HA	1.77	0.67
13:XM:90:LEU:HD23	13:XM:93:ARG:HD3	1.76	0.67
24:YA:2246:G:H2'	24:YA:2247:A:H8	1.57	0.67
3:QC:182:ILE:HA	3:QC:202:ILE:O	1.95	0.67
9:QI:11:LYS:NZ	9:QI:107:ARG:O	2.26	0.67
10:QJ:34:VAL:HG23	10:QJ:74:ILE:HA	1.75	0.67
18:QR:23:LYS:NZ	18:QR:62:GLU:OE1	2.28	0.67
24:RA:275:G:H3'	24:RA:276:A:H5"	1.76	0.67
24:YA:1061:U:H5'	24:YA:1070:A:H1'	1.77	0.67
2:QB:157:ARG:HG3	2:QB:158:LEU:H	1.60	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:QT:78:ALA:HA	20:QT:81:LYS:HZ1	1.58	0.67
24:YA:1980:G:O2'	24:YA:1982:C:OP2	2.11	0.67
24:RA:997:G:OP1	39:RU:93:LYS:HD3	1.95	0.67
1:QA:1335:C:OP1	1:QA:1337:G:N2	2.21	0.67
24:RA:2308:G:H22	24:RA:2311:A:H2	1.43	0.67
49:R4:58:ARG:HD3	49:R4:58:ARG:H	1.59	0.67
24:YA:881:G:O6	24:YA:895:U:O2	2.12	0.67
3:QC:191:THR:HG22	3:QC:192:THR:H	1.60	0.67
24:RA:141:A:H8	24:RA:1595:G:H21	1.42	0.67
33:RO:1:MET:HE3	33:RO:67:LYS:HE3	1.75	0.67
48:Y3:40:THR:HG22	48:Y3:42:ALA:H	1.60	0.67
1:QA:1124:G:H1'	10:QJ:38:ILE:HD13	1.76	0.67
29:RG:65:GLY:HA3	49:R4:9:LEU:HD21	1.77	0.67
30:YH:28:GLY:HA3	30:YH:79:VAL:HB	1.77	0.67
1:QA:426:G:OP2	4:QD:38:TYR:OH	2.08	0.66
1:QA:1172:C:H2'	1:QA:1173:G:H8	1.60	0.66
3:QC:152:ILE:HB	3:QC:199:LYS:HB2	1.77	0.66
24:RA:1359:A:N6	24:RA:1372:U:H3	1.93	0.66
24:RA:1525:G:H2'	24:RA:1526:G:H8	1.59	0.66
5:XE:145:LYS:HA	5:XE:148:VAL:HG22	1.77	0.66
24:YA:607:U:H3	24:YA:621:A:H2	1.42	0.66
24:YA:2246:G:H2'	24:YA:2247:A:C8	2.29	0.66
26:YD:28:GLU:HG2	26:YD:29:PRO:HD3	1.78	0.66
24:RA:392:C:H5"	24:RA:409:C:H5"	1.76	0.66
28:RF:133:ASN:H	28:RF:162:LEU:HD13	1.60	0.66
36:RR:57:ARG:HE	36:RR:62:ALA:HB2	1.60	0.66
7:XG:108:ALA:HB2	7:XG:123:GLU:HG2	1.77	0.66
24:YA:1210:A:H5"	24:YA:1211:U:H3'	1.76	0.66
24:YA:1405:U:H2'	24:YA:1406:U:H6	1.60	0.66
24:YA:1499:C:H2'	24:YA:1500:G:H8	1.60	0.66
27:YE:50:GLY:HA2	27:YE:77:ILE:HA	1.76	0.66
1:QA:986:A:N3	19:QS:52:TYR:OH	2.27	0.66
1:QA:1141:C:H2'	1:QA:1142:G:H8	1.60	0.66
24:RA:1817:G:OP1	26:RD:88:ARG:NH2	2.29	0.66
29:RG:82:LEU:H	29:RG:86:MET:HE2	1.61	0.66
1:XA:718:G:O6	18:XR:74:ARG:NH1	2.28	0.66
11:QK:86:GLY:O	11:QK:91:ARG:NH1	2.29	0.66
35:RQ:30:GLY:HA2	35:RQ:107:ALA:HB2	1.78	0.66
31:YI:131:LYS:NZ	31:YI:133:HIS:O	2.23	0.66
46:Y1:3:LYS:HA	46:Y1:61:ARG:HH12	1.61	0.66
6:QF:9:VAL:HB	6:QF:87:ARG:HB2	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:848:G:H2'	24:RA:849:A:C8	2.31	0.66
24:RA:1062:G:H2'	24:RA:1063:G:C8	2.31	0.66
24:RA:1292:U:H2'	24:RA:1293:C:C6	2.31	0.66
28:RF:108:LYS:HG2	28:RF:112:MET:HE2	1.77	0.66
28:RF:116:ASP:OD2	34:RP:1:MET:N	2.29	0.66
33:RO:14:THR:HG21	33:RO:86:ILE:HD12	1.78	0.66
39:RU:90:VAL:HG22	40:RV:39:LEU:HD23	1.77	0.66
10:XJ:26:ALA:O	10:XJ:84:GLN:NE2	2.28	0.66
10:XJ:78:ASN:O	10:XJ:81:THR:OG1	2.10	0.66
24:YA:2882:A:OP1	36:YR:96:ARG:NH1	2.27	0.66
25:YB:114:G:O2'	37:YS:50:SER:OG	2.14	0.66
1:QA:1065:U:O2'	1:QA:1066:C:OP2	2.12	0.66
2:QB:98:LEU:HB2	2:QB:101:MET:HE3	1.75	0.66
1:XA:452:A:H4'	16:XP:72:ARG:HH12	1.61	0.66
1:XA:1027:C:H1'	1:XA:1028:C:H5	1.60	0.66
24:YA:584:C:OP2	39:YU:10:ARG:NH2	2.29	0.66
1:QA:715:A:H2'	1:QA:716:A:C8	2.30	0.66
24:RA:1899:G:H21	24:RA:1902:C:H41	1.41	0.66
44:RZ:3:TYR:HB2	44:RZ:57:ILE:HG22	1.76	0.66
21:XU:6:ARG:HH11	21:XU:15:ARG:HE	1.44	0.66
24:YA:1022:G:O6	32:YN:66:LYS:NZ	2.29	0.66
24:YA:2680:C:H5'	27:YE:189:PRO:HA	1.76	0.66
1:QA:262:A:H5"	20:QT:76:ALA:HB2	1.76	0.66
27:RE:147:PRO:HB2	27:RE:149:ARG:HG2	1.78	0.66
1:XA:186(A):C:O3'	20:XT:89:ARG:NH2	2.29	0.66
1:QA:1327:C:H5"	21:QU:20:LYS:HD2	1.78	0.66
1:XA:56:U:H2'	1:XA:57:G:H8	1.58	0.66
46:Y1:83:GLU:HG3	46:Y1:85:LEU:H	1.59	0.66
1:QA:1238:A:OP1	1:QA:1335:C:O2'	2.12	0.65
24:RA:768:G:O2'	24:RA:1379:A:N6	2.29	0.65
1:XA:405:U:O4	4:XD:2:GLY:N	2.29	0.65
35:YQ:81:VAL:O	35:YQ:82:ARG:NE	2.24	0.65
6:QF:82:ARG:HB2	6:QF:85:VAL:HG12	1.78	0.65
13:QM:13:LYS:HA	13:QM:44:ARG:HD2	1.78	0.65
1:XA:129(A):G:N2	1:XA:188:U:O2'	2.29	0.65
24:YA:265:A:N6	24:YA:427:U:O2'	2.30	0.65
31:YI:57:ARG:HH11	31:YI:61:ARG:HH11	1.43	0.65
9:QI:51:ARG:HE	9:QI:56:LEU:HD22	1.61	0.65
9:QI:128:ARG:NH1	22:QV:36:A:OP2	2.29	0.65
10:QJ:48:THR:HG22	10:QJ:62:HIS:HB3	1.78	0.65
29:RG:114:ILE:HB	29:RG:117:PHE:HB2	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RP:59:LEU:HA	34:RP:61:ARG:HD3	1.78	0.65
51:Y6:25:LYS:NZ	51:Y6:34:LEU:HD11	2.11	0.65
1:QA:129(A):G:N2	1:QA:188:U:O2'	2.29	0.65
2:QB:111:ARG:N	2:QB:111:ARG:HD3	2.11	0.65
51:R6:37:ARG:HG2	51:R6:48:VAL:HG22	1.77	0.65
20:XT:100:ILE:HG13	20:XT:102:GLY:H	1.61	0.65
1:QA:429:U:H2'	4:QD:25:ARG:HH12	1.62	0.65
44:RZ:52:SER:O	44:RZ:54:HIS:N	2.28	0.65
24:YA:2086:U:OP2	26:YD:263:ARG:NH1	2.28	0.65
1:QA:129(A):G:N2	1:QA:188:U:HO2'	1.95	0.65
1:QA:1289:A:OP1	21:QU:9:ARG:NH2	2.29	0.65
13:QM:49:THR:HG22	13:QM:51:ALA:H	1.60	0.65
24:RA:144:C:H2'	24:RA:145:G:H8	1.61	0.65
24:RA:2133:G:N3	24:RA:2158:A:N6	2.44	0.65
24:RA:2287:A:N6	24:RA:2344:U:H3	1.95	0.65
24:YA:1405:U:H2'	24:YA:1406:U:C6	2.32	0.65
24:YA:1667:G:O2'	24:YA:1991:U:O4	2.14	0.65
29:YG:114:ILE:HG23	29:YG:140:ILE:HD12	1.77	0.65
1:QA:407:G:H5"	4:QD:115:ARG:HG3	1.77	0.65
1:QA:860:A:N3	8:QH:18:ARG:NH1	2.45	0.65
24:RA:569:U:O2'	24:RA:983:A:N1	2.30	0.65
24:RA:884:C:N3	24:RA:892:G:N1	2.45	0.65
24:YA:1353:A:H2'	24:YA:1354:A:C8	2.32	0.65
24:YA:1728:G:H8	24:YA:1732:A:H62	1.45	0.65
36:YR:104:ARG:HG3	36:YR:111:LEU:HD11	1.79	0.65
1:QA:939:G:OP1	7:QG:102:ARG:NH2	2.30	0.65
3:QC:22:TRP:CH2	3:QC:32:LEU:HD13	2.32	0.65
19:QS:42:PRO:HG3	19:QS:67:VAL:HG13	1.79	0.65
24:RA:598:G:H5'	34:RP:11:GLY:HA3	1.79	0.65
24:RA:605:C:O2	24:RA:657:U:O2'	2.14	0.65
28:RF:143:ALA:HB1	28:RF:148:LEU:HB2	1.79	0.65
34:RP:97:PRO:O	34:RP:98:GLU:HG3	1.96	0.65
38:RT:65:LYS:NZ	38:RT:67:SER:OG	2.25	0.65
24:YA:1203:G:H3'	24:YA:1204:A:H5"	1.78	0.65
25:YB:104:A:OP1	44:YZ:72:ARG:NH1	2.29	0.65
26:YD:148:GLU:HB2	26:YD:151:LYS:HD2	1.79	0.65
28:YF:11:VAL:HB	28:YF:18:ARG:HG3	1.78	0.65
35:YQ:60:ARG:HH11	44:YZ:177:PRO:HG2	1.60	0.65
1:QA:1172:C:H2'	1:QA:1173:G:C8	2.31	0.65
27:RE:26:ILE:HG23	27:RE:182:LEU:HB3	1.79	0.65
39:RU:92:ARG:C	39:RU:94:ASN:H	2.05	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:XC:47:LEU:HG	3:XC:52:LEU:HB3	1.77	0.65
24:YA:793:A:OP2	24:YA:2071:A:O2'	2.14	0.65
24:YA:1826:G:H4'	26:YD:242:ARG:HE	1.62	0.65
31:YI:88:ILE:O	31:YI:121:LYS:NZ	2.30	0.65
43:YY:86:ARG:HB2	43:YY:98:VAL:HG23	1.78	0.65
1:QA:1356:G:H2'	1:QA:1357:A:H8	1.60	0.65
24:RA:1296:G:OP1	24:RA:2709:G:O2'	2.11	0.65
24:RA:1935:G:H1'	24:RA:1964:G:N2	2.12	0.65
25:RB:104:A:OP1	44:RZ:72:ARG:NH2	2.29	0.65
44:RZ:6:LYS:HE3	44:RZ:40:ASP:HB2	1.80	0.65
24:YA:278:A:H2'	24:YA:279:C:C6	2.32	0.65
24:YA:2414:G:H21	34:YP:67:MET:HE2	1.61	0.65
29:YG:76:SER:HB2	29:YG:84:LYS:HD2	1.79	0.65
30:YH:43:VAL:HG22	30:YH:52:VAL:HG22	1.79	0.65
19:XS:32:LYS:HA	19:XS:50:ALA:HB3	1.78	0.64
33:YO:87:ILE:HD12	33:YO:91:LEU:HA	1.77	0.64
36:YR:35:THR:HG22	36:YR:113:LEU:HD23	1.80	0.64
1:QA:684:A:O2'	11:QK:39:PRO:O	2.13	0.64
24:RA:581:C:H2'	24:RA:582:G:C8	2.32	0.64
24:RA:2126:A:H4'	24:RA:2127:G:O5'	1.96	0.64
1:XA:946:A:H2'	1:XA:947:G:H8	1.62	0.64
25:RB:42:C:H5"	29:RG:69:ALA:HB2	1.78	0.64
32:RN:96:GLU:HB2	32:RN:122:VAL:HG12	1.78	0.64
1:XA:422:C:O2'	1:XA:423:G:N2	2.31	0.64
1:XA:1435:G:H2'	1:XA:1436:U:C6	2.33	0.64
6:XF:3:ARG:HD2	6:XF:93:SER:HB2	1.79	0.64
24:YA:309:G:N3	24:YA:329:G:O2'	2.30	0.64
1:QA:269:C:H2'	1:QA:270:A:H8	1.63	0.64
31:RI:120:ILE:HG13	31:RI:121:LYS:H	1.62	0.64
44:RZ:54:HIS:ND1	44:RZ:101:PRO:HG3	2.12	0.64
25:YB:60:C:H2'	25:YB:61:G:H8	1.62	0.64
30:YH:45:VAL:HA	30:YH:50:VAL:HG12	1.80	0.64
33:YO:34:THR:HG22	33:YO:35:VAL:H	1.61	0.64
34:YP:62:LEU:HD23	34:YP:62:LEU:H	1.61	0.64
1:QA:1376:U:H2'	1:QA:1377:A:C8	2.32	0.64
35:RQ:42:ILE:HD12	35:RQ:97:VAL:HG11	1.78	0.64
1:XA:542:G:OP1	4:XD:10:ARG:NH1	2.25	0.64
24:YA:1348:G:H2'	24:YA:1349:A:H5"	1.79	0.64
26:YD:16:MET:HE1	26:YD:208:LYS:HE3	1.80	0.64
37:YS:24:LEU:HB2	37:YS:85:VAL:HG12	1.79	0.64
44:YZ:24:LEU:HD23	44:YZ:41:LEU:HD23	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:438:G:H4'	4:QD:123:HIS:ND1	2.13	0.64
15:QO:26:GLU:HA	15:QO:29:VAL:HG22	1.79	0.64
18:QR:26:LEU:HD22	18:QR:42:ARG:HH12	1.62	0.64
24:RA:1026:U:H4'	24:RA:1027:A:OP1	1.96	0.64
24:RA:2285:C:H5'	24:RA:2288:A:C6	2.33	0.64
1:XA:674:G:H2'	1:XA:675:A:H8	1.62	0.64
24:YA:270(B):A:O2'	24:YA:364:C:O2	2.15	0.64
24:YA:1359:A:H62	24:YA:1372:U:H3	1.46	0.64
41:YW:18:ARG:HA	41:YW:21:VAL:HG22	1.79	0.64
24:RA:1045:A:O4'	24:RA:1111:A:N6	2.30	0.64
1:XA:1230:C:H2'	1:XA:1231:G:H8	1.63	0.64
1:XA:1450:U:O2'	1:XA:1451:A:N7	2.30	0.64
4:XD:15:GLU:OE2	4:XD:59:ARG:NH2	2.31	0.64
20:XT:49:ALA:HB3	20:XT:99:LEU:HD13	1.78	0.64
24:YA:589:C:H2'	24:YA:590:A:H8	1.63	0.64
4:QD:191:ARG:NH1	4:QD:200:GLU:OE2	2.30	0.64
9:QI:42:ARG:NH1	9:QI:71:SER:OG	2.30	0.64
24:RA:2233:U:H2'	24:RA:2234:G:C8	2.32	0.64
24:YA:639:U:H2'	24:YA:640:C:C6	2.32	0.64
36:YR:10:LEU:HD13	36:YR:40:LYS:HG2	1.79	0.64
25:RB:24:G:O2'	25:RB:26:A:N7	2.31	0.64
24:YA:49:A:N7	24:YA:120:U:H5	1.95	0.64
24:YA:1479:G:N7	24:YA:1510:A:N6	2.46	0.64
24:YA:1796:U:H2'	24:YA:1797:C:H6	1.63	0.64
1:QA:407:G:O2'	4:QD:116:GLN:HG2	1.98	0.64
24:RA:1525:G:H2'	24:RA:1526:G:C8	2.32	0.64
24:YA:1796:U:H2'	24:YA:1797:C:C6	2.31	0.64
43:YY:39:VAL:HG23	43:YY:42:VAL:HB	1.79	0.64
12:QL:83:VAL:HG12	12:QL:107:ALA:HB2	1.79	0.63
26:RD:182:LEU:H	26:RD:272:ALA:HB3	1.63	0.63
24:YA:72:U:O4	47:Y2:65:ASN:ND2	2.31	0.63
30:YH:46:GLU:HB2	30:YH:49:VAL:HG23	1.79	0.63
1:QA:985:C:H2'	1:QA:986:A:H8	1.63	0.63
1:QA:1064:G:H1'	1:QA:1066:C:C6	2.33	0.63
8:QH:91:ARG:HH11	8:QH:93:VAL:HG22	1.62	0.63
24:RA:2355:C:H1'	45:R0:39:ARG:HH21	1.63	0.63
46:R1:58:ILE:HD13	46:R1:87:PRO:HD3	1.81	0.63
1:XA:17:U:H2'	1:XA:18:C:H6	1.64	0.63
1:XA:765:G:N2	1:XA:813:U:OP2	2.31	0.63
8:XH:33:GLU:HG2	8:XH:59:LEU:HD21	1.80	0.63
52:Y7:13:ALA:HB2	52:Y7:46:VAL:HG11	1.78	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1356:G:H2'	1:QA:1357:A:C8	2.33	0.63
1:QA:1510:U:H2'	1:QA:1511:G:C8	2.33	0.63
24:RA:247:G:H4'	24:RA:386:G:C5	2.34	0.63
29:RG:36:LYS:HE2	29:RG:95:ARG:HH22	1.61	0.63
10:XJ:17:ASP:OD1	10:XJ:70:ARG:NH1	2.31	0.63
14:XN:3:ARG:O	14:XN:7:ILE:HG12	1.98	0.63
32:YN:47:ALA:HB2	32:YN:112:LEU:HD11	1.80	0.63
24:RA:309:G:N3	24:RA:329:G:O2'	2.31	0.63
24:RA:2327:A:H2'	24:RA:2328:A:C8	2.32	0.63
24:RA:2347:C:OP1	51:R6:38:LYS:NZ	2.26	0.63
2:XB:16:HIS:HD2	2:XB:210:SER:HA	1.61	0.63
24:YA:442:G:H1'	28:YF:48:THR:HG21	1.81	0.63
26:YD:146:GLU:HB2	26:YD:189:CYS:HB3	1.80	0.63
29:YG:43:LEU:HD12	29:YG:90:LEU:HD23	1.79	0.63
44:YZ:166:SER:HB2	44:YZ:168:GLU:H	1.61	0.63
33:RO:104:ARG:NH2	38:RT:43:GLN:OE1	2.31	0.63
34:RP:62:LEU:HD23	34:RP:62:LEU:H	1.64	0.63
19:XS:10:PHE:HE2	19:XS:16:LEU:HB2	1.64	0.63
24:RA:2478:A:OP2	54:R9:2:LYS:NZ	2.31	0.63
35:RQ:65:PHE:O	35:RQ:67:ARG:HG2	1.99	0.63
11:QK:22:HIS:HB3	11:QK:29:ILE:HG23	1.81	0.63
24:RA:307:G:H21	24:RA:330:A:H62	1.45	0.63
28:RF:152:GLU:OE1	28:RF:191:ARG:NE	2.32	0.63
29:RG:64:THR:HG23	29:RG:94:LEU:HD11	1.81	0.63
2:XB:55:PHE:HA	2:XB:58:ILE:HG12	1.81	0.63
44:YZ:114:GLY:HA3	44:YZ:177:PRO:HG3	1.79	0.63
3:QC:110:ASN:HD22	3:QC:140:ARG:HG2	1.64	0.63
8:QH:34:GLU:OE1	8:QH:37:ARG:NH2	2.31	0.63
1:XA:715:A:H2'	1:XA:716:A:C8	2.34	0.63
24:YA:1802:A:H2'	24:YA:1803:A:C8	2.33	0.63
39:YU:92:ARG:C	39:YU:94:ASN:H	2.06	0.63
1:QA:677:U:H3	1:QA:713:G:H22	1.45	0.63
1:QA:1446:A:H1'	38:RT:125:ARG:HH12	1.64	0.63
24:RA:2843:G:H1	24:RA:2874:C:H42	1.47	0.63
52:R7:13:ALA:HB2	52:R7:46:VAL:HG11	1.81	0.63
1:XA:713:G:H2'	1:XA:714:G:C8	2.33	0.63
1:XA:1023:G:H3'	1:XA:1024:G:H5"	1.81	0.63
1:XA:1125:U:OP2	1:XA:1145:C:N4	2.31	0.63
2:XB:7:VAL:HG22	2:XB:217:ARG:HH11	1.64	0.63
13:XM:12:ASN:O	13:XM:13:LYS:HB2	1.99	0.63
49:Y4:16:CYS:SG	49:Y4:17:GLY:N	2.70	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:QE:68:GLU:HG2	5:QE:70:PRO:HD3	1.81	0.62
35:RQ:138:ASP:HB2	44:RZ:122:ARG:HH22	1.63	0.62
36:RR:58:GLY:HA2	36:RR:80:PHE:HE1	1.64	0.62
17:XQ:74:LEU:HD12	17:XQ:75:ARG:HB2	1.79	0.62
27:YE:34:VAL:HG11	27:YE:77:ILE:HD11	1.81	0.62
31:YI:14:ASP:O	31:YI:16:GLY:N	2.32	0.62
36:YR:56:LYS:O	36:YR:88:ARG:NH2	2.32	0.62
1:QA:56:U:H2'	1:QA:57:G:H8	1.64	0.62
24:RA:864:G:H21	24:RA:866:A:H61	1.45	0.62
7:XG:99:LEU:HA	7:XG:102:ARG:HG2	1.81	0.62
24:YA:547:A:H2'	24:YA:548:A:C8	2.34	0.62
35:YQ:55:VAL:HG13	44:YZ:178:GLU:HB3	1.79	0.62
14:QN:9:LYS:HG3	14:QN:12:ARG:HE	1.63	0.62
19:QS:41:VAL:O	19:QS:43:GLU:N	2.32	0.62
24:RA:2839:G:H5'	36:RR:46:GLY:HA2	1.79	0.62
2:XB:71:VAL:HB	2:XB:164:VAL:HG12	1.81	0.62
20:XT:74:LYS:H	20:XT:74:LYS:HD3	1.64	0.62
24:YA:414:C:H2'	24:YA:415:A:C8	2.33	0.62
28:YF:63:LYS:NZ	28:YF:75:HIS:O	2.31	0.62
1:QA:923:A:O2'	1:QA:1399:C:OP2	2.15	0.62
3:QC:164:ARG:NH1	3:QC:166:GLU:OE1	2.31	0.62
11:QK:87:THR:HA	11:QK:91:ARG:HD2	1.79	0.62
24:RA:517:C:OP1	50:R5:16:ARG:NH2	2.27	0.62
24:RA:860:U:H2'	24:RA:861:A:H8	1.64	0.62
38:RT:30:VAL:HG21	38:RT:76:PHE:CE2	2.33	0.62
24:YA:820:A:H4'	24:YA:836:G:H22	1.63	0.62
24:YA:1266:G:O2'	24:YA:2012:G:O6	2.16	0.62
24:YA:2483:C:N3	35:YQ:124:LYS:NZ	2.44	0.62
31:YI:14:ASP:C	31:YI:16:GLY:H	2.07	0.62
54:Y9:16:VAL:HG12	54:Y9:25:VAL:HG12	1.81	0.62
1:QA:1060:C:H4'	10:QJ:51:ARG:HB3	1.81	0.62
8:QH:11:THR:HG22	8:QH:14:ARG:HH12	1.63	0.62
24:RA:1796:U:H2'	24:RA:1797:C:H6	1.63	0.62
24:RA:1899:G:O2'	24:RA:1900:A:H5"	1.98	0.62
16:XP:45:THR:HG22	16:XP:47:ASP:H	1.64	0.62
24:YA:299:A:N3	24:YA:319:C:O2'	2.32	0.62
38:YT:3:ARG:HE	38:YT:6:LEU:HG	1.65	0.62
9:QI:17:VAL:HG21	9:QI:81:ILE:HD13	1.80	0.62
11:XK:77:MET:HG3	11:XK:103:LEU:HD21	1.82	0.62
17:XQ:67:LYS:HG2	17:XQ:68:ARG:HG3	1.82	0.62
27:YE:154:LYS:HG2	27:YE:156:MET:HE3	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:YR:3:HIS:O	36:YR:5:LYS:N	2.33	0.62
43:YY:15:VAL:HG21	43:YY:42:VAL:HG11	1.81	0.62
13:QM:3:ARG:HG2	13:QM:9:ILE:HD13	1.80	0.62
15:QO:21:ASP:OD1	15:QO:24:SER:OG	2.17	0.62
38:RT:30:VAL:HG21	38:RT:76:PHE:HE2	1.63	0.62
1:XA:34:C:H2'	1:XA:35:G:H8	1.64	0.62
10:XJ:28:ARG:HH22	10:XJ:34:VAL:H	1.47	0.62
24:YA:1084:A:N1	24:YA:1085:A:N6	2.48	0.62
24:RA:690:G:H2'	24:RA:691:C:C6	2.35	0.62
24:RA:1638:C:O3'	24:RA:2709:G:N2	2.33	0.62
24:RA:1689:A:H62	24:RA:1698:A:H2	1.48	0.62
24:RA:2845:G:H2'	24:RA:2846:G:H8	1.64	0.62
26:RD:168:ARG:HG2	26:RD:173:VAL:HG22	1.81	0.62
24:YA:2698:U:H2'	24:YA:2699:C:C6	2.33	0.62
1:QA:1252:A:H61	1:QA:1285:A:H61	1.48	0.62
24:RA:2441:C:OP2	24:RA:2586:C:O2'	2.17	0.62
29:RG:114:ILE:HD11	29:RG:135:LEU:HD21	1.80	0.62
24:YA:2816:C:O2	24:YA:2883:A:O2'	2.18	0.62
30:YH:12:PRO:HG3	30:YH:48:GLY:HA2	1.81	0.62
1:QA:272:C:H2'	1:QA:273:A:H8	1.65	0.62
42:RX:12:VAL:HB	42:RX:27:THR:HG23	1.81	0.62
19:XS:55:LYS:HG3	19:XS:56:GLN:HG3	1.82	0.62
37:YS:83:LYS:HG3	37:YS:84:GLN:HG2	1.82	0.62
1:QA:191(F):U:H2'	1:QA:191(G):G:H8	1.65	0.61
1:QA:316:G:OP2	1:QA:351:G:O2'	2.19	0.61
1:QA:359:U:H2'	1:QA:360:A:C8	2.35	0.61
2:QB:22:LYS:HA	2:QB:24:TRP:HD1	1.65	0.61
8:QH:120:THR:HG22	8:QH:121:ASP:H	1.64	0.61
20:QT:60:GLU:HG3	20:QT:81:LYS:HD3	1.81	0.61
20:QT:74:LYS:HD3	20:QT:74:LYS:H	1.64	0.61
24:RA:1796:U:H2'	24:RA:1797:C:C6	2.35	0.61
29:RG:82:LEU:HA	29:RG:86:MET:HG3	1.82	0.61
33:RO:3:GLN:HB2	33:RO:4:PRO:HD2	1.82	0.61
36:RR:73:VAL:HG13	36:RR:74:LYS:HD3	1.81	0.61
26:YD:212:SER:HB3	26:YD:217:ARG:HB2	1.81	0.61
33:YO:24:VAL:HA	33:YO:39:ILE:HG22	1.81	0.61
1:QA:1446:A:O2'	1:QA:1447:G:O5'	2.17	0.61
8:QH:14:ARG:NH2	8:QH:83:ILE:O	2.28	0.61
24:RA:1859:A:N6	24:RA:1883:G:O2'	2.34	0.61
35:RQ:63:LYS:HD2	44:RZ:175:VAL:HG21	1.82	0.61
1:XA:954:G:O6	13:XM:104:ARG:NH1	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1178:G:OP2	9:XI:93:ARG:NH2	2.28	0.61
3:XC:191:THR:HG22	3:XC:192:THR:H	1.65	0.61
24:YA:1310:G:OP2	52:Y7:9:ARG:NE	2.32	0.61
1:QA:876:G:H4'	8:QH:84:ARG:NH1	2.16	0.61
9:QI:5:TYR:HE1	9:QI:16:ARG:HG3	1.65	0.61
24:RA:2037:G:H2'	24:RA:2038:G:C8	2.35	0.61
24:RA:2648:C:H2'	24:RA:2649:U:C6	2.36	0.61
1:XA:235:C:H2'	1:XA:236:G:H8	1.65	0.61
1:XA:1112:C:H1'	3:XC:179:ARG:HE	1.65	0.61
4:XD:157:LEU:O	4:XD:161:ASN:ND2	2.34	0.61
24:YA:2291:U:H2'	24:YA:2292:C:C6	2.34	0.61
25:YB:44:G:O2'	25:YB:47:C:N4	2.33	0.61
27:YE:131:ALA:O	27:YE:134:ILE:HG13	2.00	0.61
36:YR:56:LYS:NZ	36:YR:90:ARG:O	2.33	0.61
24:RA:529:A:H8	24:RA:530:G:C6	2.18	0.61
26:RD:146:GLU:HB2	26:RD:189:CYS:HB3	1.82	0.61
11:XK:109:VAL:HG13	18:XR:84:LYS:HD3	1.82	0.61
24:YA:848:G:H2'	24:YA:849:A:C8	2.35	0.61
28:YF:157:VAL:HG13	28:YF:194:MET:HB3	1.81	0.61
51:Y6:34:LEU:HD13	51:Y6:36:LEU:HD13	1.81	0.61
1:QA:590:C:O3'	8:QH:30:ARG:NH1	2.33	0.61
1:QA:1412:C:H2'	1:QA:1413:A:C8	2.36	0.61
24:RA:2844:G:H3'	24:RA:2845:G:C8	2.35	0.61
42:YX:55:ASN:HB2	42:YX:80:ILE:HG23	1.83	0.61
1:QA:674:G:H2'	1:QA:675:A:H8	1.66	0.61
7:QG:49:ILE:HG23	7:QG:53:LYS:HD3	1.82	0.61
53:R8:29:LYS:HG3	53:R8:30:ARG:H	1.64	0.61
4:XD:105:VAL:HG13	4:XD:110:PHE:HB2	1.82	0.61
24:YA:2010:G:H5"	41:YW:42:ARG:HB2	1.81	0.61
24:YA:2216:G:H21	26:YD:150:LYS:HD2	1.66	0.61
51:Y6:25:LYS:HE3	51:Y6:34:LEU:HD21	1.83	0.61
1:QA:21:G:H2'	1:QA:22:G:C8	2.36	0.61
1:QA:359:U:OP1	31:YI:87:LYS:NZ	2.21	0.61
1:XA:1226:C:H5"	13:XM:94:ARG:HH22	1.65	0.61
16:XP:74:LEU:HB3	16:XP:79:VAL:HG11	1.83	0.61
24:YA:2064:C:H2'	24:YA:2065:C:C6	2.36	0.61
1:QA:684:A:H1'	11:QK:39:PRO:HD2	1.81	0.61
8:QH:5:PRO:HB2	8:QH:32:LYS:HE2	1.82	0.61
24:RA:2394:C:OP1	34:RP:63:PRO:HD2	2.01	0.61
26:RD:71:ASP:HB2	26:RD:103:ARG:HH12	1.66	0.61
1:XA:1130:A:O3'	9:XI:20:ARG:NH2	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:XB:132:LYS:HA	2:XB:135:GLN:HB2	1.82	0.61
3:XC:95:THR:HG22	3:XC:96:GLY:H	1.66	0.61
24:YA:2537:U:H2'	24:YA:2538:C:C6	2.34	0.61
1:QA:279:A:OP2	17:QQ:95:TYR:OH	2.15	0.61
24:RA:1028:A:H2'	24:RA:1029:A:C8	2.36	0.61
24:RA:2680:C:OP2	27:RE:111:ARG:NH2	2.34	0.61
26:RD:13:ARG:NH1	26:RD:16:MET:SD	2.74	0.61
2:XB:197:VAL:HG21	2:XB:200:ILE:HD13	1.83	0.61
27:YE:79:ARG:HG3	27:YE:197:ILE:HG21	1.81	0.61
27:YE:163:GLU:HG2	27:YE:164:ARG:H	1.66	0.61
34:YP:65:ARG:HE	53:Y8:15:LYS:HB2	1.66	0.61
24:RA:30:G:H2'	24:RA:31:C:C6	2.36	0.61
24:RA:2537:U:H2'	24:RA:2538:C:C6	2.35	0.61
41:RW:59:VAL:HG11	41:RW:66:GLU:HB2	1.83	0.61
9:XI:18:PHE:HB3	9:XI:20:ARG:HH12	1.66	0.61
24:YA:2233:U:H2'	24:YA:2234:G:C8	2.36	0.61
26:YD:35:LYS:HB2	26:YD:63:ARG:HA	1.82	0.61
24:RA:2331:G:O2'	45:R0:43:THR:HG22	2.01	0.60
1:XA:1290:G:H4'	7:XG:35:LYS:HE2	1.83	0.60
1:XA:1397:C:OP2	5:XE:24:ARG:NH2	2.32	0.60
1:QA:745:C:OP1	1:QA:851:G:O2'	2.18	0.60
1:QA:970:C:N4	9:QI:128:ARG:OXT	2.34	0.60
1:QA:1314:C:OP1	19:QS:6:LYS:HE2	2.00	0.60
34:RP:2:LYS:NZ	34:RP:4:SER:OG	2.33	0.60
53:R8:16:ILE:HG12	53:R8:22:VAL:HG12	1.82	0.60
24:YA:1403:C:H5"	24:YA:1471:A:H1'	1.81	0.60
31:YI:4:ILE:HG22	31:YI:18:VAL:HG12	1.83	0.60
24:RA:1405:U:H2'	24:RA:1406:U:H6	1.66	0.60
1:XA:692:U:OP1	11:XK:124:LYS:NZ	2.29	0.60
2:XB:131:PRO:O	2:XB:135:GLN:N	2.33	0.60
4:XD:18:LYS:HD2	56:XD:301:SF4:S4	2.40	0.60
24:YA:1657:C:H2'	24:YA:1658:C:C6	2.36	0.60
24:RA:1483:G:O6	24:RA:1507:A:N6	2.34	0.60
24:RA:2648:C:H2'	24:RA:2649:U:H6	1.66	0.60
35:RQ:68:ILE:HD12	35:RQ:101:ARG:HD3	1.84	0.60
1:XA:45:U:H2'	1:XA:46:G:C8	2.36	0.60
7:QG:29:LYS:HE2	7:QG:102:ARG:HB3	1.84	0.60
24:RA:751:A:H5'	41:RW:90:ARG:HG2	1.82	0.60
24:RA:1026:U:H1'	24:RA:1027:A:H5"	1.82	0.60
24:RA:2086:U:OP2	26:RD:263:ARG:NH1	2.35	0.60
25:RB:13:A:N1	25:RB:69:G:O2'	2.30	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:XB:98:LEU:HB2	2:XB:101:MET:HE3	1.84	0.60
3:XC:19:GLU:O	3:XC:40:ARG:NH2	2.34	0.60
24:YA:2344:U:OP1	51:Y6:37:ARG:NH2	2.33	0.60
38:YT:16:ARG:NH1	38:YT:83:ILE:O	2.34	0.60
1:QA:985:C:H2'	1:QA:986:A:C8	2.37	0.60
16:QP:8:ARG:HB3	16:QP:28:ARG:NH1	2.16	0.60
21:QU:2:GLY:HA2	21:QU:10:ARG:HH21	1.66	0.60
24:RA:793:A:OP2	24:RA:2071:A:O2'	2.17	0.60
24:RA:903:C:H2'	24:RA:904:C:H6	1.64	0.60
1:XA:126:G:H5'	1:XA:633:G:H22	1.67	0.60
1:XA:1011:G:N2	1:XA:1019:C:O2	2.34	0.60
47:Y2:8:LYS:HA	47:Y2:11:GLU:HG2	1.83	0.60
1:QA:692:U:OP2	11:QK:26:ASN:ND2	2.34	0.60
24:RA:1071:G:N2	24:RA:1090:U:OP2	2.35	0.60
24:RA:1991:U:H2'	24:RA:1992:G:H5"	1.84	0.60
24:RA:2753:A:O2'	54:R9:15:LYS:NZ	2.35	0.60
25:RB:33:G:H5'	29:RG:2:PRO:HD3	1.84	0.60
27:RE:52:LEU:O	27:RE:74:PRO:HA	2.01	0.60
24:YA:820:A:H4'	24:YA:836:G:N2	2.17	0.60
24:YA:1028:A:N3	24:YA:2486:G:O2'	2.34	0.60
24:YA:2033:A:O2'	24:YA:2035:G:OP2	2.19	0.60
29:YG:104:GLU:O	29:YG:108:ASN:ND2	2.33	0.60
49:Y4:51:ASP:OD1	49:Y4:52:THR:N	2.34	0.60
1:QA:64:G:H4'	1:QA:65:U:O5'	2.02	0.60
1:QA:411:A:C5	1:QA:413:G:H1'	2.37	0.60
3:QC:97:LYS:HG3	3:QC:98:ASN:H	1.67	0.60
14:QN:27:CYS:SG	14:QN:28:GLY:N	2.75	0.60
35:RQ:81:VAL:HG22	35:RQ:82:ARG:HG2	1.84	0.60
41:RW:86:LEU:HD22	41:RW:96:ILE:HD11	1.84	0.60
1:XA:324:G:N2	1:XA:327:A:OP2	2.32	0.60
1:XA:677:U:H3	1:XA:713:G:H22	1.50	0.60
3:XC:47:LEU:HD12	3:XC:50:ALA:HB3	1.84	0.60
24:YA:1464:C:HO2'	24:YA:1528:A:H8	1.50	0.60
24:YA:1510:A:O2'	24:YA:1512:G:N7	2.35	0.60
24:YA:1937:A:N7	24:YA:1939:U:H2'	2.17	0.60
24:YA:2591:C:H2'	24:YA:2592:G:C8	2.37	0.60
44:YZ:54:HIS:HB3	44:YZ:101:PRO:HD3	1.83	0.60
24:RA:1769:G:O2'	24:RA:1958:C:OP1	2.20	0.60
1:XA:7:G:H2'	5:XE:119:LEU:HD23	1.84	0.60
1:XA:254:G:O2'	17:XQ:16:GLN:O	2.19	0.60
1:XA:920:U:H2'	1:XA:921:U:C6	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1412:C:H2'	1:XA:1413:A:C8	2.37	0.60
4:QD:101:LEU:HA	4:QD:104:VAL:HG12	1.83	0.60
24:RA:11:G:N2	24:RA:2628:C:OP1	2.35	0.60
24:RA:2788:C:O2'	24:RA:2809:A:N3	2.34	0.60
26:RD:76:PRO:HB3	26:RD:118:VAL:HG22	1.84	0.60
1:XA:1510:U:H2'	1:XA:1511:G:C8	2.37	0.60
24:YA:1009:A:OP2	32:YN:37:LYS:NZ	2.35	0.60
24:YA:2511:U:O2'	27:YE:138:PRO:O	2.20	0.60
51:Y6:34:LEU:N	51:Y6:51:GLU:OE1	2.33	0.60
1:QA:1129:C:H5'	1:QA:1130:A:OP1	2.02	0.59
24:RA:138:G:N2	42:RX:44:GLU:OE1	2.34	0.59
24:RA:2306:C:H3'	24:RA:2307:G:H5"	1.84	0.59
30:RH:98:LEU:HD22	30:RH:125:VAL:HG22	1.84	0.59
40:RV:35:LEU:HD23	40:RV:35:LEU:H	1.66	0.59
24:YA:270(O):U:H2'	31:YI:52:ARG:NH2	2.14	0.59
26:YD:133:LEU:HD23	26:YD:136:ILE:HD12	1.84	0.59
27:YE:2:LYS:HD2	27:YE:95:ILE:HG22	1.83	0.59
28:YF:116:ASP:OD2	34:YP:1:MET:N	2.35	0.59
1:QA:222:U:H2'	1:QA:223:U:C6	2.38	0.59
1:QA:1073:U:O2	2:QB:104:ASN:ND2	2.34	0.59
2:QB:32:ILE:HD11	2:QB:190:THR:HG22	1.83	0.59
2:QB:188:ALA:HB3	2:QB:200:ILE:HD11	1.84	0.59
1:XA:1029:G:HO2'	1:XA:1032(A):G:H1	1.50	0.59
1:XA:1175:G:H2'	1:XA:1176:A:C8	2.37	0.59
24:YA:635:C:O2'	24:YA:639:U:OP1	2.20	0.59
24:YA:1657:C:H2'	24:YA:1658:C:H6	1.68	0.59
1:QA:429:U:C2'	4:QD:25:ARG:HH12	2.15	0.59
1:QA:864:A:H2'	1:QA:865:A:C8	2.37	0.59
11:QK:41:THR:HG21	11:QK:71:LYS:HG3	1.84	0.59
24:RA:1497:U:H5"	24:RA:1498:C:H5	1.67	0.59
24:RA:1826:G:H4'	26:RD:242:ARG:HH21	1.67	0.59
26:RD:61:LEU:O	26:RD:63:ARG:NH1	2.35	0.59
31:RI:113:ARG:NH2	31:RI:132:PRO:HD3	2.17	0.59
34:RP:87:ASP:HB3	34:RP:105:LEU:HD11	1.83	0.59
38:RT:26:ASP:HB3	38:RT:92:GLY:H	1.67	0.59
17:XQ:45:HIS:CD2	17:XQ:47:PRO:HG3	2.37	0.59
24:YA:698:C:O2'	24:YA:734:A:N6	2.33	0.59
24:YA:2803:C:H2'	24:YA:2804:C:C6	2.36	0.59
24:RA:678:C:H2'	24:RA:679:C:C6	2.38	0.59
24:RA:2784:C:H2'	24:RA:2785:C:C6	2.36	0.59
26:RD:264:LYS:HG3	26:RD:266:SER:H	1.66	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:272:C:H2'	1:XA:273:A:H8	1.65	0.59
3:XC:70:VAL:HG12	3:XC:72:LYS:H	1.67	0.59
11:XK:91:ARG:NH2	11:XK:110:ASP:OD1	2.28	0.59
24:YA:813:U:H2'	24:YA:814:C:H6	1.67	0.59
24:YA:1142(A):A:H4'	32:YN:25:ARG:HH22	1.68	0.59
24:YA:2065:C:H1'	24:YA:2449:U:H3	1.66	0.59
28:YF:140:LEU:HD11	28:YF:170:LEU:HD21	1.85	0.59
44:YZ:165:VAL:HG23	44:YZ:166:SER:H	1.67	0.59
1:QA:439:A:OP2	1:QA:493:G:N1	2.30	0.59
30:RH:89:ILE:HG12	30:RH:162:ILE:HG22	1.82	0.59
1:XA:28:G:O2'	1:XA:296:U:OP1	2.19	0.59
1:XA:954:G:H2'	1:XA:955:U:C6	2.37	0.59
24:YA:579:G:H2'	24:YA:580:C:C6	2.38	0.59
24:YA:1833:U:O2'	24:YA:1969:A:N1	2.30	0.59
30:YH:12:PRO:HD3	30:YH:48:GLY:O	2.02	0.59
1:QA:8:A:N6	4:QD:208:SER:O	2.36	0.59
4:QD:88:VAL:HG13	4:QD:91:SER:HB2	1.85	0.59
8:QH:12:ARG:HD2	8:QH:26:VAL:HG12	1.85	0.59
24:RA:1065:U:O2	24:RA:1073:A:N6	2.25	0.59
24:RA:2529:G:H5"	24:RA:2530:A:H5"	1.84	0.59
32:RN:35:ARG:HG3	32:RN:37:LYS:HG2	1.85	0.59
34:RP:59:LEU:HB2	53:R8:13:ARG:NH1	2.17	0.59
40:RV:24:LYS:HE2	40:RV:90:PRO:HB2	1.84	0.59
11:XK:57:THR:HG22	11:XK:59:TYR:H	1.67	0.59
24:YA:1204:A:H1'	24:YA:1206:G:N7	2.17	0.59
24:YA:2394:C:OP1	34:YP:63:PRO:HD2	2.02	0.59
24:YA:2401:U:H2'	24:YA:2402:C:H5"	1.83	0.59
31:YI:130:TYR:HB3	31:YI:136:VAL:HG13	1.85	0.59
1:QA:217:C:O2'	1:QA:466:C:N4	2.35	0.59
13:QM:14:ARG:H	13:QM:44:ARG:HA	1.68	0.59
24:RA:11:G:H22	24:RA:2628:C:P	2.26	0.59
1:XA:439:A:OP2	1:XA:493:G:N1	2.25	0.59
1:XA:1320:C:H42	19:XS:36:ARG:HG3	1.67	0.59
22:XV:35:C:H2'	22:XV:36:A:C8	2.37	0.59
28:YF:132:VAL:HG12	28:YF:133:ASN:H	1.68	0.59
38:YT:125:ARG:HA	38:YT:128:GLU:HG2	1.85	0.59
14:QN:21:TYR:HE2	14:QN:23:ARG:HH11	1.51	0.59
22:QV:10:G:N2	22:QV:27:G:H1'	2.18	0.59
24:RA:2612:C:O5'	50:R5:2:ALA:N	2.35	0.59
1:XA:933:G:N7	7:XG:3:ARG:NH1	2.51	0.59
27:YE:14:ILE:HG23	38:YT:14:TYR:CE2	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:YG:135:LEU:O	29:YG:154:GLY:HA3	2.02	0.59
31:YI:63:ALA:HA	31:YI:66:GLU:HG2	1.84	0.59
34:YP:61:ARG:HH11	53:Y8:56:GLU:CD	2.11	0.59
24:RA:698:C:O2'	24:RA:734:A:N6	2.36	0.59
29:RG:144:ILE:HG22	29:RG:146:TYR:H	1.68	0.59
2:XB:72:GLY:HA3	2:XB:81:VAL:HG21	1.85	0.59
24:YA:2469:A:H2	24:YA:2481:G:H21	1.50	0.59
43:YY:8:LYS:HE2	43:YY:97:ARG:HH21	1.68	0.59
1:QA:629:G:H2'	1:QA:630:G:C8	2.37	0.59
2:QB:143:GLU:OE2	2:QB:147:LYS:NZ	2.36	0.59
24:RA:582:G:H2'	24:RA:583:G:H8	1.68	0.59
24:RA:2414:G:H21	34:RP:67:MET:HE2	1.66	0.59
37:RS:26:LEU:HB3	37:RS:87:PHE:HA	1.85	0.59
48:R3:44:ARG:HA	48:R3:47:VAL:HG22	1.85	0.59
1:XA:974:A:OP1	14:XN:29:ARG:NH2	2.35	0.59
4:XD:8:VAL:HA	4:XD:11:LEU:HD13	1.84	0.59
19:XS:31:ILE:HD11	19:XS:49:ILE:HD12	1.83	0.59
24:YA:1055:G:H22	24:YA:1104:C:H42	1.51	0.59
24:YA:2213:U:H1'	46:Y1:52:ARG:NH1	2.17	0.59
24:YA:2845:G:H2'	24:YA:2846:G:H8	1.67	0.59
32:YN:23:LEU:HD13	32:YN:60:ILE:HD12	1.83	0.59
24:RA:249:C:O2	53:R8:12:LYS:NZ	2.33	0.58
41:RW:14:PRO:HG2	41:RW:78:GLU:HG2	1.85	0.58
49:R4:16:CYS:SG	49:R4:17:GLY:N	2.75	0.58
24:YA:389:G:H22	34:YP:72:PRO:HD3	1.68	0.58
24:YA:566:U:O4	40:YV:78:LYS:HD3	2.03	0.58
27:YE:26:ILE:HG23	27:YE:182:LEU:HB3	1.84	0.58
1:QA:335:C:H2'	1:QA:336:C:H6	1.68	0.58
1:QA:1151:A:H2'	1:QA:1152:A:H8	1.68	0.58
24:RA:503:A:H4'	24:RA:504:U:H5'	1.86	0.58
24:RA:1287:A:H8	36:RR:104:ARG:HD3	1.68	0.58
1:XA:135:C:H2'	1:XA:136:C:H5'	1.85	0.58
1:XA:642:A:N3	8:XH:113:SER:OG	2.31	0.58
1:XA:689:C:OP1	11:XK:27:ASN:ND2	2.36	0.58
1:XA:1241:G:H2'	1:XA:1242:C:C6	2.37	0.58
1:XA:1305:G:HO2'	1:XA:1306:A:H8	1.51	0.58
4:XD:116:GLN:HE21	4:XD:157:LEU:HD21	1.68	0.58
8:XH:91:ARG:HG3	17:XQ:34:LYS:HB3	1.83	0.58
24:YA:1449:A:C4	24:YA:1529:A:C2	2.91	0.58
24:YA:2695:C:H2'	24:YA:2696:U:C6	2.39	0.58
27:YE:48:GLN:HE21	27:YE:77:ILE:HG12	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:YS:26:LEU:HB3	37:YS:87:PHE:HA	1.84	0.58
1:QA:946:A:H2'	1:QA:947:G:C8	2.38	0.58
24:RA:49:A:N7	24:RA:120:U:H5	2.00	0.58
24:RA:177:G:H3'	24:RA:178:G:H8	1.68	0.58
24:RA:2847:U:H3	24:RA:2869:G:H1	1.50	0.58
29:RG:139:LEU:HD21	29:RG:149:VAL:HG21	1.84	0.58
26:YD:132:PRO:HG3	26:YD:190:TYR:HE1	1.66	0.58
3:QC:11:ARG:O	3:QC:13:GLY:N	2.36	0.58
24:RA:227:A:H2'	34:RP:76:LYS:HE2	1.85	0.58
24:RA:1204:A:O2'	24:RA:1205:U:O5'	2.22	0.58
24:RA:2006:C:O2'	24:RA:2823:A:N3	2.36	0.58
24:RA:2154:G:H2'	24:RA:2155:G:H8	1.67	0.58
24:RA:2701:C:H3'	24:RA:2702:U:C5'	2.33	0.58
53:R8:61:LEU:HG	53:R8:62:LEU:HD23	1.85	0.58
1:XA:1330:U:H4'	13:XM:23:TYR:CE1	2.39	0.58
1:XA:1446:A:O2'	1:XA:1447:G:O5'	2.20	0.58
1:XA:1446:A:C4'	38:YT:125:ARG:HH22	2.17	0.58
13:XM:22:ILE:HG21	13:XM:66:LEU:HD23	1.85	0.58
19:XS:50:ALA:HB1	19:XS:57:HIS:HB3	1.86	0.58
24:YA:581:C:H2'	24:YA:582:G:H8	1.67	0.58
24:YA:2335:A:O2'	24:YA:2336:A:H2'	2.02	0.58
29:YG:142:PRO:HB2	49:Y4:31:ILE:HG21	1.85	0.58
36:YR:79:LEU:HA	36:YR:83:ILE:HB	1.84	0.58
3:QC:131:ARG:NH1	3:QC:166:GLU:OE2	2.35	0.58
13:QM:88:ARG:HH12	19:QS:73:GLU:HG2	1.69	0.58
24:RA:1155:A:H5"	39:RU:55:ARG:HH11	1.69	0.58
24:RA:2020:A:H4'	39:RU:25:TRP:HZ3	1.67	0.58
27:RE:37:ARG:HD3	27:RE:42:ASP:OD2	2.03	0.58
30:RH:46:GLU:OE1	30:RH:51:ARG:NH1	2.37	0.58
44:RZ:165:VAL:HG23	44:RZ:166:SER:H	1.67	0.58
1:XA:143:A:H2	1:XA:220:G:H1	1.51	0.58
24:YA:1062:G:H1	24:YA:1076:C:N4	1.96	0.58
32:YN:29:LYS:O	32:YN:33:LEU:HD13	2.04	0.58
43:YY:83:THR:HG21	43:YY:99:CYS:SG	2.44	0.58
48:Y3:12:PRO:HB2	48:Y3:20:LYS:HG2	1.84	0.58
37:RS:39:ILE:HD11	37:RS:82:ILE:HD13	1.85	0.58
1:XA:359:U:H2'	1:XA:360:A:C8	2.38	0.58
1:XA:606:G:H22	1:XA:631:G:H5"	1.68	0.58
3:XC:130:VAL:HG11	3:XC:157:ILE:HG23	1.83	0.58
26:YD:30:GLU:CD	26:YD:63:ARG:HH21	2.12	0.58
39:YU:83:LEU:HD12	39:YU:113:ALA:HB2	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:662:G:H2'	1:QA:663:A:C8	2.39	0.58
12:QL:39:VAL:HG22	12:QL:57:LYS:HG2	1.85	0.58
24:RA:1060:U:O2'	24:RA:1062:G:H5"	2.03	0.58
31:RI:14:ASP:C	31:RI:16:GLY:H	2.10	0.58
35:RQ:55:VAL:HG13	44:RZ:178:GLU:HB3	1.86	0.58
45:R0:27:GLU:HG3	45:R0:68:GLU:HA	1.84	0.58
1:XA:1218:C:H2'	1:XA:1219:U:C6	2.38	0.58
6:XF:18:GLN:HG2	6:XF:21:LEU:HD23	1.84	0.58
10:XJ:50:ILE:HA	10:XJ:60:ARG:HB2	1.85	0.58
24:YA:600:G:O3'	28:YF:108:LYS:NZ	2.33	0.58
24:YA:998:C:OP1	39:YU:84:LYS:NZ	2.30	0.58
24:YA:1869:G:H5'	24:YA:1870:C:OP2	2.03	0.58
24:YA:2788:C:O2'	24:YA:2809:A:N3	2.34	0.58
26:YD:148:GLU:OE1	26:YD:151:LYS:NZ	2.24	0.58
29:YG:72:ARG:HA	29:YG:87:PRO:HA	1.84	0.58
25:RB:44:G:H1'	25:RB:47:C:N4	2.18	0.58
25:RB:49:C:H2'	25:RB:50:G:C8	2.39	0.58
42:RX:21:PHE:HE1	42:RX:92:LEU:HB3	1.68	0.58
1:XA:269:C:H2'	1:XA:270:A:C8	2.38	0.58
24:YA:998:C:OP2	39:YU:58:ARG:NH1	2.36	0.58
26:YD:172:TYR:HD1	26:YD:186:HIS:HA	1.68	0.58
37:YS:25:ARG:HG2	37:YS:88:ASP:HB2	1.85	0.58
1:QA:975:A:H4'	1:QA:976:G:H5"	1.85	0.58
1:QA:1129:C:H4'	1:QA:1130:A:H5'	1.86	0.58
24:RA:1526:G:H2'	24:RA:1527:G:C8	2.38	0.58
2:XB:87:ARG:HH21	2:XB:219:VAL:HG13	1.68	0.58
24:YA:1593:G:H2'	24:YA:1594:G:C8	2.39	0.58
1:QA:690:G:H22	11:QK:55:LYS:HZ3	1.50	0.58
1:QA:1314:C:N4	19:QS:2:PRO:O	2.37	0.58
1:QA:1399:C:C2	1:QA:1502:A:N6	2.72	0.58
24:RA:2853:C:H2'	24:RA:2854:G:H8	1.68	0.58
27:RE:104:VAL:HG22	27:RE:198:VAL:HG22	1.86	0.58
30:RH:94:TYR:OH	30:RH:160:LYS:NZ	2.32	0.58
51:R6:26:ASN:ND2	51:R6:28:ARG:H	2.02	0.58
54:Y9:24:TYR:CD1	54:Y9:35:ARG:HB3	2.39	0.58
1:QA:509:A:H3'	1:QA:509:A:OP2	2.04	0.57
2:QB:77:ALA:HB2	2:QB:211:ILE:HD13	1.86	0.57
20:QT:74:LYS:O	20:QT:76:ALA:N	2.36	0.57
22:QV:16:C:O2'	22:QV:62:C:OP1	2.22	0.57
24:RA:86:C:H4'	24:RA:104:U:H1'	1.85	0.57
24:RA:590:A:H2'	24:RA:591:C:C6	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:1348:G:H2'	24:RA:1349:A:H5"	1.85	0.57
41:RW:82:LEU:HG	41:RW:98:LYS:HB2	1.85	0.57
1:XA:406:G:N3	4:XD:119:GLN:NE2	2.52	0.57
27:YE:17:ASP:O	27:YE:19:ARG:NH1	2.36	0.57
1:QA:890:G:O2'	1:QA:906:G:O6	2.21	0.57
24:RA:755:C:H2'	24:RA:756:C:C6	2.40	0.57
24:RA:2698:U:H2'	24:RA:2699:C:C6	2.39	0.57
1:XA:452:A:H62	1:XA:480:U:H3	1.50	0.57
1:XA:902:G:H2'	1:XA:903:G:H8	1.69	0.57
13:XM:10:PRO:HB2	13:XM:18:ALA:HB1	1.85	0.57
24:YA:819:A:OP2	24:YA:1187:G:N2	2.18	0.57
24:YA:881:G:H3'	24:YA:882:G:C8	2.38	0.57
29:YG:10:LYS:NZ	29:YG:175:LEU:O	2.37	0.57
5:QE:80:ILE:HD13	8:QH:104:ARG:HH12	1.69	0.57
24:RA:263:C:H2'	24:RA:264:C:O4'	2.04	0.57
24:RA:288:C:H2'	24:RA:289:A:H8	1.68	0.57
30:RH:96:ALA:HB3	30:RH:126:PRO:HG3	1.86	0.57
1:XA:573:A:N3	1:XA:883:C:O2'	2.32	0.57
10:XJ:46:ARG:HA	10:XJ:64:GLU:HA	1.86	0.57
20:XT:45:GLN:HG3	20:XT:91:LEU:HD22	1.86	0.57
24:YA:603:A:O4'	24:YA:655:A:N6	2.37	0.57
1:QA:1106:G:H5"	3:QC:172:ARG:HG2	1.84	0.57
1:QA:1286:A:H2'	1:QA:1287:A:H4'	1.85	0.57
1:QA:1314:C:H2'	1:QA:1315:U:H6	1.69	0.57
13:QM:88:ARG:HG3	13:QM:98:VAL:HG22	1.85	0.57
19:QS:3:ARG:HH21	19:QS:7:LYS:HD3	1.70	0.57
20:QT:10:LEU:HG	20:QT:12:ALA:H	1.69	0.57
24:RA:957:A:H5'	35:RQ:76:LYS:HG2	1.85	0.57
35:YQ:110:THR:HG22	35:YQ:113:GLN:HG2	1.87	0.57
40:YV:71:LEU:HD12	40:YV:84:LYS:HD2	1.86	0.57
24:RA:265:A:N6	24:RA:428:A:C8	2.73	0.57
26:RD:38:LYS:HA	26:RD:61:LEU:HD13	1.86	0.57
29:RG:66:GLN:OE1	29:RG:98:ARG:NH1	2.38	0.57
44:RZ:24:LEU:HD12	44:RZ:41:LEU:HD23	1.86	0.57
1:XA:126:G:H5'	1:XA:633:G:N2	2.20	0.57
1:XA:269:C:H2'	1:XA:270:A:H8	1.69	0.57
1:XA:1469:G:H2'	1:XA:1470:G:H8	1.69	0.57
24:YA:2750:A:OP2	30:YH:6:ARG:NH2	2.37	0.57
1:QA:269:C:H2'	1:QA:270:A:C8	2.40	0.57
1:QA:1251:A:H2'	1:QA:1252:A:C8	2.40	0.57
24:RA:639:U:H2'	24:RA:640:C:C6	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:1802:A:H2'	24:RA:1803:A:C8	2.39	0.57
24:RA:2319:G:O6	37:RS:4:LEU:HB2	2.04	0.57
18:XR:32:ARG:HA	18:XR:69:THR:HG21	1.87	0.57
20:XT:74:LYS:O	20:XT:76:ALA:N	2.38	0.57
24:YA:81:G:N2	43:YY:1:MET:SD	2.77	0.57
24:YA:1332:G:H21	24:YA:1610:A:H8	1.50	0.57
34:YP:101:VAL:HG21	34:YP:108:LYS:HG3	1.86	0.57
39:YU:92:ARG:HD2	40:YV:11:GLN:HB2	1.86	0.57
41:YW:111:HIS:HB2	41:YW:113:LYS:HG2	1.87	0.57
54:Y9:3:VAL:HG12	54:Y9:35:ARG:HG3	1.86	0.57
1:QA:1329:A:H5"	13:QM:26:GLY:H	1.70	0.57
9:QI:10:ARG:HG3	9:QI:79:LEU:HD11	1.86	0.57
28:RF:40:GLN:HE22	28:RF:182:ASN:HB2	1.69	0.57
1:XA:1014:A:C2	1:XA:1219:U:H1'	2.40	0.57
13:XM:91:ARG:HB2	13:XM:98:VAL:HG22	1.87	0.57
24:YA:86:C:H4'	24:YA:104:U:H1'	1.86	0.57
24:YA:857:C:H4'	45:Y0:23:VAL:HG21	1.86	0.57
24:YA:1500:G:N2	26:YD:99:ASP:O	2.37	0.57
24:YA:2305:A:H1'	29:YG:136:ARG:HG2	1.86	0.57
32:YN:6:PRO:HG3	32:YN:41:ASP:HB2	1.86	0.57
36:YR:57:ARG:HE	36:YR:62:ALA:HB2	1.69	0.57
1:QA:1124:G:H3'	1:QA:1145:C:N4	2.20	0.57
5:QE:20:GLN:HB2	5:QE:25:ARG:NH1	2.20	0.57
16:QP:18:ARG:HH21	16:QP:35:LYS:HD3	1.70	0.57
24:RA:74:A:H4'	24:RA:75:G:O5'	2.03	0.57
34:RP:91:PHE:CE2	34:RP:95:VAL:HG22	2.40	0.57
38:RT:51:ARG:HB2	38:RT:98:LYS:HE2	1.85	0.57
40:RV:76:LYS:HB2	40:RV:81:TYR:HB3	1.85	0.57
41:RW:19:LEU:HB3	50:R5:25:LEU:HD13	1.87	0.57
1:XA:684:A:O2'	11:XK:39:PRO:O	2.19	0.57
3:XC:84:ILE:HG23	3:XC:85:ARG:HD3	1.87	0.57
24:YA:2740:A:H2'	24:YA:2741:A:C8	2.40	0.57
24:YA:2867:G:O2'	24:YA:2868:A:H8	1.87	0.57
27:RE:36:ARG:NH1	27:RE:85:ASN:OD1	2.38	0.57
27:RE:141:ILE:O	27:RE:154:LYS:NZ	2.29	0.57
44:RZ:151:HIS:HB2	44:RZ:170:THR:HA	1.85	0.57
49:R4:56:VAL:HA	49:R4:60:GLN:HB2	1.87	0.57
1:XA:250:A:H4'	1:XA:251:G:O5'	2.03	0.57
1:XA:1077:G:N2	1:XA:1080:A:OP2	2.34	0.57
2:XB:113:HIS:O	2:XB:116:GLU:HG3	2.05	0.57
24:YA:263:C:H2'	24:YA:264:C:O4'	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:1939:U:OP1	24:YA:2604:U:O2'	2.23	0.57
1:QA:184:G:H2'	1:QA:185:A:H8	1.70	0.57
1:QA:277:C:OP1	17:QQ:68:ARG:NH2	2.37	0.57
1:QA:1004:A:N1	1:QA:1025:U:H1'	2.20	0.57
1:QA:1338:G:N3	22:QV:42:C:O2'	2.37	0.57
13:QM:97:PRO:HA	13:QM:110:ARG:HD3	1.87	0.57
24:RA:304:G:H2'	24:RA:305:U:C6	2.39	0.57
38:RT:24:PRO:HA	38:RT:49:VAL:HG13	1.86	0.57
1:XA:129(A):G:N2	1:XA:188:U:HO2'	2.03	0.57
8:XH:10:LEU:HB3	8:XH:83:ILE:HD13	1.86	0.57
13:XM:16:ASP:HB3	13:XM:41:PRO:HB3	1.86	0.57
34:YP:89:ALA:O	34:YP:121:LYS:NZ	2.25	0.57
1:QA:34:C:H2'	1:QA:35:G:H8	1.69	0.56
1:QA:731:G:OP1	1:QA:766:A:H1'	2.04	0.56
1:QA:922:G:H2'	1:QA:923:A:C8	2.40	0.56
1:QA:1513:A:H2'	1:QA:1514:C:C6	2.40	0.56
19:QS:10:PHE:HB2	19:QS:39:THR:HB	1.87	0.56
24:RA:1020:A:N6	24:RA:1141:U:O2'	2.37	0.56
24:RA:1657:C:H2'	24:RA:1658:C:H6	1.70	0.56
35:RQ:58:PHE:HD2	35:RQ:61:GLY:HA3	1.70	0.56
49:R4:61:ARG:NH1	49:R4:62:ARG:O	2.38	0.56
1:XA:1372:U:H5"	9:XI:71:SER:HB2	1.86	0.56
13:XM:107:ALA:HB3	13:XM:111:LYS:HE2	1.86	0.56
24:YA:1528:A:H2'	24:YA:1529:A:C8	2.40	0.56
32:YN:96:GLU:HB2	32:YN:122:VAL:HG12	1.86	0.56
35:YQ:66:ILE:HG13	35:YQ:67:ARG:H	1.70	0.56
1:QA:1412:C:H2'	1:QA:1413:A:H8	1.70	0.56
24:RA:678:C:H2'	24:RA:679:C:H6	1.70	0.56
39:RU:89:GLU:O	39:RU:92:ARG:NH1	2.36	0.56
24:YA:139:G:N2	24:YA:1596:A:H4'	2.19	0.56
24:YA:1359:A:N7	24:YA:1372:U:O4	2.38	0.56
36:YR:37:THR:HG22	36:YR:39:PRO:HD2	1.85	0.56
38:YT:77:PRO:HB2	38:YT:80:SER:HB2	1.88	0.56
1:QA:811:C:O2'	1:QA:901:A:N1	2.39	0.56
1:QA:1015:A:H2'	1:QA:1016:A:C8	2.40	0.56
11:QK:51:LYS:HA	11:QK:55:LYS:HD2	1.86	0.56
22:QV:37:U:H2'	22:QV:38:A:H8	1.71	0.56
24:RA:65:C:H1'	24:RA:456:C:H42	1.70	0.56
24:RA:1341:U:OP2	24:RA:1394:U:O2'	2.21	0.56
35:RQ:43:THR:HG22	35:RQ:94:VAL:HG12	1.87	0.56
47:R2:14:ARG:O	47:R2:15:LYS:HG3	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:R4:58:ARG:O	49:R4:61:ARG:HD2	2.04	0.56
1:XA:64:G:H5"	1:XA:65:U:H5'	1.87	0.56
1:XA:335:C:O2'	1:XA:1433:A:N3	2.32	0.56
1:XA:406:G:H5'	4:XD:5:ILE:HD13	1.87	0.56
1:XA:708:C:OP1	11:XK:85:ARG:NH2	2.37	0.56
24:YA:127:A:H5"	24:YA:128:C:C6	2.40	0.56
24:YA:1195:G:N7	34:YP:16:ARG:NH1	2.53	0.56
24:YA:1614:A:C6	41:YW:91:GLY:HA2	2.39	0.56
24:YA:2110:G:O2'	24:YA:2111:C:O4'	2.23	0.56
24:YA:2572:A:C8	27:YE:144:ARG:HG2	2.41	0.56
1:QA:359:U:H2'	1:QA:360:A:H8	1.70	0.56
24:RA:666:G:N2	53:R8:2:PRO:O	2.38	0.56
24:RA:1247:A:OP1	28:RF:95:ARG:NH2	2.34	0.56
24:RA:1570:A:H2'	24:RA:1571:A:C8	2.39	0.56
24:RA:2415:G:H4'	34:RP:67:MET:H	1.70	0.56
39:RU:91:ASP:O	39:RU:93:LYS:N	2.38	0.56
1:XA:544:G:OP1	4:XD:59:ARG:NH1	2.38	0.56
24:YA:857:C:OP1	45:Y0:69:PHE:HD2	1.89	0.56
24:YA:987:G:O2'	24:YA:1000:A:N3	2.34	0.56
24:YA:1888:G:OP2	24:YA:1888:G:N2	2.38	0.56
1:QA:977:A:H8	1:QA:1223:C:C4	2.24	0.56
24:RA:1000:A:H2'	24:RA:1001:A:C8	2.40	0.56
29:RG:32:PRO:HB2	29:RG:172:LEU:HD13	1.86	0.56
33:RO:63:VAL:HB	33:RO:102:VAL:HG23	1.87	0.56
1:XA:1199:U:O2'	1:XA:1202:G:OP1	2.23	0.56
4:XD:145:GLU:HG3	4:XD:184:LYS:HG2	1.88	0.56
24:YA:1434:A:H61	24:YA:1558:A:N6	2.03	0.56
24:YA:2646:C:H2'	24:YA:2647:U:O4'	2.04	0.56
24:YA:2735:G:H2'	24:YA:2736:G:H8	1.71	0.56
43:YY:87:LYS:HD3	43:YY:95:LYS:HD2	1.88	0.56
3:QC:7:PRO:O	3:QC:11:ARG:NH1	2.39	0.56
24:RA:259:G:H21	24:RA:621:A:H8	1.52	0.56
24:RA:2212:A:H1'	24:RA:2215:G:C5	2.41	0.56
31:RI:40:THR:HG23	31:RI:42:SER:H	1.70	0.56
31:RI:93:THR:HG22	31:RI:119:PRO:HB3	1.87	0.56
1:XA:1308:U:H2'	1:XA:1309:G:H8	1.70	0.56
24:YA:414:C:H2'	24:YA:415:A:H8	1.71	0.56
24:YA:1628:G:H2'	24:YA:1629:U:C6	2.40	0.56
27:YE:184:VAL:HG12	27:YE:185:LYS:H	1.70	0.56
35:YQ:48:GLU:OE2	35:YQ:51:ARG:NH2	2.35	0.56
39:YU:91:ASP:O	39:YU:93:LYS:N	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:QB:93:VAL:HG11	2:QB:97:TRP:HE3	1.70	0.56
12:QL:27:LEU:HD23	12:QL:33:ARG:HH12	1.71	0.56
24:RA:654(B):C:H42	24:RA:654(S):G:H1	1.54	0.56
1:XA:688:G:H2'	1:XA:689:C:H6	1.70	0.56
3:XC:157:ILE:HD12	3:XC:164:ARG:HG3	1.88	0.56
18:XR:23:LYS:HD2	18:XR:58:LEU:HD23	1.87	0.56
24:YA:1049:C:H2'	24:YA:1050:A:H5"	1.87	0.56
24:YA:1068:G:O2'	24:YA:1096:A:N3	2.35	0.56
24:YA:2636:U:H4'	27:YE:80:GLU:OE2	2.06	0.56
33:YO:22:ILE:HD11	33:YO:42:SER:HB3	1.87	0.56
1:QA:32:A:H2'	1:QA:33:A:C8	2.41	0.56
1:QA:1320:C:H4'	13:QM:88:ARG:NH1	2.21	0.56
1:QA:1329:A:N7	21:QU:7:ARG:NH2	2.54	0.56
10:QJ:27:ALA:HB3	10:QJ:34:VAL:HG11	1.87	0.56
24:RA:546:C:H3'	24:RA:547:A:H8	1.70	0.56
1:XA:1243:C:OP2	21:XU:10:ARG:NH2	2.39	0.56
3:XC:108:ASN:ND2	3:XC:144:SER:OG	2.32	0.56
30:YH:9:ILE:HG21	30:YH:49:VAL:HB	1.88	0.56
4:QD:141:ARG:NH1	4:QD:144:ASP:OD1	2.38	0.56
24:RA:922:U:H2'	24:RA:923:C:C6	2.41	0.56
24:RA:969:U:H2'	24:RA:970:C:C6	2.41	0.56
24:RA:2150:U:H2'	24:RA:2151:G:H8	1.71	0.56
31:RI:128:LEU:HD22	31:RI:140:LEU:HD21	1.87	0.56
1:XA:56:U:H2'	1:XA:57:G:C8	2.40	0.56
9:XI:18:PHE:HB3	9:XI:20:ARG:NH1	2.20	0.56
24:YA:1693:U:O2'	24:YA:1695:G:O6	2.18	0.56
1:QA:375:U:OP1	16:QP:69:THR:OG1	2.17	0.56
1:QA:1198:G:N3	10:QJ:54:PHE:HZ	2.04	0.56
24:RA:534:U:O2'	39:RU:49:HIS:ND1	2.38	0.56
24:RA:593:G:H4'	53:R8:61:LEU:CD1	2.35	0.56
1:XA:401:C:H2'	1:XA:402:G:H8	1.71	0.56
1:XA:1126:U:H1'	1:XA:1280:A:C5	2.41	0.56
1:XA:1271:G:H2'	1:XA:1272:G:H5"	1.87	0.56
12:XL:53:ARG:HB3	12:XL:69:TYR:HE1	1.71	0.56
24:YA:813:U:H2'	24:YA:814:C:C6	2.40	0.56
1:QA:712:A:H2'	1:QA:713:G:C8	2.40	0.55
24:RA:1140:C:OP2	32:RN:66:LYS:NZ	2.35	0.55
24:RA:2341:G:H2'	24:RA:2342:C:C6	2.41	0.55
35:RQ:1:MET:N	35:RQ:48:GLU:HG3	2.20	0.55
42:RX:5:TYR:CE2	47:R2:30:ARG:HB2	2.41	0.55
49:R4:48:ARG:HG2	49:R4:52:THR:HA	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:130:A:N3	1:XA:263:A:O2'	2.36	0.55
1:XA:403:C:H4'	4:XD:122:ARG:HH11	1.71	0.55
1:XA:578:C:O2'	1:XA:728:A:N3	2.36	0.55
1:XA:1015:A:H2'	1:XA:1016:A:C8	2.41	0.55
8:XH:38:ILE:HD12	8:XH:41:ARG:HH21	1.70	0.55
9:XI:112:LYS:HA	9:XI:119:ALA:HB2	1.88	0.55
24:YA:574:C:N3	27:YE:145:LYS:NZ	2.53	0.55
24:YA:2212:A:H1'	24:YA:2215:G:C5	2.41	0.55
24:YA:2354:G:H4'	45:Y0:35:ASN:ND2	2.21	0.55
31:YI:21:VAL:HG22	31:YI:22:LYS:H	1.70	0.55
39:YU:85:LYS:HE3	39:YU:116:ALA:HB1	1.88	0.55
12:QL:90:VAL:HG13	12:QL:93:LEU:HB2	1.88	0.55
22:QV:15:G:H22	22:QV:49:C:H5	1.52	0.55
24:RA:567:A:N6	40:RV:78:LYS:HD2	2.21	0.55
48:R3:40:THR:HG22	48:R3:42:ALA:H	1.71	0.55
1:XA:1373:G:H4'	7:XG:31:MET:HE1	1.88	0.55
13:XM:4:ILE:HD11	13:XM:56:LEU:HD12	1.88	0.55
19:XS:40:ILE:HD13	19:XS:71:LEU:HD21	1.89	0.55
24:YA:34:C:H41	24:YA:447:A:H61	1.53	0.55
24:YA:1105:U:H2'	24:YA:1106:G:H8	1.72	0.55
24:YA:1165:U:H2'	24:YA:1166:C:C6	2.40	0.55
24:YA:1204:A:H1'	24:YA:1206:G:C8	2.41	0.55
24:YA:2176:A:H2'	24:YA:2177:C:C6	2.41	0.55
43:YY:28:LYS:N	43:YY:38:ILE:O	2.39	0.55
44:YZ:10:ARG:HH21	44:YZ:25:PRO:HB3	1.71	0.55
1:QA:1342:C:H4'	9:QI:125:TYR:H	1.70	0.55
24:RA:2022:U:O2'	24:RA:2617:C:H5'	2.05	0.55
27:RE:45:THR:O	27:RE:83:ASP:N	2.36	0.55
53:R8:52:LYS:N	53:R8:53:PRO:HD2	2.22	0.55
1:XA:452:A:O2'	16:XP:72:ARG:NH1	2.39	0.55
24:YA:30:G:H2'	24:YA:31:C:H6	1.71	0.55
24:YA:38:A:H2'	24:YA:39:C:C6	2.41	0.55
24:YA:1263:U:H2'	24:YA:1264:G:C8	2.41	0.55
24:YA:2250:G:C4	35:YQ:82:ARG:HG3	2.41	0.55
12:QL:45:PRO:HB3	12:QL:92:ASP:HB3	1.87	0.55
22:QV:35:C:O2'	22:QV:36:A:OP1	2.22	0.55
36:RR:33:ARG:HD3	36:RR:113:LEU:HD11	1.88	0.55
1:XA:64:G:N2	1:XA:68:G:O6	2.31	0.55
1:XA:662:G:H2'	1:XA:663:A:C8	2.41	0.55
24:YA:2424:C:O2	24:YA:2429:G:O2'	2.17	0.55
27:YE:14:ILE:HG23	38:YT:14:TYR:HE2	1.69	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1427:U:H2'	1:QA:1428:A:C8	2.42	0.55
18:QR:73:ALA:HB1	18:QR:79:LEU:HD13	1.89	0.55
24:RA:372:G:N2	24:RA:401:A:OP2	2.39	0.55
24:RA:1772:G:N2	24:RA:1774:C:H5'	2.22	0.55
24:RA:2328:A:H2'	24:RA:2329:G:C8	2.41	0.55
27:RE:34:VAL:HG21	27:RE:77:ILE:HD11	1.88	0.55
36:RR:17:ARG:HG2	36:RR:21:TYR:CE2	2.42	0.55
7:XG:64:GLN:HE21	7:XG:68:ASN:HD21	1.54	0.55
24:YA:639:U:H2'	24:YA:640:C:H6	1.70	0.55
24:YA:918:A:N3	25:YB:80:U:O2'	2.36	0.55
24:YA:2076:U:OP2	24:YA:2238:G:N2	2.36	0.55
34:YP:88:LEU:HD11	34:YP:114:ILE:HG12	1.88	0.55
1:QA:827:U:H5	1:QA:872:A:H61	1.54	0.55
5:QE:33:VAL:HG13	5:QE:112:LEU:HD12	1.87	0.55
13:QM:4:ILE:HG23	13:QM:57:ARG:HG2	1.88	0.55
24:RA:300:A:OP1	43:RY:86:ARG:NH2	2.40	0.55
24:RA:304:G:H2'	24:RA:305:U:H6	1.72	0.55
28:RF:125:LEU:HA	28:RF:194:MET:O	2.07	0.55
31:RI:125:GLU:HG2	31:RI:141:LYS:HG3	1.88	0.55
1:XA:1320:C:N4	19:XS:36:ARG:HG3	2.22	0.55
24:YA:523:C:O2	24:YA:553:U:O2'	2.25	0.55
26:YD:34:VAL:HG13	26:YD:64:ILE:HG13	1.89	0.55
31:YI:133:HIS:HB3	31:YI:134:PRO:HD3	1.87	0.55
43:YY:99:CYS:SG	43:YY:100:ALA:N	2.80	0.55
49:Y4:68:ARG:H	49:Y4:68:ARG:HD2	1.72	0.55
51:Y6:10:LEU:HD13	51:Y6:19:ARG:HG2	1.88	0.55
24:RA:530:G:O2'	24:RA:532:A:N7	2.40	0.55
24:RA:577:G:O2'	24:RA:1254:A:OP1	2.25	0.55
28:RF:11:VAL:HG22	28:RF:125:LEU:HB2	1.88	0.55
44:RZ:31:ARG:H	44:RZ:31:ARG:HD3	1.70	0.55
1:XA:1376:U:H2'	1:XA:1377:A:C8	2.42	0.55
2:XB:188:ALA:HB3	2:XB:200:ILE:HD11	1.89	0.55
3:XC:11:ARG:NH2	3:XC:177:THR:O	2.40	0.55
24:YA:528:A:N1	24:YA:2042:A:H2'	2.21	0.55
24:YA:769:G:H5'	24:YA:1379:A:N6	2.22	0.55
24:YA:1528:A:H2'	24:YA:1529:A:H8	1.72	0.55
1:QA:920:U:H2'	1:QA:921:U:C6	2.42	0.55
4:QD:79:PHE:CE1	4:QD:204:ILE:HD13	2.41	0.55
5:QE:32:VAL:HG22	5:QE:58:ALA:HB1	1.89	0.55
24:RA:271(D):G:H2'	24:RA:272:G:H8	1.72	0.55
24:RA:2415:G:H4'	34:RP:67:MET:N	2.22	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:2784:C:O2'	27:RE:37:ARG:NH1	2.39	0.55
24:RA:2815:C:H4'	50:R5:29:THR:HG21	1.89	0.55
49:R4:46:GLN:O	49:R4:48:ARG:N	2.31	0.55
24:YA:2853:C:H2'	24:YA:2854:G:H8	1.72	0.55
31:YI:80:PRO:HB2	31:YI:146:ALA:HB2	1.89	0.55
34:YP:86:LYS:HE3	34:YP:117:GLU:HG3	1.88	0.55
38:YT:99:LEU:HB3	38:YT:102:ILE:HD13	1.89	0.55
46:Y1:80:LEU:HD12	46:Y1:81:LYS:HG3	1.87	0.55
3:QC:73:PRO:HA	3:QC:76:VAL:HG22	1.89	0.55
17:QQ:15:MET:HE1	17:QQ:43:LEU:HD22	1.88	0.55
24:RA:24:G:O2'	41:RW:78:GLU:O	2.23	0.55
25:RB:111:U:H2'	25:RB:112:G:H8	1.72	0.55
32:RN:13:TRP:O	32:RN:135:PRO:HD2	2.07	0.55
32:RN:133:GLN:C	32:RN:134:ARG:HD2	2.32	0.55
53:R8:29:LYS:HG3	53:R8:30:ARG:N	2.22	0.55
1:XA:1292:U:H2'	1:XA:1293:G:H8	1.71	0.55
2:XB:27:LYS:HD2	2:XB:193:ASP:HB2	1.87	0.55
24:YA:330:A:O2'	24:YA:331:A:H8	1.89	0.55
24:YA:330:A:H2	24:YA:1210:A:O2'	1.90	0.55
24:YA:581:C:H2'	24:YA:582:G:C8	2.42	0.55
24:YA:2790:A:H2'	24:YA:2791:C:H5"	1.88	0.55
38:YT:6:LEU:HD23	38:YT:9:LEU:HD12	1.87	0.55
46:Y1:18:ILE:HG12	46:Y1:37:ILE:HG12	1.89	0.55
46:Y1:44:PRO:HG2	46:Y1:46:LEU:HD13	1.88	0.55
1:QA:9:G:OP1	5:QE:122:GLU:HG2	2.06	0.55
1:QA:539:A:H2'	1:QA:540:G:H8	1.72	0.55
1:QA:1422:G:O3'	33:RO:49:ARG:NH1	2.40	0.55
24:RA:674:G:H1'	28:RF:74:ARG:NH1	2.22	0.55
24:RA:2470:G:O6	24:RA:2481:G:N2	2.40	0.55
25:RB:3:C:H2'	25:RB:4:C:H6	1.72	0.55
32:RN:86:PRO:HG2	32:RN:89:LYS:HE2	1.88	0.55
35:RQ:65:PHE:HB2	35:RQ:105:GLU:HB2	1.88	0.55
1:XA:21:G:H2'	1:XA:22:G:C8	2.42	0.55
4:XD:169:LYS:H	4:XD:169:LYS:HD2	1.71	0.55
31:YI:53:ALA:O	31:YI:56:LYS:HG2	2.06	0.55
1:QA:222:U:H2'	1:QA:223:U:H6	1.72	0.54
1:QA:406:G:H5'	4:QD:5:ILE:HD13	1.88	0.54
1:QA:976:G:H5'	1:QA:1358:U:O2'	2.08	0.54
1:QA:1522:U:H2'	1:QA:1523:G:H8	1.72	0.54
4:QD:156:GLU:O	4:QD:159:ARG:HG2	2.06	0.54
24:RA:638:G:H2'	24:RA:639:U:C6	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:989:G:OP2	48:R3:11:SER:OG	2.22	0.54
24:RA:2010:G:H5"	41:RW:42:ARG:HB2	1.89	0.54
24:RA:2154:G:H2'	24:RA:2155:G:C8	2.41	0.54
27:RE:27:LEU:HD22	38:RT:1:MET:HE1	1.87	0.54
1:XA:892:A:H2'	1:XA:893:C:C6	2.41	0.54
1:XA:1287:A:H2'	1:XA:1288:A:C8	2.42	0.54
8:XH:86:ILE:HG21	8:XH:133:LEU:HD23	1.88	0.54
24:YA:1292:U:H2'	24:YA:1293:C:C6	2.42	0.54
24:YA:2019:A:O2'	39:YU:34:LYS:NZ	2.40	0.54
29:YG:80:PHE:O	29:YG:82:LEU:HB2	2.07	0.54
38:YT:91:ARG:HD2	38:YT:120:ARG:NH1	2.22	0.54
1:QA:1391:U:H2'	1:QA:1392:G:C8	2.41	0.54
2:QB:69:LEU:HB3	2:QB:162:ILE:HG22	1.89	0.54
3:QC:70:VAL:HG11	3:QC:76:VAL:HG11	1.89	0.54
4:QD:60:GLU:O	4:QD:63:LYS:HG2	2.08	0.54
24:RA:620:G:H4'	24:RA:621:A:H5"	1.89	0.54
24:RA:860:U:C5	24:RA:917:A:H2	2.25	0.54
24:RA:2784:C:H2'	24:RA:2785:C:H6	1.71	0.54
27:RE:78:LEU:HG	27:RE:79:ARG:HG2	1.89	0.54
29:RG:63:ILE:HG21	29:RG:138:GLN:HE22	1.72	0.54
32:RN:23:LEU:HD23	32:RN:60:ILE:HG21	1.88	0.54
35:RQ:83:MET:HG2	45:R0:7:LEU:HD23	1.88	0.54
44:RZ:19:ARG:HH12	44:RZ:84:GLU:HB2	1.71	0.54
1:XA:736:C:H2'	1:XA:737:A:C8	2.42	0.54
2:XB:76:GLN:NE2	2:XB:206:ASP:OD1	2.35	0.54
3:XC:164:ARG:NH2	3:XC:166:GLU:OE2	2.37	0.54
8:XH:25:ASP:OD1	8:XH:60:ARG:HG2	2.08	0.54
11:XK:86:GLY:O	11:XK:91:ARG:NH1	2.40	0.54
24:YA:1069:A:H2'	24:YA:1073:A:N7	2.23	0.54
24:YA:1972:A:H2'	24:YA:1973:G:H8	1.72	0.54
24:YA:2151:G:H2'	24:YA:2152:G:C8	2.42	0.54
27:YE:52:LEU:O	27:YE:74:PRO:HA	2.07	0.54
2:QB:9:GLU:HG2	2:QB:48:MET:HG3	1.88	0.54
14:QN:17:LYS:HD3	14:QN:17:LYS:H	1.73	0.54
24:RA:796:C:H2'	24:RA:797:C:C6	2.43	0.54
24:RA:807:U:H2'	24:RA:808:G:C8	2.37	0.54
24:RA:1056:G:H5"	24:RA:1057:A:H5'	1.90	0.54
24:RA:1287:A:N7	36:RR:107:ASP:HB2	2.23	0.54
24:RA:2030:A:H4'	24:RA:2031:A:H8	1.71	0.54
24:RA:2133:G:H1'	24:RA:2158:A:H61	1.73	0.54
27:RE:63:LEU:HD12	27:RE:65:GLY:H	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:32:A:H2'	1:XA:33:A:C8	2.41	0.54
1:XA:115:G:H4'	1:XA:116:A:O5'	2.07	0.54
1:XA:1314:C:H2'	1:XA:1315:U:C6	2.42	0.54
6:XF:60:PHE:HE2	18:XR:78:LEU:HD21	1.72	0.54
24:YA:1268:A:H2'	24:YA:1269:A:O4'	2.08	0.54
24:YA:2099:U:O4	24:YA:2190:G:O6	2.25	0.54
24:YA:2414:G:N2	34:YP:67:MET:HE2	2.23	0.54
24:YA:2783:G:H2'	24:YA:2784:C:C6	2.43	0.54
24:RA:958:U:O2	25:RB:89(A):A:O2'	2.24	0.54
24:RA:1431:U:H2'	24:RA:1432:C:C6	2.43	0.54
24:RA:1728:G:N1	24:RA:1730:U:OP2	2.40	0.54
26:RD:108:PRO:HD2	26:RD:111:LEU:HD22	1.90	0.54
36:RR:22:ARG:O	36:RR:26:LYS:HG2	2.06	0.54
1:XA:993:G:O2'	1:XA:994:A:N7	2.40	0.54
24:YA:30:G:H2'	24:YA:31:C:C6	2.41	0.54
45:Y0:69:PHE:HE1	45:Y0:79:VAL:HG13	1.72	0.54
47:Y2:16:LEU:O	47:Y2:67:LYS:NZ	2.41	0.54
48:Y3:3:ARG:NH2	48:Y3:60:GLU:O	2.35	0.54
1:QA:181:G:O2'	1:QA:183:G:O6	2.24	0.54
1:QA:1510:U:H2'	1:QA:1511:G:H8	1.72	0.54
7:QG:89:MET:HE1	7:QG:156:TRP:CZ3	2.42	0.54
30:RH:8:PRO:O	30:RH:69:ARG:NH1	2.40	0.54
49:R4:53:GLU:HB2	49:R4:56:VAL:HG22	1.90	0.54
1:XA:428:G:OP2	4:XD:10:ARG:HD2	2.07	0.54
1:XA:1149:C:H2'	1:XA:1150:U:C6	2.42	0.54
24:YA:993:G:H4'	40:YV:70:ILE:HD11	1.88	0.54
24:YA:2023:G:H5'	24:YA:2617:C:H4'	1.90	0.54
24:YA:2025:C:H2'	24:YA:2026:C:C6	2.43	0.54
39:YU:92:ARG:CD	40:YV:11:GLN:HB2	2.38	0.54
43:YY:9:LYS:HG3	43:YY:29:GLU:HA	1.89	0.54
1:QA:1321:C:H4'	13:QM:87:TYR:CZ	2.42	0.54
1:QA:1464:G:OP2	38:RT:112:ARG:NH2	2.36	0.54
22:QV:21:U:H5'	22:QV:22:A:OP2	2.07	0.54
24:RA:2804:C:N4	24:RA:2805:G:O6	2.41	0.54
24:RA:2867:G:O2'	24:RA:2868:A:H8	1.90	0.54
30:RH:121:ILE:HD11	30:RH:140:LYS:HB3	1.90	0.54
40:RV:62:LEU:HD11	40:RV:95:LEU:HB2	1.90	0.54
1:XA:1118:C:H1'	1:XA:1179:A:C5	2.43	0.54
1:XA:1486:G:H2'	1:XA:1487:G:O4'	2.08	0.54
2:XB:24:TRP:CZ3	2:XB:26:PRO:HA	2.42	0.54
24:YA:620:G:H4'	24:YA:621:A:H5"	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:1678:G:N2	24:YA:1989:G:H22	2.05	0.54
33:YO:25:LEU:HD11	33:YO:40:VAL:HG23	1.89	0.54
36:YR:58:GLY:HA2	36:YR:80:PHE:HE1	1.73	0.54
38:YT:12:SER:HB3	38:YT:15:VAL:HG13	1.90	0.54
1:QA:579:G:H5'	1:QA:728:A:H1'	1.89	0.54
1:QA:1004:A:C2	1:QA:1025:U:H1'	2.43	0.54
24:RA:1405:U:H2'	24:RA:1406:U:C6	2.43	0.54
24:RA:2140:C:H2'	24:RA:2141:G:H8	1.71	0.54
38:RT:111:ARG:C	38:RT:113:LYS:H	2.16	0.54
1:XA:251:G:N2	1:XA:253:U:O4	2.41	0.54
1:XA:486:U:H2'	1:XA:487:A:H8	1.73	0.54
1:XA:1028(A):C:N4	1:XA:1032(B):G:O6	2.41	0.54
24:YA:784:A:C5	26:YD:229:VAL:HG21	2.43	0.54
24:YA:1695:G:N7	26:YD:14:ARG:NH2	2.56	0.54
24:YA:2334:G:H5'	37:YS:9:ARG:HG3	1.90	0.54
44:YZ:31:ARG:NH1	44:YZ:94:GLU:OE1	2.40	0.54
1:QA:539:A:H2'	1:QA:540:G:C8	2.43	0.54
2:QB:168:THR:HG23	2:QB:192:SER:HB2	1.89	0.54
20:QT:30:LYS:HG3	20:QT:34:LYS:HE3	1.88	0.54
24:RA:329:G:OP2	43:RY:71:LYS:NZ	2.41	0.54
24:RA:923:C:H2'	24:RA:924:C:H6	1.72	0.54
24:RA:2845:G:H2'	24:RA:2846:G:C8	2.43	0.54
30:RH:9:ILE:HD11	30:RH:49:VAL:HB	1.89	0.54
1:XA:22:G:H4'	1:XA:885:G:C8	2.42	0.54
1:XA:464:G:H21	1:XA:468:A:H62	1.54	0.54
1:XA:1070:U:O5'	5:XE:25:ARG:NH2	2.41	0.54
1:XA:1287:A:H2	1:XA:1353:G:H1'	1.73	0.54
6:XF:99:ALA:HB1	18:XR:23:LYS:HE2	1.89	0.54
24:YA:259:G:N2	24:YA:621:A:H8	2.02	0.54
24:YA:589:C:H2'	24:YA:590:A:C8	2.41	0.54
36:YR:59:ASP:HB2	36:YR:62:ALA:H	1.72	0.54
1:QA:988:G:H2'	1:QA:989:C:O4'	2.07	0.54
1:QA:1141:C:H2'	1:QA:1142:G:C8	2.42	0.54
19:QS:36:ARG:HA	19:QS:71:LEU:HD23	1.89	0.54
24:RA:184:C:H2'	24:RA:185:U:H6	1.73	0.54
24:RA:479:A:N3	24:RA:481:G:H5"	2.23	0.54
24:RA:840:C:H2'	24:RA:841:A:H8	1.73	0.54
26:RD:25:THR:HG21	26:RD:113:VAL:HG21	1.90	0.54
30:RH:11:VAL:HG12	30:RH:13:LYS:HG2	1.90	0.54
35:RQ:65:PHE:HB2	35:RQ:105:GLU:CB	2.37	0.54
35:RQ:66:ILE:H	35:RQ:66:ILE:HD12	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1211:U:H4'	1:XA:1213:A:H1'	1.89	0.54
9:XI:114:TYR:HE2	10:XJ:59:SER:HA	1.73	0.54
24:YA:1992:G:N2	24:YA:1996:C:O2'	2.41	0.54
43:YY:14:LEU:O	43:YY:72:VAL:HA	2.08	0.54
1:QA:619:U:N3	4:QD:134:ASP:OD1	2.39	0.54
24:RA:1657:C:H2'	24:RA:1658:C:C6	2.43	0.54
35:RQ:81:VAL:HG12	45:R0:7:LEU:HD21	1.89	0.54
1:XA:35:G:O2'	12:XL:118:SER:O	2.20	0.54
1:XA:501:C:H2'	1:XA:502:G:H8	1.74	0.54
1:XA:708:C:H2'	1:XA:709:G:H8	1.72	0.54
24:YA:1062:G:H1'	24:YA:1088:A:C5	2.43	0.54
24:YA:2059:A:H5'	24:YA:2060:A:OP2	2.07	0.54
24:YA:2564:A:C2	24:YA:2647:U:H4'	2.43	0.54
45:Y0:24:LYS:HZ1	45:Y0:39:ARG:HG3	1.72	0.54
1:QA:229:U:H4'	16:QP:2:VAL:HG11	1.89	0.53
1:QA:484:G:H4'	1:QA:485:G:O5'	2.08	0.53
1:QA:1241:G:H2'	1:QA:1242:C:C6	2.43	0.53
20:QT:35:THR:HA	20:QT:38:LYS:HE2	1.90	0.53
24:RA:17:G:H4'	39:RU:25:TRP:HE1	1.74	0.53
27:RE:23:VAL:HG12	27:RE:173:VAL:HG21	1.90	0.53
44:RZ:40:ASP:HB3	44:RZ:43:GLU:HB2	1.90	0.53
49:R4:14:ILE:HG23	49:R4:22:ILE:HB	1.90	0.53
52:R7:5:TRP:NE1	52:R7:7:PRO:HG3	2.23	0.53
53:R8:49:VAL:HG23	53:R8:53:PRO:HG3	1.89	0.53
1:XA:7:G:O2'	5:XE:120:THR:O	2.26	0.53
1:XA:718:G:C8	11:XK:116:HIS:HB3	2.42	0.53
22:XV:15:G:H22	22:XV:49:C:H41	1.56	0.53
24:YA:270(V):G:H2'	24:YA:270(W):G:H8	1.72	0.53
24:YA:1429:G:H2'	24:YA:1430:C:C6	2.43	0.53
24:YA:2308:G:H1	24:YA:2311:A:H2	1.53	0.53
26:YD:130:ALA:HB2	26:YD:192:THR:HG22	1.88	0.53
1:QA:384:G:H2'	1:QA:385:C:C6	2.43	0.53
1:QA:689:C:H3'	1:QA:690:G:H21	1.72	0.53
1:QA:1261:A:H62	1:QA:1274:G:H21	1.54	0.53
1:QA:1305:G:N2	1:QA:1332:A:OP2	2.38	0.53
2:QB:7:VAL:HG22	2:QB:217:ARG:HG2	1.90	0.53
2:QB:162:ILE:HD11	2:QB:184:VAL:HG22	1.90	0.53
9:QI:82:ALA:HB1	9:QI:96:LEU:HD11	1.90	0.53
24:RA:345:A:O2'	24:RA:347:A:N7	2.41	0.53
24:RA:704:G:O2'	24:RA:726:G:N2	2.38	0.53
24:RA:755:C:H2'	24:RA:756:C:H6	1.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:910:A:H2'	24:RA:911:A:C8	2.44	0.53
24:RA:1889:A:H2'	24:RA:1890:A:C8	2.42	0.53
24:RA:2070:G:H2'	24:RA:2071:A:C8	2.43	0.53
46:R1:53:VAL:C	46:R1:55:GLY:H	2.17	0.53
1:XA:8:A:N6	4:XD:205:GLU:O	2.41	0.53
1:XA:191(A):G:H2'	1:XA:191(B):G:C8	2.43	0.53
1:XA:337:C:H2'	1:XA:338:A:C8	2.42	0.53
16:XP:6:LEU:HA	16:XP:18:ARG:O	2.08	0.53
24:YA:26:G:H1'	24:YA:515:A:H61	1.73	0.53
24:YA:458:G:O2'	24:YA:469:G:O6	2.22	0.53
24:YA:624:C:H5"	53:Y8:64:TYR:HD2	1.73	0.53
24:YA:1113:U:H2'	24:YA:1114:G:C8	2.44	0.53
24:YA:1464:C:O2'	24:YA:1528:A:H8	1.91	0.53
24:YA:2271:G:H5'	45:Y0:20:ARG:HG2	1.90	0.53
25:YB:60:C:H2'	25:YB:61:G:C8	2.43	0.53
26:YD:69:ARG:HH22	26:YD:117:VAL:HG12	1.72	0.53
38:YT:36:GLU:OE1	38:YT:41:ARG:NH1	2.39	0.53
44:YZ:121:HIS:ND1	44:YZ:169:GLU:OE1	2.41	0.53
1:QA:45:U:H2'	1:QA:46:G:C8	2.44	0.53
1:QA:45:U:H2'	1:QA:46:G:H8	1.72	0.53
1:QA:335:C:H2'	1:QA:336:C:C6	2.42	0.53
1:QA:407:G:H5"	4:QD:115:ARG:CG	2.38	0.53
14:QN:29:ARG:HH21	14:QN:32:SER:HB3	1.74	0.53
24:RA:455:C:N3	24:RA:472:A:H2'	2.23	0.53
24:RA:511:U:H4'	24:RA:1235:G:H4'	1.90	0.53
24:RA:1055:G:H22	24:RA:1105:U:H3	1.55	0.53
24:RA:1072:C:H42	24:RA:1092:C:H41	1.55	0.53
24:RA:2629:A:H4'	24:RA:2629:A:OP1	2.07	0.53
1:XA:955:U:H5'	13:XM:120:LYS:HE3	1.89	0.53
5:XE:81:GLU:HG2	5:XE:90:VAL:HG12	1.91	0.53
24:YA:1499:C:H2'	24:YA:1500:G:C8	2.43	0.53
31:YI:9:LEU:HB3	31:YI:12:LEU:HB3	1.91	0.53
34:YP:64:LYS:HB3	53:Y8:25:MET:HG3	1.89	0.53
35:YQ:81:VAL:H	45:Y0:7:LEU:HD21	1.73	0.53
41:YW:83:LYS:HG2	41:YW:97:LYS:HG2	1.89	0.53
44:YZ:58:VAL:O	44:YZ:59:LEU:HB2	2.09	0.53
2:QB:31:TYR:HE2	2:QB:194:PRO:HG3	1.74	0.53
4:QD:31:CYS:HB2	56:QD:301:SF4:S3	2.48	0.53
24:RA:934:G:H2'	24:RA:935:C:H6	1.73	0.53
24:RA:1509:C:H3'	24:RA:1510:A:H5"	1.90	0.53
1:XA:1513:A:H2'	1:XA:1514:C:C6	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:XD:111:ALA:HB2	4:XD:120:LEU:HD12	1.91	0.53
22:XV:44:A:H2'	22:XV:45:A:C8	2.43	0.53
24:YA:1590:U:H2'	24:YA:1591:G:C8	2.43	0.53
24:YA:2364:C:H2'	24:YA:2365:G:O4'	2.09	0.53
37:YS:71:ARG:NH1	37:YS:107:GLU:OE1	2.41	0.53
38:YT:3:ARG:HG3	38:YT:6:LEU:HB2	1.91	0.53
39:YU:47:TYR:HA	39:YU:50:ARG:HH11	1.74	0.53
39:YU:88:ILE:HG13	40:YV:48:GLY:HA2	1.90	0.53
45:Y0:21:LEU:HD11	45:Y0:41:ARG:NH2	2.24	0.53
4:QD:15:GLU:HG2	4:QD:63:LYS:HB3	1.91	0.53
8:QH:30:ARG:HA	8:QH:33:GLU:HG2	1.90	0.53
24:RA:184:C:H2'	24:RA:185:U:C6	2.44	0.53
24:RA:519:U:H2'	24:RA:520:G:H8	1.72	0.53
24:RA:1678:G:N2	24:RA:1989:G:H22	2.06	0.53
26:RD:17:THR:HB	26:RD:205:VAL:H	1.74	0.53
1:XA:737:A:H2'	1:XA:738:C:H6	1.73	0.53
1:XA:1373:G:OP1	9:XI:42:ARG:NH2	2.41	0.53
24:YA:2030:A:H4'	24:YA:2031:A:H8	1.74	0.53
24:YA:2849:U:OP2	38:YT:95:ARG:NH1	2.42	0.53
31:YI:87:LYS:HA	31:YI:122:GLU:HA	1.89	0.53
1:QA:186(B):C:H2'	1:QA:186(C):G:C8	2.43	0.53
1:QA:551:U:H2'	1:QA:552:U:C6	2.43	0.53
1:QA:954:G:H21	1:QA:1227:A:H62	1.56	0.53
1:QA:1410:G:H2'	1:QA:1411:C:C6	2.44	0.53
3:QC:7:PRO:HG3	3:QC:201:TYR:HE1	1.74	0.53
24:RA:140:A:H8	24:RA:1408:C:HO2'	1.56	0.53
24:RA:184:C:O2'	24:RA:217:G:N3	2.39	0.53
24:RA:890:A:H2'	24:RA:892:G:H8	1.74	0.53
1:XA:407:G:O4'	4:XD:119:GLN:NE2	2.42	0.53
1:XA:643:C:H2'	1:XA:644:G:H8	1.73	0.53
1:XA:890:G:O2'	1:XA:906:G:O6	2.24	0.53
1:XA:1129:C:H5'	1:XA:1130:A:H5'	1.91	0.53
24:YA:794:G:H2'	24:YA:795:C:C6	2.44	0.53
24:YA:848:G:H2'	24:YA:849:A:H8	1.72	0.53
24:YA:1020:A:N1	24:YA:1141:U:H2'	2.24	0.53
24:YA:2543:G:H2'	24:YA:2544:G:C8	2.44	0.53
31:YI:2:LYS:HG3	31:YI:39:ALA:HB3	1.89	0.53
1:QA:455:C:H42	1:QA:477:G:H1	1.57	0.53
1:QA:686:U:H1'	11:QK:42:TRP:HE1	1.74	0.53
2:QB:186:ALA:HB3	2:QB:197:VAL:HG11	1.91	0.53
11:QK:92:GLU:O	11:QK:96:ARG:HD3	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:600:G:N2	24:RA:605:C:O3'	2.41	0.53
24:RA:823:G:H2'	24:RA:824:A:H8	1.73	0.53
24:RA:1050:A:H2'	24:RA:1051:G:O4'	2.08	0.53
24:RA:1568:G:OP2	26:RD:63:ARG:NH2	2.42	0.53
24:RA:2577:A:H5"	24:RA:2578:G:H5'	1.91	0.53
24:RA:2755:C:H2'	54:R9:19:ARG:HD2	1.91	0.53
30:RH:28:GLY:HA3	30:RH:79:VAL:HB	1.90	0.53
35:RQ:37:LEU:HD11	35:RQ:130:LYS:HB2	1.91	0.53
44:RZ:8:TYR:O	44:RZ:37:VAL:HG13	2.09	0.53
1:XA:1336:C:O2'	1:XA:1337:G:OP2	2.21	0.53
24:YA:2346:A:H5"	24:YA:2383:G:H1'	1.91	0.53
34:YP:97:PRO:C	34:YP:99:LEU:H	2.17	0.53
41:YW:23:LEU:HD11	50:Y5:27:PRO:HA	1.91	0.53
44:YZ:48:PHE:HE1	44:YZ:71:VAL:HG11	1.74	0.53
3:QC:18:TRP:HZ3	14:QN:55:GLY:N	2.06	0.53
15:QO:26:GLU:HB2	15:QO:81:LEU:HD13	1.91	0.53
24:RA:2475:C:H42	24:RA:2529:G:H22	1.57	0.53
26:RD:45:ASN:OD1	26:RD:46:GLN:N	2.36	0.53
40:RV:76:LYS:HD3	40:RV:81:TYR:CD2	2.43	0.53
44:RZ:55:HIS:NE2	44:RZ:135:GLU:HG3	2.23	0.53
1:XA:1240:U:H2'	7:XG:32:ARG:HG2	1.91	0.53
14:XN:43:CYS:C	14:XN:45:ARG:H	2.15	0.53
24:YA:67:U:H3	24:YA:74:A:H2	1.56	0.53
24:YA:1031:G:O2'	54:Y9:7:VAL:O	2.22	0.53
24:YA:1045:A:N6	24:YA:1111:A:N7	2.57	0.53
24:YA:1812:A:H2'	24:YA:1813:G:H8	1.73	0.53
25:YB:15:A:H1'	25:YB:109:G:C5	2.43	0.53
1:QA:642:A:N3	8:QH:113:SER:OG	2.33	0.53
1:QA:1111:A:N1	3:QC:177:THR:HG22	2.23	0.53
1:QA:1343:G:H2'	1:QA:1344:C:C6	2.44	0.53
24:RA:68:G:H2'	24:RA:69:C:C6	2.44	0.53
24:RA:635:C:O2'	24:RA:639:U:OP1	2.25	0.53
24:RA:639:U:H2'	24:RA:640:C:H6	1.74	0.53
24:RA:1338:G:O2'	24:RA:1393:A:N1	2.36	0.53
24:RA:1952:A:N3	24:RA:2560:C:O2'	2.38	0.53
24:RA:2893:G:H5"	24:RA:2894:G:H5'	1.91	0.53
28:RF:184:TYR:CE2	28:RF:188:ARG:HD2	2.43	0.53
49:R4:28:LYS:HG2	49:R4:31:ILE:HD11	1.90	0.53
1:XA:243:A:H4'	1:XA:244:U:O5'	2.08	0.53
1:XA:265:G:H2'	1:XA:266:G:H5"	1.91	0.53
5:XE:42:GLY:HA3	5:XE:66:MET:HG2	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:XF:36:ARG:NH2	6:XF:66:GLU:OE1	2.36	0.53
24:YA:1799:G:H5'	24:YA:1819:A:N6	2.24	0.53
24:YA:2867:G:OP2	38:YT:119:LYS:NZ	2.28	0.53
10:QJ:98:ILE:O	10:QJ:99:LYS:HG2	2.08	0.53
24:RA:978:G:O4'	24:RA:1001:A:H2	1.92	0.53
34:RP:121:LYS:HB3	34:RP:123:LEU:HD22	1.91	0.53
38:RT:53:ARG:HD2	38:RT:60:THR:HB	1.91	0.53
1:XA:1320:C:H5'	19:XS:70:LYS:HD2	1.90	0.53
1:XA:1469:G:H2'	1:XA:1470:G:C8	2.44	0.53
24:YA:796:C:H2'	24:YA:797:C:C6	2.44	0.53
24:YA:1674:G:H1'	24:YA:1676:A:N6	2.24	0.53
32:YN:1:MET:HE1	39:YU:95:LEU:HD21	1.90	0.53
34:YP:61:ARG:NH1	53:Y8:56:GLU:OE1	2.42	0.53
38:YT:54:ARG:HA	38:YT:59:THR:HG23	1.90	0.53
1:QA:630:G:H22	1:QA:631:G:H21	1.56	0.52
1:QA:737:A:H2'	1:QA:738:C:C6	2.43	0.52
1:QA:1137:C:O2'	1:QA:1138:G:N2	2.42	0.52
1:QA:1410:G:H2'	1:QA:1411:C:H6	1.75	0.52
9:QI:28:VAL:HG13	9:QI:63:ILE:HD11	1.91	0.52
10:QJ:57:LYS:HG2	10:QJ:60:ARG:HH21	1.74	0.52
22:QV:24:C:H2'	22:QV:25:U:C6	2.44	0.52
24:RA:470:A:OP1	28:RF:59:TYR:HE1	1.92	0.52
24:RA:1079:C:N4	24:RA:1088:A:N7	2.52	0.52
25:RB:29:A:O2'	25:RB:58:A:N1	2.37	0.52
27:RE:24:THR:HG21	27:RE:188:VAL:HG22	1.91	0.52
32:RN:15:LEU:HB2	32:RN:134:ARG:HB3	1.91	0.52
35:RQ:111:GLU:HA	35:RQ:114:ALA:HB3	1.91	0.52
39:RU:83:LEU:HD12	39:RU:113:ALA:HB2	1.91	0.52
1:XA:390:C:H4'	16:XP:28:ARG:HH21	1.73	0.52
1:XA:1005:A:H3'	1:XA:1006:C:C6	2.43	0.52
1:XA:1230:C:H2'	1:XA:1231:G:C8	2.44	0.52
1:XA:1279:A:P	10:XJ:9:ARG:HH22	2.32	0.52
7:XG:29:LYS:NZ	7:XG:102:ARG:HB3	2.24	0.52
7:XG:75:VAL:HG13	7:XG:145:ALA:HA	1.90	0.52
8:XH:120:THR:HB	8:XH:123:GLU:HG2	1.89	0.52
24:YA:1571:A:H2'	24:YA:1572:A:C8	2.44	0.52
44:YZ:93:ASP:C	44:YZ:94:GLU:HG2	2.33	0.52
1:QA:524:G:H2'	1:QA:525:C:C6	2.44	0.52
9:QI:17:VAL:HG23	9:QI:63:ILE:HG22	1.92	0.52
12:QL:47:LYS:HD2	12:QL:47:LYS:O	2.08	0.52
17:QQ:45:HIS:NE2	17:QQ:47:PRO:HG3	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:534:U:H2'	24:RA:535:C:C6	2.44	0.52
24:RA:617:G:OP1	28:RF:40:GLN:HG3	2.09	0.52
24:RA:624:C:H5"	53:R8:64:TYR:HD2	1.74	0.52
24:RA:840:C:H2'	24:RA:841:A:C8	2.44	0.52
24:RA:1278:A:H2'	24:RA:1279:G:H8	1.74	0.52
24:RA:1399:C:H2'	24:RA:1400:G:H8	1.73	0.52
35:RQ:1:MET:H1	35:RQ:48:GLU:HG3	1.73	0.52
44:RZ:3:TYR:O	44:RZ:57:ILE:HA	2.09	0.52
1:XA:712:A:H2'	1:XA:713:G:C8	2.44	0.52
17:XQ:56:VAL:HG21	17:XQ:81:ARG:HH21	1.75	0.52
24:YA:1204:A:O2'	24:YA:1205:U:O5'	2.26	0.52
24:YA:1430:C:H2'	24:YA:1431:U:C6	2.45	0.52
24:YA:1930:G:N2	24:YA:1969:A:OP2	2.35	0.52
24:YA:2723:C:OP1	36:YR:3:HIS:ND1	2.42	0.52
36:YR:56:LYS:HE3	36:YR:88:ARG:HA	1.91	0.52
38:YT:26:ASP:HB3	38:YT:92:GLY:H	1.72	0.52
54:Y9:7:VAL:HG23	54:Y9:34:GLN:HG2	1.91	0.52
1:QA:876:G:H1'	8:QH:11:THR:HG21	1.91	0.52
1:QA:974:A:OP2	14:QN:29:ARG:NH2	2.37	0.52
1:QA:1014:A:H2	1:QA:1219:U:H1'	1.74	0.52
2:QB:102:LEU:HB2	2:QB:176:GLU:HG2	1.91	0.52
3:QC:69:HIS:CD2	3:QC:104:GLN:HB2	2.44	0.52
10:QJ:37:PRO:HA	10:QJ:72:VAL:HG12	1.91	0.52
24:RA:323:G:H2'	28:RF:169:ASN:OD1	2.09	0.52
24:RA:1270:C:H5"	24:RA:1271:G:H5'	1.92	0.52
2:XB:42:ILE:HD11	2:XB:202:PRO:HB2	1.91	0.52
11:XK:40:ILE:HD12	11:XK:75:TYR:HD2	1.74	0.52
24:YA:2065:C:H1'	24:YA:2449:U:N3	2.24	0.52
24:YA:2162:G:H3'	24:YA:2163:C:C5	2.45	0.52
24:YA:2261:C:OP1	45:Y0:19:LYS:NZ	2.40	0.52
24:YA:2314:C:OP1	29:YG:91:ARG:NH2	2.42	0.52
24:YA:2832:U:H4'	24:YA:2833:G:H5"	1.91	0.52
31:YI:95:LYS:HA	31:YI:111:PRO:HB3	1.91	0.52
33:YO:8:LEU:HD13	33:YO:82:ASN:HB3	1.91	0.52
34:YP:74:GLU:OE2	34:YP:79:ARG:NH2	2.33	0.52
1:QA:1127:G:H22	1:QA:1145:C:H1'	1.75	0.52
3:QC:131:ARG:O	3:QC:134:ILE:HG22	2.10	0.52
7:QG:75:VAL:HG13	7:QG:145:ALA:HA	1.91	0.52
16:QP:18:ARG:HA	16:QP:38:TYR:HA	1.91	0.52
18:QR:31:LEU:HD11	18:QR:66:LEU:HB2	1.90	0.52
24:RA:144:C:H2'	24:RA:145:G:C8	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:2224:G:OP1	26:RD:268:ARG:NH1	2.42	0.52
44:RZ:39:VAL:HG22	44:RZ:40:ASP:H	1.74	0.52
54:R9:3:VAL:HG22	54:R9:35:ARG:HD2	1.91	0.52
1:XA:45:U:H2'	1:XA:46:G:H8	1.73	0.52
11:XK:18:ARG:NH1	11:XK:35:PRO:O	2.41	0.52
12:XL:60:LEU:HD21	12:XL:64:TYR:HB2	1.91	0.52
16:XP:6:LEU:HD13	16:XP:17:TYR:CD2	2.44	0.52
24:YA:1020:A:N6	24:YA:1141:U:O2'	2.42	0.52
24:YA:1339:G:H5"	42:YX:16:LYS:HD3	1.92	0.52
24:YA:2290:G:H2'	24:YA:2291:U:O4'	2.09	0.52
25:YB:3:C:H2'	25:YB:4:C:H6	1.73	0.52
25:YB:95:U:H2'	25:YB:96:G:C8	2.45	0.52
26:YD:242:ARG:O	26:YD:244:ARG:HG2	2.09	0.52
30:YH:17:VAL:HG21	30:YH:50:VAL:HG11	1.90	0.52
38:YT:107:ASP:O	38:YT:110:ILE:HG22	2.09	0.52
41:YW:50:VAL:HG12	41:YW:105:VAL:HG22	1.92	0.52
44:YZ:10:ARG:HD2	44:YZ:38:TYR:HD1	1.75	0.52
1:QA:8:A:N6	4:QD:205:GLU:O	2.43	0.52
19:QS:50:ALA:HB1	19:QS:57:HIS:HB3	1.91	0.52
24:RA:848:G:H2'	24:RA:849:A:H8	1.73	0.52
24:RA:1116:C:H2'	24:RA:1117:G:C8	2.44	0.52
24:RA:2291:U:OP1	24:RA:2380:C:O2'	2.26	0.52
26:RD:108:PRO:HG2	26:RD:111:LEU:HB2	1.92	0.52
30:RH:124:GLU:HG2	30:RH:132:ARG:HH11	1.74	0.52
33:RO:53:LYS:HG2	33:RO:54:GLU:H	1.74	0.52
41:RW:88:ARG:HB2	41:RW:92:ARG:HB2	1.90	0.52
4:XD:18:LYS:HE3	4:XD:31:CYS:SG	2.49	0.52
4:XD:112:VAL:HG12	4:XD:116:GLN:OE1	2.09	0.52
5:XE:57:LYS:HG2	5:XE:61:TYR:CE2	2.45	0.52
10:XJ:28:ARG:HH12	10:XJ:34:VAL:HB	1.75	0.52
24:YA:529:A:H8	24:YA:530:G:C6	2.27	0.52
24:YA:969:U:H2'	24:YA:970:C:C6	2.45	0.52
29:YG:37:VAL:O	29:YG:94:LEU:HB2	2.09	0.52
1:QA:1355:G:H2'	1:QA:1356:G:C8	2.45	0.52
11:QK:121:PRO:HB2	11:QK:126:ARG:HB2	1.90	0.52
24:RA:2021:C:OP1	50:R5:12:SER:OG	2.27	0.52
24:RA:2688:U:OP1	24:RA:2713:A:N6	2.43	0.52
24:RA:2853:C:H2'	24:RA:2854:G:C8	2.45	0.52
37:RS:15:ARG:HD3	37:RS:88:ASP:OD1	2.09	0.52
44:RZ:146:ILE:HG13	44:RZ:147:GLY:H	1.75	0.52
1:XA:188:U:H2'	1:XA:189:U:H5"	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:XF:35:ALA:HA	6:XF:67:MET:HB3	1.92	0.52
30:YH:86:GLU:HB3	30:YH:165:ALA:HB3	1.91	0.52
43:YY:35:TYR:CE2	43:YY:69:ALA:HB3	2.43	0.52
5:QE:12:LEU:HD23	5:QE:31:LEU:HB3	1.91	0.52
24:RA:78:A:H2'	24:RA:79:G:H8	1.74	0.52
24:RA:251:A:C5	24:RA:252:G:H1'	2.45	0.52
24:RA:1430:C:H2'	24:RA:1431:U:C6	2.45	0.52
35:RQ:111:GLU:OE1	35:RQ:133:ARG:NH1	2.43	0.52
1:XA:34:C:H2'	1:XA:35:G:C8	2.43	0.52
1:XA:1145:C:H4'	1:XA:1146:A:H5'	1.92	0.52
1:XA:1355:G:H2'	1:XA:1356:G:H8	1.75	0.52
1:XA:1432:G:O2'	1:XA:1468:A:N6	2.43	0.52
7:XG:115:ARG:HD3	7:XG:117:ALA:H	1.74	0.52
21:XU:6:ARG:HH11	21:XU:15:ARG:NE	2.06	0.52
24:YA:184:C:H2'	24:YA:185:U:C6	2.45	0.52
24:YA:1693:U:H1'	26:YD:14:ARG:NH1	2.25	0.52
24:YA:2150:U:H2'	24:YA:2151:G:H8	1.75	0.52
24:YA:2815:C:H5'	50:Y5:29:THR:HG21	1.91	0.52
39:YU:52:ARG:HA	39:YU:55:ARG:HE	1.74	0.52
1:QA:946:A:O2'	1:QA:1333:A:N3	2.39	0.52
1:QA:1072:G:H2'	1:QA:1073:U:C6	2.45	0.52
24:RA:616:A:H4'	28:RF:182:ASN:ND2	2.25	0.52
24:RA:890:A:H2'	24:RA:892:G:C8	2.44	0.52
29:RG:110:ALA:HB1	29:RG:140:ILE:HD12	1.91	0.52
39:RU:98:LEU:HD12	39:RU:102:GLU:HB2	1.92	0.52
42:RX:18:TYR:HA	42:RX:21:PHE:CD2	2.44	0.52
8:XH:120:THR:HG22	8:XH:121:ASP:H	1.75	0.52
24:YA:2823:A:OP1	27:YE:113:PHE:HB2	2.09	0.52
40:YV:66:ARG:NH1	40:YV:88:ARG:HD3	2.24	0.52
1:QA:514:C:H2'	1:QA:515:G:H8	1.75	0.52
3:QC:16:ARG:HH21	3:QC:54:ARG:HH12	1.58	0.52
24:RA:2074:U:H2'	24:RA:2075:U:C6	2.45	0.52
24:RA:2291:U:H2'	24:RA:2292:C:C6	2.44	0.52
24:RA:2315:G:H2'	24:RA:2316:C:C6	2.45	0.52
29:RG:73:ALA:HB2	29:RG:82:LEU:HD22	1.92	0.52
31:RI:5:LEU:HD21	31:RI:12:LEU:HG	1.91	0.52
37:RS:30:ARG:HH11	37:RS:97:ARG:HH21	1.58	0.52
1:XA:264:U:O2'	17:XQ:64:PRO:O	2.26	0.52
1:XA:1314:C:H2'	1:XA:1315:U:H6	1.73	0.52
1:XA:1371:G:O3'	9:XI:69:GLY:HA3	2.09	0.52
8:XH:46:LYS:HG3	8:XH:64:LYS:HB3	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:81:G:H2'	24:YA:82:G:O4'	2.10	0.52
24:YA:784:A:C6	26:YD:229:VAL:HG21	2.45	0.52
24:YA:896:A:H1'	44:YZ:146:ILE:HG21	1.91	0.52
24:YA:2647:U:H2'	24:YA:2648:C:C6	2.45	0.52
27:YE:9:VAL:HB	27:YE:25:VAL:HG13	1.92	0.52
32:YN:137:LYS:HG2	32:YN:138:LEU:H	1.75	0.52
41:YW:30:GLU:O	41:YW:34:ASN:ND2	2.43	0.52
42:YX:44:GLU:HB2	42:YX:49:VAL:O	2.10	0.52
1:QA:406:G:H21	4:QD:119:GLN:HE22	1.56	0.52
1:QA:1071:C:H2'	1:QA:1072:G:H8	1.75	0.52
1:QA:1119:C:H2'	1:QA:1120:G:H8	1.75	0.52
1:QA:1151:A:H2'	1:QA:1152:A:C8	2.44	0.52
19:QS:34:TRP:NE1	19:QS:57:HIS:HE2	2.07	0.52
24:RA:99:U:H4'	24:RA:101:G:O5'	2.09	0.52
24:RA:389:G:H1	34:RP:71:VAL:H	1.56	0.52
37:RS:88:ASP:O	37:RS:89:ARG:HB3	2.09	0.52
44:RZ:31:ARG:NH2	44:RZ:92:SER:OG	2.40	0.52
51:R6:6:ARG:HD3	51:R6:26:ASN:HA	1.90	0.52
1:XA:429:U:H1'	1:XA:430:A:H5"	1.91	0.52
1:XA:537:G:H5"	12:XL:113:ARG:HH12	1.75	0.52
1:XA:1151:A:H2'	1:XA:1152:A:H8	1.75	0.52
13:XM:82:MET:HE3	13:XM:93:ARG:HG2	1.91	0.52
24:YA:557:U:H2'	24:YA:558:G:H8	1.74	0.52
24:YA:1428:C:O2'	24:YA:1569:A:OP2	2.28	0.52
40:YV:38:LEU:HD12	40:YV:57:VAL:HG23	1.92	0.52
1:QA:186:C:H5'	20:QT:78:ALA:HB1	1.91	0.51
1:QA:1167:A:H2'	1:QA:1169:A:C8	2.45	0.51
1:QA:1218:C:H2'	1:QA:1219:U:C6	2.45	0.51
1:QA:1221:G:H5'	19:QS:36:ARG:NH2	2.25	0.51
4:QD:57:ARG:HB3	4:QD:206:PHE:HB2	1.92	0.51
8:QH:10:LEU:HD22	8:QH:83:ILE:HD11	1.91	0.51
24:RA:586:A:N1	24:RA:809:G:O2'	2.31	0.51
24:RA:673:C:OP1	28:RF:54:ARG:HD2	2.10	0.51
35:RQ:38:GLU:HG2	35:RQ:127:ILE:HG23	1.90	0.51
43:RY:87:LYS:HE3	43:RY:95:LYS:HG2	1.92	0.51
1:XA:1241:G:H2'	1:XA:1242:C:H6	1.74	0.51
6:XF:42:GLU:HG3	6:XF:61:LEU:HD23	1.92	0.51
9:XI:73:GLN:O	9:XI:77:ILE:HG12	2.10	0.51
24:YA:1315:C:O2'	24:YA:1392:A:N3	2.43	0.51
24:YA:1316:U:H2'	24:YA:1317:A:H8	1.72	0.51
31:YI:68:LEU:HA	31:YI:71:ILE:HG22	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:YU:11:ARG:O	39:YU:15:LYS:HG2	2.10	0.51
50:Y5:49:CYS:O	50:Y5:56:LYS:NZ	2.42	0.51
1:QA:17:U:H2'	1:QA:18:C:H6	1.73	0.51
1:QA:630:G:H2'	1:QA:631:G:H4'	1.91	0.51
1:QA:736:C:H2'	1:QA:737:A:C8	2.45	0.51
1:QA:1002:G:H2'	1:QA:1003:G:H8	1.75	0.51
9:QI:5:TYR:CE1	9:QI:16:ARG:HG3	2.45	0.51
24:RA:139:G:N2	24:RA:1596:A:H4'	2.25	0.51
24:RA:443:A:H1'	24:RA:1201:C:O4'	2.10	0.51
24:RA:1593:G:H2'	24:RA:1594:G:C8	2.45	0.51
24:RA:2391:G:O2'	24:RA:2422:A:N7	2.43	0.51
28:RF:197:ASP:C	28:RF:199:TRP:H	2.19	0.51
52:R7:31:LEU:HD22	52:R7:42:LEU:HD23	1.92	0.51
1:XA:537:G:H5"	12:XL:113:ARG:NH1	2.26	0.51
1:XA:1301:U:O2'	1:XA:1302:U:H5'	2.10	0.51
1:XA:1305:G:H22	1:XA:1331:G:H2'	1.74	0.51
1:XA:1305:G:OP1	21:XU:2:GLY:HA2	2.10	0.51
8:XH:121:ASP:OD1	8:XH:122:ARG:N	2.43	0.51
24:YA:689:A:H2'	24:YA:690:G:C8	2.45	0.51
24:YA:2037:G:H2'	24:YA:2038:G:C8	2.45	0.51
29:YG:115:ARG:H	29:YG:115:ARG:HD2	1.75	0.51
41:YW:45:TYR:CZ	41:YW:49:LYS:HD2	2.45	0.51
2:QB:178:ARG:NH1	2:QB:198:ASP:OD1	2.39	0.51
24:RA:65:C:H2'	24:RA:66:C:H6	1.75	0.51
24:RA:385:C:O2'	24:RA:388:G:N2	2.44	0.51
1:XA:1348:U:N3	1:XA:1374:A:H2	2.01	0.51
2:XB:16:HIS:CD2	2:XB:210:SER:HA	2.43	0.51
17:XQ:100:LYS:HD2	17:XQ:100:LYS:O	2.10	0.51
20:XT:14:LYS:HA	20:XT:17:ARG:HG2	1.92	0.51
24:YA:218:A:C2	24:YA:235:U:H4'	2.45	0.51
24:YA:1045:A:N7	24:YA:1111:A:N6	2.58	0.51
24:YA:1427:A:H4'	24:YA:1428:C:O5'	2.10	0.51
24:YA:2319:G:O6	37:YS:4:LEU:HB2	2.11	0.51
25:YB:12:C:H2'	45:Y0:73:GLY:HA3	1.92	0.51
28:YF:184:TYR:CE2	28:YF:188:ARG:HD2	2.45	0.51
49:Y4:46:GLN:O	49:Y4:48:ARG:N	2.32	0.51
1:QA:277:C:H5"	17:QQ:68:ARG:HH21	1.76	0.51
1:QA:401:C:O2'	1:QA:621:A:N3	2.43	0.51
12:QL:84:LEU:HB2	12:QL:105:TYR:HD2	1.76	0.51
12:QL:110:VAL:O	12:QL:122:THR:OG1	2.21	0.51
24:RA:576:U:H2'	24:RA:577:G:C8	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:946:G:H2'	24:RA:947:G:H8	1.74	0.51
24:RA:1427:A:H4'	24:RA:1428:C:O5'	2.10	0.51
36:RR:103:ARG:HG2	36:RR:110:PRO:HA	1.91	0.51
44:RZ:54:HIS:CG	44:RZ:101:PRO:HG3	2.44	0.51
49:R4:14:ILE:CG2	49:R4:22:ILE:HB	2.39	0.51
1:XA:192:U:H4'	20:XT:57:ARG:HD3	1.92	0.51
1:XA:973:G:O3'	14:XN:41:ARG:NH2	2.43	0.51
24:YA:1264:G:OP1	50:Y5:19:ARG:NH1	2.42	0.51
24:YA:1844:C:H2'	24:YA:1845:G:H8	1.74	0.51
25:YB:8:U:O4	25:YB:112:G:O6	2.29	0.51
26:YD:35:LYS:O	26:YD:35:LYS:HD3	2.11	0.51
30:YH:27:LYS:O	30:YH:27:LYS:HD3	2.10	0.51
31:YI:78:THR:HG22	31:YI:141:LYS:HD3	1.91	0.51
1:QA:51:A:N1	1:QA:314:C:O2'	2.39	0.51
1:QA:980:C:H5"	1:QA:981:U:C5	2.45	0.51
1:QA:1315:U:H2'	1:QA:1316:G:O4'	2.11	0.51
4:QD:82:ALA:HB1	4:QD:92:VAL:HG13	1.92	0.51
29:RG:114:ILE:HD13	29:RG:140:ILE:HG21	1.93	0.51
36:RR:56:LYS:NZ	36:RR:90:ARG:O	2.43	0.51
41:RW:10:VAL:HG12	41:RW:12:ILE:HG22	1.93	0.51
1:XA:686:U:H2'	1:XA:687:A:C8	2.44	0.51
3:XC:23:TYR:HA	10:XJ:11:PHE:CE2	2.45	0.51
7:XG:26:PHE:O	7:XG:30:ILE:HG12	2.10	0.51
20:XT:83:ARG:HA	20:XT:86:ARG:HG2	1.92	0.51
24:YA:1344:G:H4'	24:YA:1384:A:C5	2.46	0.51
24:YA:2702:U:OP1	24:YA:2702:U:H6	1.92	0.51
38:YT:91:ARG:HB2	38:YT:121:ILE:HG13	1.92	0.51
3:QC:22:TRP:HH2	3:QC:32:LEU:HD13	1.72	0.51
5:QE:15:ARG:HG3	5:QE:28:PHE:CE1	2.46	0.51
24:RA:58:G:H5'	42:RX:74:PRO:HB3	1.92	0.51
24:RA:1176:G:O3'	24:RA:1178:C:N4	2.44	0.51
29:RG:28:VAL:O	29:RG:33:ARG:NH2	2.44	0.51
36:RR:26:LYS:HE2	36:RR:70:LEU:O	2.11	0.51
42:RX:54:VAL:HG22	42:RX:81:VAL:HG12	1.91	0.51
1:XA:1079:G:H2'	1:XA:1080:A:C8	2.45	0.51
1:XA:1463:C:OP1	38:YT:111:ARG:NH1	2.44	0.51
19:XS:41:VAL:HG22	19:XS:44:MET:HE1	1.93	0.51
24:YA:531:C:OP1	24:YA:561:G:N1	2.44	0.51
25:YB:3:C:H2'	25:YB:4:C:C6	2.45	0.51
26:YD:61:LEU:O	26:YD:63:ARG:NH1	2.41	0.51
38:YT:28:VAL:HG12	38:YT:88:ILE:HG13	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:492:A:H2'	24:RA:493:G:O4'	2.11	0.51
24:RA:602:G:O2'	24:RA:604:G:O2'	2.24	0.51
24:RA:1055:G:H1	24:RA:1105:U:H3	1.57	0.51
24:RA:2056:G:N2	50:R5:3:LYS:O	2.29	0.51
24:RA:2439:A:H5'	24:RA:2439:A:C8	2.46	0.51
24:RA:2564:A:H2'	24:RA:2565:A:C8	2.45	0.51
28:RF:181:LEU:HD11	28:RF:186:ILE:HD11	1.91	0.51
30:RH:157:TYR:CD1	30:RH:172:LYS:HG3	2.46	0.51
1:XA:191(E):G:H2'	1:XA:191(F):U:C6	2.46	0.51
1:XA:580:U:H3	1:XA:761:G:H1	1.58	0.51
1:XA:1310:G:OP2	13:XM:88:ARG:NH2	2.44	0.51
24:YA:634:C:H2'	24:YA:635:C:C6	2.46	0.51
24:YA:812:C:H5"	24:YA:1250:G:O2'	2.11	0.51
24:YA:2701:C:C3'	24:YA:2702:U:H5"	2.37	0.51
27:YE:1:MET:HG3	27:YE:200:GLU:HG2	1.93	0.51
27:YE:24:THR:HG21	27:YE:188:VAL:HG22	1.92	0.51
31:YI:104:GLN:HG3	31:YI:105:HIS:CD2	2.46	0.51
32:YN:73:THR:HB	32:YN:82:LEU:HD11	1.93	0.51
38:YT:51:ARG:HG2	38:YT:62:THR:HB	1.92	0.51
42:YX:25:LYS:HB3	42:YX:80:ILE:HD11	1.92	0.51
1:QA:855:G:OP2	1:QA:871:U:N3	2.43	0.51
2:QB:146:GLN:O	2:QB:150:SER:HB2	2.11	0.51
10:QJ:49:VAL:HG12	14:QN:41:ARG:HG2	1.92	0.51
11:QK:21:ILE:HG13	11:QK:30:VAL:HG12	1.91	0.51
15:QO:80:ALA:O	15:QO:83:GLU:HG3	2.10	0.51
24:RA:519:U:H2'	24:RA:520:G:C8	2.45	0.51
24:RA:1754:C:OP1	38:RT:96:ARG:NE	2.44	0.51
1:XA:186(D):C:H2'	1:XA:186(E):C:C6	2.46	0.51
1:XA:664:G:H22	1:XA:741:G:H1	1.59	0.51
1:XA:1054:C:O2'	1:XA:1055:A:H5"	2.11	0.51
1:XA:1179:A:H2'	1:XA:1180:A:O4'	2.11	0.51
3:XC:5:ILE:HD13	14:XN:58:LYS:HZ2	1.76	0.51
24:YA:125:G:O6	52:Y7:10:ARG:NH1	2.43	0.51
24:YA:392:C:H5"	24:YA:409:C:H5"	1.93	0.51
24:YA:566:U:OP1	34:YP:29:LYS:HE2	2.11	0.51
29:YG:72:ARG:NH1	29:YG:87:PRO:HB3	2.26	0.51
1:QA:757:U:O2'	1:QA:879:C:O2	2.28	0.51
8:QH:108:GLY:HA3	8:QH:138:TRP:HB3	1.93	0.51
24:RA:389:G:H22	34:RP:72:PRO:HD3	1.76	0.51
24:RA:660:G:H21	34:RP:12:ALA:HA	1.75	0.51
24:RA:1310:G:H1'	24:RA:1611:C:H5"	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:1449:A:H5'	24:RA:1449(A):G:OP2	2.10	0.51
24:RA:2070:G:H2'	24:RA:2071:A:H8	1.76	0.51
24:RA:2626:C:H2'	24:RA:2627:G:H8	1.75	0.51
24:RA:2823:A:OP1	27:RE:113:PHE:HB2	2.10	0.51
37:RS:72:ALA:O	37:RS:75:GLU:HG2	2.11	0.51
38:RT:19:LEU:HD22	38:RT:86:ILE:HG22	1.93	0.51
52:R7:12:ARG:NH2	52:R7:44:PRO:HB3	2.26	0.51
1:XA:760:G:N2	17:XQ:97:SER:OG	2.42	0.51
1:XA:806:C:H2'	1:XA:807:A:H8	1.75	0.51
24:YA:39:C:H2'	24:YA:40:C:C6	2.46	0.51
24:YA:885:C:H41	24:YA:892:G:N2	2.08	0.51
24:YA:1482:U:O4	24:YA:1510:A:H8	1.94	0.51
24:YA:2074:U:H2'	24:YA:2075:U:C6	2.45	0.51
34:YP:88:LEU:HD22	34:YP:95:VAL:HG11	1.92	0.51
1:QA:310:G:H4'	16:QP:31:LYS:HD2	1.93	0.51
1:QA:483:C:OP2	1:QA:484:G:O2'	2.19	0.51
1:QA:500:G:H2'	1:QA:501:C:C6	2.46	0.51
1:QA:718:G:H5'	11:QK:117:ASN:OD1	2.11	0.51
31:RI:9:LEU:HB2	31:RI:12:LEU:HB3	1.91	0.51
37:RS:26:LEU:HD13	37:RS:39:ILE:HG22	1.93	0.51
42:RX:47:PHE:HZ	47:R2:37:PHE:HE2	1.59	0.51
44:RZ:74:VAL:HG12	44:RZ:86:VAL:HG23	1.93	0.51
1:XA:126:G:H4'	1:XA:634:C:O2	2.11	0.51
1:XA:359:U:H2'	1:XA:360:A:H8	1.76	0.51
1:XA:579:G:H5'	1:XA:728:A:H1'	1.92	0.51
1:XA:1355:G:H2'	1:XA:1356:G:C8	2.45	0.51
4:XD:162:LEU:HD22	4:XD:181:MET:HG2	1.93	0.51
9:XI:48:GLU:N	9:XI:49:PRO:HD2	2.26	0.51
15:XO:17:ARG:HD2	15:XO:77:ARG:HH21	1.76	0.51
24:YA:1270:C:H5"	24:YA:1271:G:H5'	1.93	0.51
24:YA:1316:U:H2'	24:YA:1317:A:C8	2.46	0.51
24:YA:2031:A:N3	24:YA:2455:G:O2'	2.37	0.51
24:YA:2461:C:H2'	24:YA:2462:U:C6	2.46	0.51
25:YB:111:U:H2'	25:YB:112:G:H8	1.76	0.51
30:YH:4:ILE:C	30:YH:6:ARG:H	2.18	0.51
31:YI:12:LEU:HG	31:YI:13:GLY:H	1.76	0.51
31:YI:129:THR:HA	31:YI:137:PRO:HA	1.93	0.51
1:QA:560:U:H4'	1:QA:561:U:O5'	2.11	0.50
1:QA:685:G:H21	1:QA:706:A:N6	2.09	0.50
1:QA:1355:G:H2'	1:QA:1356:G:H8	1.76	0.50
1:QA:1414:U:H2'	1:QA:1415:G:H8	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:QC:150:LYS:HB3	3:QC:201:TYR:HB2	1.94	0.50
8:QH:12:ARG:HH12	8:QH:27:PRO:HD3	1.76	0.50
24:RA:729:G:O2'	24:RA:763:G:H4'	2.11	0.50
24:RA:873:G:H4'	35:RQ:63:LYS:HZ2	1.77	0.50
24:RA:1752:C:H2'	24:RA:1753:G:C8	2.46	0.50
32:RN:123:TYR:CE2	32:RN:129:PRO:HD2	2.46	0.50
42:RX:28:PHE:CE1	42:RX:92:LEU:HD21	2.46	0.50
2:XB:98:LEU:H	2:XB:101:MET:HE3	1.76	0.50
24:YA:911:A:H2'	35:YQ:9:TYR:CE2	2.46	0.50
1:QA:20:U:H2'	1:QA:21:G:O4'	2.12	0.50
1:QA:1062:U:H2'	1:QA:1063:C:C6	2.46	0.50
1:QA:1222:G:H5"	19:QS:78:ARG:NH1	2.21	0.50
2:QB:22:LYS:NZ	2:QB:35:GLU:OE2	2.44	0.50
2:QB:163:PHE:HA	2:QB:185:ILE:HG23	1.94	0.50
6:QF:35:ALA:HB1	6:QF:65:VAL:HG21	1.93	0.50
9:QI:13:ALA:HB2	9:QI:68:GLY:HA3	1.93	0.50
24:RA:1885:A:H5'	24:RA:1886:C:OP2	2.12	0.50
49:R4:37:SER:HA	49:R4:43:TYR:CD2	2.46	0.50
1:XA:667:G:H4'	15:XO:51:HIS:ND1	2.26	0.50
2:XB:24:TRP:CE3	2:XB:26:PRO:HA	2.47	0.50
5:XE:57:LYS:HG2	5:XE:61:TYR:HE2	1.76	0.50
24:YA:609(A):G:H2'	24:YA:610:C:C6	2.46	0.50
24:YA:2118:U:H3	24:YA:2148:G:H5'	1.75	0.50
24:YA:2308:G:H22	24:YA:2311:A:H2	1.57	0.50
24:YA:2554:U:H2'	24:YA:2555:U:C6	2.46	0.50
44:YZ:40:ASP:HB3	44:YZ:43:GLU:HB2	1.93	0.50
1:QA:143:A:H2	1:QA:220:G:H1	1.58	0.50
1:QA:971:G:N2	1:QA:1363:A:OP2	2.42	0.50
1:QA:1316:G:N1	1:QA:1319:A:OP2	2.40	0.50
3:QC:79:ARG:NH2	11:XK:96:ARG:HA	2.27	0.50
10:QJ:78:ASN:O	10:QJ:81:THR:HG22	2.11	0.50
24:RA:223:A:O2'	24:RA:420:C:O2	2.29	0.50
24:RA:864:G:N2	24:RA:866:A:H61	2.08	0.50
24:RA:1464:C:O2'	24:RA:1528:A:H8	1.94	0.50
31:RI:54:GLN:HA	31:RI:57:ARG:HD2	1.92	0.50
1:XA:736:C:H2'	1:XA:737:A:H8	1.76	0.50
1:XA:1291:G:HO2'	9:XI:38:GLN:NE2	2.08	0.50
1:XA:1308:U:H2'	1:XA:1309:G:C8	2.46	0.50
2:XB:163:PHE:HA	2:XB:185:ILE:HG13	1.93	0.50
15:XO:18:PHE:CZ	15:XO:21:ASP:HB3	2.46	0.50
15:XO:43:LEU:HD12	15:XO:56:LEU:HD13	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:XV:35:C:H2'	22:XV:36:A:H8	1.76	0.50
24:YA:907:U:O2'	35:YQ:101:ARG:NH2	2.35	0.50
24:YA:1005:C:O2'	32:YN:28:THR:HG21	2.11	0.50
24:YA:2175:C:H2'	24:YA:2176:A:N7	2.26	0.50
24:YA:2441:C:OP2	24:YA:2586:C:O2'	2.30	0.50
25:YB:15:A:H1'	25:YB:109:G:C4	2.45	0.50
30:YH:56:SER:OG	30:YH:61:HIS:ND1	2.35	0.50
43:YY:37:VAL:HG21	43:YY:72:VAL:HG11	1.93	0.50
3:QC:20:SER:OG	3:QC:22:TRP:NE1	2.38	0.50
3:QC:180:ALA:HB1	3:QC:182:ILE:HG13	1.92	0.50
9:QI:4:TYR:HB2	9:QI:19:LEU:HG	1.93	0.50
24:RA:227:A:C2	24:RA:2407:G:H1'	2.46	0.50
30:RH:88:LEU:HD13	30:RH:165:ALA:HB2	1.93	0.50
30:RH:152:ARG:CD	30:RH:153:LYS:HG3	2.40	0.50
34:RP:97:PRO:C	34:RP:99:LEU:H	2.20	0.50
1:XA:51:A:N7	1:XA:114:U:O2'	2.44	0.50
1:XA:186:C:H2'	1:XA:186(A):C:C6	2.47	0.50
4:XD:153:ARG:HH11	4:XD:181:MET:HE3	1.75	0.50
4:XD:154:ASN:O	4:XD:155:LEU:HB2	2.11	0.50
9:XI:26:VAL:HG12	9:XI:61:ALA:HB3	1.94	0.50
15:XO:7:GLU:OE2	15:XO:38:ARG:NH2	2.43	0.50
24:YA:2821:A:H2'	24:YA:2822:G:O4'	2.11	0.50
46:Y1:70:VAL:O	46:Y1:74:VAL:HG23	2.11	0.50
2:QB:74:LYS:O	2:QB:78:GLN:HG3	2.11	0.50
2:QB:195:ASP:O	8:QH:68:ARG:NH2	2.44	0.50
3:QC:40:ARG:HG3	14:QN:52:GLN:NE2	2.27	0.50
5:QE:67:VAL:HG11	5:QE:140:ARG:HG2	1.93	0.50
10:QJ:38:ILE:HD12	10:QJ:39:PRO:HD2	1.93	0.50
19:QS:3:ARG:HH12	19:QS:11:VAL:HG22	1.76	0.50
24:RA:844:C:H2'	24:RA:845:G:O4'	2.10	0.50
24:RA:856:C:O2'	24:RA:857:C:OP1	2.28	0.50
24:RA:1167:U:H2'	24:RA:1168:G:H8	1.77	0.50
24:RA:1263:U:H2'	24:RA:1264:G:C8	2.45	0.50
24:RA:1819:A:H5"	26:RD:161:THR:HG21	1.93	0.50
1:XA:422:C:HO2'	1:XA:423:G:N2	2.10	0.50
1:XA:483:C:OP2	1:XA:484:G:O2'	2.25	0.50
3:XC:134:ILE:HG23	3:XC:151:VAL:HG13	1.94	0.50
13:XM:17:VAL:O	13:XM:20:THR:OG1	2.17	0.50
24:YA:18:C:O2'	24:YA:553:U:OP1	2.28	0.50
24:YA:31:C:O3'	24:YA:1238:G:H5"	2.11	0.50
24:YA:140:A:H8	24:YA:1408:C:O2'	1.95	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:443:A:H1'	24:YA:1201:C:O4'	2.11	0.50
24:YA:1444:G:H2'	24:YA:1445:C:C5	2.47	0.50
24:YA:2019:A:N7	50:Y5:9:LYS:HE2	2.27	0.50
24:YA:2312:U:H2'	29:YG:40:ASN:HD21	1.77	0.50
24:YA:2845:G:H2'	24:YA:2846:G:C8	2.45	0.50
28:YF:117:ARG:NH2	28:YF:189:THR:O	2.39	0.50
1:QA:41:G:H2'	1:QA:42:G:H8	1.77	0.50
1:QA:243:A:H4'	1:QA:244:U:O5'	2.12	0.50
2:QB:115:LEU:HD21	2:QB:153:ARG:HH11	1.76	0.50
20:QT:56:MET:HE2	20:QT:88:VAL:HG21	1.93	0.50
24:RA:608:A:OP1	28:RF:100:THR:HG21	2.11	0.50
24:RA:691:C:H2'	24:RA:692:C:H6	1.77	0.50
26:RD:208:LYS:HG3	26:RD:210:GLY:H	1.77	0.50
29:RG:63:ILE:HD13	29:RG:138:GLN:HE21	1.77	0.50
38:RT:117:ASP:OD2	38:RT:120:ARG:NE	2.44	0.50
39:RU:17:ILE:HD12	39:RU:20:LEU:HD12	1.93	0.50
1:XA:184:G:H2'	1:XA:185:A:H8	1.75	0.50
1:XA:769:G:H4'	1:XA:1513:A:H4'	1.93	0.50
1:XA:1399:C:C2	1:XA:1502:A:N6	2.79	0.50
5:XE:77:PRO:HG2	5:XE:78:HIS:CD2	2.47	0.50
8:XH:12:ARG:HH12	8:XH:27:PRO:HD3	1.77	0.50
12:XL:77:LEU:HD21	12:XL:107:ALA:HB2	1.93	0.50
13:XM:49:THR:HB	13:XM:52:GLU:HG2	1.93	0.50
24:YA:239:U:H2'	24:YA:240:G:C8	2.47	0.50
24:YA:415:A:H2'	24:YA:416:C:C6	2.47	0.50
24:YA:576:U:H2'	24:YA:577:G:C8	2.47	0.50
24:YA:1329:U:H5"	24:YA:1330:C:H5	1.75	0.50
24:YA:2391:G:C6	24:YA:2427:C:H1'	2.47	0.50
25:YB:102:G:H21	44:YZ:73:GLN:NE2	2.09	0.50
26:YD:172:TYR:CD1	26:YD:186:HIS:HA	2.46	0.50
28:YF:108:LYS:HG2	28:YF:112:MET:HE2	1.94	0.50
29:YG:109:VAL:HG23	49:Y4:33:VAL:HG11	1.93	0.50
30:YH:16:SER:HB3	30:YH:27:LYS:HB3	1.94	0.50
34:YP:63:PRO:HD3	53:Y8:13:ARG:NH1	2.27	0.50
53:Y8:52:LYS:N	53:Y8:53:PRO:HD2	2.27	0.50
1:QA:6:G:O2'	1:QA:7:G:H5"	2.12	0.50
1:QA:123:C:OP1	1:QA:311:C:O2'	2.24	0.50
8:QH:104:ARG:HG3	8:QH:107:LEU:HB2	1.94	0.50
10:QJ:79:ARG:HA	10:QJ:82:ILE:HG12	1.94	0.50
25:RB:80:U:O2	25:RB:81:G:N2	2.45	0.50
29:RG:116:ASP:O	29:RG:118:ARG:NH1	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:R7:1:MET:HG3	52:R7:2:LYS:H	1.76	0.50
1:XA:411:A:N9	1:XA:413:G:H1'	2.27	0.50
1:XA:1096:C:H2'	1:XA:1097:C:H6	1.76	0.50
1:XA:1292:U:H2'	1:XA:1293:G:C8	2.45	0.50
2:XB:58:ILE:HG22	2:XB:61:LEU:HD12	1.94	0.50
24:YA:823:G:H2'	24:YA:824:A:H8	1.77	0.50
24:YA:970:C:H2'	24:YA:971:C:C6	2.47	0.50
30:YH:12:PRO:O	30:YH:15:VAL:HG22	2.12	0.50
1:QA:34:C:H2'	1:QA:35:G:C8	2.46	0.50
1:QA:976:G:N2	1:QA:1362(A):C:OP2	2.30	0.50
1:QA:1342:C:H5"	9:QI:125:TYR:HB3	1.94	0.50
24:RA:1283:G:N2	24:RA:1286:A:OP2	2.45	0.50
36:RR:34:ILE:HG22	36:RR:36:THR:HG23	1.94	0.50
1:XA:1015:A:H2'	1:XA:1016:A:H8	1.76	0.50
1:XA:1189:C:OP1	10:XJ:51:ARG:NH2	2.37	0.50
1:XA:1286:A:H2'	1:XA:1287:A:H4'	1.94	0.50
11:XK:84:VAL:HG11	11:XK:95:ILE:HD11	1.93	0.50
24:YA:805:G:H22	24:YA:828:U:H5"	1.76	0.50
24:YA:1064:C:H2'	24:YA:1065:U:O4'	2.11	0.50
24:YA:2539:C:H5'	54:Y9:3:VAL:HG21	1.94	0.50
27:YE:104:VAL:HG22	27:YE:196:VAL:HG22	1.93	0.50
29:YG:161:THR:HG22	29:YG:163:ALA:H	1.77	0.50
32:YN:133:GLN:O	32:YN:134:ARG:HD2	2.12	0.50
52:Y7:5:TRP:NE1	52:Y7:7:PRO:HG3	2.27	0.50
1:QA:598:U:H4'	8:QH:94:TYR:CD2	2.47	0.50
1:QA:667:G:H4'	15:QO:51:HIS:CE1	2.47	0.50
1:QA:1007:C:H2'	1:QA:1008:C:H6	1.76	0.50
1:QA:1320:C:O2	19:QS:36:ARG:NH1	2.44	0.50
3:QC:78:GLY:C	3:QC:79:ARG:HG3	2.37	0.50
24:RA:616:A:H4'	28:RF:182:ASN:HD22	1.77	0.50
24:RA:1034:G:C5'	54:R9:18:ARG:HH12	2.25	0.50
24:RA:2376:A:H2'	24:RA:2377:A:O4'	2.12	0.50
25:RB:44:G:H1'	25:RB:47:C:H42	1.76	0.50
1:XA:1388:C:H2'	1:XA:1389:C:H6	1.77	0.50
24:YA:389:G:N1	34:YP:71:VAL:HG12	2.25	0.50
24:YA:1429:G:H2'	24:YA:1430:C:H6	1.76	0.50
24:YA:1759:A:H1'	24:YA:2711:A:C2	2.47	0.50
30:YH:25:LYS:HB2	30:YH:32:GLU:OE2	2.12	0.50
30:YH:58:GLU:HG2	30:YH:60:ARG:H	1.77	0.50
33:YO:104:ARG:NH2	38:YT:43:GLN:OE1	2.39	0.50
44:YZ:149:SER:OG	44:YZ:172:ALA:O	2.30	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:674:G:H2'	1:QA:675:A:C8	2.45	0.49
1:QA:1124:G:H3'	1:QA:1145:C:H42	1.76	0.49
3:QC:40:ARG:HG3	14:QN:52:GLN:HE21	1.77	0.49
7:QG:41:ARG:NH2	9:QI:39:GLY:O	2.44	0.49
10:QJ:55:LYS:HD3	10:QJ:55:LYS:H	1.76	0.49
24:RA:634:C:H2'	24:RA:635:C:C6	2.47	0.49
24:RA:823:G:H2'	24:RA:824:A:C8	2.46	0.49
27:RE:10:GLY:HA3	38:RT:8:LYS:HE2	1.93	0.49
10:XJ:32:ALA:HB2	10:XJ:76:ASN:HB2	1.93	0.49
24:YA:2146:C:H4'	24:YA:2147:G:C8	2.47	0.49
24:YA:2181:G:H2'	24:YA:2182:G:C8	2.47	0.49
24:YA:2540:C:H2'	24:YA:2541:A:O4'	2.12	0.49
1:QA:266:G:H5"	1:QA:267:C:C5	2.47	0.49
1:QA:281:G:H8	1:QA:281:G:OP2	1.95	0.49
1:QA:1427:U:H2'	1:QA:1428:A:H8	1.76	0.49
4:QD:152:SER:HA	4:QD:155:LEU:HD23	1.93	0.49
9:QI:75:ASP:O	9:QI:78:LYS:HG3	2.12	0.49
24:RA:286:C:H2'	24:RA:287:C:H6	1.77	0.49
24:RA:1500:G:H21	26:RD:100:GLY:HA3	1.76	0.49
24:RA:2065:C:H1'	24:RA:2449:U:C2	2.47	0.49
25:RB:83:G:H4'	48:R3:52:HIS:CG	2.47	0.49
46:R1:83:GLU:HG2	46:R1:85:LEU:H	1.77	0.49
1:XA:129(A):G:O2'	1:XA:189:U:H3'	2.13	0.49
1:XA:377:G:H2'	1:XA:378:G:C8	2.48	0.49
1:XA:629:G:H2'	1:XA:630:G:C8	2.47	0.49
3:XC:154:SER:HB2	3:XC:165:THR:HG22	1.94	0.49
4:XD:65:ARG:NH1	4:XD:70:ILE:O	2.45	0.49
9:XI:93:ARG:HG2	9:XI:97:LYS:HB2	1.93	0.49
24:YA:2057:A:H2'	24:YA:2058:A:O4'	2.12	0.49
24:YA:2776:A:OP1	24:YA:2776:A:H3'	2.12	0.49
26:YD:77:ALA:HB2	26:YD:97:TYR:CE1	2.47	0.49
28:YF:38:ARG:HD3	28:YF:99:TYR:OH	2.12	0.49
29:YG:72:ARG:HH11	29:YG:87:PRO:HB3	1.77	0.49
30:YH:156:ALA:O	30:YH:158:HIS:N	2.45	0.49
31:YI:23:PRO:HB2	31:YI:27:ARG:NH1	2.27	0.49
37:YS:71:ARG:HH22	37:YS:107:GLU:HB2	1.76	0.49
43:YY:20:TYR:CE2	43:YY:43:ASN:HA	2.47	0.49
47:Y2:10:LEU:HD21	47:Y2:59:ARG:HD2	1.94	0.49
1:QA:254:G:O2'	17:QQ:16:GLN:O	2.30	0.49
1:QA:408:A:H5'	4:QD:116:GLN:HG3	1.94	0.49
1:QA:1104:G:O4'	2:QB:111:ARG:NH2	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:QC:82:GLU:HA	3:QC:85:ARG:NH1	2.27	0.49
4:QD:169:LYS:HB2	6:XF:21:LEU:HD21	1.93	0.49
24:RA:39:C:H2'	24:RA:40:C:C6	2.48	0.49
24:RA:1292:U:H2'	24:RA:1293:C:H6	1.74	0.49
24:RA:1628:G:H2'	24:RA:1629:U:C6	2.47	0.49
24:RA:2020:A:H4'	39:RU:25:TRP:CZ3	2.46	0.49
24:RA:2532:G:H2'	24:RA:2533:A:C8	2.47	0.49
24:RA:2636:U:HO2'	27:RE:44:TYR:HH	1.61	0.49
35:RQ:132:VAL:HG11	44:RZ:81:ARG:NH1	2.27	0.49
48:R3:15:TYR:CE2	48:R3:53:LEU:HD21	2.48	0.49
50:R5:20:ARG:HA	50:R5:23:HIS:ND1	2.28	0.49
1:XA:522:C:H41	12:XL:53:ARG:NH2	2.11	0.49
6:XF:36:ARG:NH1	6:XF:38:GLU:HG2	2.27	0.49
24:YA:270(F):U:H2'	24:YA:270(G):C:C6	2.46	0.49
24:YA:732:C:H2'	24:YA:733:G:O4'	2.12	0.49
24:YA:1165:U:H2'	24:YA:1166:C:H6	1.76	0.49
24:YA:1729:A:C8	24:YA:1731:G:C8	3.01	0.49
24:YA:1932:A:H2'	24:YA:1933:G:O4'	2.12	0.49
24:YA:1939:U:H3'	24:YA:1940:U:H5'	1.93	0.49
24:YA:2135:A:H5"	24:YA:2136:C:H5	1.77	0.49
24:YA:2790:A:O2'	24:YA:2893:G:H2'	2.12	0.49
39:YU:65:ILE:HD11	39:YU:93:LYS:HA	1.94	0.49
46:Y1:60:PHE:HE1	46:Y1:87:PRO:HB3	1.77	0.49
1:QA:407:G:H2'	1:QA:408:A:C8	2.48	0.49
1:QA:1241:G:H2'	1:QA:1242:C:H6	1.77	0.49
24:RA:1412:A:H2'	24:RA:1413:G:C8	2.47	0.49
24:RA:2607:G:H2'	24:RA:2608:G:O4'	2.11	0.49
25:RB:7:G:N2	37:RS:38:GLN:HE22	2.10	0.49
33:RO:22:ILE:HG12	33:RO:41:ALA:HA	1.94	0.49
33:RO:122:LEU:HD22	38:RT:72:VAL:HG11	1.92	0.49
1:XA:235:C:H2'	1:XA:236:G:C8	2.47	0.49
1:XA:429:U:O2'	4:XD:22:LYS:NZ	2.45	0.49
1:XA:651:C:H2'	1:XA:652:U:C6	2.48	0.49
1:XA:678:U:H2'	1:XA:679:C:C6	2.47	0.49
24:YA:302:C:H2'	24:YA:303:U:H6	1.77	0.49
24:YA:518:G:H4'	41:YW:18:ARG:HE	1.77	0.49
24:YA:669:G:C2	24:YA:801:G:C6	3.00	0.49
24:YA:807:U:H2'	24:YA:808:G:H8	1.78	0.49
24:YA:823:G:H2'	24:YA:824:A:C8	2.47	0.49
24:YA:826:U:H4'	34:YP:55:ARG:HB3	1.93	0.49
24:YA:837:C:N3	24:YA:941:A:N6	2.61	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:844:C:H2'	24:YA:845:G:O4'	2.13	0.49
24:YA:956:G:OP2	35:YQ:14:ARG:NH2	2.46	0.49
24:YA:1509:C:H2'	24:YA:1511:A:C8	2.47	0.49
24:YA:1825:A:H2'	24:YA:1826:G:C8	2.48	0.49
24:YA:2735:G:H2'	24:YA:2736:G:C8	2.48	0.49
24:YA:2774:C:H2'	24:YA:2775:A:O4'	2.12	0.49
28:YF:63:LYS:HE2	28:YF:67:GLN:HB2	1.93	0.49
1:QA:509:A:N3	1:QA:543:C:O2'	2.44	0.49
24:RA:1882:C:H5'	24:RA:1883:G:OP2	2.12	0.49
24:RA:2309:A:H2'	24:RA:2310:A:O4'	2.12	0.49
24:RA:2646:C:OP2	24:RA:2732:G:O2'	2.26	0.49
26:RD:254:THR:HG23	26:RD:255:LYS:HG3	1.95	0.49
31:RI:131:LYS:HG3	31:RI:132:PRO:HA	1.94	0.49
44:RZ:59:LEU:O	44:RZ:61:LEU:N	2.39	0.49
1:XA:711:G:H2'	1:XA:712:A:C8	2.47	0.49
1:XA:1511:G:H2'	1:XA:1512:U:O4'	2.13	0.49
24:YA:1475:G:H2'	24:YA:1476:C:C6	2.47	0.49
24:YA:2841:C:H2'	24:YA:2842:G:H8	1.76	0.49
30:YH:121:ILE:HD13	30:YH:144:VAL:HG21	1.95	0.49
1:QA:323:U:OP1	20:QT:26:ASN:ND2	2.43	0.49
1:QA:452:A:H62	1:QA:480:U:H3	1.59	0.49
1:QA:542:G:O3'	4:QD:14:ARG:NH2	2.46	0.49
1:QA:658:G:H5"	15:QO:8:LYS:HZ1	1.77	0.49
1:QA:1053:G:O6	1:QA:1199:U:H2'	2.12	0.49
2:QB:233:SER:O	2:QB:235:SER:N	2.45	0.49
6:QF:23:LYS:HA	6:QF:26:ILE:HD12	1.95	0.49
8:QH:16:ALA:HB2	8:QH:24:THR:HG21	1.95	0.49
8:QH:29:SER:OG	8:QH:32:LYS:HD3	2.11	0.49
9:QI:28:VAL:HG22	9:QI:63:ILE:HD11	1.95	0.49
1:XA:401:C:O2'	1:XA:621:A:N3	2.35	0.49
1:XA:1244:C:H2'	1:XA:1245:A:C8	2.47	0.49
4:XD:13:ARG:HH22	4:XD:36:ARG:HD3	1.77	0.49
4:XD:64:LEU:HD13	4:XD:198:VAL:HG21	1.95	0.49
6:XF:50:TYR:OH	18:XR:74:ARG:O	2.28	0.49
11:XK:33:THR:HA	11:XK:39:PRO:HA	1.94	0.49
24:YA:304:G:H2'	24:YA:305:U:C6	2.48	0.49
24:YA:524:U:H2'	24:YA:525:U:C6	2.47	0.49
24:YA:1210:A:H5'	24:YA:1212:G:O4'	2.13	0.49
24:YA:1509:C:H3'	24:YA:1510:A:H5"	1.94	0.49
24:YA:1791:A:H3'	24:YA:1792:G:H8	1.77	0.49
24:YA:2183:C:H2'	24:YA:2184:G:H8	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:2286:A:H62	51:Y6:36:LEU:HD21	1.78	0.49
27:YE:92:THR:HG22	27:YE:93:VAL:H	1.76	0.49
38:YT:16:ARG:NH1	38:YT:83:ILE:HG13	2.28	0.49
41:YW:2:GLU:OE1	41:YW:72:LYS:NZ	2.40	0.49
43:YY:81:LYS:HE2	43:YY:101:LYS:HD3	1.94	0.49
1:QA:57:G:H2'	1:QA:58:C:C6	2.48	0.49
1:QA:552:U:O2	12:QL:31:PRO:HB3	2.12	0.49
1:QA:1466:C:H2'	1:QA:1467:G:O4'	2.13	0.49
2:QB:196:LEU:HA	8:QH:74:PRO:HG3	1.95	0.49
4:QD:167:GLY:HA3	26:YD:135:PHE:CE1	2.47	0.49
7:QG:116:ALA:HA	7:QG:119:ARG:HE	1.78	0.49
9:QI:97:LYS:HG2	9:QI:98:PRO:HD3	1.95	0.49
19:QS:40:ILE:HG22	19:QS:69:HIS:O	2.13	0.49
24:RA:1085:A:H2'	24:RA:1086:A:C4	2.47	0.49
29:RG:97:ASP:H	29:RG:100:TRP:HD1	1.61	0.49
33:RO:63:VAL:HG12	33:RO:106:LEU:HD21	1.93	0.49
38:RT:85:LYS:NZ	38:RT:87:ASP:OD2	2.45	0.49
41:RW:82:LEU:HD23	41:RW:82:LEU:H	1.76	0.49
1:XA:489:C:H2'	1:XA:490:G:H8	1.78	0.49
1:XA:548:G:OP1	4:XD:73:ARG:NH2	2.46	0.49
3:XC:25:GLY:H	3:XC:28:GLN:HB2	1.77	0.49
3:XC:60:ALA:HB3	3:XC:63:ASN:HD21	1.78	0.49
19:XS:10:PHE:CE2	19:XS:16:LEU:HB2	2.46	0.49
24:YA:270(I):G:H21	46:Y1:78:LYS:HE3	1.77	0.49
24:YA:2065:C:H2'	24:YA:2066:C:H6	1.78	0.49
24:YA:2123:G:H2'	24:YA:2124:G:H8	1.78	0.49
24:YA:2145:C:N3	24:YA:2147:G:N1	2.59	0.49
24:YA:2286:A:H4'	24:YA:2287:A:O4'	2.13	0.49
28:YF:40:GLN:HE22	28:YF:183:VAL:H	1.61	0.49
1:QA:452:A:H2'	1:QA:453:A:C8	2.48	0.49
2:QB:163:PHE:HA	2:QB:185:ILE:O	2.12	0.49
24:RA:917:A:O2'	25:RB:98:G:H4'	2.13	0.49
24:RA:1277:G:H5"	36:RR:40:LYS:HZ3	1.78	0.49
24:RA:1542:G:H5"	24:RA:1543:A:OP2	2.13	0.49
24:RA:2166:G:N2	24:RA:2168:G:N7	2.61	0.49
47:R2:4:SER:O	47:R2:7:ARG:NE	2.46	0.49
1:XA:309:G:H2'	1:XA:310:G:H8	1.78	0.49
1:XA:403:C:H2'	1:XA:404:U:H6	1.78	0.49
1:XA:991:U:O4	1:XA:1212:U:O2'	2.25	0.49
1:XA:1147:C:O2	9:XI:16:ARG:NH1	2.46	0.49
1:XA:1235:U:H2'	1:XA:1236:A:O4'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1251:A:N3	1:XA:1369:C:O2'	2.42	0.49
1:XA:1388:C:H2'	1:XA:1389:C:C6	2.48	0.49
4:XD:63:LYS:HD2	4:XD:198:VAL:HG12	1.95	0.49
24:YA:176:G:O2'	24:YA:177:G:H5'	2.13	0.49
24:YA:270(I):G:N2	46:Y1:78:LYS:HE3	2.28	0.49
24:YA:573:G:O2'	24:YA:574:C:H3'	2.12	0.49
24:YA:2695:C:H2'	24:YA:2696:U:H6	1.77	0.49
29:YG:27:ASN:OD1	29:YG:28:VAL:N	2.45	0.49
32:YN:13:TRP:O	32:YN:135:PRO:HD2	2.13	0.49
44:YZ:59:LEU:C	44:YZ:61:LEU:H	2.20	0.49
1:QA:505:G:H2'	1:QA:506:G:H8	1.78	0.49
1:QA:542:G:P	4:QD:10:ARG:HH12	2.35	0.49
2:QB:22:LYS:HA	2:QB:24:TRP:CD1	2.47	0.49
4:QD:79:PHE:HE1	4:QD:204:ILE:HD13	1.78	0.49
24:RA:235:U:H2'	24:RA:236:C:C6	2.48	0.49
24:RA:372:G:HO2'	24:RA:373:U:P	2.35	0.49
24:RA:623:G:H2'	24:RA:624:C:C6	2.48	0.49
24:RA:710:G:H2'	24:RA:711:G:H8	1.78	0.49
24:RA:1278:A:H4'	36:RR:34:ILE:HG23	1.94	0.49
24:RA:1667:G:H8	24:RA:1667:G:OP2	1.96	0.49
24:RA:2037:G:H2'	24:RA:2038:G:H8	1.78	0.49
24:RA:2591:C:H2'	24:RA:2592:G:C8	2.48	0.49
24:RA:2867:G:HO2'	24:RA:2868:A:H8	1.61	0.49
39:RU:97:ASP:HA	39:RU:100:VAL:HG22	1.94	0.49
1:XA:67:C:H2'	1:XA:68:G:C8	2.47	0.49
1:XA:532:A:H2	1:XA:1206:G:H21	1.61	0.49
1:XA:1225:A:N3	1:XA:1225:A:H2'	2.28	0.49
3:XC:108:ASN:HD21	3:XC:144:SER:HG	1.59	0.49
10:XJ:39:PRO:HA	10:XJ:70:ARG:HG3	1.95	0.49
24:YA:956:G:H2'	24:YA:957:A:H2'	1.95	0.49
24:YA:1164:G:H2'	24:YA:1165:U:C6	2.48	0.49
24:YA:1826:G:H4'	26:YD:242:ARG:HH21	1.76	0.49
1:QA:998(A):C:H2'	1:QA:999:U:C6	2.48	0.49
1:QA:1058:G:H2'	1:QA:1059:C:C6	2.48	0.49
1:QA:1143:G:H2'	1:QA:1144:G:C8	2.48	0.49
1:QA:1151:A:H5'	10:QJ:41:PRO:HA	1.95	0.49
1:QA:1453:G:O2'	1:QA:1454:G:OP1	2.28	0.49
22:QV:12:G:H1'	24:RA:1923:U:H1'	1.94	0.49
24:RA:670:A:H5"	34:RP:42:SER:O	2.13	0.49
24:RA:680:G:H2'	24:RA:681:G:C8	2.48	0.49
26:RD:226:MET:HE3	26:RD:231:HIS:HB2	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:RG:35:GLU:C	29:RG:99:MET:HE1	2.38	0.49
29:RG:128:ARG:NH2	29:RG:163:ALA:O	2.46	0.49
37:RS:62:LYS:HB3	37:RS:97:ARG:HD3	1.94	0.49
40:RV:46:VAL:HG22	40:RV:52:VAL:HG11	1.94	0.49
1:XA:781:A:H4'	1:XA:1522:U:O2'	2.13	0.49
4:XD:11:LEU:HD23	4:XD:66:ARG:HB3	1.94	0.49
6:XF:91:VAL:HG13	18:XR:72:ARG:HH22	1.77	0.49
8:XH:109:ILE:HG13	8:XH:120:THR:HG23	1.94	0.49
16:XP:43:LYS:HG2	16:XP:48:TRP:HB2	1.94	0.49
24:YA:1018:C:O3'	24:YA:1120:G:N2	2.45	0.49
24:YA:2328:A:H2'	24:YA:2329:G:C8	2.48	0.49
24:YA:2364:C:OP1	45:Y0:55:ARG:NH2	2.45	0.49
34:YP:64:LYS:O	34:YP:66:GLY:N	2.46	0.49
1:QA:1004:A:OP1	1:QA:1025:U:N3	2.27	0.48
1:QA:1004:A:HO2'	1:QA:1036:G:N2	2.11	0.48
1:QA:1010:G:H2'	1:QA:1011:G:H8	1.77	0.48
5:QE:15:ARG:HH21	5:QE:26:PHE:HD2	1.61	0.48
37:RS:78:LEU:HD11	37:RS:108:GLY:HA3	1.94	0.48
40:RV:35:LEU:HD12	40:RV:37:VAL:HG23	1.95	0.48
1:XA:78:G:O2'	1:XA:79:G:H8	1.96	0.48
1:XA:509:A:N3	1:XA:543:C:O2'	2.38	0.48
1:XA:1148:U:H2'	1:XA:1149:C:O4'	2.13	0.48
1:XA:1415:G:C6	1:XA:1486:G:C6	3.01	0.48
7:XG:68:ASN:O	7:XG:138:LYS:NZ	2.40	0.48
24:YA:155:C:H5'	24:YA:161:U:OP2	2.13	0.48
24:YA:587:C:OP2	34:YP:21:ARG:NH1	2.46	0.48
24:YA:870:A:H2'	24:YA:871:U:O4'	2.12	0.48
24:YA:1139:G:O2'	24:YA:1143:A:N1	2.42	0.48
24:YA:1842:G:H2'	24:YA:1843:C:C6	2.48	0.48
24:YA:2619:C:H5"	27:YE:152:LYS:HA	1.95	0.48
24:YA:2749:A:H5"	30:YH:6:ARG:HE	1.78	0.48
30:YH:10:PRO:HD2	30:YH:50:VAL:O	2.13	0.48
1:QA:666:G:H5'	1:QA:726:C:H1'	1.95	0.48
1:QA:1287:A:H2	1:QA:1353:G:H1'	1.78	0.48
24:RA:271(D):G:H2'	24:RA:272:G:C8	2.46	0.48
24:RA:1264:G:H3'	24:RA:1265:A:H5"	1.94	0.48
24:RA:1792:G:H5'	26:RD:205:VAL:HG13	1.93	0.48
25:RB:3:C:H2'	25:RB:4:C:C6	2.47	0.48
30:RH:147:ASN:O	30:RH:151:ILE:HD12	2.13	0.48
34:RP:80:TYR:OH	34:RP:111:ARG:NH1	2.46	0.48
43:RY:14:LEU:HB2	43:RY:75:ILE:HD11	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:377:G:H2'	1:XA:378:G:H8	1.78	0.48
1:XA:957:U:H4'	19:XS:79:THR:HG23	1.94	0.48
1:XA:1244:C:H2'	1:XA:1245:A:H8	1.77	0.48
20:XT:89:ARG:HH11	20:XT:90:GLN:NE2	2.11	0.48
24:YA:247:G:OP2	24:YA:249:C:N4	2.45	0.48
24:YA:1231:G:H2'	24:YA:1232:G:H8	1.76	0.48
24:YA:1678:G:H8	24:YA:1678:G:O5'	1.96	0.48
24:YA:2185:C:H2'	24:YA:2186:G:H8	1.79	0.48
24:YA:2514:U:H2'	24:YA:2515:C:H6	1.78	0.48
1:QA:437:U:H2'	1:QA:438:G:O4'	2.13	0.48
1:QA:736:C:O2'	6:QF:90:VAL:O	2.30	0.48
1:QA:737:A:H2'	1:QA:738:C:H6	1.77	0.48
1:QA:745:C:H2'	1:QA:746:A:C8	2.48	0.48
1:QA:1224:G:O2'	1:QA:1322:C:OP2	2.30	0.48
1:QA:1236:A:H2'	1:QA:1237:C:C6	2.48	0.48
1:QA:1342:C:O2'	9:QI:124:GLN:HA	2.13	0.48
2:QB:84:GLU:HB3	2:QB:219:VAL:HG21	1.96	0.48
2:QB:103:THR:HG23	2:QB:176:GLU:HG3	1.94	0.48
4:QD:173:TRP:CD1	4:QD:174:LEU:HG	2.49	0.48
8:QH:17:THR:HB	8:QH:78:GLN:OE1	2.14	0.48
24:RA:673:C:H5"	28:RF:81:PRO:HD2	1.94	0.48
24:RA:1401:G:H2'	24:RA:1402:C:C6	2.48	0.48
24:RA:2303:G:O2'	29:RG:132:ASN:HB2	2.13	0.48
34:RP:64:LYS:HB3	53:R8:25:MET:HG3	1.95	0.48
44:RZ:127:LYS:HB3	44:RZ:162:GLU:HB2	1.96	0.48
44:RZ:144:LEU:HD11	44:RZ:149:SER:HA	1.96	0.48
49:R4:41:PRO:HB3	49:R4:47:GLN:HE21	1.77	0.48
1:XA:129(A):G:H1'	1:XA:190:G:H5"	1.94	0.48
3:XC:32:LEU:HD23	3:XC:59:ARG:HD3	1.94	0.48
24:YA:532:A:N1	24:YA:2035:G:N2	2.61	0.48
24:YA:997:G:O2'	24:YA:998:C:H5'	2.14	0.48
24:YA:2025:C:H2'	24:YA:2026:C:H6	1.78	0.48
24:YA:2305:A:N1	29:YG:154:GLY:N	2.54	0.48
24:YA:2698:U:H2'	24:YA:2699:C:H6	1.77	0.48
30:YH:98:LEU:HD23	30:YH:125:VAL:HG22	1.95	0.48
32:YN:114:ARG:O	32:YN:115:ARG:HB3	2.12	0.48
39:YU:92:ARG:C	39:YU:94:ASN:N	2.70	0.48
1:QA:356:A:N3	1:QA:368:U:O2'	2.33	0.48
1:QA:900:A:H2'	1:QA:901:A:C8	2.49	0.48
1:QA:1464:G:P	38:RT:112:ARG:HH21	2.37	0.48
1:QA:1515:C:H2'	1:QA:1516:G:H8	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:QL:84:LEU:HB2	12:QL:105:TYR:CD2	2.48	0.48
24:RA:1608:A:H1'	24:RA:1610:A:OP2	2.14	0.48
24:RA:1639:U:H2'	24:RA:1640:C:H5"	1.95	0.48
24:RA:2065:C:H1'	24:RA:2449:U:N3	2.28	0.48
25:RB:40:U:H3	25:RB:43:C:H5"	1.78	0.48
27:RE:13:ARG:HA	27:RE:22:PRO:HA	1.95	0.48
29:RG:68:PRO:HB3	29:RG:92:VAL:HB	1.96	0.48
31:RI:122:GLU:O	31:RI:126:TYR:OH	2.29	0.48
35:RQ:32:TYR:HE1	35:RQ:133:ARG:HG3	1.78	0.48
36:RR:10:LEU:HD13	36:RR:40:LYS:HG2	1.96	0.48
40:RV:99:ILE:HD12	40:RV:99:ILE:O	2.12	0.48
51:R6:5:VAL:HG22	51:R6:26:ASN:HD21	1.79	0.48
1:XA:898:G:N2	1:XA:901:A:OP2	2.43	0.48
1:XA:1322:C:H5'	13:XM:100:GLY:HA2	1.94	0.48
5:XE:127:ASN:O	5:XE:131:ILE:HG12	2.13	0.48
6:XF:2:ARG:NH1	6:XF:69:GLU:OE1	2.46	0.48
6:XF:21:LEU:O	6:XF:24:GLU:HG2	2.13	0.48
12:XL:89:ARG:HB2	12:XL:97:ARG:HD3	1.95	0.48
18:XR:22:VAL:HG21	18:XR:42:ARG:HB3	1.94	0.48
24:YA:608:A:OP1	28:YF:100:THR:HG21	2.13	0.48
24:YA:755:C:H2'	24:YA:756:C:C6	2.48	0.48
24:YA:774:A:H2	24:YA:787:U:O2'	1.97	0.48
24:YA:862:G:H2'	24:YA:863:A:O4'	2.13	0.48
24:YA:1108:U:H2'	24:YA:1109:C:C6	2.48	0.48
24:YA:1588:C:H2'	24:YA:1589:C:C6	2.48	0.48
24:YA:1946:U:H2'	24:YA:1947:C:C6	2.48	0.48
25:YB:12:C:O4'	25:YB:15:A:N6	2.46	0.48
26:YD:51:VAL:HG11	26:YD:54:ARG:HE	1.79	0.48
38:YT:35:LYS:NZ	38:YT:38:ASN:H	2.11	0.48
41:YW:110:LYS:HG3	41:YW:111:HIS:CD2	2.47	0.48
49:Y4:56:VAL:HG12	49:Y4:57:GLU:N	2.27	0.48
53:Y8:61:LEU:C	53:Y8:63:PRO:HD3	2.39	0.48
1:QA:280:C:H41	17:QQ:37:LYS:NZ	2.12	0.48
1:QA:390:C:H4'	16:QP:28:ARG:HH21	1.78	0.48
1:QA:527:G:O2'	1:QA:535:A:N1	2.43	0.48
1:QA:1511:G:H2'	1:QA:1512:U:O4'	2.13	0.48
10:QJ:6:ILE:HA	10:QJ:97:GLU:O	2.14	0.48
13:QM:84:ILE:HD11	19:QS:66:MET:HB3	1.96	0.48
24:RA:39:C:H2'	24:RA:40:C:H6	1.78	0.48
24:RA:630:G:N2	24:RA:633:A:OP2	2.44	0.48
24:RA:1164:G:H2'	24:RA:1165:U:C6	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:1212:G:H1'	24:RA:1237:A:N6	2.29	0.48
24:RA:2507:C:C2	24:RA:2583:G:C2	3.02	0.48
25:RB:7:G:H2'	25:RB:8:U:O4'	2.14	0.48
29:RG:125:PHE:HB3	29:RG:166:ASP:HB2	1.95	0.48
29:RG:173:LEU:HB3	29:RG:178:PHE:CD2	2.48	0.48
35:RQ:32:TYR:CE1	35:RQ:133:ARG:HG3	2.47	0.48
38:RT:111:ARG:HB2	38:RT:112:ARG:HH11	1.78	0.48
42:RX:26:TYR:CD2	42:RX:89:ILE:HD12	2.48	0.48
43:RY:90:LEU:HD12	43:RY:94:LYS:HB2	1.94	0.48
44:RZ:117:LEU:HD11	44:RZ:172:ALA:HB1	1.96	0.48
52:R7:22:MET:HE2	52:R7:31:LEU:HD13	1.95	0.48
1:XA:658:G:H2'	1:XA:659:U:C6	2.48	0.48
1:XA:947:G:H2'	1:XA:948:C:O4'	2.13	0.48
4:XD:18:LYS:NZ	4:XD:31:CYS:O	2.37	0.48
8:XH:91:ARG:HD2	17:XQ:32:TYR:O	2.13	0.48
24:YA:582:G:H2'	24:YA:583:G:C8	2.49	0.48
24:YA:1417:C:H2'	24:YA:1418:G:O4'	2.13	0.48
24:YA:1942:C:OP2	24:YA:1943:U:O2'	2.14	0.48
24:YA:2392:A:H2	24:YA:2424:C:H42	1.61	0.48
24:YA:2747:G:O2'	30:YH:67:LEU:HD23	2.14	0.48
28:YF:47:GLY:HA3	28:YF:95:ARG:O	2.14	0.48
15:QO:39:LEU:HD23	15:QO:56:LEU:HB2	1.95	0.48
22:QV:24:C:H2'	22:QV:25:U:H6	1.77	0.48
24:RA:589:C:H2'	24:RA:590:A:C8	2.48	0.48
24:RA:923:C:H2'	24:RA:924:C:C6	2.49	0.48
24:RA:1204:A:H1'	24:RA:1206:G:C8	2.49	0.48
24:RA:2695:C:H2'	24:RA:2696:U:C6	2.49	0.48
24:RA:2696:U:H2'	24:RA:2697:G:C8	2.48	0.48
24:RA:2698:U:H2'	24:RA:2699:C:H6	1.78	0.48
24:RA:2805:G:H2'	24:RA:2807:G:C8	2.48	0.48
26:RD:96:HIS:CE1	26:RD:102:LYS:HE2	2.49	0.48
38:RT:54:ARG:HA	38:RT:59:THR:HG23	1.95	0.48
40:RV:76:LYS:HB3	40:RV:79:VAL:HB	1.96	0.48
53:R8:31:HIS:CG	53:R8:32:LEU:HD12	2.49	0.48
1:XA:1167:A:H2'	1:XA:1169:A:C8	2.48	0.48
24:YA:330:A:H2	24:YA:1210:A:HO2'	1.61	0.48
24:YA:414:C:O2	24:YA:1864:U:O2'	2.29	0.48
24:YA:709:U:H2'	24:YA:710:G:C8	2.49	0.48
24:YA:1062:G:N2	24:YA:1077:A:N1	2.57	0.48
24:YA:1204:A:H1'	24:YA:1206:G:C5	2.49	0.48
24:YA:1794:U:H2'	24:YA:1795:C:H6	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:1802:A:H2'	24:YA:1803:A:H8	1.79	0.48
24:YA:2329:G:H2'	24:YA:2330:G:C8	2.49	0.48
37:YS:6:ALA:O	37:YS:10:ARG:HG2	2.13	0.48
43:YY:102:CYS:SG	43:YY:103:GLY:N	2.87	0.48
1:QA:493:G:N2	1:QA:494:U:O4	2.47	0.48
1:QA:705:U:C2	1:QA:706:A:C8	3.01	0.48
24:RA:1628:G:H2'	24:RA:1629:U:H6	1.79	0.48
24:RA:2103:C:H2'	24:RA:2104:G:C8	2.48	0.48
24:RA:2328:A:H2'	24:RA:2329:G:H8	1.79	0.48
24:RA:2712:U:H1'	24:RA:2712(A):A:C8	2.49	0.48
32:RN:47:ALA:HB2	32:RN:112:LEU:HD11	1.94	0.48
44:RZ:28:MET:HE1	44:RZ:67:LEU:HD12	1.96	0.48
1:XA:925:G:N2	1:XA:1503:A:OP1	2.47	0.48
1:XA:1309:G:C6	1:XA:1329:A:N1	2.81	0.48
1:XA:1316:G:N2	1:XA:1318:A:H3'	2.29	0.48
11:XK:124:LYS:HE3	11:XK:125:PHE:CE1	2.49	0.48
24:YA:638:G:H2'	24:YA:639:U:C6	2.49	0.48
24:YA:1157:G:O2'	48:Y3:31:LEU:HD12	2.13	0.48
24:YA:1641:A:H2'	24:YA:1642:G:O4'	2.14	0.48
24:YA:2213:U:H1'	46:Y1:52:ARG:HH12	1.78	0.48
24:YA:2713:A:O2'	24:YA:2715:C:OP2	2.19	0.48
40:YV:52:VAL:HG21	40:YV:55:ALA:HB3	1.95	0.48
1:QA:195:A:H4'	20:QT:68:LYS:NZ	2.29	0.48
1:QA:728:A:H2'	1:QA:729:A:C8	2.48	0.48
1:QA:937:A:H1'	1:QA:1379:G:N2	2.29	0.48
9:QI:49:PRO:O	9:QI:53:VAL:HG23	2.14	0.48
11:QK:124:LYS:H	11:QK:124:LYS:HD2	1.79	0.48
13:QM:87:TYR:CZ	13:QM:91:ARG:HD2	2.49	0.48
24:RA:413:C:H2'	24:RA:414:C:C6	2.48	0.48
24:RA:1316:U:H2'	24:RA:1317:A:H8	1.79	0.48
24:RA:2808:U:H3	24:RA:2892:A:N6	2.12	0.48
24:RA:2852:G:H2'	24:RA:2853:C:C6	2.49	0.48
26:RD:35:LYS:HE3	26:RD:61:LEU:HB3	1.95	0.48
1:XA:448:A:P	1:XA:485:G:H22	2.36	0.48
1:XA:691:G:H2'	1:XA:692:U:C6	2.49	0.48
1:XA:1315:U:H2'	1:XA:1316:G:O4'	2.13	0.48
20:XT:23:ARG:HE	20:XT:27:LYS:HB2	1.79	0.48
24:YA:395:U:H2'	24:YA:396:G:N7	2.29	0.48
24:YA:1322:A:N1	24:YA:1333:C:O2'	2.43	0.48
24:YA:1467:C:C5	24:YA:1546:C:H2'	2.49	0.48
24:YA:1709:U:H2'	24:YA:1710:C:C6	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:2743:C:OP2	24:YA:2755:C:N4	2.46	0.48
24:YA:2822:G:H2'	24:YA:2823:A:H5"	1.96	0.48
27:YE:79:ARG:CZ	27:YE:164:ARG:HH21	2.27	0.48
39:YU:85:LYS:NZ	39:YU:117:GLN:HB2	2.28	0.48
1:QA:35:G:N3	12:QL:118:SER:OG	2.43	0.48
1:QA:624:C:H2'	1:QA:625:G:H8	1.79	0.48
1:QA:719:C:O2'	18:QR:50:ILE:O	2.24	0.48
1:QA:1191:A:H5"	3:QC:4:LYS:HD3	1.96	0.48
10:QJ:54:PHE:O	10:QJ:56:HIS:N	2.46	0.48
24:RA:1329:U:H5"	24:RA:1330:C:H5	1.79	0.48
24:RA:2030:A:H4'	24:RA:2031:A:C8	2.49	0.48
36:RR:74:LYS:O	36:RR:75:LEU:HB3	2.14	0.48
40:RV:5:VAL:HG11	40:RV:57:VAL:HG11	1.94	0.48
51:R6:13:CYS:SG	51:R6:14:THR:N	2.86	0.48
1:XA:610:G:C4	1:XA:611:A:C8	3.01	0.48
1:XA:1191:A:H5"	3:XC:4:LYS:HE2	1.94	0.48
24:YA:600:G:N2	24:YA:605:C:O3'	2.46	0.48
33:YO:80:ASP:OD2	38:YT:64:ARG:NH2	2.47	0.48
1:QA:1225:A:H2'	1:QA:1225:A:N3	2.29	0.48
1:QA:1432:G:OP1	38:RT:108:ARG:N	2.36	0.48
24:RA:820:A:H4'	24:RA:836:G:N2	2.28	0.48
24:RA:2064:C:H2'	24:RA:2065:C:C6	2.48	0.48
35:RQ:83:MET:HE3	45:R0:7:LEU:HD22	1.96	0.48
36:RR:61:HIS:O	36:RR:65:LEU:HD13	2.14	0.48
42:RX:55:ASN:HB2	42:RX:80:ILE:HG23	1.95	0.48
1:XA:112:G:H5'	1:XA:389:A:O2'	2.14	0.48
1:XA:545:C:OP1	4:XD:61:LYS:NZ	2.47	0.48
5:XE:82:VAL:HG21	5:XE:138:ALA:HA	1.95	0.48
24:YA:222:A:H5"	24:YA:421:U:OP1	2.13	0.48
24:YA:455:C:N3	24:YA:472:A:H2'	2.28	0.48
24:YA:675:A:C8	24:YA:804:A:C6	3.02	0.48
24:YA:2809:A:H2'	24:YA:2810:A:C8	2.49	0.48
26:YD:32:SER:C	26:YD:34:VAL:H	2.20	0.48
27:YE:116:VAL:O	27:YE:117:MET:HB2	2.14	0.48
1:QA:1096:C:H2'	1:QA:1097:C:H6	1.79	0.47
1:QA:1411:C:H2'	1:QA:1412:C:C6	2.49	0.47
22:QV:9:G:O2'	22:QV:10:G:N7	2.41	0.47
24:RA:532:A:H5"	39:RU:28:ARG:HH12	1.78	0.47
24:RA:1019:U:H3	24:RA:1142(A):A:H62	1.61	0.47
24:RA:1444:G:H2'	24:RA:1445:C:C5	2.49	0.47
33:RO:23:ARG:NH2	33:RO:28:SER:O	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:RS:35:ILE:HD11	37:RS:97:ARG:NH1	2.28	0.47
40:RV:76:LYS:HD3	40:RV:81:TYR:HD2	1.79	0.47
41:RW:12:ILE:HD12	41:RW:42:ARG:HD3	1.94	0.47
48:R3:12:PRO:HB2	48:R3:20:LYS:HG2	1.96	0.47
1:XA:127:G:H4'	17:XQ:2:PRO:HD2	1.95	0.47
1:XA:737:A:H2'	1:XA:738:C:C6	2.48	0.47
3:XC:11:ARG:O	3:XC:13:GLY:N	2.47	0.47
8:XH:120:THR:HG22	8:XH:121:ASP:N	2.28	0.47
24:YA:336:C:O2'	43:YY:35:TYR:OH	2.32	0.47
24:YA:371:A:N6	24:YA:402:A:OP2	2.47	0.47
24:YA:699:A:H2'	24:YA:700:G:O4'	2.14	0.47
24:YA:851:U:OP1	48:Y3:49:LYS:NZ	2.34	0.47
24:YA:2182:G:H2'	24:YA:2183:C:C5	2.48	0.47
24:YA:2563:U:H1'	24:YA:2566:A:N6	2.29	0.47
24:YA:2853:C:H2'	24:YA:2854:G:C8	2.49	0.47
30:YH:41:MET:HE2	30:YH:65:HIS:HA	1.96	0.47
42:YX:11:PRO:HD3	47:Y2:37:PHE:CD1	2.49	0.47
1:QA:62:U:H3	1:QA:105:G:H1	1.62	0.47
1:QA:184:G:H2'	1:QA:185:A:C8	2.49	0.47
1:QA:323:U:H2'	1:QA:324:G:O4'	2.14	0.47
1:QA:551:U:H2'	1:QA:552:U:H6	1.79	0.47
1:QA:639:G:H2'	1:QA:640:A:H8	1.79	0.47
1:QA:1372:U:H2'	1:QA:1373:G:O4'	2.14	0.47
3:QC:128:PHE:HD2	3:QC:133:ALA:HB2	1.79	0.47
10:QJ:26:ALA:O	10:QJ:29:ARG:HB3	2.14	0.47
10:QJ:99:LYS:HE2	10:QJ:99:LYS:HA	1.94	0.47
24:RA:1416:G:H2'	24:RA:1417:C:C6	2.49	0.47
24:RA:2100:G:O6	24:RA:2189:U:O2	2.33	0.47
24:RA:2136:C:H2'	24:RA:2137:C:C6	2.50	0.47
26:RD:241:PRO:O	26:RD:242:ARG:HG2	2.14	0.47
27:RE:114:ALA:HB3	27:RE:160:TYR:HB3	1.96	0.47
36:RR:10:LEU:O	36:RR:12:ARG:HG3	2.14	0.47
36:RR:74:LYS:C	36:RR:76:VAL:H	2.22	0.47
41:RW:82:LEU:HD12	41:RW:84:ARG:NH2	2.29	0.47
43:RY:30:VAL:HG12	43:RY:37:VAL:HG23	1.96	0.47
1:XA:20:U:H2'	1:XA:21:G:O4'	2.15	0.47
1:XA:864:A:H2'	1:XA:865:A:C8	2.49	0.47
1:XA:1151:A:H5'	10:XJ:41:PRO:HA	1.96	0.47
1:XA:1488:G:H2'	1:XA:1489:G:C8	2.49	0.47
10:XJ:49:VAL:CG2	14:XN:41:ARG:HB2	2.44	0.47
14:XN:47:LEU:HB3	14:XN:53:LEU:HD23	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:814:C:H2'	24:YA:815:C:H6	1.79	0.47
24:YA:2455:G:H2'	24:YA:2456:C:C6	2.48	0.47
26:YD:112:GLN:HG2	26:YD:115:GLN:HG3	1.96	0.47
29:YG:63:ILE:HD12	29:YG:141:PHE:CD2	2.49	0.47
34:YP:37:GLY:O	34:YP:41:ARG:HG2	2.13	0.47
34:YP:138:LEU:HD12	34:YP:141:ALA:HB3	1.96	0.47
42:YX:12:VAL:HB	42:YX:27:THR:HG23	1.96	0.47
48:Y3:23:LEU:HD22	48:Y3:50:VAL:HG11	1.96	0.47
1:QA:56:U:H2'	1:QA:57:G:C8	2.46	0.47
1:QA:540:G:H2'	1:QA:541:G:O4'	2.14	0.47
1:QA:690:G:H22	11:QK:55:LYS:NZ	2.11	0.47
1:QA:1064:G:O2'	1:QA:1065:U:O5'	2.30	0.47
1:QA:1435:G:H2'	1:QA:1436:U:C6	2.49	0.47
9:QI:9:ARG:O	9:QI:104:ARG:HG3	2.14	0.47
13:QM:51:ALA:HB1	13:QM:55:ARG:HH21	1.80	0.47
14:QN:42:ILE:O	14:QN:45:ARG:HB3	2.15	0.47
24:RA:873:G:H4'	35:RQ:63:LYS:NZ	2.29	0.47
24:RA:1278:A:H2'	24:RA:1279:G:C8	2.50	0.47
24:RA:1423:G:H2'	24:RA:1424:G:H8	1.79	0.47
24:RA:1697:G:OP2	24:RA:1698:A:O2'	2.24	0.47
24:RA:2355:C:H4'	45:R0:24:LYS:HD2	1.96	0.47
24:RA:2635:C:H2'	24:RA:2636:U:O4'	2.15	0.47
31:RI:21:VAL:HG22	31:RI:22:LYS:H	1.79	0.47
45:R0:18:ALA:O	45:R0:20:ARG:NH1	2.45	0.47
1:XA:224:C:H2'	1:XA:225:C:C6	2.49	0.47
1:XA:1162:C:H2'	1:XA:1163:C:C6	2.49	0.47
1:XA:1238:A:H2	1:XA:1241:G:N3	2.12	0.47
2:XB:72:GLY:O	2:XB:94:ASN:HA	2.13	0.47
3:XC:23:TYR:HA	10:XJ:11:PHE:HE2	1.79	0.47
6:XF:2:ARG:NH1	6:XF:69:GLU:HB3	2.29	0.47
12:XL:117:ARG:HG2	12:XL:122:THR:HB	1.95	0.47
19:XS:64:GLU:HB2	49:Y4:59:PHE:HE2	1.78	0.47
24:YA:288:C:H2'	24:YA:289:A:C8	2.46	0.47
24:YA:2082:A:H2'	24:YA:2083:G:O4'	2.14	0.47
26:YD:244:ARG:HB2	26:YD:245:PRO:HD2	1.95	0.47
29:YG:25:TYR:CD2	29:YG:31:VAL:HG12	2.50	0.47
32:YN:129:PRO:O	32:YN:134:ARG:NH1	2.27	0.47
34:YP:62:LEU:HD12	53:Y8:30:ARG:HE	1.79	0.47
37:YS:15:ARG:HA	37:YS:18:ILE:HG22	1.95	0.47
38:YT:110:ILE:HG23	38:YT:111:ARG:H	1.79	0.47
46:Y1:64:ALA:HA	46:Y1:67:ILE:HG13	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:384:G:H2'	1:QA:385:C:H6	1.79	0.47
1:QA:1496:C:H2'	1:QA:1497:G:C8	2.48	0.47
10:QJ:29:ARG:HH21	1:XA:1164:G:P	2.38	0.47
12:QL:6:THR:HG22	12:QL:8:ASN:H	1.77	0.47
24:RA:324:A:H2'	24:RA:325:G:O4'	2.14	0.47
24:RA:588:U:O5'	24:RA:588:U:H6	1.98	0.47
24:RA:1429:G:H2'	24:RA:1430:C:C6	2.49	0.47
24:RA:1432:C:H2'	24:RA:1433:U:O4'	2.14	0.47
24:RA:1952:A:C5	33:RO:22:ILE:HD12	2.50	0.47
24:RA:1973:G:H2'	24:RA:1974:C:C6	2.48	0.47
24:RA:2123:G:H2'	24:RA:2124:G:H8	1.80	0.47
24:RA:2127:G:H8	24:RA:2127:G:OP2	1.97	0.47
29:RG:34:LEU:HD13	29:RG:99:MET:HE2	1.96	0.47
48:R3:6:VAL:HG12	48:R3:56:VAL:HG12	1.96	0.47
1:XA:41:G:H2'	1:XA:42:G:H8	1.79	0.47
1:XA:376:G:H1	1:XA:387:U:H3	1.63	0.47
1:XA:391:G:O3'	16:XP:8:ARG:NH1	2.45	0.47
1:XA:1455:G:H5'	20:XT:32:ALA:HB2	1.96	0.47
12:XL:27:LEU:HB3	12:XL:33:ARG:NH1	2.29	0.47
24:YA:742:G:H2'	24:YA:743:G:C8	2.49	0.47
24:YA:978:G:O4'	24:YA:1001:A:H2	1.97	0.47
24:YA:1406:U:H3'	24:YA:1407:C:H6	1.80	0.47
24:YA:1520:U:H2'	24:YA:1521:G:O4'	2.14	0.47
24:YA:2590:A:H2'	24:YA:2591:C:C6	2.50	0.47
25:YB:50:G:C2	25:YB:51:G:H1'	2.49	0.47
31:YI:75:LEU:HD13	31:YI:105:HIS:ND1	2.30	0.47
35:YQ:4:PRO:HG3	35:YQ:69:PHE:HE2	1.79	0.47
44:YZ:30:ASN:HB3	44:YZ:90:VAL:HG22	1.95	0.47
1:QA:97:U:H2'	1:QA:99:C:C6	2.49	0.47
6:QF:50:TYR:CE1	18:QR:77:GLY:HA2	2.50	0.47
20:QT:78:ALA:HA	20:QT:81:LYS:NZ	2.29	0.47
24:RA:220:G:O2'	24:RA:233:A:N3	2.44	0.47
24:RA:669:G:C2	24:RA:801:G:C6	3.02	0.47
24:RA:934:G:H2'	24:RA:935:C:C6	2.49	0.47
24:RA:1779:U:OP2	24:RA:1784:A:N6	2.36	0.47
24:RA:2086:U:H2'	24:RA:2087:G:C8	2.49	0.47
24:RA:2576:G:O2'	24:RA:2579:C:OP2	2.26	0.47
24:RA:2792:G:C2	24:RA:2793:G:H1'	2.49	0.47
28:RF:182:ASN:O	28:RF:186:ILE:HG12	2.14	0.47
31:RI:3:VAL:HG12	31:RI:38:LEU:HA	1.96	0.47
51:R6:8:LYS:HB2	51:R6:54:ILE:HG21	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:677:U:O2	1:XA:777:A:O2'	2.31	0.47
3:XC:6:HIS:CE1	3:XC:8:ILE:HB	2.49	0.47
11:XK:95:ILE:HD13	11:XK:108:ILE:HD11	1.96	0.47
24:YA:464:U:H2'	24:YA:465:G:O4'	2.15	0.47
24:YA:1608:A:H1'	24:YA:1610:A:OP2	2.14	0.47
24:YA:2114:A:H2'	24:YA:2168:G:N3	2.29	0.47
30:YH:92:ILE:HG13	30:YH:93:GLY:N	2.29	0.47
1:QA:1181:G:N7	1:QA:1182:G:N2	2.56	0.47
4:QD:109:GLY:HA3	4:QD:165:MET:HG2	1.95	0.47
14:QN:24:CYS:SG	14:QN:25:VAL:N	2.87	0.47
24:RA:37:C:H2'	24:RA:38:A:H8	1.80	0.47
24:RA:2689:U:H4'	24:RA:2690:C:O5'	2.14	0.47
25:RB:66:A:O2'	25:RB:67:G:O5'	2.31	0.47
28:RF:157:VAL:HG21	28:RF:181:LEU:HD13	1.97	0.47
1:XA:96:G:H2'	1:XA:97:U:C6	2.50	0.47
1:XA:261:U:O2'	1:XA:263:A:N7	2.43	0.47
1:XA:792:A:H1'	1:XA:794:A:N7	2.30	0.47
1:XA:825:G:O2'	8:XH:12:ARG:NH2	2.43	0.47
1:XA:1198:G:H2'	1:XA:1199:U:C6	2.50	0.47
1:XA:1516:G:N2	1:XA:1519:A:OP2	2.46	0.47
2:XB:160:ASP:O	2:XB:183:PRO:HD2	2.15	0.47
8:XH:86:ILE:HG22	8:XH:93:VAL:HG21	1.97	0.47
19:XS:67:VAL:HB	49:Y4:58:ARG:HB3	1.95	0.47
23:XX:14:A:H3'	23:XX:15:A:H8	1.80	0.47
24:YA:243:U:OP1	53:Y8:8:LYS:NZ	2.32	0.47
24:YA:633:A:O2'	24:YA:2404:C:OP1	2.31	0.47
24:YA:1113:U:H2'	24:YA:1114:G:H8	1.79	0.47
24:YA:1495:A:H2'	24:YA:1496:A:O4'	2.14	0.47
24:YA:2176:A:H2'	24:YA:2177:C:C5	2.49	0.47
24:YA:2756:U:OP2	54:Y9:19:ARG:NH2	2.44	0.47
41:YW:9:TYR:CD1	41:YW:102:HIS:HE1	2.33	0.47
1:QA:328:C:H4'	1:QA:329:A:O5'	2.14	0.47
1:QA:1010:G:H2'	1:QA:1011:G:C8	2.50	0.47
1:QA:1014:A:H4'	19:QS:14:HIS:CG	2.50	0.47
1:QA:1301:U:O2	1:QA:1301:U:H2'	2.14	0.47
1:QA:1327:C:OP2	21:QU:6:ARG:NH1	2.45	0.47
4:QD:18:LYS:HG2	4:QD:20:TYR:HE1	1.80	0.47
4:QD:60:GLU:HG2	4:QD:202:LEU:HB2	1.96	0.47
8:QH:12:ARG:NH1	8:QH:27:PRO:HD3	2.29	0.47
12:QL:55:VAL:HG12	12:QL:69:TYR:HA	1.96	0.47
19:QS:10:PHE:CE2	19:QS:16:LEU:HB2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:QS:40:ILE:HG23	19:QS:41:VAL:H	1.78	0.47
22:QV:37:U:H2'	22:QV:38:A:C8	2.49	0.47
24:RA:64:A:O3'	42:RX:71:GLY:HA3	2.14	0.47
24:RA:216:A:C8	24:RA:432:A:C6	3.03	0.47
24:RA:1187:G:H5"	40:RV:81:TYR:CE1	2.50	0.47
24:RA:1482:U:H3	24:RA:1512:G:H1	1.62	0.47
24:RA:1636:C:H2'	24:RA:1637:A:C8	2.50	0.47
26:RD:69:ARG:HD2	26:RD:105:ILE:HD11	1.96	0.47
27:RE:50:GLY:HA2	27:RE:77:ILE:HA	1.96	0.47
28:RF:38:ARG:HD3	28:RF:99:TYR:OH	2.14	0.47
28:RF:117:ARG:NH2	28:RF:189:THR:O	2.41	0.47
29:RG:101:ILE:CD1	49:R4:25:TYR:HB2	2.42	0.47
29:RG:120:LEU:HB2	29:RG:180:PHE:HD1	1.79	0.47
35:RQ:10:ARG:HG2	35:RQ:11:LYS:HG3	1.97	0.47
35:RQ:81:VAL:HG13	35:RQ:82:ARG:H	1.80	0.47
42:RX:46:ALA:HB1	47:R2:33:MET:HE1	1.97	0.47
44:RZ:59:LEU:HD11	44:RZ:69:THR:HG21	1.97	0.47
53:R8:3:LYS:HE3	53:R8:62:LEU:HD11	1.95	0.47
53:R8:25:MET:SD	53:R8:46:ARG:HG2	2.55	0.47
1:XA:598:U:H4'	8:XH:94:TYR:CD2	2.49	0.47
1:XA:1277:C:O2'	1:XA:1279:A:H1'	2.13	0.47
1:XA:1330:U:H3'	1:XA:1331:G:O4'	2.15	0.47
2:XB:122:PHE:HA	2:XB:139:LYS:NZ	2.29	0.47
3:XC:83:ARG:HA	3:XC:86:VAL:HG12	1.97	0.47
5:XE:75:THR:HG21	5:XE:94:ALA:H	1.80	0.47
10:XJ:48:THR:HG23	10:XJ:62:HIS:HB3	1.96	0.47
10:XJ:51:ARG:HG3	10:XJ:60:ARG:HA	1.96	0.47
16:XP:8:ARG:HB3	16:XP:28:ARG:HH12	1.79	0.47
24:YA:151:C:H2'	24:YA:152:G:H8	1.79	0.47
24:YA:250:G:H2'	24:YA:251:A:C8	2.49	0.47
24:YA:433:C:H2'	24:YA:434:U:C6	2.50	0.47
24:YA:637:A:H4'	24:YA:638:G:O5'	2.13	0.47
24:YA:637:A:O5'	34:YP:116:GLY:HA2	2.14	0.47
24:YA:775:G:C5	24:YA:794:G:C8	3.03	0.47
24:YA:1202:C:N4	24:YA:1203:G:C6	2.83	0.47
24:YA:1384:A:N3	24:YA:1405:U:H1'	2.29	0.47
24:YA:1794:U:H2'	24:YA:1795:C:C6	2.50	0.47
24:YA:2111:C:N4	24:YA:2147:G:H22	2.13	0.47
24:YA:2733:A:H2	27:YE:203:LYS:HG2	1.79	0.47
25:YB:66:A:O2'	25:YB:67:G:O5'	2.30	0.47
27:YE:23:VAL:HG12	27:YE:173:VAL:HG21	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:YF:197:ASP:C	28:YF:199:TRP:H	2.21	0.47
29:YG:98:ARG:O	29:YG:101:ILE:HG13	2.15	0.47
34:YP:64:LYS:CB	53:Y8:25:MET:HG3	2.44	0.47
1:QA:235:C:H2'	1:QA:236:G:H8	1.80	0.47
1:QA:999:U:H2'	1:QA:1000:A:C8	2.49	0.47
1:QA:1314:C:H2'	1:QA:1315:U:C6	2.50	0.47
1:QA:1352:C:H2'	1:QA:1353:G:C8	2.50	0.47
3:QC:40:ARG:HH12	3:QC:57:ILE:HB	1.79	0.47
24:RA:184:C:H1'	24:RA:217:G:H1'	1.97	0.47
24:RA:1332:G:H21	24:RA:1610:A:H8	1.60	0.47
24:RA:1389:G:H2'	24:RA:1390:U:C6	2.50	0.47
26:RD:25:THR:O	26:RD:27:THR:N	2.43	0.47
28:RF:129:PHE:C	28:RF:131:GLY:H	2.22	0.47
37:RS:85:VAL:HG23	37:RS:112:PHE:HE1	1.80	0.47
41:RW:58:ALA:HB1	41:RW:64:MET:HB2	1.97	0.47
42:RX:21:PHE:CE1	42:RX:92:LEU:HB3	2.49	0.47
46:R1:11:ARG:HG3	46:R1:12:PRO:HD2	1.97	0.47
11:XK:63:LEU:HD23	11:XK:66:LEU:HD12	1.97	0.47
24:YA:329:G:OP2	43:YY:71:LYS:HD2	2.15	0.47
24:YA:2335:A:O2'	24:YA:2336:A:O5'	2.30	0.47
29:YG:129:GLY:HA2	29:YG:166:ASP:HA	1.95	0.47
41:YW:11:ARG:O	41:YW:11:ARG:HD3	2.15	0.47
44:YZ:146:ILE:HD12	44:YZ:146:ILE:H	1.79	0.47
1:QA:978:A:C4	1:QA:1319:A:C2	3.02	0.47
1:QA:1111:A:H61	3:QC:177:THR:HG22	1.80	0.47
1:QA:1293:G:H2'	1:QA:1294:G:H8	1.80	0.47
1:QA:1348:U:C4	1:QA:1374:A:H2	2.33	0.47
1:QA:1411:C:H2'	1:QA:1412:C:H6	1.80	0.47
4:QD:68:TYR:HD2	4:QD:97:LEU:HD13	1.80	0.47
10:QJ:50:ILE:HA	10:QJ:60:ARG:HG2	1.96	0.47
24:RA:122:G:OP1	24:RA:149:A:O2'	2.33	0.47
24:RA:760:G:H2'	24:RA:761:A:O4'	2.13	0.47
24:RA:935:C:H2'	24:RA:936:C:C6	2.50	0.47
24:RA:1899:G:H22	24:RA:1902:C:H41	1.59	0.47
24:RA:2377:A:H2'	24:RA:2378:A:C8	2.50	0.47
44:RZ:117:LEU:HD12	44:RZ:173:ALA:O	2.15	0.47
1:XA:246:A:OP1	17:XQ:100:LYS:HE2	2.14	0.47
1:XA:690:G:H2'	1:XA:691:G:O4'	2.14	0.47
1:XA:825:G:H2'	1:XA:826:C:C6	2.50	0.47
1:XA:1228:C:H5"	13:XM:108:ARG:HH22	1.80	0.47
1:XA:1391:U:H2'	1:XA:1392:G:C8	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:XL:7:ILE:H	12:XL:7:ILE:HD12	1.79	0.47
49:Y4:44:THR:OG1	49:Y4:47:GLN:OE1	2.31	0.47
1:QA:779:C:H2'	1:QA:780:A:O4'	2.15	0.47
1:QA:1327:C:H2'	1:QA:1328:C:C6	2.50	0.47
1:QA:1342:C:HO2'	9:QI:124:GLN:HA	1.79	0.47
9:QI:89:ASN:OD1	9:QI:91:ASP:HB3	2.14	0.47
19:QS:3:ARG:NH1	19:QS:8:GLY:O	2.48	0.47
24:RA:579:G:H2'	24:RA:580:C:C6	2.50	0.47
24:RA:589:C:H2'	24:RA:590:A:H8	1.80	0.47
24:RA:642:G:N2	24:RA:645:C:OP2	2.49	0.47
24:RA:1490:A:O2'	26:RD:99:ASP:OD1	2.33	0.47
24:RA:1510:A:O2'	24:RA:1512:G:N7	2.47	0.47
24:RA:1557:C:OP2	24:RA:1558:A:O2'	2.20	0.47
24:RA:1605:C:H2'	24:RA:1606:G:O4'	2.15	0.47
24:RA:2246:G:H2'	24:RA:2247:A:C8	2.49	0.47
24:RA:2370:G:H2'	24:RA:2371:G:O4'	2.15	0.47
24:RA:2822:G:H2'	24:RA:2823:A:H5"	1.96	0.47
28:RF:185:ASP:HA	28:RF:188:ARG:HD3	1.97	0.47
29:RG:8:LYS:HE3	29:RG:12:TYR:HE2	1.79	0.47
36:RR:38:VAL:HG22	36:RR:112:ALA:HB2	1.96	0.47
39:RU:65:ILE:HD11	39:RU:93:LYS:HA	1.97	0.47
43:RY:97:ARG:HG3	43:RY:106:LEU:HB2	1.97	0.47
46:R1:89:GLU:O	46:R1:93:GLU:HB2	2.15	0.47
12:XL:117:ARG:HD2	12:XL:123:LYS:O	2.15	0.47
22:XV:24:C:H2'	22:XV:25:U:C6	2.49	0.47
24:YA:131:G:H2'	24:YA:132:G:H8	1.78	0.47
24:YA:859:G:H5'	24:YA:2268:A:O2'	2.15	0.47
24:YA:1613:G:O2'	52:Y7:3:ARG:HD2	2.15	0.47
24:YA:1668:A:N3	24:YA:1670:C:C4	2.83	0.47
24:YA:2079:U:H4'	24:YA:2433:A:H2	1.80	0.47
24:YA:2282:G:N2	24:YA:2390:U:O2	2.39	0.47
24:YA:2629:A:O2'	24:YA:2630:G:H5"	2.14	0.47
24:YA:2712:U:OP1	24:YA:2714:G:H4'	2.15	0.47
24:YA:2737:G:H2'	24:YA:2738:A:C8	2.50	0.47
36:YR:26:LYS:HE2	36:YR:70:LEU:O	2.15	0.47
42:YX:28:PHE:HE1	42:YX:92:LEU:HD11	1.80	0.47
52:Y7:12:ARG:NH2	52:Y7:44:PRO:HB3	2.30	0.47
1:QA:28:G:O2'	1:QA:296:U:OP1	2.32	0.46
1:QA:444:C:H2'	1:QA:445:G:H8	1.80	0.46
1:QA:751:U:H2'	1:QA:752:G:O4'	2.15	0.46
1:QA:1237:C:O4'	1:QA:1334:G:N2	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1347:G:O2'	1:QA:1348:U:P	2.74	0.46
2:QB:82:ARG:HG2	2:QB:92:TYR:CE2	2.50	0.46
10:QJ:35:SER:OG	10:QJ:73:ASP:O	2.29	0.46
13:QM:80:ARG:NE	49:R4:58:ARG:HH12	2.13	0.46
24:RA:84:A:C2	24:RA:103:A:C5	3.03	0.46
24:RA:2315:G:H2'	24:RA:2316:C:H6	1.80	0.46
24:RA:2439:A:H5'	24:RA:2439:A:H8	1.80	0.46
24:RA:2864:G:OP1	38:RT:119:LYS:HD2	2.16	0.46
27:RE:47:VAL:HG11	27:RE:86:PRO:HD2	1.97	0.46
33:RO:111:PHE:HB3	33:RO:114:ILE:HD12	1.98	0.46
36:RR:58:GLY:HA2	36:RR:80:PHE:CE1	2.48	0.46
39:RU:81:HIS:NE2	39:RU:85:LYS:HD2	2.29	0.46
44:RZ:48:PHE:HE1	44:RZ:71:VAL:HG11	1.80	0.46
1:XA:254:G:H2'	1:XA:255:G:H8	1.81	0.46
8:XH:33:GLU:OE1	8:XH:50:ARG:NH2	2.48	0.46
10:XJ:69:ASN:O	10:XJ:70:ARG:HD2	2.15	0.46
13:XM:99:ARG:HB3	13:XM:101:GLN:HE22	1.80	0.46
24:YA:24:G:C6	24:YA:25:U:C4	3.03	0.46
24:YA:673:C:H5"	28:YF:81:PRO:HD2	1.97	0.46
24:YA:1062:G:H2'	24:YA:1063:G:C8	2.50	0.46
24:YA:1510:A:OP1	24:YA:1511:A:H5'	2.15	0.46
24:YA:1728:G:H3'	24:YA:1729:A:H5"	1.97	0.46
24:YA:1816:G:H3'	26:YD:62:TYR:CE1	2.50	0.46
24:YA:2805:G:H2'	24:YA:2807:G:C8	2.50	0.46
54:Y9:7:VAL:HG12	54:Y9:36:GLN:HE21	1.80	0.46
1:QA:1228:C:H5"	13:QM:108:ARG:NH2	2.29	0.46
2:QB:185:ILE:HA	2:QB:199:TYR:O	2.14	0.46
3:QC:21:ARG:HH22	10:QJ:11:PHE:HB2	1.79	0.46
6:QF:79:LEU:O	6:QF:85:VAL:HG11	2.15	0.46
24:RA:396:G:H1'	46:R1:42:GLN:HG2	1.98	0.46
24:RA:561:G:H1'	39:RU:45:TYR:HE1	1.79	0.46
24:RA:858:U:O2	24:RA:2268:A:H2'	2.15	0.46
24:RA:1812:A:H2'	24:RA:1813:G:H8	1.81	0.46
24:RA:2557:G:H2'	24:RA:2558:C:C6	2.50	0.46
24:RA:2859:G:H2'	24:RA:2860:A:C8	2.50	0.46
29:RG:120:LEU:HD22	29:RG:133:LEU:HD12	1.98	0.46
37:RS:34:HIS:CE1	37:RS:54:LEU:HD13	2.50	0.46
1:XA:501:C:H2'	1:XA:502:G:C8	2.50	0.46
1:XA:1264:C:H2'	1:XA:1265:G:C8	2.50	0.46
1:XA:1376:U:H2'	1:XA:1377:A:H8	1.78	0.46
4:XD:55:ALA:O	4:XD:59:ARG:HG2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:XG:88:PRO:HG2	7:XG:152:ALA:HB2	1.97	0.46
22:XV:35:C:O2'	22:XV:36:A:OP1	2.28	0.46
24:YA:690:G:H2'	24:YA:691:C:C6	2.50	0.46
31:YI:2:LYS:HA	31:YI:20:ASP:HA	1.97	0.46
1:QA:139:G:H2'	1:QA:140:A:C8	2.50	0.46
1:QA:434:U:H2'	1:QA:435:C:C6	2.50	0.46
1:QA:878:G:H5'	8:QH:89:PRO:HG2	1.96	0.46
1:QA:1099:G:OP2	2:QB:148:TYR:OH	2.33	0.46
18:QR:44:LEU:HD11	18:QR:79:LEU:HD23	1.96	0.46
24:RA:270(D):C:H2'	24:RA:270(E):G:C8	2.50	0.46
24:RA:946:G:H2'	24:RA:947:G:C8	2.50	0.46
24:RA:1353:A:H2'	24:RA:1354:A:C8	2.50	0.46
24:RA:2102:U:O2	24:RA:2187:G:N2	2.42	0.46
24:RA:2121:G:H2'	24:RA:2122:U:C6	2.51	0.46
24:RA:2515:C:H2'	24:RA:2516:G:H8	1.81	0.46
24:RA:2849:U:H4'	24:RA:2868:A:C2	2.50	0.46
30:RH:169:VAL:HG22	30:RH:171:LEU:HG	1.96	0.46
31:RI:92:VAL:O	31:RI:120:ILE:HG22	2.15	0.46
43:RY:76:CYS:HB3	43:RY:79:CYS:H	1.80	0.46
1:XA:170:U:H2'	1:XA:171:A:H8	1.80	0.46
1:XA:538:G:H2'	1:XA:539:A:H8	1.80	0.46
1:XA:711:G:H2'	1:XA:712:A:H8	1.80	0.46
1:XA:1091:U:C2	1:XA:1095:U:C4	3.04	0.46
3:XC:14:ILE:O	3:XC:15:THR:OG1	2.30	0.46
18:XR:74:ARG:HD3	18:XR:80:PRO:O	2.15	0.46
20:XT:29:LYS:HD2	20:XT:66:ALA:HB2	1.98	0.46
22:XV:19:G:O2'	22:XV:20:G:H5"	2.16	0.46
24:YA:389:G:H1	34:YP:71:VAL:HG12	1.80	0.46
24:YA:747:U:O2	24:YA:2014:A:H1'	2.15	0.46
24:YA:960:A:C8	24:YA:962:G:C8	3.04	0.46
24:YA:988:A:OP2	48:Y3:11:SER:OG	2.34	0.46
24:YA:1178:C:H2'	24:YA:1179:C:C6	2.50	0.46
24:YA:1201:C:C2	24:YA:1202:C:C5	3.04	0.46
24:YA:1248:G:O2'	39:YU:3:ARG:HA	2.15	0.46
24:YA:1359:A:N6	24:YA:1372:U:H3	2.12	0.46
24:YA:1825:A:H2'	24:YA:1826:G:H8	1.80	0.46
24:YA:2514:U:H2'	24:YA:2515:C:C6	2.50	0.46
29:YG:150:ASP:OD1	29:YG:151:ALA:N	2.48	0.46
32:YN:41:ASP:O	32:YN:48:MET:HE3	2.16	0.46
1:QA:1126:U:H1'	1:QA:1280:A:N7	2.31	0.46
1:QA:1210:C:O2'	1:QA:1213:A:O2'	2.28	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1317:C:O2	19:QS:37:ARG:NH1	2.49	0.46
8:QH:120:THR:HG22	8:QH:121:ASP:N	2.30	0.46
15:QO:31:LEU:O	15:QO:34:LEU:HG	2.16	0.46
20:QT:29:LYS:HZ1	20:QT:72:LEU:HB2	1.80	0.46
24:RA:29:U:H2'	24:RA:30:G:C8	2.51	0.46
24:RA:608:A:H2'	24:RA:609:A:C8	2.51	0.46
24:RA:2455:G:H2'	24:RA:2456:C:C6	2.50	0.46
24:RA:2554:U:H2'	24:RA:2555:U:C6	2.50	0.46
24:RA:2696:U:H2'	24:RA:2697:G:H8	1.80	0.46
26:RD:77:ALA:HB2	26:RD:97:TYR:CD1	2.50	0.46
26:RD:136:ILE:CG2	26:RD:140:THR:HG21	2.43	0.46
28:RF:139:PHE:HB2	28:RF:166:ALA:HB1	1.97	0.46
40:RV:52:VAL:HG21	40:RV:55:ALA:HB3	1.97	0.46
44:RZ:181:GLU:HG2	44:RZ:183:LEU:N	2.31	0.46
1:XA:262:A:H2'	1:XA:263:A:C8	2.50	0.46
1:XA:407:G:H2'	1:XA:408:A:H8	1.81	0.46
1:XA:539:A:H2'	1:XA:540:G:C8	2.50	0.46
1:XA:658:G:H2'	1:XA:659:U:H6	1.81	0.46
19:XS:66:MET:HB2	19:XS:74:PHE:CZ	2.49	0.46
24:YA:144:C:H2'	24:YA:145:G:H8	1.80	0.46
24:YA:755:C:H2'	24:YA:756:C:H6	1.80	0.46
36:YR:117:VAL:HG22	36:YR:118:GLU:H	1.81	0.46
47:Y2:28:LYS:HD2	47:Y2:53:LEU:HD11	1.98	0.46
7:QG:32:ARG:NH1	7:QG:33:ASP:OD1	2.48	0.46
10:QJ:6:ILE:HG22	10:QJ:98:ILE:HB	1.97	0.46
22:QV:35:C:H2'	22:QV:36:A:C8	2.50	0.46
24:RA:192:C:O2'	24:RA:802:A:N3	2.47	0.46
24:RA:1587:A:H2'	24:RA:1588:C:C6	2.50	0.46
24:RA:2345:G:O2'	24:RA:2381:C:O2	2.28	0.46
37:RS:39:ILE:HG12	37:RS:49:VAL:HG22	1.96	0.46
1:XA:436:C:H2'	1:XA:437:U:C6	2.51	0.46
1:XA:1414:U:H2'	1:XA:1415:G:H8	1.81	0.46
1:XA:1488:G:H2'	1:XA:1489:G:H8	1.80	0.46
24:YA:579:G:H2'	24:YA:580:C:H6	1.80	0.46
24:YA:590:A:H2'	24:YA:591:C:C6	2.50	0.46
24:YA:640:C:H2'	24:YA:641:C:C6	2.50	0.46
24:YA:1534:G:H2'	24:YA:1534:G:N3	2.31	0.46
24:YA:2055:C:OP1	50:Y5:8:LYS:NZ	2.48	0.46
24:YA:2612:C:OP2	50:Y5:2:ALA:N	2.49	0.46
25:YB:8:U:O2'	37:YS:40:ILE:HD13	2.15	0.46
45:Y0:67:VAL:HG22	45:Y0:81:VAL:HG22	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:166:G:H2'	1:QA:167:G:H8	1.81	0.46
1:QA:505:G:H2'	1:QA:506:G:C8	2.50	0.46
1:QA:833:U:H3	1:QA:853:G:H1	1.63	0.46
7:QG:15:ASP:OD1	7:QG:44:TYR:OH	2.33	0.46
24:RA:1046:A:H2'	24:RA:1046:A:N3	2.31	0.46
24:RA:2118:U:O2	24:RA:2148:G:O2'	2.26	0.46
24:RA:2747:G:H21	24:RA:2757:A:H62	1.63	0.46
31:RI:9:LEU:HD11	31:RI:35:LEU:HD13	1.98	0.46
37:RS:106:ARG:O	37:RS:106:ARG:HD3	2.15	0.46
1:XA:645:C:H2'	1:XA:646:U:C6	2.51	0.46
1:XA:940:C:H2'	1:XA:941:G:C8	2.50	0.46
1:XA:1502:A:H2	1:XA:1505:G:H22	1.59	0.46
3:XC:95:THR:HG22	3:XC:96:GLY:N	2.30	0.46
24:YA:192:C:O2'	24:YA:802:A:N3	2.45	0.46
24:YA:245:G:O6	53:Y8:8:LYS:HE3	2.15	0.46
24:YA:302:C:H2'	24:YA:303:U:C6	2.50	0.46
24:YA:363(A):A:H2'	24:YA:363(B):G:H8	1.79	0.46
24:YA:1138:G:H2'	24:YA:1139:G:O4'	2.15	0.46
28:YF:11:VAL:HG22	28:YF:125:LEU:HB2	1.97	0.46
30:YH:18:GLU:HB3	30:YH:25:LYS:HG3	1.97	0.46
34:YP:29:LYS:HD2	34:YP:29:LYS:O	2.16	0.46
41:YW:65:LEU:HD21	41:YW:68:ARG:NH2	2.30	0.46
1:QA:186(B):C:H2'	1:QA:186(C):G:H8	1.81	0.46
1:QA:1175:G:N2	1:QA:1176:A:H62	2.14	0.46
3:QC:34:LEU:HD13	14:QN:25:VAL:HG21	1.98	0.46
4:QD:154:ASN:O	4:QD:155:LEU:HB2	2.16	0.46
7:QG:69:VAL:HG23	7:QG:100:ALA:HB1	1.97	0.46
16:QP:53:VAL:HG13	16:QP:79:VAL:HG22	1.97	0.46
24:RA:139:G:N2	24:RA:141:A:N1	2.56	0.46
24:RA:396:G:H1'	46:R1:42:GLN:NE2	2.30	0.46
24:RA:978:G:H2'	24:RA:979:G:O4'	2.16	0.46
24:RA:2059:A:H5'	24:RA:2060:A:OP2	2.16	0.46
24:RA:2611:U:O2'	50:R5:2:ALA:HB3	2.15	0.46
24:RA:2618:G:H21	27:RE:150:VAL:HG21	1.81	0.46
25:RB:114:G:O2'	37:RS:50:SER:OG	2.26	0.46
26:RD:218:ARG:HB3	26:RD:219:PRO:HD2	1.97	0.46
27:RE:46:ALA:HB2	27:RE:82:ARG:HA	1.98	0.46
33:RO:64:ARG:HB2	33:RO:83:ALA:HB3	1.97	0.46
1:XA:164:U:H2'	1:XA:165:C:C6	2.51	0.46
1:XA:244:U:H4'	1:XA:245:C:O5'	2.15	0.46
1:XA:337:C:H2'	1:XA:338:A:H8	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:412:A:H4'	1:XA:413:G:O5'	2.15	0.46
1:XA:688:G:H2'	1:XA:689:C:C6	2.49	0.46
1:XA:1123:A:H4'	10:XJ:36:GLY:HA3	1.97	0.46
1:XA:1127:G:C2	1:XA:1145:C:C2	3.03	0.46
3:XC:9:GLY:HA3	14:XN:49:HIS:HA	1.97	0.46
6:XF:48:LEU:HD13	6:XF:57:GLN:HA	1.97	0.46
14:XN:46:GLU:O	14:XN:50:LYS:HG2	2.15	0.46
17:XQ:87:LYS:HA	17:XQ:90:ILE:HG22	1.97	0.46
24:YA:395:U:H2'	24:YA:396:G:C8	2.50	0.46
24:YA:588:U:H2'	24:YA:589:C:C6	2.50	0.46
24:YA:861:A:N3	25:YB:79:C:O2'	2.49	0.46
24:YA:1550:C:H2'	24:YA:1551:C:H6	1.80	0.46
24:YA:2783:G:H21	27:YE:37:ARG:NH2	2.08	0.46
25:YB:14:U:O3'	25:YB:107:U:O2'	2.27	0.46
25:YB:30:C:OP2	37:YS:32:LEU:HD11	2.15	0.46
25:YB:44:G:H1'	25:YB:47:C:H42	1.79	0.46
26:YD:71:ASP:HB2	26:YD:103:ARG:HH12	1.80	0.46
27:YE:14:ILE:HD12	38:YT:14:TYR:HE2	1.80	0.46
29:YG:5:VAL:HG11	29:YG:101:ILE:HG22	1.98	0.46
30:YH:9:ILE:CG2	30:YH:49:VAL:HB	2.46	0.46
40:YV:5:VAL:O	40:YV:11:GLN:HA	2.15	0.46
40:YV:22:VAL:HG12	40:YV:23:GLU:N	2.31	0.46
45:Y0:53:MET:HB3	45:Y0:59:LEU:HD23	1.98	0.46
51:Y6:6:ARG:HG3	51:Y6:24:GLU:OE2	2.16	0.46
1:QA:555:C:H2'	1:QA:556:C:C6	2.51	0.46
1:QA:836:G:C6	1:QA:851:G:C6	3.04	0.46
1:QA:939:G:H1	1:QA:1344:C:H42	1.64	0.46
1:QA:1015:A:H2'	1:QA:1016:A:H8	1.81	0.46
3:QC:24:ALA:HB1	3:QC:32:LEU:HD21	1.98	0.46
4:QD:187:ARG:NH2	4:QD:193:ASP:OD2	2.48	0.46
19:QS:41:VAL:HG12	19:QS:67:VAL:HA	1.98	0.46
20:QT:39:LYS:HZ2	20:QT:55:ILE:HD11	1.81	0.46
20:QT:79:ARG:HE	20:QT:83:ARG:HE	1.64	0.46
24:RA:235:U:H2'	24:RA:236:C:H6	1.80	0.46
24:RA:286:C:H2'	24:RA:287:C:C6	2.51	0.46
24:RA:729:G:H5'	24:RA:730:C:H5"	1.97	0.46
24:RA:1003:G:O2'	24:RA:1010:A:N1	2.48	0.46
24:RA:1321:A:C4	24:RA:1322:A:C8	3.03	0.46
24:RA:2287:A:H61	24:RA:2344:U:H3	1.59	0.46
24:RA:2778:A:H4'	24:RA:2779:U:OP1	2.16	0.46
27:RE:29:GLY:HA2	27:RE:180:ASN:HB3	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:RO:101:PRO:HB3	33:RO:122:LEU:HD13	1.97	0.46
53:R8:15:LYS:HG2	53:R8:46:ARG:HH22	1.81	0.46
1:XA:1328:C:H2'	1:XA:1329:A:C8	2.51	0.46
1:XA:1347:G:O2'	1:XA:1348:U:P	2.73	0.46
19:XS:64:GLU:HB2	49:Y4:59:PHE:CE2	2.51	0.46
24:YA:71:A:OP1	24:YA:72:U:H2'	2.16	0.46
24:YA:92:G:H2'	24:YA:93:C:H6	1.80	0.46
24:YA:836:G:H2'	24:YA:837:C:H6	1.81	0.46
24:YA:1000:A:H2'	24:YA:1001:A:C8	2.51	0.46
24:YA:1140:C:OP1	32:YN:23:LEU:HB3	2.16	0.46
24:YA:1190:G:H5'	34:YP:32:THR:HA	1.97	0.46
24:YA:2134:A:N6	24:YA:2157:G:H5'	2.31	0.46
24:YA:2181:G:H2'	24:YA:2182:G:H8	1.81	0.46
24:YA:2349:G:OP2	53:Y8:42:ARG:HD3	2.16	0.46
24:YA:2591:C:H2'	24:YA:2592:G:H8	1.78	0.46
24:YA:2700:C:O2'	24:YA:2701:C:H5'	2.16	0.46
27:YE:61:ARG:O	27:YE:63:LEU:N	2.49	0.46
42:YX:54:VAL:HG22	42:YX:81:VAL:HG12	1.96	0.46
4:QD:148:VAL:HG22	4:QD:152:SER:OG	2.16	0.46
5:QE:110:LEU:O	5:QE:115:VAL:HG22	2.16	0.46
7:QG:78:ARG:NH1	7:QG:80:VAL:HB	2.30	0.46
11:QK:92:GLU:HA	11:QK:95:ILE:HG12	1.98	0.46
24:RA:30:G:H2'	24:RA:31:C:H6	1.77	0.46
24:RA:385:C:HO2'	24:RA:388:G:N2	2.14	0.46
24:RA:1918:A:O2'	24:RA:1920:C:N4	2.49	0.46
24:RA:2150:U:H2'	24:RA:2151:G:C8	2.51	0.46
24:RA:2392:A:OP2	24:RA:2422:A:N6	2.47	0.46
24:RA:2591:C:H2'	24:RA:2592:G:H8	1.79	0.46
27:RE:143:ASN:O	27:RE:144:ARG:HG3	2.14	0.46
29:RG:97:ASP:H	29:RG:100:TRP:CD1	2.34	0.46
36:RR:33:ARG:NH1	50:R5:57:VAL:O	2.49	0.46
2:XB:84:GLU:OE1	2:XB:87:ARG:NH2	2.49	0.46
2:XB:207:ALA:O	2:XB:210:SER:N	2.49	0.46
24:YA:99:U:H4'	24:YA:101:G:H5'	1.97	0.46
24:YA:270(E):G:H1	24:YA:270(U):C:H42	1.64	0.46
24:YA:324:A:N6	24:YA:338:G:O2'	2.49	0.46
24:YA:499:U:H2'	24:YA:500:G:O4'	2.16	0.46
24:YA:1547:C:H2'	24:YA:1548:C:C6	2.51	0.46
24:YA:2039:C:H2'	24:YA:2040:C:C6	2.51	0.46
24:YA:2547:U:H2'	24:YA:2548:G:C8	2.51	0.46
24:YA:2554:U:H2'	24:YA:2555:U:H6	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:2616:C:H2'	24:YA:2617:C:H6	1.80	0.46
24:YA:2683:C:O2	33:YO:70:LYS:HE3	2.15	0.46
26:YD:75:ILE:HD13	26:YD:99:ASP:OD2	2.16	0.46
31:YI:116:LEU:HD11	31:YI:120:ILE:HG23	1.98	0.46
34:YP:106:LEU:HD13	34:YP:112:LEU:HD13	1.98	0.46
51:Y6:24:GLU:O	51:Y6:25:LYS:HG3	2.15	0.46
1:QA:486:U:H2'	1:QA:487:A:H8	1.81	0.46
1:QA:718:G:C8	11:QK:116:HIS:HB3	2.50	0.46
1:QA:825:G:H2'	1:QA:826:C:H6	1.81	0.46
1:QA:972:C:O2	10:QJ:55:LYS:HG2	2.16	0.46
1:QA:1438:G:H2'	1:QA:1439:C:H6	1.80	0.46
2:QB:178:ARG:NH2	8:QH:74:PRO:HB3	2.31	0.46
3:QC:91:LEU:O	3:QC:95:THR:HG22	2.16	0.46
4:QD:173:TRP:CD2	4:QD:189:PRO:HB3	2.51	0.46
10:QJ:8:LEU:HB2	10:QJ:70:ARG:HB2	1.98	0.46
19:QS:40:ILE:HD13	19:QS:71:LEU:HD13	1.97	0.46
24:RA:123:G:H2'	24:RA:124:G:O4'	2.16	0.46
24:RA:232:G:OP2	24:RA:232:G:H8	1.98	0.46
24:RA:566:U:OP1	34:RP:29:LYS:HE3	2.15	0.46
24:RA:1084:A:H5"	24:RA:1085:A:C8	2.51	0.46
24:RA:1266:G:O2'	24:RA:2012:G:O6	2.32	0.46
24:RA:1543:A:H1'	24:RA:1545:A:O4'	2.15	0.46
24:RA:2630:G:H2'	24:RA:2631:G:H8	1.81	0.46
27:RE:84:PHE:CZ	27:RE:86:PRO:HB3	2.51	0.46
35:RQ:77:LYS:HD3	35:RQ:80:GLU:HB2	1.97	0.46
40:RV:1:MET:HG3	40:RV:42:GLY:HA3	1.97	0.46
40:RV:18:LEU:HB3	40:RV:96:ILE:HD13	1.97	0.46
49:R4:47:GLN:HE22	49:R4:49:PHE:HB2	1.81	0.46
1:XA:315:A:H5"	1:XA:317:G:OP2	2.16	0.46
1:XA:373:A:C2	1:XA:374:A:C8	3.03	0.46
1:XA:540:G:H2'	1:XA:541:G:O4'	2.15	0.46
1:XA:1224:G:O2'	1:XA:1322:C:OP2	2.33	0.46
1:XA:1336:C:H1'	1:XA:1337:G:C6	2.51	0.46
6:XF:30:LEU:HB3	6:XF:35:ALA:HB3	1.97	0.46
13:XM:48:LEU:HD13	13:XM:52:GLU:HG3	1.97	0.46
15:XO:39:LEU:HD23	15:XO:56:LEU:HB2	1.96	0.46
19:XS:39:THR:HG22	19:XS:40:ILE:N	2.31	0.46
19:XS:39:THR:HG22	19:XS:40:ILE:H	1.81	0.46
24:YA:248:G:H5'	24:YA:250:G:N7	2.30	0.46
24:YA:994:C:O2'	24:YA:996:A:OP1	2.27	0.46
24:YA:1041:C:H2'	24:YA:1042:G:H8	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:1469:A:H2'	24:YA:1470:G:O4'	2.15	0.46
24:YA:1728:G:H5'	24:YA:1729:A:OP2	2.16	0.46
24:YA:1882:C:H5'	24:YA:1883:G:OP2	2.16	0.46
24:YA:2247:A:H2'	24:YA:2248:C:H6	1.80	0.46
27:YE:1:MET:O	27:YE:84:PHE:HB2	2.16	0.46
32:YN:33:LEU:HD21	32:YN:137:LYS:HE2	1.98	0.46
34:YP:91:PHE:CE2	34:YP:95:VAL:HG22	2.51	0.46
36:YR:76:VAL:HA	36:YR:79:LEU:HG	1.98	0.46
37:YS:106:ARG:HB2	37:YS:110:LEU:HG	1.98	0.46
1:QA:645:C:H2'	1:QA:646:U:C6	2.51	0.45
1:QA:861:G:O6	1:QA:869:G:N2	2.49	0.45
1:QA:1179:A:H2'	1:QA:1180:A:O4'	2.16	0.45
1:QA:1264:C:H2'	1:QA:1265:G:C8	2.51	0.45
11:QK:82:VAL:O	11:QK:108:ILE:HA	2.15	0.45
13:QM:40:ASN:O	13:QM:43:THR:HG22	2.17	0.45
24:RA:50:U:H3'	24:RA:51:G:H5'	1.98	0.45
24:RA:219:G:N3	24:RA:234:C:O2'	2.43	0.45
24:RA:2245:U:H5'	24:RA:2246:G:C5'	2.42	0.45
1:XA:923:A:O2'	1:XA:1399:C:OP2	2.24	0.45
2:XB:87:ARG:HH21	2:XB:219:VAL:CG1	2.29	0.45
2:XB:185:ILE:HA	2:XB:199:TYR:O	2.15	0.45
16:XP:22:THR:HG22	16:XP:32:TYR:HB3	1.97	0.45
24:YA:935:C:H2'	24:YA:936:C:H6	1.80	0.45
24:YA:969:U:OP1	48:Y3:17:LYS:HG3	2.16	0.45
26:YD:155:LEU:HD23	26:YD:177:LEU:HD22	1.98	0.45
27:YE:3:GLY:HA3	27:YE:81:ILE:HG21	1.98	0.45
31:YI:69:LYS:HA	31:YI:136:VAL:HG21	1.96	0.45
39:YU:104:GLN:HG3	40:YV:44:LYS:HD3	1.98	0.45
1:QA:102:G:O2'	1:QA:151:A:N3	2.43	0.45
1:QA:126:G:H5'	1:QA:633:G:N2	2.31	0.45
1:QA:512:U:H2'	1:QA:513:C:C6	2.51	0.45
1:QA:939:G:H1	1:QA:1344:C:N4	2.14	0.45
1:QA:1022:G:H2'	1:QA:1023:G:C8	2.52	0.45
4:QD:18:LYS:HG2	4:QD:20:TYR:CE1	2.51	0.45
5:QE:82:VAL:HG21	5:QE:138:ALA:HA	1.98	0.45
12:QL:84:LEU:HD23	12:QL:101:VAL:HG21	1.98	0.45
24:RA:110:G:C2	24:RA:111:A:C8	3.05	0.45
24:RA:177:G:H3'	24:RA:178:G:C8	2.51	0.45
24:RA:1689:A:OP2	24:RA:1698:A:N6	2.37	0.45
24:RA:1969:A:O2'	24:RA:1972:A:N3	2.36	0.45
24:RA:2019:A:O4'	39:RU:34:LYS:NZ	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:2564:A:OP1	24:RA:2648:C:H4'	2.16	0.45
24:RA:2708:G:H5'	36:RR:68:ARG:HB2	1.97	0.45
28:RF:67:GLN:HG3	28:RF:74:ARG:HB2	1.99	0.45
29:RG:116:ASP:O	29:RG:118:ARG:HD2	2.16	0.45
30:RH:25:LYS:HD3	30:RH:34:GLU:HB3	1.97	0.45
30:RH:55:PRO:HD2	30:RH:61:HIS:NE2	2.31	0.45
31:RI:14:ASP:O	31:RI:16:GLY:N	2.43	0.45
34:RP:125:VAL:HG11	34:RP:138:LEU:HD21	1.97	0.45
44:RZ:1:MET:HE3	44:RZ:3:TYR:CE1	2.51	0.45
46:R1:12:PRO:HB3	46:R1:43:TYR:HA	1.98	0.45
50:R5:51:TYR:CE1	50:R5:56:LYS:HB3	2.51	0.45
1:XA:374:A:C6	1:XA:375:U:C4	3.05	0.45
1:XA:1262:C:H2'	1:XA:1263:C:C6	2.50	0.45
1:XA:1321:C:C3'	1:XA:1322:C:H5"	2.46	0.45
1:XA:1402:C:H2'	1:XA:1403:C:O4'	2.16	0.45
12:XL:84:LEU:HB2	12:XL:105:TYR:CD2	2.50	0.45
16:XP:6:LEU:HB2	16:XP:17:TYR:HB3	1.97	0.45
23:XX:14:A:H3'	23:XX:15:A:C8	2.51	0.45
24:YA:301:G:C4	24:YA:302:C:C5	3.04	0.45
24:YA:415:A:H2'	24:YA:416:C:H6	1.81	0.45
24:YA:1364:G:N7	46:Y1:2:SER:N	2.64	0.45
24:YA:1448:G:H5'	24:YA:1449:A:OP1	2.16	0.45
24:YA:1816:G:H8	26:YD:62:TYR:CZ	2.33	0.45
24:YA:1978:A:H2'	24:YA:1979:C:O4'	2.17	0.45
32:YN:68:GLU:HG2	32:YN:88:GLU:CD	2.41	0.45
52:Y7:17:GLY:O	52:Y7:21:ARG:HG2	2.16	0.45
3:QC:121:ALA:O	3:QC:125:GLU:HG3	2.16	0.45
3:QC:127:ARG:O	3:QC:127:ARG:HD3	2.16	0.45
10:QJ:12:ASP:HB3	10:QJ:15:THR:HG22	1.97	0.45
18:QR:22:VAL:O	18:QR:25:THR:HG22	2.17	0.45
19:QS:62:ILE:HG23	19:QS:66:MET:HE3	1.98	0.45
22:QV:35:C:H2'	22:QV:36:A:H8	1.82	0.45
24:RA:813:U:H2'	24:RA:814:C:C6	2.51	0.45
24:RA:1069:A:H2'	24:RA:1073:A:N7	2.31	0.45
24:RA:1093:G:H21	24:RA:1098:A:H62	1.62	0.45
24:RA:1203:G:H3'	24:RA:1204:A:H5"	1.98	0.45
24:RA:1542:G:C6	24:RA:1543:A:N6	2.84	0.45
24:RA:2611:U:C4	50:R5:3:LYS:HG2	2.51	0.45
26:RD:242:ARG:O	26:RD:244:ARG:N	2.49	0.45
27:RE:144:ARG:HB3	27:RE:145:LYS:H	1.62	0.45
35:RQ:65:PHE:O	35:RQ:67:ARG:N	2.48	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:RU:92:ARG:C	39:RU:94:ASN:N	2.72	0.45
44:RZ:6:LYS:HD3	44:RZ:8:TYR:CZ	2.51	0.45
1:XA:835:U:OP1	18:XR:64:ARG:NH2	2.44	0.45
1:XA:1095:U:P	1:XA:1108:G:H1	2.39	0.45
13:XM:65:LYS:C	13:XM:66:LEU:HD12	2.42	0.45
24:YA:220:G:O2'	24:YA:233:A:N3	2.48	0.45
24:YA:709:U:H2'	24:YA:710:G:H8	1.82	0.45
24:YA:991:C:O2'	40:YV:85:LYS:NZ	2.50	0.45
24:YA:1309:G:H4'	52:Y7:7:PRO:HB2	1.98	0.45
24:YA:1697:G:OP2	24:YA:1698:A:O2'	2.30	0.45
24:YA:1814:G:H4'	26:YD:51:VAL:HG21	1.96	0.45
24:YA:2123:G:H2'	24:YA:2124:G:C8	2.52	0.45
24:YA:2529:G:H5"	24:YA:2530:A:H5"	1.98	0.45
24:YA:2857:G:N2	24:YA:2860:A:OP2	2.41	0.45
27:YE:47:VAL:HG11	27:YE:84:PHE:HD2	1.80	0.45
29:YG:16:ARG:NH2	29:YG:28:VAL:O	2.50	0.45
37:YS:87:PHE:HE1	37:YS:101:LEU:HD12	1.81	0.45
39:YU:50:ARG:HH21	40:YV:70:ILE:HD12	1.81	0.45
42:YX:39:ILE:O	42:YX:43:VAL:HG12	2.16	0.45
1:QA:1238:A:H62	1:QA:1301:U:H3	1.65	0.45
1:QA:1499:A:H1'	1:QA:1520:G:H5'	1.98	0.45
2:QB:76:GLN:NE2	2:QB:206:ASP:OD1	2.49	0.45
6:QF:6:VAL:HG22	6:QF:90:VAL:HG12	1.98	0.45
8:QH:20:TYR:CE2	8:QH:75:ARG:HD3	2.52	0.45
12:QL:44:THR:HA	12:QL:45:PRO:HD3	1.80	0.45
13:QM:23:TYR:HB3	13:QM:67:GLU:CG	2.42	0.45
19:QS:18:LYS:HG2	19:QS:31:ILE:HD12	1.98	0.45
24:RA:1204:A:H1'	24:RA:1206:G:C5	2.52	0.45
27:RE:120:TRP:CD2	27:RE:155:LYS:HD2	2.51	0.45
29:RG:35:GLU:HG3	29:RG:36:LYS:HB2	1.98	0.45
34:RP:47:ASP:OD2	34:RP:50:ARG:NH2	2.49	0.45
42:RX:40:LYS:HA	42:RX:43:VAL:HG12	1.98	0.45
53:R8:15:LYS:HE3	53:R8:23:VAL:HB	1.98	0.45
1:XA:362:G:N2	1:XA:365:U:OP2	2.47	0.45
1:XA:1014:A:H2	1:XA:1219:U:H1'	1.80	0.45
3:XC:122:GLU:OE2	3:XC:126:ARG:NH1	2.49	0.45
4:XD:155:LEU:O	4:XD:158:ILE:HG22	2.16	0.45
5:XE:8:GLU:HG2	5:XE:34:VAL:HG12	1.97	0.45
8:XH:13:ILE:O	8:XH:17:THR:HG23	2.16	0.45
8:XH:121:ASP:O	8:XH:125:ARG:HD3	2.17	0.45
10:XJ:51:ARG:HG2	14:XN:45:ARG:HH12	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:XS:31:ILE:HD11	19:XS:49:ILE:HG23	1.97	0.45
21:XU:14:TRP:HZ3	21:XU:15:ARG:NH1	2.15	0.45
24:YA:724:U:H2'	24:YA:725:G:O4'	2.16	0.45
24:YA:1252:G:C2	39:YU:33:ARG:HB2	2.52	0.45
24:YA:1293:C:H2'	24:YA:1294:U:H6	1.80	0.45
24:YA:1485:G:O6	24:YA:1505:C:N4	2.50	0.45
24:YA:1853:A:H2'	24:YA:1854:A:H8	1.81	0.45
24:YA:2181:G:C2	24:YA:2182:G:C5	3.04	0.45
24:YA:2650:U:H2'	24:YA:2651:C:H6	1.81	0.45
31:YI:14:ASP:OD1	31:YI:17:GLN:HB2	2.16	0.45
43:YY:96:ILE:HG13	43:YY:98:VAL:HG13	1.99	0.45
48:Y3:8:LEU:HD13	48:Y3:23:LEU:HD11	1.98	0.45
1:QA:338:A:H2'	1:QA:339:C:C6	2.50	0.45
7:QG:89:MET:HB3	7:QG:89:MET:HE2	1.62	0.45
9:QI:25:LYS:N	9:QI:60:ASP:OD1	2.45	0.45
24:RA:586:A:H5'	28:RF:89:VAL:HG21	1.98	0.45
24:RA:1012:U:O4	32:RN:28:THR:OG1	2.21	0.45
24:RA:1196:C:C2	24:RA:1197:G:C8	3.05	0.45
24:RA:1316:U:H2'	24:RA:1317:A:C8	2.51	0.45
24:RA:1397:U:OP2	24:RA:1398:C:N4	2.44	0.45
24:RA:2183:C:H2'	24:RA:2184:G:C8	2.52	0.45
24:RA:2553:G:C2	24:RA:2583:G:H1'	2.52	0.45
24:RA:2590:A:H2'	24:RA:2591:C:C6	2.52	0.45
24:RA:2745:C:H2'	24:RA:2746:U:C6	2.51	0.45
33:RO:47:ILE:HG13	33:RO:48:PRO:HD2	1.98	0.45
1:XA:112:G:H5'	1:XA:389:A:HO2'	1.81	0.45
1:XA:1000:A:H2'	1:XA:1001:G:H8	1.82	0.45
1:XA:1321:C:H3'	1:XA:1322:C:H5"	1.98	0.45
1:XA:1431:C:H2'	1:XA:1432:G:O4'	2.17	0.45
1:XA:1459:C:H4'	20:XT:24:LEU:HD11	1.98	0.45
3:XC:84:ILE:HG12	3:XC:88:ARG:NH1	2.32	0.45
7:XG:64:GLN:HE21	7:XG:68:ASN:ND2	2.15	0.45
9:XI:112:LYS:HE2	9:XI:117:HIS:O	2.16	0.45
13:XM:4:ILE:H	13:XM:9:ILE:HG22	1.81	0.45
24:YA:742:G:H2'	24:YA:743:G:H8	1.81	0.45
24:YA:2807:G:H22	24:YA:2893:G:H1	1.65	0.45
27:YE:2:LYS:HA	27:YE:84:PHE:CD1	2.51	0.45
27:YE:92:THR:HG22	27:YE:93:VAL:N	2.32	0.45
31:YI:69:LYS:HG3	31:YI:136:VAL:HG23	1.98	0.45
35:YQ:17:LEU:HD13	35:YQ:39:PRO:HB2	1.97	0.45
1:QA:6:G:O2'	1:QA:298:A:H1'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:842:C:O2'	1:QA:848:C:N4	2.50	0.45
1:QA:1007:C:H2'	1:QA:1008:C:C6	2.52	0.45
1:QA:1135:U:H4'	1:QA:1136:U:H5	1.81	0.45
3:QC:11:ARG:C	3:QC:13:GLY:H	2.24	0.45
6:QF:50:TYR:OH	18:QR:74:ARG:O	2.31	0.45
19:QS:15:LEU:H	19:QS:15:LEU:HD23	1.81	0.45
24:RA:350:U:H2'	24:RA:351:G:O4'	2.16	0.45
24:RA:532:A:H4'	24:RA:533:G:C8	2.52	0.45
24:RA:638:G:H2'	24:RA:639:U:H6	1.80	0.45
24:RA:686:G:N2	24:RA:788:A:H61	2.15	0.45
24:RA:846:C:O2'	24:RA:847:U:OP2	2.27	0.45
24:RA:1181:C:H2'	24:RA:1182:A:C8	2.51	0.45
24:RA:1709:U:H2'	24:RA:1710:C:C6	2.52	0.45
24:RA:2130:U:O2'	24:RA:2133:G:O2'	2.22	0.45
28:RF:40:GLN:NE2	28:RF:182:ASN:HB2	2.31	0.45
44:RZ:91:LEU:HD12	44:RZ:91:LEU:O	2.17	0.45
1:XA:626:U:H2'	1:XA:627:G:C8	2.51	0.45
8:XH:43:GLY:O	8:XH:64:LYS:HD3	2.17	0.45
12:XL:42:THR:HG22	12:XL:54:LYS:HG3	1.99	0.45
16:XP:26:ARG:HD2	16:XP:31:LYS:H	1.80	0.45
24:YA:626:U:O4	34:YP:81:GLN:NE2	2.46	0.45
24:YA:634:C:H2'	24:YA:635:C:H6	1.80	0.45
24:YA:1562:A:H2'	24:YA:1563:G:C8	2.52	0.45
24:YA:1788:C:H5"	26:YD:225:ALA:HB1	1.99	0.45
24:YA:1826:G:H4'	26:YD:242:ARG:NE	2.32	0.45
24:YA:2661:G:H2'	24:YA:2662:A:C8	2.52	0.45
29:YG:63:ILE:HD12	29:YG:141:PHE:HD2	1.82	0.45
36:YR:113:LEU:HD11	50:Y5:58:LEU:HD23	1.98	0.45
43:YY:77:PRO:HD3	43:YY:106:LEU:HD23	1.99	0.45
45:Y0:38:VAL:HG22	45:Y0:59:LEU:HB2	1.97	0.45
46:Y1:53:VAL:C	46:Y1:55:GLY:H	2.25	0.45
1:QA:344:A:OP2	1:QA:345:C:N4	2.49	0.45
24:RA:322:A:OP2	28:RF:169:ASN:HB2	2.16	0.45
24:RA:2023:G:H5'	24:RA:2617:C:H4'	1.99	0.45
24:RA:2285:C:H5'	24:RA:2288:A:N6	2.31	0.45
24:RA:2749:A:H5'	30:RH:6:ARG:HD3	1.98	0.45
28:RF:186:ILE:HD12	28:RF:192:LEU:HD11	1.99	0.45
41:RW:9:TYR:CD1	41:RW:102:HIS:HE1	2.35	0.45
44:RZ:59:LEU:C	44:RZ:61:LEU:H	2.23	0.45
46:R1:87:PRO:HA	46:R1:90:ILE:HG13	1.98	0.45
1:XA:69:G:H2'	1:XA:73:G:C8	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:509:A:H3'	1:XA:509:A:OP2	2.16	0.45
1:XA:1347:G:C8	9:XI:107:ARG:HB3	2.52	0.45
24:YA:631:A:OP1	34:YP:64:LYS:HE2	2.16	0.45
24:YA:1022:G:O2'	24:YA:1023:U:OP2	2.28	0.45
24:YA:1505:C:H2'	24:YA:1506:C:C6	2.51	0.45
24:YA:2182:G:H2'	24:YA:2183:C:C6	2.52	0.45
24:YA:2717:G:H1'	38:YT:96:ARG:NH2	2.31	0.45
25:YB:57:A:C8	29:YG:27:ASN:ND2	2.85	0.45
31:YI:74:ASN:OD1	31:YI:75:LEU:N	2.46	0.45
35:YQ:41:TRP:HB3	35:YQ:94:VAL:HB	1.99	0.45
37:YS:28:VAL:HG11	37:YS:98:VAL:HG12	1.99	0.45
1:QA:768:A:N3	1:QA:1512:U:O2'	2.50	0.45
1:QA:1073:U:C2	1:QA:1074:G:C8	3.04	0.45
1:QA:1281:U:H5"	1:QA:1282:C:H5	1.82	0.45
1:QA:1372:U:OP1	9:QI:72:GLY:N	2.49	0.45
2:QB:88:ALA:HB2	2:QB:219:VAL:HG13	1.98	0.45
3:QC:120:VAL:HA	3:QC:123:GLN:HG2	1.99	0.45
12:QL:57:LYS:HA	12:QL:67:THR:HA	1.99	0.45
22:QV:15:G:H1	22:QV:49:C:H5	1.63	0.45
24:RA:38:A:H2'	24:RA:39:C:C6	2.51	0.45
24:RA:458:G:O2'	24:RA:469:G:O6	2.31	0.45
24:RA:903:C:H2'	24:RA:904:C:C6	2.49	0.45
24:RA:1064:C:H2'	24:RA:1065:U:O4'	2.17	0.45
25:RB:84:C:OP1	48:R3:15:TYR:OH	2.35	0.45
35:RQ:68:ILE:HD13	35:RQ:97:VAL:HG12	1.99	0.45
40:RV:99:ILE:H	40:RV:99:ILE:HG13	1.70	0.45
1:XA:626:U:H2'	1:XA:627:G:H8	1.81	0.45
22:XV:17:C:H3'	22:XV:18:U:H2'	1.99	0.45
24:YA:29:U:H4'	39:YU:7:GLY:O	2.17	0.45
24:YA:507:A:H5"	24:YA:508:G:H5'	1.98	0.45
24:YA:1664:A:H61	24:YA:1996:C:H42	1.63	0.45
30:YH:99:VAL:HG12	30:YH:104:GLU:HB2	1.99	0.45
35:YQ:43:THR:HG22	35:YQ:94:VAL:HG12	1.99	0.45
35:YQ:66:ILE:HG13	35:YQ:67:ARG:N	2.31	0.45
36:YR:96:ARG:O	36:YR:114:VAL:HA	2.16	0.45
42:YX:28:PHE:CE1	42:YX:92:LEU:HD11	2.52	0.45
49:Y4:61:ARG:HD2	49:Y4:62:ARG:HA	1.97	0.45
1:QA:645:C:H2'	1:QA:646:U:H6	1.82	0.45
1:QA:1443:G:H5'	1:QA:1446:A:OP2	2.17	0.45
18:QR:85:LEU:HD23	18:QR:88:LYS:HD2	1.98	0.45
24:RA:468:G:H2'	24:RA:469:G:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:612:G:N2	24:RA:617:G:C5	2.84	0.45
24:RA:1709:U:H2'	24:RA:1710:C:H6	1.81	0.45
24:RA:1790:C:H5"	24:RA:1791:A:OP1	2.17	0.45
24:RA:2373:G:H2'	24:RA:2374:C:C6	2.52	0.45
24:RA:2649:U:H2'	24:RA:2650:U:H6	1.82	0.45
26:RD:145:VAL:HG22	26:RD:191:ALA:HB1	1.99	0.45
28:RF:64:ILE:HG21	28:RF:78:ILE:HD11	1.98	0.45
30:RH:127:GLU:O	30:RH:129:THR:N	2.50	0.45
51:R6:11:LEU:HB3	51:R6:49:HIS:HB3	1.97	0.45
1:XA:542:G:O3'	4:XD:14:ARG:NH2	2.42	0.45
1:XA:560:U:H5'	1:XA:566:G:N2	2.32	0.45
1:XA:659:U:H2'	1:XA:660:G:H8	1.82	0.45
1:XA:777:A:H2'	1:XA:778:G:C8	2.51	0.45
1:XA:997:U:N3	1:XA:998:G:N7	2.65	0.45
3:XC:108:ASN:ND2	3:XC:111:LEU:HD13	2.31	0.45
8:XH:123:GLU:O	8:XH:127:LEU:HD13	2.17	0.45
13:XM:45:VAL:HA	13:XM:48:LEU:HD23	1.98	0.45
24:YA:1492:G:H3'	24:YA:1493:C:H5'	1.97	0.45
24:YA:1935:G:H1'	24:YA:1964:G:N2	2.32	0.45
38:YT:94:ALA:HB1	38:YT:99:LEU:HD11	1.99	0.45
40:YV:7:THR:HG23	40:YV:22:VAL:HG11	1.99	0.45
44:YZ:59:LEU:O	44:YZ:61:LEU:N	2.41	0.45
44:YZ:124:ILE:CG2	44:YZ:163:LEU:HD11	2.47	0.45
52:Y7:29:LYS:HD3	52:Y7:32:LYS:HD2	1.99	0.45
1:QA:542:G:P	4:QD:10:ARG:HH22	2.40	0.45
1:QA:678:U:H2'	1:QA:679:C:C6	2.52	0.45
1:QA:791:G:N2	1:QA:1497:G:H4'	2.32	0.45
1:QA:1376:U:P	7:QG:94:ARG:HH21	2.40	0.45
9:QI:17:VAL:HG11	9:QI:80:GLY:C	2.41	0.45
9:QI:45:ALA:O	9:QI:48:GLU:HG2	2.16	0.45
19:QS:32:LYS:HB3	19:QS:57:HIS:CE1	2.52	0.45
24:RA:1079:C:H2'	24:RA:1080:C:O4'	2.17	0.45
24:RA:1085:A:O2'	24:RA:1086:A:OP1	2.35	0.45
24:RA:1389:G:H2'	24:RA:1390:U:H6	1.81	0.45
24:RA:1412:A:H2'	24:RA:1413:G:H8	1.82	0.45
24:RA:1590:U:H2'	24:RA:1591:G:H8	1.82	0.45
24:RA:1732:A:C2	24:RA:1733:G:H1'	2.52	0.45
24:RA:2246:G:H2'	24:RA:2247:A:H8	1.82	0.45
24:RA:2461:C:H2'	24:RA:2462:U:C6	2.52	0.45
25:RB:3:C:C2	25:RB:118:G:N2	2.85	0.45
26:RD:166:GLN:HB2	26:RD:174:ILE:HG13	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:RE:44:TYR:HE2	27:RE:80:GLU:OE2	2.00	0.45
30:RH:15:VAL:HG11	30:RH:79:VAL:HG21	1.99	0.45
42:RX:33:LYS:O	42:RX:33:LYS:HD3	2.17	0.45
44:RZ:19:ARG:NH1	44:RZ:84:GLU:HB2	2.32	0.45
50:R5:41:PRO:O	50:R5:44:THR:OG1	2.31	0.45
1:XA:676:A:H2'	1:XA:677:U:H6	1.81	0.45
1:XA:755:G:OP2	15:XO:65:ARG:HD2	2.17	0.45
1:XA:945:G:C2	1:XA:946:A:C8	3.04	0.45
1:XA:1127:G:C2	1:XA:1145:C:O2	2.70	0.45
1:XA:1179:A:H4'	9:XI:103:THR:HA	1.98	0.45
1:XA:1213:A:N6	1:XA:1215:G:N3	2.65	0.45
3:XC:47:LEU:HD23	3:XC:52:LEU:HD13	2.00	0.45
7:XG:38:LEU:O	7:XG:42:ILE:HG12	2.17	0.45
10:XJ:57:LYS:HE3	10:XJ:60:ARG:HH22	1.81	0.45
24:YA:863:A:H2'	24:YA:864:G:H8	1.81	0.45
24:YA:1084:A:O2'	24:YA:1106:G:H5'	2.17	0.45
24:YA:1097:U:H3'	24:YA:1098:A:H8	1.80	0.45
24:YA:1870:C:H2'	24:YA:1871:A:O4'	2.16	0.45
24:YA:2139:C:N3	24:YA:2153:G:N2	2.64	0.45
24:YA:2175:C:H2'	24:YA:2176:A:C8	2.52	0.45
24:YA:2415:G:H4'	34:YP:67:MET:N	2.31	0.45
35:YQ:20:ALA:HA	35:YQ:98:LYS:HD3	1.98	0.45
53:Y8:34:TRP:CE3	53:Y8:35:GLN:HB3	2.52	0.45
1:QA:730:G:C5	1:QA:731:G:H1'	2.52	0.44
1:QA:1148:U:H4'	9:QI:14:VAL:HG11	1.99	0.44
8:QH:51:VAL:HG21	8:QH:60:ARG:HB2	1.98	0.44
9:QI:10:ARG:HG3	9:QI:79:LEU:CD1	2.47	0.44
12:QL:32:PHE:HA	12:QL:85:ILE:O	2.17	0.44
17:QQ:42:TYR:HD2	17:QQ:59:ILE:HD11	1.82	0.44
24:RA:345:A:H2'	24:RA:347:A:H62	1.81	0.44
24:RA:435:C:H2'	24:RA:436:C:H5'	1.98	0.44
24:RA:813:U:H2'	24:RA:814:C:H6	1.82	0.44
24:RA:827:U:H1'	24:RA:2246:G:O2'	2.16	0.44
24:RA:1025:G:C4	24:RA:1135:C:H1'	2.52	0.44
24:RA:2029:G:H2'	24:RA:2031:A:OP1	2.17	0.44
34:RP:95:VAL:HB	34:RP:125:VAL:HG23	1.99	0.44
36:RR:38:VAL:HB	36:RR:39:PRO:HD3	1.99	0.44
37:RS:3:ARG:HG2	37:RS:4:LEU:HD23	1.98	0.44
38:RT:49:VAL:HG23	38:RT:62:THR:O	2.17	0.44
39:RU:34:LYS:HD3	39:RU:34:LYS:HA	1.70	0.44
41:RW:21:VAL:HG21	41:RW:76:VAL:HG23	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:R3:46:ASN:O	48:R3:50:VAL:HG22	2.17	0.44
1:XA:323:U:OP1	20:XT:23:ARG:HD3	2.17	0.44
1:XA:450:G:N7	1:XA:481:G:C6	2.85	0.44
1:XA:683:G:H2'	1:XA:684:A:C8	2.52	0.44
2:XB:109:SER:O	2:XB:112:VAL:HG22	2.18	0.44
3:XC:22:TRP:HZ3	3:XC:24:ALA:HB2	1.82	0.44
4:XD:187:ARG:NH1	4:XD:193:ASP:OD2	2.31	0.44
10:XJ:57:LYS:O	10:XJ:60:ARG:NH2	2.48	0.44
10:XJ:64:GLU:OE1	10:XJ:66:ARG:HG3	2.18	0.44
24:YA:612:G:N2	24:YA:617:G:C5	2.85	0.44
24:YA:666:G:N2	53:Y8:2:PRO:O	2.50	0.44
24:YA:728:G:H4'	26:YD:13:ARG:HD2	1.99	0.44
24:YA:910:A:C5	35:YQ:13:GLN:HG3	2.51	0.44
24:YA:1430:C:H2'	24:YA:1431:U:H6	1.81	0.44
24:YA:2395:C:H2'	24:YA:2396:G:O4'	2.17	0.44
29:YG:66:GLN:NE2	29:YG:93:THR:O	2.50	0.44
30:YH:121:ILE:HD11	30:YH:133:VAL:HG22	1.99	0.44
33:YO:63:VAL:HG12	33:YO:106:LEU:HD21	1.98	0.44
39:YU:92:ARG:HD2	40:YV:11:GLN:CD	2.42	0.44
44:YZ:54:HIS:CD2	44:YZ:101:PRO:HG3	2.52	0.44
1:QA:357:G:O2'	31:YI:89:TYR:O	2.29	0.44
1:QA:600:C:H2'	1:QA:601:C:C6	2.52	0.44
1:QA:1028:C:H2'	1:QA:1028(A):C:C6	2.52	0.44
1:QA:1236:A:O2'	1:QA:1334:G:N2	2.51	0.44
1:QA:1321:C:H3'	1:QA:1322:C:H5"	1.98	0.44
16:QP:69:THR:O	16:QP:72:ARG:HG3	2.18	0.44
24:RA:820:A:H4'	24:RA:836:G:H22	1.81	0.44
25:RB:44:G:H5"	25:RB:45:A:OP1	2.17	0.44
26:RD:90:ALA:HB3	26:RD:106:ILE:HD11	2.00	0.44
31:RI:128:LEU:O	31:RI:137:PRO:HA	2.17	0.44
38:RT:26:ASP:HB2	38:RT:90:GLN:O	2.17	0.44
40:RV:54:GLY:O	40:RV:100:ARG:NH1	2.50	0.44
44:RZ:91:LEU:HD13	44:RZ:130:PRO:HB3	1.99	0.44
1:XA:728:A:H2'	1:XA:729:A:H8	1.82	0.44
1:XA:760:G:O2'	17:XQ:98:LEU:HD23	2.17	0.44
1:XA:939:G:H2'	1:XA:940:C:C6	2.52	0.44
2:XB:106:LYS:O	2:XB:110:GLN:HG3	2.18	0.44
16:XP:43:LYS:HE3	16:XP:48:TRP:CD2	2.53	0.44
17:XQ:18:THR:OG1	17:XQ:69:LYS:NZ	2.28	0.44
18:XR:31:LEU:HD23	18:XR:31:LEU:H	1.82	0.44
24:YA:507:A:C5'	24:YA:508:G:H5'	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:797:C:OP2	28:YF:62:ARG:HB3	2.16	0.44
24:YA:911:A:H2'	35:YQ:9:TYR:HE2	1.82	0.44
24:YA:2369:A:H2'	24:YA:2370:G:H8	1.81	0.44
24:YA:2572:A:OP1	24:YA:2574:G:O2'	2.29	0.44
24:YA:2648:C:H2'	24:YA:2649:U:H6	1.82	0.44
24:YA:2747:G:O6	24:YA:2755:C:H5"	2.17	0.44
28:YF:123:LEU:HD13	28:YF:192:LEU:HD23	2.00	0.44
37:YS:27:SER:HA	37:YS:88:ASP:HB3	1.98	0.44
53:Y8:26:LYS:HG2	53:Y8:47:LYS:HD2	1.98	0.44
1:QA:168:G:H2'	1:QA:169:C:H5"	2.00	0.44
1:QA:683:G:C6	1:QA:684:A:C6	3.05	0.44
1:QA:976:G:OP2	1:QA:1358:U:O2'	2.28	0.44
2:QB:204:ASN:HB3	2:QB:210:SER:OG	2.17	0.44
3:QC:12:LEU:O	3:QC:18:TRP:NE1	2.31	0.44
4:QD:3:ARG:HH11	4:QD:118:ARG:HG3	1.82	0.44
9:QI:83:ARG:HB2	9:QI:102:LEU:HD13	1.99	0.44
24:RA:345:A:H5"	24:RA:346:A:OP1	2.16	0.44
24:RA:606:U:H4'	24:RA:658:C:H4'	1.99	0.44
24:RA:824:A:H1'	24:RA:2358:G:N7	2.33	0.44
24:RA:1178:C:H4'	24:RA:1179:C:OP1	2.16	0.44
24:RA:1309:G:H4'	52:R7:7:PRO:HB2	1.99	0.44
24:RA:1346:G:C6	24:RA:1601:G:C6	3.06	0.44
24:RA:1754:C:H2'	24:RA:1755:A:C8	2.52	0.44
24:RA:2064:C:H2'	24:RA:2065:C:H6	1.82	0.44
24:RA:2118:U:H3	24:RA:2148:G:H4'	1.81	0.44
24:RA:2779:U:O2'	24:RA:2781:A:N7	2.50	0.44
26:RD:81:ALA:HB3	26:RD:94:LEU:HB3	1.99	0.44
26:RD:182:LEU:HB2	26:RD:271:ILE:HB	1.99	0.44
29:RG:68:PRO:HG2	29:RG:90:LEU:HD23	2.00	0.44
30:RH:103:LEU:HD13	30:RH:123:PHE:CZ	2.52	0.44
49:R4:62:ARG:NH2	49:R4:65:ASP:OD2	2.51	0.44
1:XA:978:A:C4	1:XA:1319:A:C2	3.04	0.44
1:XA:1151:A:H1'	10:XJ:39:PRO:CG	2.47	0.44
2:XB:70:PHE:HD2	2:XB:85:ALA:HB2	1.82	0.44
5:XE:107:ARG:HG2	5:XE:111:GLU:OE1	2.17	0.44
13:XM:56:LEU:O	13:XM:60:VAL:HG22	2.16	0.44
24:YA:265:A:N6	24:YA:428:A:C8	2.85	0.44
24:YA:1317:A:H2'	24:YA:1318:C:C6	2.52	0.44
24:YA:2018:G:C6	24:YA:2019:A:C6	3.05	0.44
24:YA:2248:C:H2'	24:YA:2249:U:O4'	2.18	0.44
24:YA:2777:G:OP2	24:YA:2781:A:O2'	2.21	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:YD:132:PRO:HG3	26:YD:190:TYR:CE1	2.51	0.44
31:YI:57:ARG:HH11	31:YI:61:ARG:NH1	2.13	0.44
34:YP:88:LEU:HD13	34:YP:125:VAL:HG11	1.98	0.44
44:YZ:14:LYS:HA	44:YZ:15:PRO:HD3	1.88	0.44
47:Y2:66:GLU:HA	47:Y2:69:ARG:HH21	1.82	0.44
1:QA:320:C:HO2'	1:QA:1435:G:HO2'	1.61	0.44
1:QA:651:C:N4	1:QA:753:A:OP2	2.50	0.44
1:QA:792:A:H4'	1:QA:793:U:O5'	2.17	0.44
1:QA:923:A:H2'	1:QA:924:C:C6	2.53	0.44
8:QH:12:ARG:NH1	8:QH:25:ASP:O	2.45	0.44
8:QH:84:ARG:HE	8:QH:85:ARG:H	1.65	0.44
24:RA:213:A:H2'	24:RA:214:G:O4'	2.17	0.44
24:RA:396:G:N3	46:R1:42:GLN:NE2	2.65	0.44
24:RA:561:G:H1'	39:RU:45:TYR:CE1	2.53	0.44
24:RA:1282:U:H2'	24:RA:1283:G:O4'	2.17	0.44
24:RA:2612:C:P	50:R5:2:ALA:N	2.91	0.44
36:RR:44:LEU:HD23	36:RR:114:VAL:HG11	1.99	0.44
42:RX:60:ARG:HH22	52:R7:47:ARG:NH2	2.15	0.44
43:RY:13:VAL:HB	43:RY:72:VAL:HG22	1.99	0.44
1:XA:130:A:H1'	1:XA:264:U:H5'	2.00	0.44
1:XA:1010:G:H2'	1:XA:1011:G:C8	2.53	0.44
9:XI:97:LYS:HB3	9:XI:98:PRO:HD3	1.98	0.44
24:YA:238:C:H2'	24:YA:239:U:O4'	2.17	0.44
24:YA:396:G:H1'	46:Y1:42:GLN:OE1	2.17	0.44
24:YA:675:A:N3	24:YA:2443:C:O2'	2.48	0.44
24:YA:744:G:OP1	27:YE:132:HIS:HA	2.17	0.44
24:YA:1138:G:N2	32:YN:106:MET:HE3	2.16	0.44
24:YA:1790:C:H2'	24:YA:1791:A:C5	2.53	0.44
24:YA:2127:G:O6	24:YA:2162:G:H1'	2.17	0.44
24:YA:2363:C:O2'	45:Y0:39:ARG:NH2	2.49	0.44
25:YB:19:G:H2'	25:YB:20:C:O4'	2.17	0.44
27:YE:167:VAL:HG23	27:YE:170:LEU:HD11	2.00	0.44
37:YS:88:ASP:O	37:YS:89:ARG:HB3	2.17	0.44
44:YZ:110:GLY:HA3	44:YZ:145:GLU:HG2	1.99	0.44
53:Y8:34:TRP:CZ3	53:Y8:35:GLN:HB3	2.52	0.44
1:QA:512:U:H2'	1:QA:513:C:H6	1.83	0.44
1:QA:522:C:H41	12:QL:53:ARG:HH22	1.66	0.44
1:QA:659:U:P	15:QO:8:LYS:HE3	2.58	0.44
1:QA:902:G:H2'	1:QA:903:G:H8	1.83	0.44
2:QB:54:THR:HG23	2:QB:199:TYR:HB3	1.99	0.44
3:QC:112:SER:HB3	3:QC:115:LEU:HD12	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:QF:22:GLU:O	6:QF:25:ILE:HG13	2.16	0.44
13:QM:102:ARG:HG2	13:QM:104:ARG:H	1.83	0.44
19:QS:10:PHE:HE2	19:QS:16:LEU:HB2	1.83	0.44
22:QV:35:C:HO2'	22:QV:36:A:P	2.41	0.44
24:RA:414:C:H1'	24:RA:1864:U:H1'	1.99	0.44
24:RA:587:C:H4'	24:RA:588:U:O5'	2.18	0.44
24:RA:686:G:H1	52:R7:16:HIS:CD2	2.35	0.44
24:RA:712:G:H2'	24:RA:713:G:H8	1.82	0.44
24:RA:860:U:H2'	24:RA:861:A:C8	2.48	0.44
24:RA:2298:A:H62	24:RA:2318:G:H8	1.64	0.44
24:RA:2540:C:O2'	24:RA:2740:A:N3	2.41	0.44
30:RH:11:VAL:HG22	30:RH:49:VAL:HG12	1.99	0.44
42:RX:47:PHE:O	42:RX:49:VAL:HG23	2.17	0.44
46:R1:60:PHE:HZ	46:R1:90:ILE:HD11	1.83	0.44
1:XA:160:A:H61	1:XA:347:G:H1'	1.82	0.44
1:XA:940:C:H2'	1:XA:941:G:H8	1.81	0.44
2:XB:118:LEU:HD11	2:XB:145:LEU:HD12	2.00	0.44
4:XD:101:LEU:HA	4:XD:104:VAL:HG22	1.99	0.44
5:XE:80:ILE:HG22	5:XE:91:LEU:HB2	2.00	0.44
6:XF:24:GLU:HG3	6:XF:28:ARG:HH21	1.83	0.44
24:YA:341:G:H2'	24:YA:342:G:O4'	2.18	0.44
24:YA:764:A:H5'	26:YD:210:GLY:HA2	2.00	0.44
24:YA:903:C:H2'	24:YA:904:C:H6	1.81	0.44
24:YA:1262:A:N3	50:Y5:10:LYS:NZ	2.64	0.44
24:YA:1472:A:H2'	24:YA:1473:G:O4'	2.18	0.44
24:YA:1945:G:H2'	24:YA:1946:U:C6	2.52	0.44
27:YE:2:LYS:HA	27:YE:84:PHE:CE1	2.52	0.44
27:YE:61:ARG:HH11	27:YE:61:ARG:HD2	1.63	0.44
35:YQ:75:THR:HG21	35:YQ:85:LYS:HE3	2.00	0.44
37:YS:32:LEU:O	37:YS:62:LYS:NZ	2.40	0.44
1:QA:116:A:H61	1:QA:313:A:H1'	1.82	0.44
1:QA:687:A:H2	1:QA:704:A:C6	2.36	0.44
1:QA:736:C:H2'	1:QA:737:A:H8	1.81	0.44
1:QA:768:A:H5'	1:QA:1524:C:H1'	2.00	0.44
1:QA:1060:C:H4'	10:QJ:51:ARG:CB	2.48	0.44
1:QA:1429:C:H2'	1:QA:1430:C:C6	2.52	0.44
6:QF:20:ALA:O	6:QF:23:LYS:HG3	2.18	0.44
11:QK:81:ASP:OD1	11:QK:106:LYS:HB3	2.18	0.44
18:QR:37:VAL:O	18:QR:41:LYS:HG2	2.17	0.44
24:RA:969:U:OP1	48:R3:17:LYS:HG3	2.17	0.44
24:RA:1430:C:H2'	24:RA:1431:U:H6	1.80	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:2364:C:H2'	24:RA:2365:G:O4'	2.18	0.44
24:RA:2444:G:P	28:RF:68:LYS:HD2	2.57	0.44
24:RA:2649:U:H2'	24:RA:2650:U:C6	2.53	0.44
27:RE:170:LEU:HD22	27:RE:185:LYS:HB3	2.00	0.44
30:RH:90:LYS:HD3	30:RH:163:TYR:HD2	1.83	0.44
44:RZ:126:VAL:HG12	44:RZ:163:LEU:HD23	2.00	0.44
1:XA:140:A:H2	1:XA:182:U:H3	1.65	0.44
1:XA:745:C:O3'	1:XA:836:G:N2	2.47	0.44
1:XA:1210:C:O2'	1:XA:1213:A:O2'	2.29	0.44
9:XI:34:ASN:O	9:XI:38:GLN:HB3	2.18	0.44
16:XP:69:THR:O	16:XP:72:ARG:HG3	2.18	0.44
24:YA:448:U:C4	24:YA:583:G:H1'	2.53	0.44
24:YA:828:U:H2'	24:YA:829:A:C8	2.52	0.44
24:YA:1178:C:H2'	24:YA:1179:C:H6	1.82	0.44
24:YA:1287:A:C8	36:YR:107:ASP:HB2	2.53	0.44
24:YA:1636:C:H2'	24:YA:1637:A:C8	2.53	0.44
25:YB:13:A:N1	25:YB:69:G:O2'	2.50	0.44
28:YF:34:TRP:CZ3	34:YP:8:PRO:HB3	2.52	0.44
39:YU:61:TRP:HB3	39:YU:93:LYS:O	2.18	0.44
44:YZ:1:MET:HG2	44:YZ:2:GLU:H	1.82	0.44
1:QA:543:C:OP2	4:QD:10:ARG:NH2	2.51	0.44
1:QA:600:C:H2'	1:QA:601:C:H6	1.83	0.44
1:QA:768:A:H4'	1:QA:1523:G:N2	2.32	0.44
1:QA:848:C:H2'	1:QA:849:C:C6	2.52	0.44
2:QB:47:THR:HA	2:QB:202:PRO:HG2	2.00	0.44
3:QC:23:TYR:HB3	10:QJ:93:GLY:O	2.18	0.44
5:QE:142:LEU:O	5:QE:143:ARG:HD3	2.17	0.44
17:QQ:83:ASP:OD1	17:QQ:84:LEU:N	2.51	0.44
24:RA:205:G:O2'	24:RA:206:U:OP2	2.35	0.44
24:RA:947:G:H2'	24:RA:948:G:C8	2.52	0.44
24:RA:2611:U:H2'	50:R5:2:ALA:O	2.18	0.44
27:RE:14:ILE:HD13	27:RE:173:VAL:HG11	1.98	0.44
30:RH:97:ARG:HE	30:RH:98:LEU:H	1.66	0.44
35:RQ:80:GLU:OE1	45:R0:7:LEU:HG	2.17	0.44
42:RX:11:PRO:HD3	47:R2:37:PHE:CD1	2.52	0.44
45:R0:48:GLY:HA3	45:R0:80:HIS:ND1	2.33	0.44
1:XA:266:G:O2'	1:XA:267:C:OP2	2.32	0.44
1:XA:816:A:OP2	1:XA:1527:C:H5'	2.18	0.44
2:XB:16:HIS:HA	2:XB:210:SER:OG	2.18	0.44
4:XD:79:PHE:HE1	4:XD:204:ILE:HD13	1.83	0.44
7:XG:95:ARG:O	7:XG:99:LEU:HG	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:XO:26:GLU:OE2	15:XO:77:ARG:NH2	2.51	0.44
20:XT:73:HIS:O	20:XT:74:LYS:O	2.34	0.44
24:YA:662:G:H5"	34:YP:17:LYS:HG2	2.00	0.44
24:YA:774:A:O2'	24:YA:777:A:N3	2.50	0.44
24:YA:1614:A:N1	41:YW:91:GLY:HA2	2.32	0.44
24:YA:1782:C:H1'	24:YA:2609:U:H5"	2.00	0.44
24:YA:1992:G:H5'	24:YA:1994:C:H41	1.83	0.44
24:YA:2141:G:H2'	24:YA:2142:C:C6	2.51	0.44
24:YA:2355:C:H4'	45:Y0:24:LYS:HD2	1.98	0.44
27:YE:29:GLY:HA2	27:YE:180:ASN:HB3	1.99	0.44
29:YG:25:TYR:HD2	29:YG:31:VAL:HG12	1.81	0.44
38:YT:3:ARG:HG2	38:YT:6:LEU:HD12	2.00	0.44
48:Y3:26:LEU:O	48:Y3:35:ARG:NE	2.50	0.44
48:Y3:40:THR:HB	48:Y3:43:ILE:HG12	1.99	0.44
1:QA:139:G:H2'	1:QA:140:A:H8	1.83	0.44
1:QA:522:C:H41	12:QL:53:ARG:NH2	2.16	0.44
1:QA:677:U:O2	1:QA:777:A:O2'	2.36	0.44
1:QA:892:A:H2'	1:QA:893:C:C6	2.52	0.44
1:QA:1032(A):G:H2'	1:QA:1032(B):G:H8	1.82	0.44
1:QA:1288:A:N3	1:QA:1352:C:O2'	2.44	0.44
5:QE:143:ARG:NH1	8:QH:77:GLU:OE2	2.51	0.44
13:QM:10:PRO:HB2	13:QM:18:ALA:HB1	1.99	0.44
13:QM:50:GLU:HA	13:QM:53:VAL:HG22	1.99	0.44
20:QT:89:ARG:HD3	20:QT:104:LEU:HD13	1.98	0.44
22:QV:1:C:O3'	35:RQ:87:LYS:NZ	2.51	0.44
24:RA:330:A:O2'	24:RA:331:A:H2'	2.17	0.44
24:RA:524:U:H2'	24:RA:525:U:C6	2.53	0.44
24:RA:785:G:O2'	24:RA:1779:U:H5"	2.18	0.44
24:RA:1021:A:H3'	24:RA:1022:G:H5"	2.00	0.44
24:RA:1473:G:H2'	24:RA:1474:C:O4'	2.18	0.44
24:RA:1686:C:H3'	24:RA:1687:G:H8	1.82	0.44
24:RA:1831:G:H2'	24:RA:1832:C:C6	2.53	0.44
24:RA:2291:U:H2'	24:RA:2292:C:H6	1.82	0.44
24:RA:2341:G:H2'	24:RA:2342:C:H6	1.82	0.44
24:RA:2821:A:H2'	24:RA:2822:G:C8	2.53	0.44
29:RG:107:LEU:HD21	29:RG:178:PHE:CD1	2.53	0.44
38:RT:48:ILE:HD11	38:RT:114:LEU:HD13	2.00	0.44
44:RZ:114:GLY:HA3	44:RZ:177:PRO:HG3	1.99	0.44
47:R2:26:ARG:HG2	47:R2:29:LYS:HE3	1.99	0.44
1:XA:1435:G:H2'	1:XA:1436:U:H6	1.82	0.44
2:XB:70:PHE:HB3	2:XB:81:VAL:HG13	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:XC:134:ILE:HD11	3:XC:153:VAL:HG12	2.00	0.44
4:XD:104:VAL:HG11	4:XD:140:VAL:HG21	1.99	0.44
8:XH:11:THR:HG22	8:XH:14:ARG:NH1	2.33	0.44
12:XL:43:VAL:HG23	12:XL:93:LEU:HD22	1.99	0.44
12:XL:69:TYR:HB2	12:XL:96:VAL:HG11	2.00	0.44
17:XQ:64:PRO:HB3	17:XQ:70:ARG:NH1	2.33	0.44
22:XV:24:C:H2'	22:XV:25:U:H6	1.83	0.44
24:YA:116:C:H2'	24:YA:117:G:O4'	2.17	0.44
24:YA:142:G:H2'	24:YA:143:C:C6	2.52	0.44
24:YA:534:U:H2'	24:YA:535:C:C6	2.53	0.44
24:YA:1336:A:H2'	24:YA:1337:G:H8	1.83	0.44
24:YA:1636:C:H2'	24:YA:1637:A:H8	1.83	0.44
24:YA:2065:C:H2'	24:YA:2066:C:C6	2.52	0.44
34:YP:58:THR:O	34:YP:61:ARG:CD	2.66	0.44
35:YQ:79:LEU:HD23	35:YQ:79:LEU:O	2.17	0.44
45:Y0:23:VAL:HG13	45:Y0:38:VAL:HG12	2.00	0.44
1:QA:636:U:H5'	17:QQ:2:PRO:HG3	2.00	0.44
1:QA:945:G:C2	1:QA:946:A:C8	3.05	0.44
1:QA:962:C:H2'	1:QA:963:G:H8	1.82	0.44
1:QA:1004:A:H2'	1:QA:1005:A:N3	2.33	0.44
1:QA:1006:C:H2'	1:QA:1007:C:C6	2.53	0.44
1:QA:1258:G:H2'	1:QA:1259:C:C6	2.53	0.44
19:QS:39:THR:HG22	19:QS:40:ILE:N	2.29	0.44
19:QS:69:HIS:HB3	19:QS:73:GLU:OE1	2.18	0.44
24:RA:273:G:C2	24:RA:273(A):G:C8	3.06	0.44
24:RA:372:G:O2'	24:RA:373:U:O5'	2.32	0.44
24:RA:478:A:N6	24:RA:480:A:N1	2.65	0.44
24:RA:1581:G:H2'	24:RA:1582:C:O4'	2.18	0.44
24:RA:1654:A:OP1	36:RR:2:ARG:HD3	2.17	0.44
24:RA:2250:G:C4	35:RQ:82:ARG:HG3	2.53	0.44
24:RA:2313:C:O4'	29:RG:40:ASN:ND2	2.51	0.44
24:RA:2400:G:H4'	51:R6:18:ARG:HE	1.83	0.44
25:RB:75:G:H1'	44:RZ:27:VAL:HG11	2.00	0.44
27:RE:71:GLY:O	27:RE:72:VAL:C	2.61	0.44
35:RQ:116:GLU:O	35:RQ:120:ILE:HG12	2.18	0.44
42:RX:60:ARG:NH1	52:R7:47:ARG:HH22	2.10	0.44
47:R2:35:LEU:HB3	47:R2:50:ILE:CD1	2.48	0.44
1:XA:329:A:C5	1:XA:332:G:C6	3.06	0.44
1:XA:563:A:H2'	1:XA:567:G:C8	2.52	0.44
1:XA:738:C:H5"	6:XF:69:GLU:HB2	1.99	0.44
1:XA:1127:G:H2'	1:XA:1128:C:C6	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1305:G:N2	1:XA:1331:G:H2'	2.33	0.44
1:XA:1499:A:H1'	1:XA:1520:G:H5'	2.00	0.44
2:XB:112:VAL:HG21	2:XB:156:LYS:HE2	1.99	0.44
5:XE:51:VAL:HB	5:XE:52:PRO:HD3	1.99	0.44
7:XG:42:ILE:HD12	7:XG:116:ALA:HB3	2.00	0.44
20:XT:89:ARG:HH11	20:XT:90:GLN:HE22	1.66	0.44
21:XU:17:THR:O	21:XU:22:ARG:NH1	2.50	0.44
24:YA:959:A:H2'	24:YA:960:A:C8	2.53	0.44
24:YA:1130:U:N3	27:YE:147:PRO:HB3	2.33	0.44
24:YA:1593:G:H2'	24:YA:1594:G:H8	1.82	0.44
24:YA:2155:G:H3'	24:YA:2156:G:H8	1.82	0.44
24:YA:2314:C:H2'	24:YA:2315:G:H8	1.82	0.44
24:YA:2487:G:H2'	24:YA:2488:A:C8	2.53	0.44
26:YD:31:LYS:HZ2	26:YD:34:VAL:HB	1.82	0.44
26:YD:37:LEU:HD23	26:YD:62:TYR:HD2	1.83	0.44
29:YG:37:VAL:HG12	29:YG:99:MET:HB2	1.99	0.44
44:YZ:10:ARG:O	44:YZ:36:LYS:HG3	2.17	0.44
44:YZ:30:ASN:OD1	44:YZ:33:LEU:HD23	2.18	0.44
44:YZ:112:ARG:HG3	44:YZ:113:ALA:N	2.33	0.44
45:Y0:69:PHE:CE1	45:Y0:79:VAL:HG13	2.53	0.44
1:QA:578:C:O2'	1:QA:728:A:N3	2.48	0.43
1:QA:1032:A:C5	1:QA:1032(A):G:H1'	2.53	0.43
1:QA:1072:G:H2'	1:QA:1073:U:H6	1.83	0.43
1:QA:1287:A:C2	1:QA:1353:G:H1'	2.53	0.43
5:QE:121:LYS:NZ	5:QE:123:LEU:HB3	2.33	0.43
9:QI:97:LYS:CG	9:QI:98:PRO:HD3	2.47	0.43
10:QJ:53:PRO:HG2	10:QJ:54:PHE:HD1	1.82	0.43
12:QL:117:ARG:HG3	12:QL:122:THR:HB	2.00	0.43
13:QM:115:LYS:O	13:QM:117:VAL:HG23	2.18	0.43
17:QQ:74:LEU:HB3	17:QQ:75:ARG:HE	1.83	0.43
20:QT:100:ILE:HG23	20:QT:102:GLY:H	1.83	0.43
24:RA:57:C:H2'	24:RA:58:G:O4'	2.18	0.43
24:RA:182:A:H2'	24:RA:183:C:H6	1.83	0.43
24:RA:270(T):G:H5"	46:R1:97:LEU:HD13	2.00	0.43
24:RA:322:A:H5'	24:RA:340:A:H1'	2.00	0.43
24:RA:691:C:H2'	24:RA:692:C:C6	2.53	0.43
24:RA:1277:G:H5"	36:RR:40:LYS:NZ	2.33	0.43
24:RA:2543:G:H2'	24:RA:2544:G:C8	2.53	0.43
24:RA:2776:A:H4'	24:RA:2777:G:H5"	1.99	0.43
27:RE:105:THR:HG23	27:RE:166:THR:HG22	2.00	0.43
37:RS:24:LEU:HD23	37:RS:39:ILE:HD12	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:RW:71:VAL:HA	41:RW:107:LEU:HD23	1.99	0.43
44:RZ:24:LEU:HD23	44:RZ:25:PRO:O	2.18	0.43
1:XA:8:A:N1	4:XD:57:ARG:NH1	2.66	0.43
1:XA:200:G:H2'	1:XA:201:C:O4'	2.18	0.43
1:XA:412:A:C6	4:XD:35:ARG:HG2	2.53	0.43
2:XB:87:ARG:NH2	2:XB:219:VAL:HG13	2.33	0.43
10:XJ:49:VAL:HG23	14:XN:41:ARG:HB2	1.99	0.43
10:XJ:79:ARG:HA	10:XJ:82:ILE:HG12	2.00	0.43
13:XM:65:LYS:HD2	13:XM:73:GLU:OE1	2.17	0.43
14:XN:33:VAL:HG12	14:XN:40:CYS:HA	1.99	0.43
16:XP:5:ARG:HH12	16:XP:28:ARG:HA	1.82	0.43
24:YA:526:A:N6	24:YA:2626:C:H4'	2.33	0.43
24:YA:582:G:H2'	24:YA:583:G:H8	1.83	0.43
24:YA:1021:A:H8	24:YA:1021:A:H3'	1.83	0.43
24:YA:1416:G:H2'	24:YA:1417:C:C6	2.53	0.43
24:YA:2331:G:N2	24:YA:2385:C:C4	2.86	0.43
24:YA:2701:C:H3'	24:YA:2702:U:C5'	2.42	0.43
25:YB:37:C:HO2'	37:YS:95:HIS:CE1	2.26	0.43
28:YF:110:LEU:HG	28:YF:202:PHE:HE1	1.82	0.43
28:YF:182:ASN:O	28:YF:186:ILE:HG12	2.17	0.43
29:YG:86:MET:O	29:YG:88:ILE:HG23	2.18	0.43
30:YH:164:TYR:HB2	30:YH:167:GLU:HB2	2.00	0.43
33:YO:79:PHE:HD1	38:YT:72:VAL:HG22	1.83	0.43
35:YQ:34:LEU:HB3	35:YQ:103:MET:O	2.18	0.43
44:YZ:54:HIS:CG	44:YZ:101:PRO:HG3	2.53	0.43
1:QA:186(F):C:H2'	1:QA:187:C:O4'	2.18	0.43
1:QA:272:C:H2'	1:QA:273:A:C8	2.51	0.43
1:QA:513:C:H2'	1:QA:514:C:H6	1.84	0.43
1:QA:583:A:H2'	1:QA:584:G:O4'	2.18	0.43
1:QA:1228:C:OP1	13:QM:115:LYS:N	2.48	0.43
1:QA:1350:A:OP2	9:QI:118:LYS:HD3	2.17	0.43
5:QE:81:GLU:HG2	5:QE:90:VAL:HG22	2.00	0.43
8:QH:4:ASP:HB2	8:QH:85:ARG:HH12	1.83	0.43
19:QS:36:ARG:HD2	19:QS:72:GLY:HA2	2.00	0.43
22:QV:75:C:O2'	22:QV:76:C:H5'	2.17	0.43
24:RA:1015:G:O6	24:RA:1148:A:N6	2.51	0.43
24:RA:2085:C:H2'	24:RA:2086:U:O4'	2.18	0.43
24:RA:2512:C:H2'	24:RA:2513:G:O4'	2.18	0.43
24:RA:2891:G:H5'	24:RA:2892:A:OP1	2.18	0.43
27:RE:61:ARG:O	27:RE:63:LEU:N	2.50	0.43
29:RG:33:ARG:H	29:RG:162:THR:HG1	1.61	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:RR:55:ALA:HA	36:RR:80:PHE:CE1	2.53	0.43
37:RS:14:VAL:O	37:RS:18:ILE:HG12	2.18	0.43
1:XA:27:G:C6	1:XA:557:G:N1	2.86	0.43
1:XA:512:U:H2'	1:XA:513:C:C6	2.53	0.43
1:XA:978:A:H61	1:XA:1316:G:H1'	1.83	0.43
12:XL:10:LEU:HB3	17:XQ:32:TYR:CE2	2.53	0.43
14:XN:39:LEU:HB2	14:XN:44:LEU:HD12	1.99	0.43
16:XP:9:PHE:CE2	16:XP:18:ARG:HD2	2.53	0.43
16:XP:79:VAL:HG13	16:XP:80:PHE:CD1	2.53	0.43
24:YA:224:G:O6	24:YA:419:C:O2'	2.37	0.43
24:YA:995:C:O2	32:YN:3:THR:HG23	2.17	0.43
24:YA:2099:U:C4	24:YA:2190:G:O6	2.71	0.43
24:YA:2700:C:C2'	24:YA:2701:C:H5'	2.47	0.43
25:YB:28:C:H2'	25:YB:29:A:O4'	2.18	0.43
31:YI:37:VAL:HG22	31:YI:38:LEU:H	1.83	0.43
38:YT:114:LEU:HD12	38:YT:114:LEU:O	2.18	0.43
47:Y2:18:PRO:HA	47:Y2:21:LEU:HD12	1.99	0.43
1:QA:1004:A:HO2'	1:QA:1036:G:H22	1.62	0.43
1:QA:1147:C:O2	9:QI:16:ARG:NH2	2.52	0.43
1:QA:1213:A:N6	1:QA:1215:G:N3	2.67	0.43
3:QC:19:GLU:O	3:QC:40:ARG:NH2	2.51	0.43
4:QD:21:LEU:HD21	4:QD:66:ARG:O	2.18	0.43
7:QG:89:MET:HE1	7:QG:156:TRP:HZ3	1.82	0.43
9:QI:4:TYR:CZ	9:QI:88:TYR:HB2	2.53	0.43
9:QI:112:LYS:HD2	9:QI:117:HIS:O	2.19	0.43
12:QL:126:LYS:O	12:QL:126:LYS:HG2	2.17	0.43
20:QT:29:LYS:HE3	20:QT:29:LYS:HB3	1.92	0.43
24:RA:210:C:H4'	24:RA:1367:A:H1'	2.00	0.43
24:RA:301:G:C4	24:RA:302:C:C5	3.06	0.43
24:RA:612:G:C2	24:RA:617:G:C6	3.06	0.43
24:RA:1475:G:H2'	24:RA:1476:C:C6	2.53	0.43
24:RA:1826:G:H2'	24:RA:1827:C:H6	1.83	0.43
24:RA:1937:A:N7	24:RA:1939:U:O2'	2.40	0.43
24:RA:2494:G:C2	24:RA:2495:G:C8	3.07	0.43
29:RG:34:LEU:CD1	29:RG:99:MET:HE2	2.49	0.43
36:RR:8:ARG:HH11	36:RR:39:PRO:HB3	1.84	0.43
37:RS:58:LEU:HD13	37:RS:59:LYS:N	2.34	0.43
39:RU:44:ASN:OD1	40:RV:75:PHE:HB3	2.18	0.43
44:RZ:6:LYS:HD3	44:RZ:8:TYR:CE1	2.53	0.43
44:RZ:6:LYS:CE	44:RZ:40:ASP:HB2	2.47	0.43
1:XA:49:U:C2	1:XA:361:G:N2	2.87	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:149:A:H2'	1:XA:150:C:C6	2.53	0.43
1:XA:410:G:H4'	1:XA:411:A:OP1	2.19	0.43
1:XA:939:G:H4'	7:XG:102:ARG:NH2	2.33	0.43
1:XA:1262:C:H2'	1:XA:1263:C:H6	1.84	0.43
8:XH:49:GLU:OE2	8:XH:62:TYR:OH	2.31	0.43
9:XI:63:ILE:HG21	9:XI:77:ILE:HD12	2.00	0.43
16:XP:67:THR:HG23	16:XP:70:ALA:H	1.83	0.43
19:XS:15:LEU:HD23	19:XS:15:LEU:H	1.83	0.43
22:XV:10:G:N2	22:XV:27:G:H1'	2.33	0.43
24:YA:77:C:OP1	47:Y2:59:ARG:HD3	2.18	0.43
24:YA:78:A:H2'	24:YA:79:G:H8	1.83	0.43
24:YA:265:A:H2'	24:YA:266:G:O4'	2.18	0.43
24:YA:630:G:N2	24:YA:633:A:OP2	2.37	0.43
24:YA:1726:G:H2'	24:YA:1727:U:C6	2.52	0.43
24:YA:1946:U:H2'	24:YA:1947:C:H6	1.84	0.43
24:YA:2688:U:OP1	24:YA:2713:A:N6	2.51	0.43
25:YB:29:A:H2'	25:YB:30:C:H6	1.84	0.43
26:YD:30:GLU:HG2	26:YD:63:ARG:HE	1.83	0.43
27:YE:143:ASN:OD1	27:YE:147:PRO:HD2	2.19	0.43
28:YF:116:ASP:OD1	28:YF:119:ARG:NH2	2.51	0.43
30:YH:97:ARG:NH1	30:YH:104:GLU:OE1	2.50	0.43
41:YW:20:VAL:HG23	41:YW:47:VAL:HG21	1.99	0.43
1:QA:12:U:H3	1:QA:22:G:H1	1.66	0.43
1:QA:110:C:H2'	1:QA:111:G:O4'	2.18	0.43
1:QA:171:A:H2'	1:QA:172:A:C8	2.53	0.43
1:QA:374:A:C6	1:QA:375:U:C4	3.06	0.43
1:QA:731:G:H5'	1:QA:766:A:H4'	2.00	0.43
1:QA:1262:C:H2'	1:QA:1263:C:H6	1.83	0.43
1:QA:1469:G:H2'	1:QA:1470:G:H8	1.83	0.43
2:QB:68:ILE:HG22	2:QB:90:MET:SD	2.59	0.43
4:QD:57:ARG:NH2	5:QE:107:ARG:HD3	2.33	0.43
5:QE:96:PRO:HA	5:QE:117:ASP:OD2	2.19	0.43
19:QS:36:ARG:HH11	19:QS:72:GLY:HA3	1.82	0.43
24:RA:566:U:O4	40:RV:78:LYS:HD3	2.18	0.43
24:RA:680:G:H2'	24:RA:681:G:H8	1.82	0.43
24:RA:851:U:OP1	48:R3:49:LYS:NZ	2.32	0.43
24:RA:1258:C:H2'	24:RA:1259:G:C8	2.54	0.43
24:RA:1710:C:O2'	24:RA:2858:C:N3	2.50	0.43
24:RA:2292:C:H2'	24:RA:2293:C:H6	1.83	0.43
24:RA:2816:C:O2	24:RA:2883:A:O2'	2.36	0.43
25:RB:50:G:OP1	37:RS:63:THR:HG23	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:RO:17:ARG:HH21	33:RO:47:ILE:HD13	1.83	0.43
42:RX:47:PHE:CD2	42:RX:89:ILE:HD13	2.53	0.43
45:R0:21:LEU:HD21	45:R0:41:ARG:NH2	2.33	0.43
47:R2:24:LEU:O	47:R2:28:LYS:HG2	2.17	0.43
1:XA:842:C:H5'	1:XA:843:U:OP1	2.18	0.43
2:XB:59:GLU:HG3	2:XB:221:LEU:HD11	1.99	0.43
24:YA:223:A:N1	24:YA:407:G:O2'	2.46	0.43
24:YA:839:U:H1'	24:YA:1191:G:H1'	2.00	0.43
24:YA:1826:G:OP1	26:YD:224:ALA:N	2.51	0.43
24:YA:2024:G:H2'	24:YA:2025:C:C6	2.53	0.43
24:YA:2422:A:N7	53:Y8:31:HIS:HE1	2.17	0.43
24:YA:2566:A:H4'	24:YA:2567:G:O5'	2.17	0.43
24:YA:2647:U:H2'	24:YA:2648:C:H6	1.83	0.43
26:YD:77:ALA:O	26:YD:116:GLN:HA	2.19	0.43
29:YG:129:GLY:O	29:YG:161:THR:HB	2.18	0.43
36:YR:64:ARG:O	36:YR:68:ARG:HG3	2.18	0.43
41:YW:82:LEU:HD23	41:YW:84:ARG:NH2	2.33	0.43
1:QA:255:G:H1'	17:QQ:16:GLN:OE1	2.17	0.43
1:QA:690:G:H2'	1:QA:691:G:O4'	2.19	0.43
1:QA:719:C:O2'	18:QR:49:LYS:HB3	2.17	0.43
1:QA:1104:G:C1'	2:QB:111:ARG:HH22	2.31	0.43
2:QB:212:GLN:CD	2:QB:235:SER:HB2	2.42	0.43
5:QE:51:VAL:HB	5:QE:52:PRO:HD3	2.00	0.43
9:QI:27:THR:HG23	9:QI:62:TYR:HD1	1.83	0.43
9:QI:117:HIS:CB	9:QI:121:ARG:HE	2.24	0.43
11:QK:18:ARG:HA	11:QK:81:ASP:H	1.83	0.43
24:RA:24:G:C6	24:RA:25:U:C4	3.06	0.43
24:RA:443:A:C4	28:RF:45:ARG:NH1	2.87	0.43
24:RA:527:C:H4'	24:RA:528:A:O4'	2.18	0.43
24:RA:1332:G:N2	24:RA:1609:A:O2'	2.52	0.43
24:RA:2002:G:OP1	36:RR:9:LYS:HD3	2.19	0.43
24:RA:2306:C:H2'	24:RA:2307:G:H21	1.82	0.43
24:RA:2566:A:H4'	24:RA:2567:G:O5'	2.19	0.43
24:RA:2592:G:C6	24:RA:2593:U:C4	3.07	0.43
24:RA:2745:C:H2'	24:RA:2746:U:H6	1.82	0.43
24:RA:2822:G:H5"	27:RE:159:HIS:CE1	2.54	0.43
28:RF:120:GLU:HG3	28:RF:122:LYS:HD3	2.00	0.43
28:RF:197:ASP:O	28:RF:199:TRP:N	2.48	0.43
34:RP:68:GLN:CD	34:RP:68:GLN:N	2.71	0.43
44:RZ:73:GLN:HB3	44:RZ:87:ASP:OD2	2.18	0.43
46:R1:18:ILE:HG12	46:R1:37:ILE:HG12	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:R4:59:PHE:HD2	49:R4:60:GLN:OE1	2.01	0.43
51:R6:26:ASN:HD22	51:R6:27:LYS:N	2.17	0.43
1:XA:266:G:H5'	1:XA:268:C:H41	1.82	0.43
1:XA:1343:G:H2'	1:XA:1344:C:C6	2.54	0.43
2:XB:205:ASP:OD1	2:XB:206:ASP:N	2.51	0.43
13:XM:58:GLU:O	13:XM:62:ASN:ND2	2.50	0.43
16:XP:6:LEU:HD13	16:XP:17:TYR:CG	2.53	0.43
20:XT:83:ARG:O	20:XT:87:LYS:HG3	2.17	0.43
24:YA:1971:A:N3	26:YD:239:ARG:O	2.52	0.43
24:YA:2389:G:H5"	24:YA:2390:U:O4'	2.18	0.43
25:YB:28:C:OP1	37:YS:31:SER:OG	2.37	0.43
26:YD:25:THR:HG21	26:YD:113:VAL:HG11	1.99	0.43
27:YE:31:CYS:HB3	27:YE:49:LEU:HB3	2.00	0.43
28:YF:124:LEU:HD23	28:YF:191:ARG:HH21	1.82	0.43
29:YG:114:ILE:HD11	29:YG:117:PHE:HD1	1.83	0.43
32:YN:95:PRO:C	32:YN:97:ARG:H	2.24	0.43
1:QA:1189:C:H5"	3:QC:5:ILE:HD13	2.00	0.43
3:QC:53:ALA:HB2	3:QC:115:LEU:HG	2.00	0.43
6:QF:46:ARG:NH2	18:QR:78:LEU:HD22	2.33	0.43
9:QI:46:ALA:HA	9:QI:78:LYS:HB3	2.01	0.43
9:QI:82:ALA:O	9:QI:86:VAL:HG23	2.18	0.43
17:QQ:92:ARG:HD3	17:QQ:95:TYR:CE2	2.46	0.43
24:RA:28:A:C2	24:RA:513:A:C8	3.06	0.43
24:RA:194:G:H2'	24:RA:195:A:O4'	2.18	0.43
24:RA:303:U:H2'	24:RA:304:G:H8	1.83	0.43
24:RA:412:A:N7	24:RA:2411:A:H2	2.17	0.43
24:RA:1540:G:H2'	24:RA:1541:U:C6	2.53	0.43
25:RB:7:G:H21	37:RS:38:GLN:HE22	1.66	0.43
25:RB:79:C:H2'	25:RB:80:U:O4'	2.18	0.43
30:RH:52:VAL:H	30:RH:69:ARG:NH2	2.17	0.43
34:RP:28:GLY:O	34:RP:29:LYS:HG2	2.19	0.43
34:RP:106:LEU:HD23	34:RP:112:LEU:HD23	2.01	0.43
53:R8:26:LYS:HE2	53:R8:47:LYS:HB3	1.99	0.43
1:XA:76:G:H1	1:XA:93:U:H3	1.65	0.43
1:XA:246:A:C2	1:XA:282:A:C5	3.07	0.43
1:XA:376:G:H4'	16:XP:5:ARG:HH11	1.84	0.43
1:XA:552:U:H2'	1:XA:553:A:C8	2.53	0.43
1:XA:1177:G:OP2	9:XI:97:LYS:HD2	2.18	0.43
5:XE:143:ARG:NE	8:XH:77:GLU:OE2	2.51	0.43
7:XG:16:LEU:HD11	9:XI:45:ALA:HB2	2.00	0.43
9:XI:3:GLN:OE1	9:XI:20:ARG:NH2	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:XK:65:ALA:HB3	11:XK:97:ALA:HB3	1.99	0.43
13:XM:7:VAL:HB	29:YG:115:ARG:HH21	1.84	0.43
17:XQ:50:LYS:HG3	17:XQ:51:TYR:CD1	2.53	0.43
24:YA:84:A:OP2	43:YY:8:LYS:HD3	2.19	0.43
24:YA:92:G:H2'	24:YA:93:C:C6	2.53	0.43
24:YA:666:G:H4'	34:YP:49:ARG:HH21	1.82	0.43
24:YA:764:A:N3	26:YD:213:ARG:NH1	2.65	0.43
24:YA:1021:A:H2'	24:YA:1023:U:H5'	1.99	0.43
24:YA:1191:G:OP1	34:YP:32:THR:HB	2.19	0.43
24:YA:1317:A:H2'	24:YA:1318:C:H6	1.84	0.43
24:YA:1400:G:H2'	24:YA:1401:G:H8	1.84	0.43
26:YD:231:HIS:HD2	26:YD:249:PRO:HG3	1.82	0.43
28:YF:178:PRO:HB3	28:YF:198:ALA:CB	2.49	0.43
30:YH:46:GLU:OE2	30:YH:51:ARG:NH1	2.51	0.43
32:YN:13:TRP:HB2	32:YN:133:GLN:O	2.18	0.43
39:YU:21:ALA:HA	39:YU:24:TYR:CE2	2.54	0.43
1:QA:41:G:H2'	1:QA:42:G:C8	2.53	0.43
1:QA:309:G:O2'	1:QA:607:A:N1	2.51	0.43
1:QA:922:G:H4'	5:QE:20:GLN:HA	1.99	0.43
1:QA:1288:A:H2'	1:QA:1289:A:C8	2.54	0.43
1:QA:1334:G:H5'	1:QA:1335:C:OP2	2.19	0.43
1:QA:1388:C:H2'	1:QA:1389:C:C6	2.54	0.43
8:QH:114:THR:HG22	8:QH:116:LYS:H	1.83	0.43
10:QJ:5:ARG:O	10:QJ:98:ILE:HA	2.19	0.43
10:QJ:78:ASN:HB2	10:QJ:81:THR:HG22	2.01	0.43
24:RA:1221:C:H2'	24:RA:1222:C:H6	1.84	0.43
24:RA:1509:C:N3	24:RA:1511:A:N6	2.67	0.43
24:RA:2590:A:H2'	24:RA:2591:C:H6	1.83	0.43
24:RA:2862:G:H2'	24:RA:2863:C:H6	1.83	0.43
26:RD:264:LYS:HD3	26:RD:265:PRO:HD2	2.01	0.43
30:RH:54:ARG:NH2	30:RH:57:ASP:OD1	2.52	0.43
33:RO:78:ARG:HH21	38:RT:103:ARG:NH2	2.17	0.43
37:RS:27:SER:HA	37:RS:88:ASP:HB3	2.00	0.43
44:RZ:52:SER:C	44:RZ:54:HIS:H	2.23	0.43
1:XA:186:C:O2'	20:XT:85:MET:HE2	2.19	0.43
4:XD:129:ASN:HB2	4:XD:131:ARG:NH1	2.34	0.43
9:XI:10:ARG:HG3	9:XI:11:LYS:HG2	2.01	0.43
12:XL:45:PRO:HB3	12:XL:92:ASP:HB3	2.00	0.43
24:YA:57:C:H2'	24:YA:58:G:O4'	2.17	0.43
24:YA:1231:G:H2'	24:YA:1232:G:C8	2.53	0.43
24:YA:1438:U:H2'	24:YA:1439:A:H8	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:1853:A:H2'	24:YA:1854:A:C8	2.53	0.43
24:YA:1972:A:H2'	24:YA:1973:G:C8	2.53	0.43
24:YA:2037:G:H2'	24:YA:2038:G:H8	1.83	0.43
24:YA:2648:C:H2'	24:YA:2649:U:C6	2.53	0.43
24:YA:2815:C:C5'	50:Y5:29:THR:HG21	2.48	0.43
25:YB:30:C:H1'	25:YB:57:A:H61	1.84	0.43
29:YG:37:VAL:HG13	29:YG:94:LEU:HB2	1.99	0.43
29:YG:113:ARG:HD2	49:Y4:33:VAL:HG13	2.00	0.43
38:YT:6:LEU:O	38:YT:10:VAL:HG23	2.17	0.43
41:YW:46:PHE:O	41:YW:50:VAL:HG23	2.18	0.43
50:Y5:33:CYS:HB3	50:Y5:40:LYS:HE3	1.99	0.43
1:QA:62:U:H2'	1:QA:63:C:C6	2.54	0.43
2:QB:70:PHE:O	2:QB:92:TYR:HA	2.19	0.43
3:QC:24:ALA:HB3	3:QC:29:TYR:HD1	1.83	0.43
7:QG:32:ARG:O	7:QG:35:LYS:HG2	2.18	0.43
16:QP:4:ILE:HA	16:QP:20:VAL:O	2.19	0.43
24:RA:994:C:OP1	39:RU:53:ARG:NH2	2.52	0.43
24:RA:1056:G:H21	24:RA:1103:A:H62	1.67	0.43
24:RA:1310:G:N2	24:RA:1313:U:C4	2.87	0.43
24:RA:2111:C:H41	24:RA:2147:G:N2	2.17	0.43
24:RA:2314:C:H2'	24:RA:2315:G:C8	2.54	0.43
29:RG:13:GLU:CD	29:RG:14:GLU:HG2	2.44	0.43
29:RG:82:LEU:HD21	29:RG:88:ILE:HG21	2.01	0.43
30:RH:53:GLU:HA	30:RH:65:HIS:NE2	2.33	0.43
32:RN:24:GLY:O	32:RN:28:THR:HG23	2.18	0.43
35:RQ:141:GLN:NE2	44:RZ:122:ARG:HH21	2.16	0.43
43:RY:97:ARG:HH21	43:RY:106:LEU:HD13	1.83	0.43
47:R2:16:LEU:HD21	47:R2:20:GLU:HB3	2.01	0.43
1:XA:181:G:O2'	1:XA:182:U:O5'	2.36	0.43
1:XA:272:C:H2'	1:XA:273:A:C8	2.49	0.43
1:XA:401:C:H2'	1:XA:402:G:C8	2.51	0.43
1:XA:411:A:P	4:XD:30:LYS:HZ2	2.42	0.43
1:XA:458:C:H2'	1:XA:464:G:O4'	2.19	0.43
1:XA:486:U:H2'	1:XA:487:A:C8	2.51	0.43
1:XA:1354:C:H2'	1:XA:1355:G:H8	1.84	0.43
3:XC:84:ILE:HG13	3:XC:101:LEU:HD23	2.00	0.43
7:XG:15:ASP:OD1	7:XG:16:LEU:N	2.47	0.43
7:XG:70:LYS:HB3	7:XG:96:GLN:HE21	1.83	0.43
9:XI:117:HIS:HB2	9:XI:121:ARG:HD2	1.99	0.43
11:XK:21:ILE:HD11	11:XK:98:LEU:HD11	2.00	0.43
20:XT:14:LYS:O	20:XT:18:GLN:HG2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:470:A:OP1	28:YF:59:TYR:HE1	2.00	0.43
24:YA:1014:U:H2'	24:YA:1015:G:H5"	2.00	0.43
24:YA:2605:U:H2'	24:YA:2606:C:C6	2.53	0.43
25:YB:8:U:O2'	37:YS:25:ARG:NH2	2.52	0.43
26:YD:118:VAL:HG23	26:YD:123:ALA:HB1	2.00	0.43
26:YD:176:ARG:HA	26:YD:181:GLU:O	2.18	0.43
1:QA:306:G:C2	1:QA:307:C:C6	3.07	0.43
1:QA:769:G:H4'	1:QA:1513:A:H4'	2.00	0.43
1:QA:1515:C:H2'	1:QA:1516:G:C8	2.54	0.43
4:QD:197:PRO:HD3	6:XF:16:GLN:HG3	2.00	0.43
24:RA:450:G:P	24:RA:1248:G:H22	2.42	0.43
24:RA:582:G:H2'	24:RA:583:G:C8	2.50	0.43
24:RA:866:A:C2	24:RA:914:C:H5'	2.54	0.43
24:RA:1638:C:H2'	24:RA:1639:U:O4'	2.19	0.43
24:RA:2354:G:H4'	45:R0:35:ASN:HD22	1.83	0.43
24:RA:2592:G:C5	24:RA:2593:U:C5	3.06	0.43
29:RG:161:THR:HG22	29:RG:163:ALA:H	1.84	0.43
34:RP:28:GLY:C	34:RP:30:THR:H	2.27	0.43
35:RQ:79:LEU:HD13	35:RQ:79:LEU:O	2.19	0.43
38:RT:3:ARG:HG3	38:RT:6:LEU:HB3	2.00	0.43
38:RT:123:GLN:C	38:RT:125:ARG:H	2.27	0.43
39:RU:52:ARG:HA	39:RU:55:ARG:HE	1.83	0.43
53:R8:4:MET:HE3	53:R8:61:LEU:HD11	2.01	0.43
1:XA:452:A:H2'	1:XA:453:A:H8	1.83	0.43
1:XA:828:A:H2'	1:XA:829:G:O4'	2.18	0.43
1:XA:1305:G:O2'	1:XA:1306:A:H8	2.02	0.43
1:XA:1347:G:OP2	9:XI:107:ARG:HG2	2.18	0.43
1:XA:1523:G:H2'	1:XA:1524:C:C6	2.54	0.43
3:XC:147:LYS:HE3	3:XC:203:PHE:CE2	2.54	0.43
8:XH:83:ILE:HG22	8:XH:137:VAL:HB	2.00	0.43
15:XO:53:HIS:NE2	24:YA:715:G:O6	2.37	0.43
23:XX:17:U:O2'	23:XX:18:G:H5'	2.18	0.43
24:YA:151:C:H2'	24:YA:152:G:C8	2.54	0.43
24:YA:262:A:H2'	24:YA:263:C:O4'	2.19	0.43
24:YA:814:C:H2'	24:YA:815:C:C6	2.54	0.43
24:YA:1106:G:C4	24:YA:1107:G:C8	3.07	0.43
24:YA:1432:C:H2'	24:YA:1433:U:O4'	2.18	0.43
24:YA:1590:U:H2'	24:YA:1591:G:H8	1.83	0.43
24:YA:1686:C:H3'	24:YA:1687:G:H8	1.84	0.43
24:YA:1791:A:H5'	26:YD:206:LEU:HD12	2.01	0.43
24:YA:1841:U:H2'	24:YA:1842:G:H8	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:2226:C:C2	24:YA:2227:A:C8	3.07	0.43
24:YA:2650:U:H2'	24:YA:2651:C:C6	2.54	0.43
24:YA:2712:U:HO2'	24:YA:2712(A):A:H8	1.52	0.43
44:YZ:155:LEU:HD23	44:YZ:155:LEU:H	1.84	0.43
48:Y3:8:LEU:HG	48:Y3:31:LEU:HD23	2.00	0.43
1:QA:260:G:H2'	1:QA:261:U:C6	2.54	0.43
1:QA:1107:C:C4	1:QA:1108:G:C8	3.07	0.43
17:QQ:45:HIS:CD2	17:QQ:47:PRO:HG3	2.54	0.43
24:RA:78:A:H2'	24:RA:79:G:C8	2.52	0.43
24:RA:264:C:O2'	24:RA:265:A:H5"	2.18	0.43
24:RA:528:A:H2	24:RA:2043:C:O5'	2.02	0.43
24:RA:631:A:H2'	24:RA:632:A:O4'	2.19	0.43
24:RA:1341:U:O2	42:RX:80:ILE:HG21	2.18	0.43
24:RA:2677:G:H2'	24:RA:2678:C:C6	2.54	0.43
24:RA:2695:C:H2'	24:RA:2696:U:H6	1.82	0.43
25:RB:16:G:N2	25:RB:69:G:H1'	2.34	0.43
26:RD:206:LEU:O	26:RD:211:ARG:HD3	2.19	0.43
33:RO:68:GLU:HG3	33:RO:78:ARG:HD3	2.01	0.43
39:RU:61:TRP:HB3	39:RU:93:LYS:O	2.18	0.43
44:RZ:151:HIS:CB	44:RZ:170:THR:HA	2.47	0.43
1:XA:19:C:H2'	1:XA:20:U:C6	2.54	0.43
1:XA:690:G:H22	11:XK:55:LYS:NZ	2.16	0.43
1:XA:1281:U:OP2	1:XA:1282:C:N4	2.52	0.43
2:XB:189:ASP:HB3	2:XB:203:GLY:O	2.19	0.43
7:XG:99:LEU:HD13	7:XG:103:TRP:CH2	2.54	0.43
9:XI:13:ALA:HB2	9:XI:68:GLY:HA3	2.00	0.43
19:XS:63:THR:HG22	19:XS:64:GLU:H	1.83	0.43
24:YA:270:A:C2	24:YA:366:C:H4'	2.54	0.43
24:YA:847:U:H3	24:YA:934:G:N2	2.17	0.43
24:YA:881:G:O6	24:YA:895:U:C2	2.72	0.43
24:YA:1165:U:H3	24:YA:1184:G:H1	1.67	0.43
24:YA:1477:A:H2'	24:YA:1478:G:O4'	2.19	0.43
24:YA:1604:C:C2	24:YA:1605:C:C5	3.07	0.43
24:YA:2008:C:H2'	24:YA:2009:G:H8	1.83	0.43
24:YA:2399:G:C6	24:YA:2418:A:C6	3.07	0.43
29:YG:15:VAL:HG13	29:YG:175:LEU:HB2	2.00	0.43
54:Y9:27:CYS:SG	54:Y9:28:GLU:N	2.92	0.43
1:QA:536:C:H2'	1:QA:537:G:H8	1.84	0.42
1:QA:673:G:H1'	18:QR:75:ILE:HD12	2.00	0.42
1:QA:678:U:H2'	1:QA:679:C:H6	1.83	0.42
1:QA:771:G:H2'	1:QA:772:U:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:940:C:H2'	1:QA:941:G:C8	2.54	0.42
1:QA:1203:C:H2'	1:QA:1204:A:C8	2.54	0.42
1:QA:1347:G:H22	1:QA:1374:A:P	2.34	0.42
2:QB:189:ASP:HB3	2:QB:203:GLY:O	2.19	0.42
10:QJ:50:ILE:HG12	14:QN:41:ARG:NH1	2.34	0.42
10:QJ:78:ASN:HB2	10:QJ:81:THR:CG2	2.49	0.42
13:QM:57:ARG:O	13:QM:61:GLU:HB2	2.19	0.42
24:RA:242:G:O2'	24:RA:254:G:O6	2.24	0.42
24:RA:249:C:OP2	24:RA:2394:C:O2'	2.32	0.42
24:RA:478:A:C6	24:RA:480:A:C6	3.07	0.42
24:RA:598:G:H1'	34:RP:12:ALA:HB2	2.01	0.42
24:RA:864:G:H21	24:RA:866:A:N6	2.16	0.42
24:RA:1106:G:H2'	24:RA:1107:G:C8	2.53	0.42
24:RA:2257:U:H2'	24:RA:2258:C:C6	2.54	0.42
24:RA:2312:U:H5'	29:RG:88:ILE:HD11	2.01	0.42
24:RA:2314:C:H5'	29:RG:38:VAL:HG11	2.00	0.42
34:RP:82:GLY:HA3	34:RP:115:LEU:HD21	2.00	0.42
35:RQ:81:VAL:HG13	35:RQ:82:ARG:N	2.34	0.42
44:RZ:5:LEU:HD12	44:RZ:59:LEU:HD23	2.01	0.42
1:XA:360:A:H2'	1:XA:361:G:C8	2.54	0.42
1:XA:731:G:OP1	1:XA:766:A:H1'	2.19	0.42
1:XA:859:A:H2'	1:XA:860:A:O4'	2.19	0.42
1:XA:1074:G:O2'	1:XA:1101:A:N1	2.49	0.42
8:XH:6:ILE:H	8:XH:6:ILE:HD12	1.83	0.42
12:XL:36:VAL:HG12	12:XL:82:VAL:HG22	2.00	0.42
19:XS:19:VAL:HG21	19:XS:44:MET:SD	2.59	0.42
24:YA:184:C:H2'	24:YA:185:U:H6	1.82	0.42
24:YA:780:G:H21	24:YA:783:A:H62	1.67	0.42
24:YA:1006:C:H5'	32:YN:28:THR:HG23	2.01	0.42
24:YA:1401:G:H2'	24:YA:1402:C:C6	2.53	0.42
24:YA:2161:C:H2'	24:YA:2162:G:H8	1.84	0.42
24:YA:2572:A:OP2	27:YE:144:ARG:HB3	2.19	0.42
25:YB:95:U:H2'	25:YB:96:G:H8	1.81	0.42
30:YH:40:GLU:CD	30:YH:60:ARG:HH12	2.27	0.42
1:QA:6:G:O6	5:QE:95:ALA:N	2.50	0.42
1:QA:52:G:H2'	1:QA:53:A:H8	1.84	0.42
1:QA:57:G:H2'	1:QA:58:C:H6	1.84	0.42
1:QA:581:G:OP1	15:QO:61:GLY:HA3	2.19	0.42
1:QA:687:A:C2	1:QA:704:A:C5	3.07	0.42
1:QA:1074:G:O4'	2:QB:104:ASN:HB2	2.19	0.42
2:QB:109:SER:HA	2:QB:112:VAL:HG22	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:QB:121:LEU:O	2:QB:121:LEU:HD13	2.19	0.42
13:QM:91:ARG:HB2	13:QM:98:VAL:HG23	2.00	0.42
20:QT:85:MET:HA	20:QT:88:VAL:HG22	2.01	0.42
24:RA:296:C:H2'	24:RA:297:C:H6	1.84	0.42
24:RA:646:A:H2'	24:RA:647:G:O4'	2.19	0.42
24:RA:1313:U:C2	24:RA:1610:A:H2	2.37	0.42
24:RA:1426:G:OP2	24:RA:1427:A:O2'	2.29	0.42
24:RA:1651:G:H4'	36:RR:39:PRO:HG2	2.01	0.42
28:RF:47:GLY:HA3	28:RF:95:ARG:O	2.19	0.42
28:RF:164:ARG:O	28:RF:168:ARG:HG3	2.19	0.42
29:RG:27:ASN:OD1	29:RG:28:VAL:N	2.50	0.42
43:RY:8:LYS:HG3	43:RY:97:ARG:NH1	2.34	0.42
52:R7:17:GLY:O	52:R7:21:ARG:HG2	2.18	0.42
1:XA:1206:G:O4'	3:XC:194:GLY:HA2	2.19	0.42
1:XA:1255:G:P	10:XJ:45:ARG:HH22	2.42	0.42
10:XJ:29:ARG:NH2	10:XJ:84:GLN:OE1	2.52	0.42
17:XQ:12:SER:HB2	17:XQ:14:LYS:HG2	2.00	0.42
24:YA:265:A:H2'	24:YA:266:G:C4'	2.48	0.42
24:YA:372:G:O2'	24:YA:373:U:P	2.77	0.42
24:YA:389:G:H22	34:YP:72:PRO:CD	2.32	0.42
24:YA:558:G:P	32:YN:111:PRO:HD2	2.59	0.42
24:YA:613:U:H5'	24:YA:616:A:N6	2.34	0.42
24:YA:935:C:H2'	24:YA:936:C:C6	2.54	0.42
24:YA:1021:A:H3'	24:YA:1021:A:C8	2.54	0.42
24:YA:1056:G:H1'	24:YA:1086:A:H8	1.84	0.42
24:YA:1082:U:H5'	24:YA:1083:U:O5'	2.19	0.42
24:YA:1130:U:C2	27:YE:147:PRO:HB3	2.54	0.42
24:YA:1287:A:N7	36:YR:107:ASP:HB2	2.34	0.42
24:YA:2453:A:H2'	24:YA:2454:G:C8	2.54	0.42
24:YA:2574:G:O2'	27:YE:143:ASN:HB2	2.19	0.42
24:YA:2593:U:H2'	24:YA:2594:C:C6	2.55	0.42
26:YD:11:PRO:O	26:YD:12:SER:OG	2.33	0.42
30:YH:84:SER:HB2	30:YH:132:ARG:HD2	2.01	0.42
42:YX:43:VAL:HG13	42:YX:51:VAL:HG21	2.01	0.42
1:QA:624:C:H2'	1:QA:625:G:C8	2.54	0.42
1:QA:926:G:H22	23:QX:16:A:P	2.42	0.42
1:QA:1387:G:H2'	1:QA:1388:C:H6	1.84	0.42
2:QB:71:VAL:HA	2:QB:93:VAL:HG12	2.01	0.42
9:QI:10:ARG:HD3	9:QI:75:ASP:HB3	2.01	0.42
12:QL:40:VAL:HG12	12:QL:56:ALA:HB2	2.01	0.42
13:QM:23:TYR:HD2	13:QM:67:GLU:HA	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:QS:41:VAL:HA	19:QS:44:MET:HB2	2.01	0.42
24:RA:48:G:H22	24:RA:177:G:H5'	1.84	0.42
24:RA:2120:G:N1	24:RA:2121:G:O6	2.50	0.42
24:RA:2577:A:O4'	50:R5:3:LYS:HD2	2.19	0.42
25:RB:28:C:H2'	25:RB:29:A:O4'	2.20	0.42
31:RI:44:LEU:O	31:RI:48:GLU:HG3	2.19	0.42
33:RO:80:ASP:OD2	38:RT:64:ARG:NH2	2.52	0.42
34:RP:91:PHE:CZ	34:RP:95:VAL:HG22	2.55	0.42
38:RT:46:GLU:O	38:RT:65:LYS:HD3	2.20	0.42
44:RZ:5:LEU:HD13	44:RZ:39:VAL:HG21	2.01	0.42
1:XA:1152:A:H2'	1:XA:1153:C:H6	1.84	0.42
11:XK:31:THR:HG22	11:XK:42:TRP:HB2	2.02	0.42
15:XO:27:VAL:O	15:XO:31:LEU:HD23	2.19	0.42
20:XT:64:ASP:HA	20:XT:67:ALA:HB3	2.01	0.42
22:XV:13:C:O2'	24:YA:1924:C:H4'	2.18	0.42
24:YA:38:A:H2'	24:YA:39:C:H6	1.85	0.42
24:YA:571:A:OP2	24:YA:2030:A:N6	2.52	0.42
24:YA:616:A:H4'	28:YF:182:ASN:ND2	2.34	0.42
24:YA:1084:A:H5"	24:YA:1085:A:OP2	2.20	0.42
24:YA:1790:C:H5"	24:YA:1791:A:OP1	2.18	0.42
24:YA:2173:A:H2'	24:YA:2173:A:N3	2.33	0.42
24:YA:2290:G:C2	24:YA:2343:C:O2	2.71	0.42
25:YB:55:U:H2'	25:YB:56:G:C8	2.54	0.42
32:YN:51:PHE:CE1	32:YN:119:ARG:HG2	2.54	0.42
35:YQ:24:GLY:H	35:YQ:101:ARG:HD2	1.85	0.42
36:YR:9:LYS:HA	36:YR:17:ARG:HH12	1.84	0.42
1:QA:265:G:H5'	17:QQ:64:PRO:O	2.19	0.42
1:QA:718:G:N2	18:QR:49:LYS:HG2	2.34	0.42
1:QA:998(A):C:H2'	1:QA:999:U:H6	1.84	0.42
1:QA:1024:G:H4'	1:QA:1024:G:OP1	2.20	0.42
1:QA:1104:G:H1'	2:QB:111:ARG:HH22	1.83	0.42
1:QA:1308:U:H5"	13:QM:98:VAL:HG12	2.01	0.42
1:QA:1347:G:HO2'	1:QA:1348:U:P	2.42	0.42
1:QA:1392:G:H21	1:QA:1502:A:H8	1.67	0.42
7:QG:6:ARG:HG2	7:QG:6:ARG:O	2.19	0.42
13:QM:76:ALA:O	13:QM:80:ARG:HG2	2.19	0.42
24:RA:245:G:O6	53:R8:8:LYS:HE3	2.19	0.42
24:RA:851:U:H2'	24:RA:852:G:H8	1.84	0.42
24:RA:1224:G:N2	24:RA:1227:A:OP2	2.48	0.42
24:RA:1436:G:H1'	24:RA:1477:A:O2'	2.19	0.42
24:RA:1469:A:H2'	24:RA:1470:G:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:2340:G:O2'	24:RA:2341:G:H5'	2.19	0.42
24:RA:2805:G:H2'	24:RA:2807:G:H8	1.83	0.42
25:RB:118:G:H2'	25:RB:119:A:O4'	2.19	0.42
26:RD:154:LYS:C	26:RD:155:LEU:HD12	2.45	0.42
28:RF:28:ILE:HA	28:RF:112:MET:SD	2.58	0.42
28:RF:155:LEU:HB2	28:RF:189:THR:HG21	2.01	0.42
35:RQ:40:ALA:CB	35:RQ:127:ILE:HD11	2.50	0.42
37:RS:42:ASP:C	37:RS:44:LYS:H	2.28	0.42
38:RT:3:ARG:HD2	38:RT:3:ARG:HA	1.78	0.42
41:RW:46:PHE:O	41:RW:50:VAL:HG23	2.19	0.42
1:XA:89:U:HO2'	1:XA:90:C:P	2.42	0.42
1:XA:790:A:OP1	22:XV:39:A:O2'	2.33	0.42
1:XA:875:C:O2'	8:XH:14:ARG:NH1	2.41	0.42
2:XB:21:ARG:HD3	2:XB:21:ARG:O	2.18	0.42
14:XN:32:SER:OG	14:XN:41:ARG:HG2	2.20	0.42
24:YA:242:G:C8	53:Y8:5:LYS:HG2	2.54	0.42
24:YA:273:G:H1	24:YA:364:C:H42	1.66	0.42
24:YA:483:A:O2'	43:YY:49:VAL:O	2.33	0.42
24:YA:1818:U:H2'	26:YD:157:ARG:HG3	2.01	0.42
24:YA:2712:U:O2'	24:YA:2712(A):A:C8	2.63	0.42
25:YB:66:A:N3	25:YB:108:C:N4	2.68	0.42
27:YE:184:VAL:HG12	27:YE:185:LYS:N	2.34	0.42
28:YF:182:ASN:OD1	28:YF:185:ASP:HB2	2.19	0.42
30:YH:4:ILE:HG21	30:YH:6:ARG:NE	2.35	0.42
37:YS:3:ARG:HG2	37:YS:4:LEU:HD23	2.01	0.42
1:QA:32:A:H2'	1:QA:33:A:H8	1.83	0.42
1:QA:1145:C:H4'	1:QA:1146:A:C8	2.54	0.42
2:QB:223:ILE:HG23	2:QB:229:VAL:HG22	2.02	0.42
5:QE:143:ARG:HH12	8:QH:77:GLU:CD	2.28	0.42
10:QJ:39:PRO:HA	10:QJ:70:ARG:HD3	1.99	0.42
20:QT:29:LYS:NZ	20:QT:72:LEU:HB2	2.34	0.42
24:RA:49:A:N6	24:RA:177:G:C4	2.87	0.42
24:RA:710:G:H2'	24:RA:711:G:C8	2.54	0.42
24:RA:900:A:C4	24:RA:901:A:C8	3.07	0.42
24:RA:935:C:H2'	24:RA:936:C:H6	1.84	0.42
24:RA:1085:A:O2'	24:RA:1086:A:P	2.78	0.42
24:RA:1431:U:H2'	24:RA:1432:C:H6	1.83	0.42
24:RA:1914:C:H3'	24:RA:1915:U:H6	1.84	0.42
26:RD:244:ARG:HB2	26:RD:245:PRO:HD2	2.01	0.42
30:RH:144:VAL:O	30:RH:148:ILE:HG12	2.20	0.42
1:XA:218:C:H4'	1:XA:466:C:N4	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:280:C:H3'	1:XA:281:G:H5'	2.01	0.42
1:XA:584:G:H2'	1:XA:585:G:H8	1.84	0.42
1:XA:857:C:H2'	1:XA:858:G:O4'	2.19	0.42
2:XB:93:VAL:HG11	2:XB:97:TRP:CE3	2.54	0.42
2:XB:187:LEU:HD12	2:XB:201:ILE:O	2.19	0.42
8:XH:6:ILE:HB	8:XH:85:ARG:NH1	2.35	0.42
11:XK:48:ILE:HG12	11:XK:63:LEU:HB3	2.00	0.42
24:YA:218:A:N1	24:YA:235:U:H4'	2.34	0.42
24:YA:495:G:H21	41:YW:61:ASN:HD21	1.66	0.42
24:YA:540:G:H5'	24:YA:541:C:OP2	2.19	0.42
24:YA:1286:A:H1'	24:YA:1288:U:OP2	2.18	0.42
24:YA:1656:C:H2'	24:YA:1657:C:H6	1.85	0.42
24:YA:1799:G:H8	26:YD:181:GLU:OE1	2.01	0.42
24:YA:1812:A:H2'	24:YA:1813:G:C8	2.53	0.42
24:YA:1826:G:H2'	24:YA:1827:C:C6	2.55	0.42
24:YA:2533:A:H2'	24:YA:2534:A:O4'	2.19	0.42
24:YA:2696:U:H2'	24:YA:2697:G:H8	1.85	0.42
25:YB:86:G:H2'	25:YB:87:G:C8	2.54	0.42
26:YD:77:ALA:HB2	26:YD:97:TYR:HE1	1.85	0.42
29:YG:114:ILE:HD11	29:YG:117:PHE:CD1	2.54	0.42
32:YN:42:TRP:CZ2	32:YN:44:PRO:HB3	2.55	0.42
34:YP:52:GLU:HB2	34:YP:57:THR:HG22	2.01	0.42
42:YX:43:VAL:CG1	42:YX:51:VAL:HG21	2.49	0.42
1:QA:219:C:H2'	1:QA:220:G:O4'	2.20	0.42
1:QA:265:G:H2'	1:QA:267:C:H5	1.85	0.42
1:QA:825:G:H2'	1:QA:826:C:C6	2.54	0.42
1:QA:1469:G:H2'	1:QA:1470:G:C8	2.54	0.42
7:QG:46:ALA:O	7:QG:50:ILE:HG12	2.19	0.42
8:QH:6:ILE:HB	8:QH:85:ARG:NH1	2.34	0.42
13:QM:15:VAL:HA	13:QM:18:ALA:HB3	2.00	0.42
24:RA:975:G:O2'	24:RA:1156:A:N1	2.50	0.42
24:RA:1510:A:OP1	24:RA:1511:A:H5'	2.20	0.42
24:RA:1565:C:H2'	26:RD:21:PHE:HE2	1.83	0.42
24:RA:2436:G:C6	24:RA:2437:U:C4	3.07	0.42
24:RA:2809:A:OP2	24:RA:2891:G:N1	2.51	0.42
27:RE:181:LEU:HD11	38:RT:7:ILE:HG23	2.01	0.42
32:RN:136:GLU:O	32:RN:137:LYS:HD2	2.19	0.42
40:RV:66:ARG:HG2	40:RV:88:ARG:HB3	2.01	0.42
47:R2:26:ARG:HA	47:R2:29:LYS:HG2	2.00	0.42
3:XC:81:GLY:C	3:XC:85:ARG:HE	2.27	0.42
10:XJ:54:PHE:CD2	10:XJ:55:LYS:HG2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:XJ:78:ASN:HB2	10:XJ:81:THR:HG23	2.01	0.42
13:XM:37:THR:O	13:XM:55:ARG:NH2	2.52	0.42
24:YA:253:C:H2'	24:YA:254:G:O4'	2.19	0.42
24:YA:700:G:O2'	24:YA:1632:A:N3	2.39	0.42
24:YA:1844:C:H2'	24:YA:1845:G:C8	2.53	0.42
24:YA:2048:G:C5	24:YA:2049:G:C8	3.08	0.42
24:YA:2071:A:H2'	24:YA:2072:G:H8	1.84	0.42
24:YA:2175:C:N3	24:YA:2176:A:N6	2.68	0.42
24:YA:2259:G:H1'	24:YA:2427:C:C2	2.54	0.42
24:YA:2292:C:OP1	37:YS:17:ARG:NH2	2.53	0.42
24:YA:2308:G:N1	24:YA:2311:A:H2	2.18	0.42
24:YA:2410:G:C2	24:YA:2411:A:H1'	2.55	0.42
24:YA:2467:C:O2	35:YQ:124:LYS:NZ	2.43	0.42
54:Y9:19:ARG:HB3	54:Y9:24:TYR:CE2	2.54	0.42
1:QA:130:A:OP2	17:QQ:63:ARG:NH2	2.52	0.42
1:QA:1103:C:H5'	2:QB:98:LEU:HD12	2.01	0.42
1:QA:1159:U:O2'	1:QA:1160:G:N7	2.53	0.42
1:QA:1333:A:H2'	1:QA:1334:G:O4'	2.20	0.42
3:QC:29:TYR:OH	14:QN:54:PRO:O	2.38	0.42
4:QD:148:VAL:HG22	4:QD:149:ALA:H	1.85	0.42
6:QF:8:ILE:HG22	6:QF:10:LEU:HD12	2.02	0.42
13:QM:82:MET:HG2	13:QM:89:GLY:O	2.20	0.42
15:QO:68:ARG:HA	15:QO:71:GLN:HG2	2.02	0.42
24:RA:244:A:H4'	34:RP:74:GLU:HB2	2.02	0.42
24:RA:631:A:H61	24:RA:2402:C:N4	2.18	0.42
24:RA:1275:A:C4	36:RR:16:HIS:ND1	2.88	0.42
24:RA:1276:A:H1'	36:RR:16:HIS:HE1	1.83	0.42
24:RA:1315:C:O2'	24:RA:1392:A:N3	2.47	0.42
24:RA:2596:U:H2'	24:RA:2597:G:O4'	2.19	0.42
24:RA:2836:U:H2'	24:RA:2837:G:C8	2.54	0.42
27:RE:61:ARG:HB2	27:RE:62:PRO:HD3	2.01	0.42
28:RF:29:ASN:HD22	28:RF:32:LEU:HD23	1.84	0.42
30:RH:12:PRO:HD2	30:RH:48:GLY:O	2.19	0.42
49:R4:11:PRO:HA	49:R4:25:TYR:CD1	2.54	0.42
49:R4:47:GLN:OE1	49:R4:49:PHE:HB2	2.19	0.42
1:XA:1227:A:OP2	13:XM:111:LYS:NZ	2.50	0.42
1:XA:1321:C:H5"	1:XA:1322:C:H5"	2.01	0.42
2:XB:96:ARG:HE	2:XB:97:TRP:N	2.17	0.42
2:XB:121:LEU:HD13	2:XB:130:ARG:NH2	2.34	0.42
3:XC:119:ARG:HG2	3:XC:140:ARG:HH22	1.84	0.42
3:XC:148:GLY:HA3	3:XC:172:ARG:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:XD:60:GLU:HG3	4:XD:202:LEU:HD12	2.01	0.42
6:XF:46:ARG:HH21	6:XF:60:PHE:HD2	1.68	0.42
24:YA:82:G:N2	24:YA:103:A:OP2	2.43	0.42
24:YA:521:G:H2'	24:YA:522:G:H8	1.84	0.42
24:YA:530:G:C5	24:YA:2022:U:H5"	2.54	0.42
24:YA:627:A:H4'	24:YA:628:G:H5'	2.02	0.42
24:YA:760:G:H2'	24:YA:761:A:O4'	2.19	0.42
24:YA:2526:G:O2'	54:Y9:1:MET:N	2.40	0.42
24:YA:2649:U:H2'	24:YA:2650:U:C6	2.54	0.42
24:YA:2891:G:H5'	24:YA:2892:A:OP1	2.20	0.42
29:YG:32:PRO:HB2	29:YG:172:LEU:HD22	2.02	0.42
38:YT:102:ILE:HG23	38:YT:110:ILE:HD12	2.02	0.42
38:YT:128:GLU:HG3	38:YT:132:LYS:NZ	2.34	0.42
45:Y0:30:VAL:HG22	45:Y0:66:VAL:HG12	2.00	0.42
46:Y1:74:VAL:O	46:Y1:74:VAL:HG12	2.19	0.42
1:QA:1028(A):C:N3	1:QA:1033:G:N2	2.67	0.42
2:QB:18:GLY:HA2	2:QB:42:ILE:HD12	2.02	0.42
2:QB:157:ARG:HG3	2:QB:158:LEU:N	2.31	0.42
4:QD:81:GLU:O	4:QD:85:LYS:HG2	2.19	0.42
4:QD:108:LEU:HD23	4:QD:170:VAL:HG21	2.01	0.42
7:QG:50:ILE:HG23	7:QG:121:ALA:HB1	2.01	0.42
9:QI:128:ARG:NH2	22:QV:34:U:OP2	2.52	0.42
24:RA:38:A:H2'	24:RA:39:C:H6	1.83	0.42
24:RA:705:A:C2	24:RA:727:A:H1'	2.55	0.42
24:RA:1683:C:H2'	24:RA:1684:C:C6	2.55	0.42
24:RA:1759:A:H1'	24:RA:2711:A:C2	2.54	0.42
24:RA:1870:C:H2'	24:RA:1871:A:C8	2.54	0.42
24:RA:2081:C:H2'	24:RA:2082:A:H8	1.85	0.42
24:RA:2106:G:H2'	24:RA:2107:C:O4'	2.20	0.42
24:RA:2611:U:H2'	50:R5:2:ALA:C	2.45	0.42
24:RA:2647:U:H2'	24:RA:2648:C:H6	1.85	0.42
27:RE:63:LEU:HD12	27:RE:65:GLY:N	2.34	0.42
30:RH:156:ALA:HA	30:RH:172:LYS:NZ	2.34	0.42
37:RS:34:HIS:HE1	37:RS:54:LEU:HD13	1.85	0.42
46:R1:81:LYS:HD2	46:R1:81:LYS:HA	1.89	0.42
1:XA:161:A:H2'	1:XA:162:A:C8	2.55	0.42
1:XA:186(D):C:H2'	1:XA:186(E):C:H6	1.83	0.42
1:XA:222:U:H2'	1:XA:223:U:H6	1.85	0.42
1:XA:484:G:H1'	1:XA:485:G:OP2	2.20	0.42
1:XA:1342:C:H2'	1:XA:1343:G:C8	2.55	0.42
1:XA:1479:C:H2'	1:XA:1480:G:H8	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:XF:91:VAL:HG13	18:XR:72:ARG:NH2	2.35	0.42
24:YA:27:G:H1'	24:YA:513:A:N6	2.34	0.42
24:YA:140:A:C8	24:YA:1408:C:O2'	2.72	0.42
24:YA:638:G:C5	24:YA:651:G:C2	3.08	0.42
24:YA:1006:C:C2	24:YA:1138:G:N2	2.88	0.42
24:YA:1491:G:O4'	26:YD:99:ASP:HB3	2.20	0.42
24:YA:1666:G:O3'	33:YO:6:THR:HG23	2.19	0.42
24:YA:1707:G:H2'	24:YA:1708:C:C6	2.55	0.42
24:YA:1826:G:OP2	26:YD:222:ARG:HB2	2.20	0.42
24:YA:2153:G:H2'	24:YA:2154:G:C8	2.54	0.42
24:YA:2409:G:H2'	24:YA:2410:G:O4'	2.20	0.42
24:YA:2884:U:H2'	24:YA:2885:C:O4'	2.19	0.42
25:YB:40:U:H3	25:YB:43:C:H5"	1.85	0.42
26:YD:37:LEU:HD23	26:YD:62:TYR:CD2	2.55	0.42
26:YD:142:VAL:HA	26:YD:194:GLY:H	1.85	0.42
33:YO:18:LYS:HB2	33:YO:45:GLU:HG2	2.02	0.42
1:QA:687:A:C2	1:QA:704:A:C6	3.07	0.42
1:QA:960:U:O2	1:QA:960:U:H2'	2.19	0.42
1:QA:1347:G:C8	9:QI:107:ARG:HG2	2.55	0.42
24:RA:71:A:H4'	24:RA:72:U:H5"	2.01	0.42
24:RA:84:A:N1	24:RA:98:G:O2'	2.51	0.42
24:RA:280:C:C2	24:RA:361:G:N2	2.87	0.42
24:RA:605:C:H1'	24:RA:657:U:O2'	2.20	0.42
24:RA:626:U:H5"	24:RA:627:A:H5'	2.02	0.42
24:RA:1186:G:H2'	24:RA:1187:G:O4'	2.20	0.42
24:RA:1774:C:O2	24:RA:1774:C:H2'	2.20	0.42
24:RA:2075:U:H4'	24:RA:2596:U:O2	2.20	0.42
24:RA:2656:U:O4	24:RA:2665:A:H2	2.02	0.42
24:RA:2838:G:C4	24:RA:2839:G:C8	3.08	0.42
25:RB:114:G:HO2'	37:RS:50:SER:HG	1.57	0.42
28:RF:34:TRP:CZ3	34:RP:8:PRO:HB3	2.55	0.42
32:RN:95:PRO:C	32:RN:97:ARG:H	2.28	0.42
33:RO:8:LEU:HD13	33:RO:84:ALA:HB2	2.01	0.42
34:RP:61:ARG:HH11	53:R8:10:ALA:HA	1.84	0.42
35:RQ:138:ASP:HB2	44:RZ:122:ARG:NH2	2.32	0.42
1:XA:19:C:H2'	1:XA:20:U:H6	1.85	0.42
1:XA:695:A:OP1	11:XK:52:GLY:HA3	2.20	0.42
1:XA:946:A:C2	1:XA:947:G:C5	3.08	0.42
1:XA:946:A:O2'	1:XA:1333:A:N3	2.43	0.42
1:XA:1237:C:O2'	1:XA:1300:G:N1	2.46	0.42
1:XA:1245:A:H2'	1:XA:1246:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:XT:22:ARG:HG3	20:XT:25:ARG:HD3	2.02	0.42
24:YA:34:C:H41	24:YA:447:A:N6	2.17	0.42
24:YA:483:A:O4'	43:YY:48:ALA:HB1	2.19	0.42
24:YA:817:C:O2'	24:YA:839:U:H5"	2.20	0.42
24:YA:1558:A:H1'	24:YA:1559:G:OP2	2.19	0.42
24:YA:1607:C:H4'	24:YA:1608:A:O5'	2.20	0.42
24:YA:1690:A:H2'	24:YA:1691:C:O4'	2.20	0.42
24:YA:2021:C:OP1	50:Y5:12:SER:OG	2.33	0.42
24:YA:2090:G:C6	24:YA:2230:G:C6	3.08	0.42
26:YD:96:HIS:CD2	26:YD:102:LYS:HG2	2.55	0.42
27:YE:63:LEU:HD12	27:YE:65:GLY:N	2.35	0.42
29:YG:113:ARG:HH12	29:YG:142:PRO:HA	1.85	0.42
30:YH:107:VAL:HG11	30:YH:162:ILE:HD11	2.01	0.42
31:YI:77:LEU:HD12	31:YI:104:GLN:HG2	2.01	0.42
39:YU:17:ILE:HG13	39:YU:32:PHE:HE1	1.83	0.42
43:YY:14:LEU:HB3	43:YY:73:ARG:HG2	2.02	0.42
44:YZ:79:ARG:HG3	44:YZ:80:ARG:HD3	2.02	0.42
1:QA:26:A:H61	1:QA:558:G:H1'	1.85	0.42
1:QA:272:C:C2	1:QA:273:A:C8	3.07	0.42
1:QA:859:A:H2'	1:QA:860:A:O4'	2.20	0.42
1:QA:922:G:N3	1:QA:1398:A:H2	2.17	0.42
1:QA:1330:U:H4'	13:QM:23:TYR:CE1	2.55	0.42
3:QC:110:ASN:ND2	3:QC:144:SER:OG	2.39	0.42
11:QK:20:TYR:HB2	11:QK:31:THR:OG1	2.20	0.42
12:QL:24:VAL:HG13	12:QL:98:TYR:HE1	1.84	0.42
12:QL:27:LEU:HD23	12:QL:33:ARG:HH22	1.85	0.42
12:QL:66:VAL:HG21	12:QL:98:TYR:HE2	1.84	0.42
12:QL:70:ILE:HD13	12:QL:77:LEU:HD12	2.02	0.42
24:RA:414:C:H2'	24:RA:415:A:C8	2.54	0.42
24:RA:688:U:H5'	24:RA:1780:A:C2	2.54	0.42
24:RA:1022:G:N7	24:RA:1140:C:N4	2.68	0.42
24:RA:1165:U:H2'	24:RA:1166:C:H6	1.85	0.42
24:RA:1336:A:H2'	24:RA:1337:G:C8	2.55	0.42
24:RA:1408:C:H2'	24:RA:1409:C:C6	2.55	0.42
24:RA:2011:U:OP2	41:RW:16:LYS:NZ	2.37	0.42
24:RA:2812:G:H2'	24:RA:2813:A:H8	1.85	0.42
25:RB:15:A:H3'	25:RB:16:G:H5'	2.02	0.42
29:RG:36:LYS:HE2	29:RG:95:ARG:NH2	2.32	0.42
32:RN:34:LEU:O	32:RN:49:GLY:HA3	2.19	0.42
35:RQ:58:PHE:CD2	35:RQ:61:GLY:HA3	2.53	0.42
49:R4:47:GLN:NE2	49:R4:49:PHE:HB2	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:110:C:H2'	1:XA:111:G:O4'	2.20	0.42
1:XA:224:C:H2'	1:XA:225:C:H6	1.84	0.42
1:XA:1058:G:H2'	1:XA:1059:C:C6	2.55	0.42
1:XA:1223:C:P	19:XS:78:ARG:HH21	2.42	0.42
2:XB:80:ILE:HD11	2:XB:208:ILE:HG23	2.02	0.42
7:XG:65:ALA:HB1	7:XG:127:ALA:HB3	2.02	0.42
8:XH:12:ARG:NH1	8:XH:27:PRO:HD3	2.35	0.42
18:XR:19:LYS:O	18:XR:55:ARG:NH1	2.53	0.42
24:YA:957:A:N6	24:YA:2459:A:C8	2.88	0.42
24:YA:1103:A:H3'	24:YA:1104:C:C6	2.55	0.42
24:YA:1269:A:H2'	24:YA:1270:C:C6	2.55	0.42
24:YA:2078:C:H2'	24:YA:2079:U:C6	2.54	0.42
24:YA:2122:U:H2'	24:YA:2123:G:H8	1.84	0.42
24:YA:2291:U:H2'	24:YA:2292:C:H6	1.80	0.42
24:YA:2460:U:C4	24:YA:2461:C:C5	3.08	0.42
26:YD:34:VAL:N	26:YD:36:PRO:HD3	2.35	0.42
28:YF:36:VAL:HG22	28:YF:101:LEU:HD21	2.02	0.42
31:YI:69:LYS:NZ	31:YI:73:GLU:OE1	2.51	0.42
44:YZ:151:HIS:CB	44:YZ:170:THR:HA	2.49	0.42
47:Y2:27:GLU:O	47:Y2:30:ARG:HG2	2.20	0.42
1:QA:309:G:H2'	1:QA:310:G:H8	1.85	0.41
1:QA:978:A:O2'	1:QA:1322:C:N3	2.44	0.41
1:QA:1095:U:OP1	1:QA:1108:G:N2	2.40	0.41
1:QA:1329:A:H5"	13:QM:26:GLY:N	2.33	0.41
1:QA:1415:G:C6	1:QA:1486:G:C6	3.08	0.41
1:QA:1493:A:H4'	23:QX:19:U:H1'	2.02	0.41
3:QC:28:GLN:O	3:QC:32:LEU:HG	2.20	0.41
3:QC:75:VAL:O	3:QC:83:ARG:HD2	2.20	0.41
4:QD:200:GLU:O	4:QD:204:ILE:HG12	2.20	0.41
8:QH:11:THR:HG22	8:QH:14:ARG:NH1	2.33	0.41
9:QI:73:GLN:O	9:QI:77:ILE:HG13	2.19	0.41
15:QO:17:ARG:HH12	15:QO:26:GLU:H	1.68	0.41
24:RA:550:G:H2'	24:RA:551:G:H8	1.84	0.41
24:RA:828:U:H4'	24:RA:831:G:N1	2.35	0.41
24:RA:863:A:H2'	24:RA:864:G:C8	2.55	0.41
24:RA:1163:G:C2	24:RA:1164:G:C8	3.08	0.41
24:RA:1246:A:OP1	28:RF:38:ARG:NH2	2.50	0.41
24:RA:2031:A:N3	24:RA:2455:G:O2'	2.36	0.41
24:RA:2320:A:N3	24:RA:2320:A:H2'	2.35	0.41
37:RS:62:LYS:O	37:RS:65:VAL:HB	2.20	0.41
39:RU:92:ARG:HD3	39:RU:92:ARG:HA	1.90	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:R1:17:SER:HB3	46:R1:40:ARG:HD2	2.01	0.41
1:XA:69:G:H2'	1:XA:73:G:H8	1.84	0.41
1:XA:148:G:H2'	1:XA:149:A:C8	2.55	0.41
1:XA:604:G:C6	1:XA:635:G:C6	3.08	0.41
1:XA:955:U:H1'	1:XA:1227:A:N6	2.35	0.41
3:XC:150:LYS:HD2	3:XC:167:TRP:NE1	2.30	0.41
4:XD:153:ARG:HB3	4:XD:181:MET:HE1	2.02	0.41
22:XV:15:G:N1	22:XV:49:C:H5	2.14	0.41
24:YA:277:C:H3'	24:YA:278:A:C5'	2.51	0.41
24:YA:834:C:H1'	24:YA:2358:G:N3	2.35	0.41
24:YA:1103:A:H5'	24:YA:1104:C:H5	1.85	0.41
24:YA:1550:C:H5'	24:YA:1733:G:N2	2.35	0.41
24:YA:1674:G:H1'	24:YA:1676:A:H62	1.84	0.41
24:YA:2315:G:H2'	24:YA:2316:C:C6	2.55	0.41
24:YA:2513:G:H2'	24:YA:2514:U:C6	2.55	0.41
24:YA:2712:U:O2'	24:YA:2712(A):A:P	2.78	0.41
25:YB:24:G:N7	25:YB:56:G:H2'	2.35	0.41
1:QA:321:A:H2'	1:QA:322:C:C6	2.55	0.41
1:QA:452:A:O2'	1:QA:453:A:O5'	2.37	0.41
1:QA:538:G:H2'	1:QA:539:A:H8	1.84	0.41
1:QA:676:A:H2'	1:QA:677:U:H6	1.84	0.41
1:QA:745:C:H2'	1:QA:746:A:H8	1.83	0.41
1:QA:1152:A:H2'	1:QA:1153:C:H6	1.85	0.41
7:QG:20:ASP:OD1	7:QG:21:VAL:N	2.53	0.41
8:QH:12:ARG:NH1	8:QH:26:VAL:HA	2.35	0.41
9:QI:16:ARG:HD3	9:QI:18:PHE:CZ	2.55	0.41
17:QQ:52:LYS:N	17:QQ:55:ASP:OD2	2.51	0.41
20:QT:71:THR:OG1	20:QT:72:LEU:N	2.51	0.41
24:RA:52:A:H2'	24:RA:53:A:C8	2.54	0.41
24:RA:116:C:H2'	24:RA:117:G:O4'	2.20	0.41
24:RA:142:G:H2'	24:RA:143:C:C6	2.54	0.41
24:RA:656:G:H2'	24:RA:657:U:O4'	2.20	0.41
24:RA:845:G:H8	24:RA:845:G:OP2	2.04	0.41
24:RA:1220:A:H5'	24:RA:1221:C:OP2	2.20	0.41
24:RA:1496:A:H8	24:RA:1577:C:HO2'	1.67	0.41
24:RA:2450:A:C2	24:RA:2451:A:C4	3.09	0.41
24:RA:2461:C:H2'	24:RA:2462:U:H6	1.84	0.41
24:RA:2567:G:H2'	24:RA:2568:C:C6	2.55	0.41
24:RA:2779:U:O2'	24:RA:2781:A:C8	2.73	0.41
25:RB:105:G:C2	25:RB:106:G:C8	3.08	0.41
28:RF:24:LEU:HD23	28:RF:115:ALA:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:RH:52:VAL:O	30:RH:65:HIS:NE2	2.42	0.41
39:RU:28:ARG:HD3	39:RU:38:THR:OG1	2.19	0.41
42:RX:57:LEU:HG	42:RX:78:LYS:HB2	2.01	0.41
1:XA:41:G:H2'	1:XA:42:G:C8	2.55	0.41
1:XA:113:G:O4'	1:XA:354:G:H4'	2.21	0.41
1:XA:426:G:OP1	4:XD:38:TYR:OH	2.33	0.41
1:XA:580:U:H2'	1:XA:581:G:O4'	2.20	0.41
1:XA:954:G:H21	1:XA:1227:A:H62	1.67	0.41
1:XA:1005:A:H3'	1:XA:1006:C:H6	1.83	0.41
1:XA:1446:A:HO2'	1:XA:1447:G:P	2.41	0.41
2:XB:221:LEU:O	2:XB:221:LEU:HD13	2.20	0.41
3:XC:179:ARG:O	3:XC:206:GLU:HA	2.20	0.41
8:XH:91:ARG:HB2	12:XL:7:ILE:HG21	2.01	0.41
24:YA:286:C:H2'	24:YA:287:C:C6	2.55	0.41
24:YA:363(B):G:H2'	24:YA:363(C):G:H8	1.85	0.41
24:YA:856:C:H2'	24:YA:857:C:C6	2.55	0.41
24:YA:1028:A:H2'	24:YA:1029:A:H8	1.81	0.41
24:YA:2331:G:H4'	45:Y0:43:THR:H	1.84	0.41
24:YA:2840:C:H2'	24:YA:2841:C:C6	2.56	0.41
30:YH:92:ILE:HG13	30:YH:93:GLY:H	1.84	0.41
30:YH:144:VAL:O	30:YH:148:ILE:HG12	2.20	0.41
33:YO:79:PHE:CD1	38:YT:72:VAL:HG22	2.55	0.41
34:YP:90:ARG:HH22	34:YP:103:ALA:HB1	1.85	0.41
36:YR:74:LYS:C	36:YR:76:VAL:H	2.27	0.41
37:YS:42:ASP:O	37:YS:43:GLU:HB3	2.20	0.41
46:Y1:53:VAL:HG12	46:Y1:74:VAL:HG13	2.02	0.41
1:QA:218:C:H5'	1:QA:466:C:N4	2.32	0.41
1:QA:376:G:H5"	16:QP:5:ARG:HB2	2.02	0.41
1:QA:627:G:H2'	1:QA:628:G:H8	1.85	0.41
9:QI:125:TYR:CE2	9:QI:127:LYS:HE2	2.40	0.41
10:QJ:49:VAL:O	10:QJ:60:ARG:HB3	2.20	0.41
14:QN:37:PHE:CD1	14:QN:53:LEU:HD11	2.55	0.41
15:QO:15:PHE:HZ	15:QO:84:LYS:HD2	1.85	0.41
24:RA:527:C:N4	24:RA:2779:U:OP2	2.44	0.41
36:RR:65:LEU:O	36:RR:68:ARG:HG2	2.21	0.41
38:RT:51:ARG:H	38:RT:62:THR:HG22	1.83	0.41
1:XA:152:A:H62	1:XA:169:C:H42	1.69	0.41
1:XA:403:C:H4'	4:XD:122:ARG:NH1	2.35	0.41
1:XA:440:A:H3'	1:XA:442:C:H6	1.85	0.41
1:XA:674:G:H2'	1:XA:675:A:C8	2.50	0.41
1:XA:689:C:H3'	1:XA:690:G:H21	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:902:G:H2'	1:XA:903:G:C8	2.51	0.41
1:XA:1347:G:H1'	1:XA:1348:U:H5	1.85	0.41
2:XB:73:THR:OG1	2:XB:170:GLU:OE2	2.29	0.41
10:XJ:55:LYS:HG3	10:XJ:55:LYS:O	2.20	0.41
22:XV:26:C:H2'	22:XV:27:G:O4'	2.20	0.41
24:YA:389:G:H1	34:YP:71:VAL:H	1.67	0.41
24:YA:1278:A:H2'	24:YA:1279:G:H8	1.85	0.41
24:YA:2055:C:H5'	24:YA:2056:G:O5'	2.21	0.41
24:YA:2553:G:N1	24:YA:2554:U:O2	2.54	0.41
24:YA:2572:A:P	27:YE:144:ARG:HB3	2.59	0.41
26:YD:130:ALA:C	26:YD:131:LEU:HD12	2.45	0.41
27:YE:12:THR:OG1	38:YT:8:LYS:HD2	2.20	0.41
29:YG:68:PRO:HB3	29:YG:92:VAL:HB	2.01	0.41
44:YZ:102:LEU:HD11	44:YZ:124:ILE:HG13	2.01	0.41
47:Y2:41:ILE:HD11	47:Y2:44:LEU:HD22	2.02	0.41
1:QA:1158:C:O2	1:QA:1158:C:H2'	2.20	0.41
1:QA:1216:G:H5"	14:QN:5:ALA:HB2	2.02	0.41
3:QC:157:ILE:HD12	3:QC:164:ARG:HG3	2.03	0.41
9:QI:9:ARG:HG2	9:QI:14:VAL:HG22	2.02	0.41
9:QI:48:GLU:N	9:QI:49:PRO:HD2	2.35	0.41
24:RA:226:G:H2'	24:RA:227:A:C8	2.55	0.41
24:RA:831:G:OP1	34:RP:36:LYS:HE2	2.21	0.41
24:RA:1627:G:C6	24:RA:1640:C:C5	3.08	0.41
24:RA:1791:A:H3'	24:RA:1792:G:H8	1.86	0.41
24:RA:2321:G:N3	24:RA:2321:G:H2'	2.34	0.41
24:RA:2656:U:C4	24:RA:2665:A:H2	2.39	0.41
30:RH:152:ARG:HE	30:RH:153:LYS:HE3	1.84	0.41
44:RZ:30:ASN:HB3	44:RZ:90:VAL:HG22	2.03	0.41
46:R1:86:SER:N	46:R1:87:PRO:HD2	2.35	0.41
47:R2:50:ILE:HG22	47:R2:54:LYS:NZ	2.36	0.41
1:XA:186(E):C:H2'	1:XA:186(F):C:C6	2.55	0.41
1:XA:737:A:OP1	6:XF:92:LYS:HG2	2.20	0.41
1:XA:919:A:O2'	1:XA:1080:A:N1	2.45	0.41
24:YA:740:U:H2'	24:YA:741:G:C8	2.54	0.41
24:YA:1024:G:C6	24:YA:1025:G:C6	3.09	0.41
24:YA:1112:G:O2'	30:YH:2:SER:HB2	2.21	0.41
24:YA:1153:C:H2'	24:YA:1154:G:O4'	2.20	0.41
24:YA:1543:A:H8	24:YA:1545:A:OP2	2.04	0.41
24:YA:1587:A:H2'	24:YA:1588:C:C6	2.55	0.41
24:YA:1752:C:H2'	24:YA:1753:G:C8	2.54	0.41
24:YA:2024:G:H2'	24:YA:2025:C:H6	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:2031:A:N6	24:YA:2498:C:O4'	2.54	0.41
24:YA:2100:G:C6	24:YA:2190:G:C6	3.09	0.41
24:YA:2291:U:OP1	24:YA:2380:C:O2'	2.37	0.41
24:YA:2429:G:O6	34:YP:60:MET:HE3	2.21	0.41
28:YF:28:ILE:HG23	28:YF:112:MET:HB3	2.02	0.41
28:YF:34:TRP:CE3	34:YP:8:PRO:HB3	2.55	0.41
28:YF:188:ARG:HG2	34:YP:3:LEU:HD11	2.01	0.41
48:Y3:6:VAL:HB	48:Y3:54:VAL:HG21	2.03	0.41
54:Y9:2:LYS:O	54:Y9:34:GLN:HA	2.20	0.41
1:QA:1250:A:H2	1:QA:1370:G:H1'	1.84	0.41
2:QB:207:ALA:O	2:QB:209:ARG:N	2.53	0.41
5:QE:18:ARG:HG2	5:QE:25:ARG:NH1	2.34	0.41
6:QF:22:GLU:OE1	6:QF:84:ASN:HB2	2.21	0.41
13:QM:80:ARG:HE	49:R4:58:ARG:NH1	2.19	0.41
20:QT:54:LYS:O	20:QT:57:ARG:HG2	2.20	0.41
24:RA:191:A:H2'	24:RA:192:C:C6	2.55	0.41
24:RA:236:C:O2'	24:RA:431:U:H4'	2.20	0.41
24:RA:270(R):G:H2'	24:RA:270(S):G:C8	2.56	0.41
24:RA:1000:A:N6	24:RA:1155:A:C8	2.89	0.41
24:RA:2015:A:N3	50:R5:6:VAL:HG12	2.36	0.41
24:RA:2365:G:O6	53:R8:39:LYS:NZ	2.54	0.41
26:RD:262:ARG:HD3	26:RD:262:ARG:HA	1.86	0.41
28:RF:170:LEU:HB2	28:RF:173:VAL:HG12	2.02	0.41
35:RQ:4:PRO:HD2	35:RQ:93:TYR:CD2	2.56	0.41
35:RQ:110:THR:HG23	35:RQ:113:GLN:HG2	2.03	0.41
38:RT:26:ASP:HB2	38:RT:91:ARG:HA	2.03	0.41
1:XA:434:U:H2'	1:XA:435:C:C6	2.56	0.41
1:XA:659:U:H2'	1:XA:660:G:C8	2.56	0.41
1:XA:998:G:H2'	1:XA:998(A):C:H6	1.84	0.41
1:XA:1028(A):C:C2	1:XA:1028(B):C:H5	2.39	0.41
1:XA:1128:C:N3	1:XA:1144:G:N2	2.68	0.41
1:XA:1494:G:O2'	24:YA:1912:A:O2'	2.31	0.41
2:XB:6:THR:O	2:XB:217:ARG:NH1	2.53	0.41
5:XE:152:ARG:HG2	8:XH:79:VAL:HG13	2.03	0.41
6:XF:77:ARG:O	6:XF:81:ILE:HG13	2.20	0.41
7:XG:57:GLU:O	7:XG:60:LYS:HG3	2.20	0.41
10:XJ:51:ARG:HA	14:XN:45:ARG:NH1	2.36	0.41
24:YA:375:C:H2'	24:YA:376:C:C6	2.55	0.41
24:YA:1187:G:H8	24:YA:1187:G:O5'	2.02	0.41
24:YA:1341:U:P	24:YA:1397:U:H3	2.43	0.41
24:YA:1562:A:H2'	24:YA:1563:G:H8	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:1686:C:H2'	24:YA:1687:G:O4'	2.20	0.41
24:YA:1843:C:H5'	26:YD:253:GLN:OE1	2.21	0.41
24:YA:2618:G:H21	27:YE:150:VAL:HG21	1.86	0.41
27:YE:12:THR:HG22	27:YE:13:ARG:N	2.35	0.41
27:YE:176:ILE:O	27:YE:176:ILE:HG13	2.19	0.41
44:YZ:129:SER:OG	44:YZ:132:ASN:OD1	2.35	0.41
53:Y8:40:GLU:O	53:Y8:44:LYS:HD3	2.21	0.41
1:QA:186(E):C:C2	1:QA:191(C):G:N2	2.89	0.41
1:QA:246:A:C2	1:QA:282:A:C5	3.09	0.41
1:QA:370:C:H2'	1:QA:371:G:C8	2.55	0.41
1:QA:743:U:H2'	1:QA:744:C:C6	2.56	0.41
5:QE:9:LYS:HG2	5:QE:112:LEU:HD11	2.02	0.41
8:QH:5:PRO:HB2	8:QH:32:LYS:CE	2.48	0.41
11:QK:65:ALA:HB1	11:QK:98:LEU:HD12	2.02	0.41
14:QN:3:ARG:O	14:QN:7:ILE:HG23	2.21	0.41
15:QO:54:ARG:NE	15:QO:58:MET:HE2	2.36	0.41
19:QS:40:ILE:HG13	19:QS:41:VAL:N	2.35	0.41
24:RA:637:A:O5'	34:RP:116:GLY:HA2	2.21	0.41
24:RA:997:G:C2	24:RA:1159:U:C2	3.09	0.41
24:RA:1040:C:H2'	24:RA:1041:C:C6	2.56	0.41
24:RA:1289:C:H2'	24:RA:1290:C:C6	2.55	0.41
24:RA:2013:A:H5'	41:RW:96:ILE:HA	2.02	0.41
24:RA:2122:U:H2'	24:RA:2123:G:H8	1.85	0.41
24:RA:2314:C:C5'	29:RG:38:VAL:HG11	2.50	0.41
24:RA:2626:C:H2'	24:RA:2627:G:C8	2.53	0.41
25:RB:114:G:H2'	25:RB:115:G:O4'	2.21	0.41
26:RD:66:ASP:OD2	26:RD:69:ARG:HG2	2.21	0.41
28:RF:162:LEU:HD23	28:RF:165:ARG:HH21	1.85	0.41
28:RF:178:PRO:HB3	28:RF:198:ALA:CB	2.50	0.41
29:RG:32:PRO:HB2	29:RG:172:LEU:CD1	2.49	0.41
34:RP:37:GLY:O	34:RP:41:ARG:HG2	2.21	0.41
47:R2:16:LEU:HD21	47:R2:20:GLU:OE1	2.20	0.41
47:R2:28:LYS:HE2	47:R2:53:LEU:HD11	2.03	0.41
54:R9:14:CYS:HA	54:R9:27:CYS:SG	2.61	0.41
1:XA:29:G:O2'	1:XA:30:U:H5'	2.20	0.41
1:XA:284:G:H2'	1:XA:285:G:H8	1.85	0.41
1:XA:1126:U:H1'	1:XA:1280:A:N7	2.35	0.41
1:XA:1127:G:N2	1:XA:1145:C:O2	2.52	0.41
1:XA:1404:C:H2'	1:XA:1405:G:C8	2.55	0.41
2:XB:61:LEU:HD13	2:XB:68:ILE:HG21	2.02	0.41
3:XC:60:ALA:N	3:XC:63:ASN:OD1	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:27:G:H1'	24:YA:513:A:H62	1.84	0.41
24:YA:1194:A:H2'	24:YA:1195:G:O4'	2.20	0.41
24:YA:1956:U:C4	24:YA:1957:C:C5	3.08	0.41
24:YA:2384:G:OP2	45:Y0:55:ARG:HD2	2.20	0.41
24:YA:2436:G:C6	24:YA:2437:U:C4	3.09	0.41
24:YA:2703:C:C2	24:YA:2704:C:C5	3.09	0.41
25:YB:9:G:C6	25:YB:112:G:C6	3.08	0.41
25:YB:9:G:OP1	37:YS:15:ARG:HD3	2.20	0.41
31:YI:71:ILE:HG23	31:YI:72:LEU:HG	2.03	0.41
40:YV:1:MET:HE2	40:YV:43:GLU:HG2	2.02	0.41
1:QA:338:A:H2'	1:QA:339:C:H6	1.85	0.41
1:QA:353:A:H5'	1:QA:353:A:H8	1.85	0.41
1:QA:355:C:C4	1:QA:356:A:N7	2.88	0.41
1:QA:768:A:H4'	1:QA:1523:G:H21	1.85	0.41
1:QA:954:G:H21	1:QA:1227:A:N6	2.19	0.41
3:QC:154:SER:HB2	3:QC:165:THR:HG22	2.02	0.41
5:QE:100:VAL:O	5:QE:107:ARG:NH2	2.48	0.41
12:QL:105:TYR:C	12:QL:107:ALA:N	2.78	0.41
14:QN:15:LYS:HE3	14:QN:19:ARG:HH12	1.85	0.41
19:QS:49:ILE:HD13	19:QS:62:ILE:HD11	2.02	0.41
22:QV:6:G:H2'	22:QV:7:G:H5"	2.03	0.41
24:RA:37:C:H2'	24:RA:38:A:C8	2.55	0.41
24:RA:515:A:H1'	24:RA:581:C:H1'	2.03	0.41
24:RA:690:G:H2'	24:RA:691:C:H6	1.84	0.41
24:RA:1308:A:H2'	24:RA:1309:G:O4'	2.20	0.41
24:RA:1790:C:H2'	24:RA:1791:A:C5	2.55	0.41
24:RA:2347:C:HO2'	51:R6:21:TYR:HH	1.61	0.41
24:RA:2392:A:H1'	34:RP:60:MET:HE3	2.01	0.41
24:RA:2811:G:OP1	27:RE:61:ARG:HG2	2.20	0.41
27:RE:122:PHE:HZ	27:RE:155:LYS:HB2	1.86	0.41
28:RF:73:ALA:HB3	28:RF:75:HIS:CE1	2.56	0.41
31:RI:92:VAL:HB	31:RI:120:ILE:HG22	2.03	0.41
1:XA:116:A:H61	1:XA:313:A:H1'	1.84	0.41
1:XA:376:G:H5"	16:XP:5:ARG:HD2	2.01	0.41
1:XA:384:G:H2'	1:XA:385:C:C6	2.55	0.41
1:XA:768:A:H4'	1:XA:1523:G:N2	2.35	0.41
1:XA:993:G:H2'	1:XA:995:C:H41	1.86	0.41
2:XB:115:LEU:HA	2:XB:118:LEU:HD12	2.01	0.41
2:XB:167:PRO:HG2	2:XB:192:SER:OG	2.20	0.41
5:XE:5:ASP:CG	5:XE:6:PHE:H	2.27	0.41
5:XE:15:ARG:HG3	5:XE:28:PHE:HE1	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:177:G:H3'	24:YA:178:G:H8	1.85	0.41
24:YA:286:C:H2'	24:YA:287:C:H6	1.86	0.41
24:YA:448:U:O4	24:YA:583:G:H1'	2.20	0.41
24:YA:606:U:H4'	24:YA:658:C:H4'	2.03	0.41
24:YA:1359:A:H2'	24:YA:1360:A:H5'	2.03	0.41
24:YA:1482:U:H5'	24:YA:1483:G:OP2	2.20	0.41
24:YA:2332:U:H5'	24:YA:2336:A:N6	2.35	0.41
36:YR:75:LEU:O	36:YR:75:LEU:HD13	2.21	0.41
39:YU:92:ARG:HD2	40:YV:11:GLN:CG	2.51	0.41
39:YU:104:GLN:CG	40:YV:44:LYS:HD3	2.49	0.41
46:Y1:51:VAL:HG21	46:Y1:74:VAL:HG21	2.02	0.41
50:Y5:38:ALA:HB3	50:Y5:48:GLU:OE2	2.21	0.41
51:Y6:34:LEU:H	51:Y6:51:GLU:CD	2.24	0.41
1:QA:113:G:H2'	1:QA:114:U:H6	1.86	0.41
1:QA:362:G:N2	1:QA:365:U:OP2	2.54	0.41
1:QA:575:G:O2'	1:QA:821:G:H5'	2.21	0.41
1:QA:976:G:OP1	14:QN:32:SER:N	2.53	0.41
1:QA:1157:A:H4'	1:QA:1158:C:H5	1.86	0.41
1:QA:1478:C:H2'	1:QA:1479:C:H6	1.86	0.41
3:QC:67:THR:HG22	3:QC:102:ASN:HB2	2.03	0.41
5:QE:20:GLN:HG3	5:QE:21:ALA:H	1.84	0.41
8:QH:109:ILE:HG22	8:QH:137:VAL:HG13	2.03	0.41
24:RA:68:G:H2'	24:RA:69:C:H6	1.85	0.41
24:RA:207:A:H2'	24:RA:208:C:O4'	2.21	0.41
24:RA:1018:C:H2'	24:RA:1019:U:H6	1.86	0.41
24:RA:1164:G:H2'	24:RA:1165:U:H6	1.84	0.41
24:RA:1171:G:N7	24:RA:1174:A:N6	2.69	0.41
24:RA:1503:U:H2'	24:RA:1504:C:C6	2.55	0.41
24:RA:1869:G:H5'	24:RA:1870:C:OP2	2.20	0.41
24:RA:2250:G:O2'	24:RA:2496:C:OP1	2.31	0.41
25:RB:11:C:OP2	25:RB:12:C:N4	2.40	0.41
27:RE:1:MET:HE2	27:RE:199:ARG:HB3	2.01	0.41
29:RG:173:LEU:HD22	29:RG:178:PHE:CE2	2.55	0.41
30:RH:107:VAL:HB	30:RH:109:PHE:CE2	2.55	0.41
33:RO:115:VAL:HG13	33:RO:121:VAL:HG21	2.02	0.41
45:R0:74:ARG:HG3	45:R0:75:LEU:HD12	2.03	0.41
51:R6:9:LEU:HD11	51:R6:23:THR:HG22	2.03	0.41
1:XA:321:A:C2	1:XA:333:G:C2	3.09	0.41
1:XA:538:G:H2'	1:XA:539:A:C8	2.56	0.41
1:XA:584:G:H2'	1:XA:585:G:C8	2.56	0.41
1:XA:842:C:O2'	1:XA:848:C:N4	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:920:U:H2'	1:XA:921:U:H6	1.82	0.41
1:XA:1329:A:H5"	13:XM:26:GLY:H	1.86	0.41
1:XA:1350:A:H2'	1:XA:1351:U:C6	2.56	0.41
7:XG:104:LEU:HD22	7:XG:123:GLU:OE1	2.20	0.41
20:XT:34:LYS:O	20:XT:38:LYS:HG2	2.20	0.41
24:YA:139:G:H4'	24:YA:140:A:H2	1.85	0.41
24:YA:443:A:C5	28:YF:45:ARG:HD3	2.56	0.41
24:YA:591:C:H1'	53:Y8:2:PRO:HA	2.02	0.41
24:YA:860:U:H5	24:YA:917:A:C2	2.38	0.41
24:YA:1027:A:C2	24:YA:2488:A:H5'	2.55	0.41
24:YA:1462:C:H4'	24:YA:2703:C:O4'	2.20	0.41
24:YA:1655:A:H1'	27:YE:113:PHE:CD2	2.56	0.41
24:YA:1773:A:N7	24:YA:1829:A:H1'	2.35	0.41
24:YA:2079:U:H4'	24:YA:2433:A:C2	2.55	0.41
24:YA:2442:C:H2'	24:YA:2443:C:C6	2.56	0.41
25:YB:111:U:H2'	25:YB:112:G:C8	2.55	0.41
26:YD:31:LYS:NZ	26:YD:34:VAL:HB	2.35	0.41
28:YF:134:GLY:H	28:YF:162:LEU:HD23	1.86	0.41
28:YF:185:ASP:HA	28:YF:188:ARG:HD3	2.03	0.41
33:YO:8:LEU:HB2	33:YO:19:ILE:HG13	2.03	0.41
39:YU:12:ARG:O	39:YU:16:LYS:HD3	2.20	0.41
1:QA:15:G:C4	1:QA:16:A:C8	3.09	0.41
1:QA:397:A:N7	1:QA:547:A:O2'	2.52	0.41
1:QA:444:C:H2'	1:QA:445:G:C8	2.55	0.41
1:QA:537:G:H5"	12:QL:113:ARG:HH12	1.86	0.41
1:QA:690:G:N2	11:QK:55:LYS:HZ3	2.18	0.41
1:QA:738:C:H2'	1:QA:739:C:C6	2.56	0.41
1:QA:792:A:H2'	1:QA:792:A:N3	2.36	0.41
1:QA:855:G:C6	1:QA:856:C:C4	3.08	0.41
1:QA:953:G:C6	1:QA:1229:A:C6	3.09	0.41
1:QA:1086:U:H3	1:QA:1099:G:H22	1.68	0.41
1:QA:1254:C:H5"	10:QJ:45:ARG:NH1	2.36	0.41
1:QA:1368:G:O3'	14:QN:61:TRP:HH2	2.04	0.41
4:QD:197:PRO:HD3	6:XF:16:GLN:NE2	2.36	0.41
7:QG:50:ILE:HG13	7:QG:50:ILE:O	2.21	0.41
7:QG:78:ARG:O	7:QG:84:ASN:HA	2.21	0.41
12:QL:69:TYR:HB3	12:QL:99:HIS:CD2	2.56	0.41
17:QQ:43:LEU:O	17:QQ:69:LYS:HG3	2.20	0.41
22:QV:53:G:O2'	22:QV:54:G:OP1	2.35	0.41
24:RA:51:G:OP2	24:RA:51:G:H8	2.03	0.41
24:RA:303:U:H2'	24:RA:304:G:C8	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:404:C:H1'	24:RA:405:U:OP2	2.20	0.41
24:RA:445:C:H2'	24:RA:446:G:O4'	2.20	0.41
24:RA:522:G:H2'	24:RA:523:C:C6	2.56	0.41
24:RA:569:U:H2'	24:RA:570:G:C8	2.56	0.41
24:RA:637:A:H4'	24:RA:638:G:O5'	2.20	0.41
24:RA:764:A:H5'	26:RD:210:GLY:HA2	2.03	0.41
24:RA:1040:C:H2'	24:RA:1041:C:H6	1.86	0.41
24:RA:1266:G:N7	41:RW:15:ARG:NE	2.66	0.41
24:RA:1449:A:C4	24:RA:1529:A:C2	3.09	0.41
24:RA:1632:A:H2'	24:RA:1633:G:C8	2.55	0.41
24:RA:1751:C:H2'	24:RA:1752:C:C6	2.56	0.41
24:RA:1843:C:H5'	26:RD:253:GLN:OE1	2.21	0.41
24:RA:1995:U:H2'	24:RA:1996:C:C5	2.56	0.41
24:RA:2355:C:H4'	45:R0:24:LYS:HE3	2.03	0.41
24:RA:2704:C:H2'	24:RA:2705:A:O4'	2.21	0.41
24:RA:2840:C:H5"	36:RR:53:HIS:ND1	2.35	0.41
26:RD:45:ASN:CG	26:RD:46:GLN:H	2.25	0.41
26:RD:245:PRO:HA	26:RD:246:PRO:HD3	1.86	0.41
28:RF:128:ALA:O	28:RF:130:ALA:N	2.54	0.41
29:RG:98:ARG:O	29:RG:101:ILE:HG22	2.21	0.41
29:RG:109:VAL:C	29:RG:112:PRO:HD2	2.46	0.41
29:RG:111:LEU:HD22	29:RG:117:PHE:CE1	2.55	0.41
30:RH:26:VAL:HG13	30:RH:27:LYS:N	2.35	0.41
44:RZ:23:LYS:HD2	44:RZ:38:TYR:CE2	2.56	0.41
48:R3:16:PRO:HB2	48:R3:18:ASP:OD1	2.21	0.41
49:R4:61:ARG:HH11	49:R4:62:ARG:CA	2.25	0.41
51:R6:25:LYS:NZ	51:R6:34:LEU:HB2	2.35	0.41
1:XA:49:U:H3	1:XA:362:G:H1'	1.86	0.41
1:XA:68:G:N2	1:XA:152:A:O2'	2.54	0.41
1:XA:177:C:H2'	1:XA:178:C:C6	2.56	0.41
1:XA:276:G:OP2	17:XQ:14:LYS:HE3	2.21	0.41
1:XA:411:A:C4	1:XA:413:G:H1'	2.55	0.41
1:XA:750:G:C2	1:XA:751:U:C5	3.08	0.41
1:XA:777:A:H2'	1:XA:778:G:H8	1.85	0.41
1:XA:868:C:H2'	1:XA:869:G:O4'	2.20	0.41
1:XA:925:G:C2	1:XA:927:G:C8	3.09	0.41
1:XA:998:G:H2'	1:XA:998(A):C:C6	2.56	0.41
1:XA:1009:G:C6	1:XA:1021:G:C6	3.08	0.41
1:XA:1034:G:H2'	1:XA:1035:A:C8	2.55	0.41
1:XA:1251:A:H2'	1:XA:1252:A:C8	2.56	0.41
1:XA:1427:U:H2'	1:XA:1428:A:H8	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:XJ:84:GLN:HG3	10:XJ:85:LEU:HG	2.02	0.41
18:XR:68:LYS:O	18:XR:72:ARG:HG3	2.21	0.41
24:YA:152:G:H2'	24:YA:153:C:C6	2.56	0.41
24:YA:194:G:H2'	24:YA:195:A:O4'	2.21	0.41
24:YA:301:G:C6	24:YA:317:G:C6	3.09	0.41
24:YA:459:U:H4'	52:Y7:40:TRP:CZ3	2.56	0.41
24:YA:570:G:H2'	24:YA:2030:A:C5	2.56	0.41
24:YA:896:A:O2'	44:YZ:176:PRO:HG3	2.20	0.41
24:YA:1283:G:O2'	24:YA:1285:G:N7	2.45	0.41
24:YA:1517:G:H2'	24:YA:1518:C:C6	2.56	0.41
24:YA:1547:C:O2'	24:YA:1548:C:H5'	2.20	0.41
24:YA:1651:G:H5'	36:YR:39:PRO:HG2	2.02	0.41
24:YA:1709:U:H2'	24:YA:1710:C:H6	1.84	0.41
24:YA:2020:A:H4'	39:YU:25:TRP:HZ3	1.86	0.41
24:YA:2106:G:H2'	24:YA:2107:C:C6	2.56	0.41
24:YA:2137:C:H2'	24:YA:2138:C:C6	2.56	0.41
24:YA:2330:G:H2'	24:YA:2331:G:O4'	2.20	0.41
24:YA:2331:G:O2'	45:Y0:43:THR:HG22	2.20	0.41
24:YA:2356:C:H2'	24:YA:2357:U:O4'	2.21	0.41
24:YA:2369:A:H2'	24:YA:2370:G:C8	2.56	0.41
24:YA:2415:G:H4'	34:YP:67:MET:H	1.84	0.41
24:YA:2459:A:C4	24:YA:2460:U:C6	3.09	0.41
24:YA:2696:U:H2'	24:YA:2697:G:C8	2.56	0.41
25:YB:47:C:H4'	37:YS:93:LYS:NZ	2.36	0.41
26:YD:28:GLU:HG2	26:YD:29:PRO:CD	2.49	0.41
26:YD:116:GLN:OE1	26:YD:118:VAL:HG13	2.21	0.41
28:YF:39:TRP:CH2	28:YF:106:ARG:HD3	2.56	0.41
28:YF:155:LEU:HD13	28:YF:174:VAL:HG13	2.03	0.41
32:YN:3:THR:CG2	39:YU:61:TRP:HE1	2.34	0.41
32:YN:17:ASP:O	32:YN:56:ASN:HB2	2.21	0.41
32:YN:52:VAL:HB	32:YN:120:LEU:HD23	2.02	0.41
35:YQ:78:PRO:HD2	35:YQ:80:GLU:OE1	2.21	0.41
38:YT:26:ASP:HB2	38:YT:90:GLN:O	2.21	0.41
43:YY:28:LYS:HB3	43:YY:38:ILE:HG22	2.03	0.41
43:YY:55:TYR:CE1	43:YY:61:ILE:HG21	2.56	0.41
44:YZ:124:ILE:HG21	44:YZ:163:LEU:HD11	2.02	0.41
1:QA:848:C:H2'	1:QA:849:C:H6	1.85	0.41
1:QA:1290:G:O3'	7:QG:37:ASN:ND2	2.54	0.41
1:QA:1431:C:H2'	1:QA:1432:G:O4'	2.20	0.41
1:QA:1491:G:H5"	1:QA:1492:A:OP2	2.21	0.41
3:QC:12:LEU:HB3	14:QN:57:ARG:HG3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:QM:12:ASN:O	13:QM:13:LYS:HB2	2.21	0.41
13:QM:80:ARG:HD2	49:R4:58:ARG:HH22	1.85	0.41
13:QM:108:ARG:HH12	13:QM:114:ARG:NH1	2.19	0.41
24:RA:432:A:H2'	24:RA:433:C:C6	2.56	0.41
24:RA:635:C:H2'	24:RA:636:G:O4'	2.21	0.41
24:RA:666:G:H1'	53:R8:4:MET:SD	2.61	0.41
24:RA:1142(A):A:H4'	32:RN:25:ARG:NH2	2.29	0.41
24:RA:2090:G:C6	24:RA:2230:G:C6	3.09	0.41
24:RA:2187:G:H2'	24:RA:2188:C:C6	2.56	0.41
25:RB:33:G:O2'	25:RB:34:U:H5'	2.21	0.41
25:RB:49:C:H2'	25:RB:50:G:H8	1.85	0.41
27:RE:6:GLY:HA2	27:RE:51:PHE:CZ	2.56	0.41
28:RF:110:LEU:HG	28:RF:202:PHE:HE1	1.86	0.41
28:RF:195:ASP:N	28:RF:195:ASP:OD1	2.54	0.41
29:RG:113:ARG:NH1	49:R4:34:GLU:OE1	2.46	0.41
30:RH:16:SER:OG	30:RH:27:LYS:HB2	2.21	0.41
31:RI:79:ILE:O	31:RI:79:ILE:HD12	2.21	0.41
34:RP:29:LYS:HG3	34:RP:30:THR:HG23	2.03	0.41
34:RP:57:THR:HG23	34:RP:59:LEU:H	1.85	0.41
51:R6:26:ASN:HD22	51:R6:27:LYS:H	1.68	0.41
1:XA:600:C:H4'	8:XH:128:GLY:O	2.21	0.41
1:XA:791:G:C6	1:XA:792:A:N1	2.89	0.41
1:XA:1298:C:H4'	1:XA:1299:A:O4'	2.21	0.41
4:XD:18:LYS:HA	4:XD:18:LYS:HD3	1.92	0.41
7:XG:111:ARG:HB3	7:XG:113:GLU:OE1	2.21	0.41
10:XJ:44:VAL:HG22	10:XJ:66:ARG:HG2	2.03	0.41
12:XL:105:TYR:C	12:XL:107:ALA:N	2.79	0.41
20:XT:39:LYS:HG3	20:XT:55:ILE:HG21	2.03	0.41
24:YA:278:A:H2'	24:YA:279:C:H6	1.80	0.41
24:YA:320:A:O2'	28:YF:169:ASN:ND2	2.48	0.41
24:YA:455:C:N3	24:YA:473:G:H5'	2.35	0.41
24:YA:795:C:H2'	24:YA:796:C:C6	2.56	0.41
24:YA:957:A:N1	24:YA:2458:G:H4'	2.36	0.41
24:YA:1019:U:OP1	24:YA:1035:U:O2'	2.28	0.41
24:YA:1508:A:O2'	24:YA:1509:C:O4'	2.20	0.41
24:YA:1598:C:O3'	42:YX:35:THR:OG1	2.35	0.41
24:YA:2100:G:N3	24:YA:2100:G:H2'	2.36	0.41
24:YA:2164:C:H5"	24:YA:2165:G:OP2	2.20	0.41
24:YA:2266:A:H4'	24:YA:2267:A:N3	2.36	0.41
24:YA:2459:A:C5	24:YA:2460:U:C5	3.09	0.41
26:YD:35:LYS:HG3	26:YD:63:ARG:HD2	2.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:YG:15:VAL:HG21	29:YG:176:LEU:HD23	2.03	0.41
35:YQ:50:ALA:HB1	35:YQ:121:ALA:HB1	2.02	0.41
39:YU:31:SER:HB3	39:YU:34:LYS:HB2	2.03	0.41
1:QA:368:U:OP1	31:YI:91:SER:OG	2.39	0.40
1:QA:643:C:H2'	1:QA:644:G:H8	1.86	0.40
1:QA:1213:A:C6	1:QA:1215:G:C4	3.09	0.40
1:QA:1301:U:H3'	1:QA:1302:U:H5'	2.02	0.40
19:QS:10:PHE:HA	19:QS:38:SER:HB3	2.03	0.40
24:RA:108:U:H2'	24:RA:109:G:H8	1.86	0.40
24:RA:270(I):G:H2'	24:RA:270(J):G:C8	2.55	0.40
24:RA:299:A:N3	24:RA:319:C:O2'	2.51	0.40
24:RA:512:G:H4'	24:RA:513:A:O5'	2.21	0.40
24:RA:1759:A:H4'	24:RA:2715:C:O4'	2.21	0.40
24:RA:1826:G:H2'	24:RA:1827:C:C6	2.55	0.40
24:RA:2867:G:O2'	24:RA:2868:A:C8	2.70	0.40
25:RB:24:G:H1'	25:RB:26:A:H62	1.86	0.40
26:RD:72:LYS:NZ	26:RD:99:ASP:OD2	2.54	0.40
29:RG:41:GLN:HB2	29:RG:60:LEU:HD22	2.03	0.40
35:RQ:16:ARG:NH2	35:RQ:18:LYS:HG2	2.35	0.40
38:RT:53:ARG:HD3	38:RT:53:ARG:O	2.21	0.40
44:RZ:152:ALA:CB	44:RZ:168:GLU:HA	2.51	0.40
1:XA:36:C:O2'	1:XA:501:C:OP1	2.33	0.40
1:XA:624:C:O3'	16:XP:10:GLY:HA2	2.20	0.40
1:XA:1135:U:H4'	1:XA:1136:U:H5	1.85	0.40
1:XA:1152:A:H2'	1:XA:1153:C:C6	2.56	0.40
1:XA:1427:U:H2'	1:XA:1428:A:C8	2.56	0.40
6:XF:9:VAL:HG22	6:XF:60:PHE:CD1	2.56	0.40
8:XH:120:THR:HG22	8:XH:121:ASP:OD1	2.21	0.40
12:XL:89:ARG:HE	12:XL:91:LYS:HA	1.86	0.40
18:XR:21:LYS:HD3	18:XR:57:GLY:HA3	2.03	0.40
20:XT:100:ILE:HG13	20:XT:102:GLY:N	2.34	0.40
24:YA:686:G:N2	24:YA:788:A:H61	2.18	0.40
24:YA:775:G:C4	24:YA:794:G:C8	3.09	0.40
24:YA:809:G:H2'	24:YA:810:U:C6	2.56	0.40
24:YA:1265:A:H8	24:YA:1265:A:OP1	2.03	0.40
24:YA:1790:C:H2'	24:YA:1791:A:C8	2.56	0.40
24:YA:2022:U:O2'	24:YA:2617:C:H5'	2.21	0.40
24:YA:2163:C:H2'	24:YA:2164:C:C6	2.56	0.40
24:YA:2228:G:OP1	26:YD:261:LYS:NZ	2.41	0.40
24:YA:2259:G:C8	24:YA:2427:C:C4	3.08	0.40
24:YA:2705:A:H2	36:YR:64:ARG:HH22	1.68	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:YF:64:ILE:HG21	28:YF:78:ILE:HD11	2.02	0.40
30:YH:103:LEU:HB3	30:YH:115:VAL:CG2	2.51	0.40
35:YQ:34:LEU:HB2	35:YQ:118:LEU:HD22	2.03	0.40
36:YR:28:LEU:HD13	36:YR:34:ILE:HG12	2.03	0.40
41:YW:64:MET:C	41:YW:65:LEU:HD23	2.45	0.40
42:YX:36:LYS:HB2	42:YX:54:VAL:HB	2.04	0.40
44:YZ:23:LYS:HG2	44:YZ:40:ASP:HA	2.02	0.40
1:QA:485:G:O2'	1:QA:486:U:O5'	2.39	0.40
1:QA:580:U:H5"	15:QO:58:MET:HG2	2.02	0.40
1:QA:604:G:C6	1:QA:635:G:C6	3.10	0.40
1:QA:659:U:OP1	15:QO:9:GLN:NE2	2.52	0.40
1:QA:1360:A:H2'	1:QA:1361:G:C8	2.56	0.40
3:QC:108:ASN:HD21	3:QC:144:SER:HB3	1.86	0.40
4:QD:4:TYR:OH	4:QD:7:PRO:O	2.30	0.40
14:QN:15:LYS:HE3	14:QN:19:ARG:NH1	2.37	0.40
24:RA:483:A:O4'	43:RY:48:ALA:HB1	2.19	0.40
24:RA:947:G:O2'	24:RA:984:A:N1	2.52	0.40
24:RA:1297:C:H2'	24:RA:1298:C:H6	1.86	0.40
24:RA:1936:A:N7	24:RA:1945:G:C8	2.89	0.40
24:RA:2306:C:H2'	24:RA:2307:G:N2	2.36	0.40
24:RA:2543:G:H21	24:RA:2646:C:H5"	1.85	0.40
24:RA:2803:C:H2'	24:RA:2804:C:C6	2.57	0.40
27:RE:73:GLU:CG	27:RE:74:PRO:HD2	2.52	0.40
27:RE:82:ARG:O	27:RE:83:ASP:HB2	2.21	0.40
31:RI:81:VAL:HG11	31:RI:92:VAL:HG22	2.03	0.40
31:RI:113:ARG:O	31:RI:113:ARG:HD3	2.21	0.40
39:RU:90:VAL:HG13	40:RV:39:LEU:HD22	2.03	0.40
1:XA:238:G:P	17:XQ:25:ARG:HH22	2.45	0.40
1:XA:411:A:P	4:XD:30:LYS:NZ	2.94	0.40
1:XA:546:G:H4'	1:XA:548:G:H4'	2.03	0.40
1:XA:552:U:H5'	12:XL:86:ARG:HH11	1.86	0.40
1:XA:909:A:H2'	1:XA:910:C:O4'	2.21	0.40
1:XA:964:A:O3'	10:XJ:55:LYS:NZ	2.54	0.40
1:XA:967:C:H5"	1:XA:968:A:OP2	2.21	0.40
6:XF:37:VAL:HA	6:XF:65:VAL:HG12	2.04	0.40
10:XJ:54:PHE:HD2	10:XJ:55:LYS:HG2	1.87	0.40
12:XL:92:ASP:O	12:XL:94:PRO:HD3	2.21	0.40
13:XM:3:ARG:NH1	29:YG:113:ARG:HH21	2.19	0.40
17:XQ:60:ILE:CG2	17:XQ:72:ARG:HG2	2.50	0.40
22:XV:19:G:H21	22:XV:59:A:H5'	1.85	0.40
24:YA:106:C:H2'	24:YA:107:C:H6	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:265:A:N6	24:YA:428:A:N7	2.69	0.40
24:YA:305:U:H2'	24:YA:306:U:C6	2.57	0.40
24:YA:1173:G:H1'	24:YA:1175:U:C5	2.56	0.40
24:YA:1293:C:H2'	24:YA:1294:U:C6	2.56	0.40
24:YA:1817:G:N3	24:YA:1817:G:H2'	2.35	0.40
24:YA:1878:G:H2'	24:YA:1879:C:H6	1.85	0.40
24:YA:2262:U:OP1	24:YA:2387:U:O2'	2.35	0.40
26:YD:142:VAL:HG12	26:YD:193:VAL:HG23	2.03	0.40
27:YE:82:ARG:O	27:YE:83:ASP:HB2	2.21	0.40
29:YG:109:VAL:HG11	29:YG:142:PRO:HG3	2.03	0.40
32:YN:34:LEU:HD11	32:YN:120:LEU:HG	2.02	0.40
39:YU:80:ILE:HG22	39:YU:84:LYS:HE2	2.03	0.40
44:YZ:61:LEU:HD23	44:YZ:65:GLN:HB2	2.03	0.40
49:Y4:53:GLU:HB2	49:Y4:56:VAL:CG2	2.50	0.40
1:QA:191(G):G:O2'	20:QT:101:GLY:O	2.35	0.40
1:QA:1048:G:OP1	14:QN:3:ARG:HG2	2.21	0.40
1:QA:1051:C:H2'	1:QA:1052:U:C6	2.56	0.40
4:QD:21:LEU:HD11	4:QD:67:ILE:HA	2.04	0.40
4:QD:127:THR:HG23	4:QD:131:ARG:C	2.46	0.40
8:QH:6:ILE:HD11	8:QH:31:PHE:CD2	2.56	0.40
24:RA:191:A:H2'	24:RA:192:C:H6	1.86	0.40
24:RA:824:A:H2'	24:RA:825:C:C6	2.56	0.40
24:RA:835:A:C4	24:RA:836:G:C8	3.10	0.40
24:RA:860:U:C5	24:RA:917:A:C2	3.09	0.40
24:RA:957:A:N6	24:RA:2459:A:C8	2.90	0.40
24:RA:1520:U:H2'	24:RA:1521:G:O4'	2.22	0.40
24:RA:1651:G:N2	24:RA:2007:C:C2	2.89	0.40
24:RA:2168:G:N2	24:RA:2170:A:N7	2.70	0.40
24:RA:2845:G:H5"	38:RT:54:ARG:O	2.22	0.40
25:RB:93:C:H2'	25:RB:94:C:H6	1.87	0.40
26:RD:123:ALA:O	26:RD:131:LEU:HD11	2.22	0.40
29:RG:38:VAL:HG13	29:RG:158:ALA:HB3	2.03	0.40
45:R0:32:ARG:N	45:R0:35:ASN:OD1	2.49	0.40
1:XA:178:C:C2	1:XA:179:A:C8	3.09	0.40
1:XA:390:C:O3'	16:XP:28:ARG:NH2	2.54	0.40
1:XA:718:G:N2	18:XR:49:LYS:HB3	2.37	0.40
1:XA:728:A:H2'	1:XA:729:A:C8	2.56	0.40
13:XM:45:VAL:HG23	13:XM:48:LEU:HD21	2.04	0.40
15:XO:40:SER:O	15:XO:44:LYS:HG3	2.21	0.40
19:XS:80:TYR:O	19:XS:81:ARG:HG2	2.21	0.40
24:YA:32:C:O2'	24:YA:33:U:H5'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YA:171:G:H2'	24:YA:172:C:C6	2.56	0.40
24:YA:307:G:H21	24:YA:330:A:N6	2.19	0.40
24:YA:363(D):G:H2'	24:YA:363(E):U:H6	1.85	0.40
24:YA:379:G:C6	24:YA:396:G:C6	3.10	0.40
24:YA:794:G:H2'	24:YA:795:C:H6	1.84	0.40
24:YA:807:U:H2'	24:YA:808:G:C8	2.55	0.40
24:YA:1694:C:H4'	24:YA:1695:G:O5'	2.21	0.40
24:YA:1826:G:H2'	24:YA:1827:C:H6	1.86	0.40
24:YA:1872:A:H5'	24:YA:1878:G:OP2	2.21	0.40
24:YA:2102:U:H2'	24:YA:2103:C:C6	2.57	0.40
24:YA:2289:G:N2	24:YA:2344:U:O2	2.54	0.40
24:YA:2295:C:OP2	37:YS:10:ARG:HD3	2.21	0.40
24:YA:2317:C:H2'	24:YA:2318:G:O4'	2.22	0.40
24:YA:2373:G:H5'	51:Y6:37:ARG:HH22	1.85	0.40
24:YA:2418:A:H2'	24:YA:2419:U:C6	2.56	0.40
24:YA:2467:C:H4'	35:YQ:123:HIS:CD2	2.57	0.40
24:YA:2516:G:C4	24:YA:2569:G:N2	2.90	0.40
24:YA:2567:G:H2'	24:YA:2568:C:C6	2.56	0.40
27:YE:101:ARG:HA	27:YE:170:LEU:O	2.21	0.40
29:YG:105:LYS:HE2	49:Y4:26:SER:HB3	2.03	0.40
29:YG:107:LEU:HD21	29:YG:178:PHE:CE1	2.57	0.40
31:YI:40:THR:HG22	31:YI:42:SER:H	1.86	0.40
33:YO:7:TYR:HE1	33:YO:44:LYS:HG3	1.86	0.40
35:YQ:7:MET:HE1	35:YQ:93:TYR:CE1	2.57	0.40
36:YR:49:ASP:OD1	36:YR:95:THR:HG23	2.21	0.40
39:YU:97:ASP:OD1	39:YU:101:ARG:HG3	2.21	0.40
1:QA:49:U:C2	1:QA:361:G:N2	2.90	0.40
1:QA:148:G:H2'	1:QA:149:A:C8	2.56	0.40
1:QA:504:C:C2	1:QA:542:G:N2	2.90	0.40
1:QA:689:C:OP1	11:QK:27:ASN:ND2	2.52	0.40
1:QA:828:A:H2'	1:QA:829:G:O4'	2.22	0.40
1:QA:1225:A:H4'	19:QS:78:ARG:HE	1.86	0.40
1:QA:1236:A:H4'	1:QA:1304:G:H4'	2.04	0.40
1:QA:1371:G:H2'	1:QA:1372:U:C6	2.56	0.40
2:QB:131:PRO:O	2:QB:135:GLN:HG3	2.22	0.40
9:QI:26:VAL:HG22	9:QI:61:ALA:HB3	2.03	0.40
12:QL:38:THR:OG1	12:QL:57:LYS:HG3	2.22	0.40
12:QL:45:PRO:HG3	12:QL:53:ARG:HD3	2.03	0.40
17:QQ:43:LEU:HD12	17:QQ:68:ARG:HG3	2.03	0.40
24:RA:754:C:H2'	24:RA:755:C:C6	2.56	0.40
24:RA:968:G:H2'	24:RA:969:U:C6	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:RA:1331:A:O2'	24:RA:1332:G:H8	2.05	0.40
24:RA:1790:C:H2'	24:RA:1791:A:C8	2.55	0.40
24:RA:2532:G:C6	24:RA:2533:A:C6	3.10	0.40
24:RA:2562:U:H4'	33:RO:25:LEU:HD21	2.03	0.40
25:RB:113:C:HO2'	37:RS:47:THR:H	1.64	0.40
27:RE:2:LYS:HB2	27:RE:200:GLU:HG2	2.03	0.40
35:RQ:40:ALA:HB2	35:RQ:127:ILE:HD11	2.03	0.40
37:RS:10:ARG:HA	37:RS:13:ARG:HE	1.85	0.40
44:RZ:5:LEU:HB2	44:RZ:59:LEU:HA	2.02	0.40
1:XA:1000:A:H2'	1:XA:1001:G:C8	2.57	0.40
1:XA:1009:G:C2	1:XA:1010:G:C8	3.10	0.40
2:XB:11:LEU:HG	2:XB:213:LEU:HD11	2.02	0.40
3:XC:11:ARG:C	3:XC:13:GLY:H	2.30	0.40
3:XC:26:LYS:HA	14:XN:36:PHE:HE1	1.85	0.40
4:XD:68:TYR:CE2	4:XD:97:LEU:HB3	2.57	0.40
6:XF:97:PHE:N	18:XR:30:ASP:OD1	2.54	0.40
7:XG:35:LYS:HE3	7:XG:37:ASN:HB3	2.04	0.40
9:XI:71:SER:O	9:XI:74:ILE:HG13	2.21	0.40
13:XM:96:LEU:HB3	13:XM:97:PRO:HD2	2.02	0.40
24:YA:37:C:H2'	24:YA:38:A:C8	2.56	0.40
24:YA:219:G:H2'	24:YA:220:G:O4'	2.21	0.40
24:YA:273:G:H2'	24:YA:273(A):G:H8	1.87	0.40
24:YA:578:A:O2'	24:YA:580:C:OP2	2.34	0.40
24:YA:602:G:O2'	24:YA:655:A:N6	2.53	0.40
24:YA:994:C:H3'	39:YU:54:LYS:HE3	2.04	0.40
24:YA:1074:G:OP2	24:YA:1074:G:H8	2.05	0.40
24:YA:1331:A:O2'	24:YA:1332:G:H5'	2.22	0.40
24:YA:1728:G:H3'	24:YA:1729:A:C5'	2.51	0.40
24:YA:2061:G:N3	24:YA:2063:C:C5	2.89	0.40
24:YA:2143:C:H2'	24:YA:2144:U:O4'	2.21	0.40
24:YA:2657:A:H1'	24:YA:2665:A:N6	2.35	0.40
25:YB:69:G:C5	25:YB:70:C:C5	3.10	0.40
37:YS:18:ILE:HG12	37:YS:88:ASP:HA	2.02	0.40
1:QA:192:U:H2'	1:QA:193:C:C6	2.56	0.40
1:QA:198:G:C4	1:QA:199:G:C8	3.10	0.40
1:QA:628:G:H2'	1:QA:629:G:C8	2.56	0.40
1:QA:658:G:H5"	15:QO:8:LYS:NZ	2.36	0.40
1:QA:922:G:H2'	1:QA:923:A:H8	1.84	0.40
1:QA:925:G:H1'	1:QA:1502:A:C4	2.56	0.40
1:QA:946:A:H2'	1:QA:947:G:H8	1.81	0.40
1:QA:973:G:H3'	1:QA:974:A:C5'	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:984:C:H2'	1:QA:985:C:C6	2.57	0.40
1:QA:1349:A:OP2	9:QI:118:LYS:HE2	2.21	0.40
2:QB:145:LEU:O	2:QB:149:LEU:HG	2.22	0.40
8:QH:129:VAL:HG13	8:QH:130:GLY:N	2.37	0.40
12:QL:109:GLY:HA3	12:QL:121:GLY:O	2.21	0.40
13:QM:81:LEU:O	13:QM:84:ILE:HG22	2.22	0.40
15:QO:17:ARG:NH1	15:QO:26:GLU:HG2	2.37	0.40
15:QO:48:LYS:HD3	15:QO:48:LYS:O	2.22	0.40
24:RA:458:G:H8	52:R7:37:LYS:O	2.05	0.40
24:RA:751:A:C6	24:RA:789:A:C5	3.09	0.40
24:RA:2450:A:C2	24:RA:2451:A:C5	3.10	0.40
24:RA:2459:A:C5	24:RA:2460:U:C5	3.10	0.40
24:RA:2666:C:O2	30:RH:152:ARG:NH1	2.54	0.40
24:RA:2884:U:H2'	24:RA:2885:C:O4'	2.22	0.40
25:RB:24:G:H5"	25:RB:25:A:OP1	2.21	0.40
27:RE:79:ARG:HG3	27:RE:197:ILE:HG21	2.02	0.40
29:RG:53:LEU:HD13	29:RG:87:PRO:HB2	2.04	0.40
33:RO:69:ILE:HD11	33:RO:77:ILE:HG22	2.03	0.40
1:XA:112:G:H4'	1:XA:389:A:H4'	2.03	0.40
1:XA:552:U:O2	12:XL:31:PRO:HB3	2.22	0.40
1:XA:918:A:H2'	1:XA:919:A:C8	2.56	0.40
1:XA:923:A:H2'	1:XA:924:C:C6	2.57	0.40
1:XA:1029:G:O2'	1:XA:1032(A):G:N1	2.40	0.40
1:XA:1466:C:H2'	1:XA:1467:G:O4'	2.21	0.40
9:XI:10:ARG:HG2	9:XI:75:ASP:HB2	2.03	0.40
15:XO:57:LEU:HA	15:XO:60:VAL:HG22	2.03	0.40
24:YA:297:C:H2'	24:YA:298:G:O4'	2.20	0.40
24:YA:373:U:H2'	24:YA:374:A:H8	1.87	0.40
24:YA:512:G:OP1	24:YA:1234:U:O2'	2.22	0.40
24:YA:811:U:H3'	34:YP:22:GLY:HA2	2.04	0.40
24:YA:863:A:H2'	24:YA:864:G:C8	2.56	0.40
24:YA:1575:C:H2'	24:YA:1576:U:O4'	2.20	0.40
24:YA:2308:G:N2	24:YA:2311:A:H2	2.19	0.40
24:YA:2320:A:C8	24:YA:2333:A:N6	2.90	0.40
24:YA:2397:G:H5"	46:Y1:28:GLY:HA2	2.04	0.40
24:YA:2547:U:H2'	24:YA:2548:G:H8	1.86	0.40
25:YB:39:A:N3	25:YB:44:G:C2	2.90	0.40
26:YD:31:LYS:HE2	26:YD:102:LYS:HB3	2.04	0.40
28:YF:196:LEU:HD23	28:YF:196:LEU:HA	1.93	0.40
34:YP:82:GLY:HA2	34:YP:113:LYS:O	2.22	0.40
34:YP:98:GLU:HA	34:YP:101:VAL:HG12	2.03	0.40

All (5) 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)
24:RA:2217:G:OP1	4:XD:159:ARG:NH2[4_555]	2.08	0.12
31:RI:89:TYR:O	1:XA:357:G:O2'[4_555]	2.11	0.09
40:YV:49:THR:OG1	50:Y5:60:VAL:O[4_445]	2.12	0.08
24:RA:310:A:OP2	47:Y2:71:ASN:ND2[3_555]	2.14	0.06
31:RI:91:SER:OG	1:XA:368:U:OP1[4_555]	2.17	0.03

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%)	197 (84%)	35 (15%)	1 (0%)	30	62
2	XB	234/256 (91%)	203 (87%)	31 (13%)	0	100	100
3	QC	203/239 (85%)	186 (92%)	16 (8%)	1 (0%)	24	57
3	XC	203/239 (85%)	188 (93%)	14 (7%)	1 (0%)	24	57
4	QD	206/209 (99%)	189 (92%)	16 (8%)	1 (0%)	24	57
4	XD	206/209 (99%)	196 (95%)	8 (4%)	2 (1%)	12	44
5	QE	149/162 (92%)	139 (93%)	10 (7%)	0	100	100
5	XE	149/162 (92%)	144 (97%)	4 (3%)	1 (1%)	18	51
6	QF	99/101 (98%)	96 (97%)	3 (3%)	0	100	100
6	XF	99/101 (98%)	99 (100%)	0	0	100	100
7	QG	153/156 (98%)	143 (94%)	10 (6%)	0	100	100
7	XG	153/156 (98%)	144 (94%)	9 (6%)	0	100	100
8	QH	135/138 (98%)	128 (95%)	7 (5%)	0	100	100
8	XH	135/138 (98%)	129 (96%)	6 (4%)	0	100	100
9	QI	125/128 (98%)	110 (88%)	15 (12%)	0	100	100
9	XI	124/128 (97%)	114 (92%)	10 (8%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
10	QJ	97/105 (92%)	90 (93%)	6 (6%)	1 (1%)	12 44
10	XJ	94/105 (90%)	86 (92%)	8 (8%)	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%)	109 (89%)	12 (10%)	2 (2%)	7 36
12	XL	120/132 (91%)	104 (87%)	14 (12%)	2 (2%)	7 35
13	QM	118/126 (94%)	102 (86%)	14 (12%)	2 (2%)	7 35
13	XM	117/126 (93%)	104 (89%)	12 (10%)	1 (1%)	14 47
14	QN	58/61 (95%)	49 (84%)	8 (14%)	1 (2%)	7 35
14	XN	58/61 (95%)	50 (86%)	7 (12%)	1 (2%)	7 35
15	QO	86/89 (97%)	79 (92%)	7 (8%)	0	100 100
15	XO	85/89 (96%)	81 (95%)	4 (5%)	0	100 100
16	QP	82/88 (93%)	78 (95%)	4 (5%)	0	100 100
16	XP	82/88 (93%)	78 (95%)	4 (5%)	0	100 100
17	QQ	98/105 (93%)	94 (96%)	4 (4%)	0	100 100
17	XQ	98/105 (93%)	93 (95%)	5 (5%)	0	100 100
18	QR	68/88 (77%)	67 (98%)	1 (2%)	0	100 100
18	XR	68/88 (77%)	65 (96%)	3 (4%)	0	100 100
19	QS	81/93 (87%)	66 (82%)	14 (17%)	1 (1%)	10 41
19	XS	82/93 (88%)	69 (84%)	13 (16%)	0	100 100
20	QT	97/106 (92%)	83 (86%)	11 (11%)	3 (3%)	3 25
20	XT	97/106 (92%)	86 (89%)	9 (9%)	2 (2%)	5 31
21	QU	23/27 (85%)	21 (91%)	2 (9%)	0	100 100
21	XU	23/27 (85%)	21 (91%)	2 (9%)	0	100 100
26	RD	270/276 (98%)	251 (93%)	19 (7%)	0	100 100
26	YD	270/276 (98%)	244 (90%)	25 (9%)	1 (0%)	30 62
27	RE	203/206 (98%)	169 (83%)	31 (15%)	3 (2%)	8 37
27	YE	203/206 (98%)	173 (85%)	29 (14%)	1 (0%)	24 57
28	RF	200/210 (95%)	183 (92%)	16 (8%)	1 (0%)	24 57
28	YF	200/210 (95%)	185 (92%)	15 (8%)	0	100 100
29	RG	179/182 (98%)	148 (83%)	30 (17%)	1 (1%)	21 54

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
29	YG	179/182 (98%)	157 (88%)	22 (12%)	0	100	100
30	RH	172/180 (96%)	151 (88%)	21 (12%)	0	100	100
30	YH	172/180 (96%)	145 (84%)	25 (14%)	2 (1%)	10	41
31	RI	144/148 (97%)	113 (78%)	28 (19%)	3 (2%)	5	31
31	YI	144/148 (97%)	123 (85%)	18 (12%)	3 (2%)	5	31
32	RN	136/140 (97%)	121 (89%)	15 (11%)	0	100	100
32	YN	136/140 (97%)	119 (88%)	17 (12%)	0	100	100
33	RO	120/122 (98%)	114 (95%)	6 (5%)	0	100	100
33	YO	120/122 (98%)	114 (95%)	6 (5%)	0	100	100
34	RP	148/150 (99%)	123 (83%)	25 (17%)	0	100	100
34	YP	145/150 (97%)	111 (77%)	34 (23%)	0	100	100
35	RQ	139/141 (99%)	115 (83%)	22 (16%)	2 (1%)	9	38
35	YQ	139/141 (99%)	118 (85%)	19 (14%)	2 (1%)	9	38
36	RR	115/118 (98%)	108 (94%)	6 (5%)	1 (1%)	14	47
36	YR	115/118 (98%)	108 (94%)	6 (5%)	1 (1%)	14	47
37	RS	109/112 (97%)	91 (84%)	18 (16%)	0	100	100
37	YS	109/112 (97%)	93 (85%)	16 (15%)	0	100	100
38	RT	135/146 (92%)	120 (89%)	15 (11%)	0	100	100
38	YT	135/146 (92%)	115 (85%)	20 (15%)	0	100	100
39	RU	115/118 (98%)	107 (93%)	4 (4%)	4 (4%)	3	23
39	YU	115/118 (98%)	104 (90%)	8 (7%)	3 (3%)	4	27
40	RV	99/101 (98%)	84 (85%)	15 (15%)	0	100	100
40	YV	99/101 (98%)	89 (90%)	10 (10%)	0	100	100
41	RW	111/113 (98%)	101 (91%)	10 (9%)	0	100	100
41	YW	111/113 (98%)	101 (91%)	10 (9%)	0	100	100
42	RX	90/96 (94%)	85 (94%)	5 (6%)	0	100	100
42	YX	90/96 (94%)	86 (96%)	4 (4%)	0	100	100
43	RY	105/110 (96%)	99 (94%)	6 (6%)	0	100	100
43	YY	105/110 (96%)	103 (98%)	2 (2%)	0	100	100
44	RZ	181/206 (88%)	147 (81%)	30 (17%)	4 (2%)	5	30
44	YZ	181/206 (88%)	145 (80%)	32 (18%)	4 (2%)	5	30

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
45	R0	79/85 (93%)	75 (95%)	4 (5%)	0	100 100
45	Y0	80/85 (94%)	76 (95%)	4 (5%)	0	100 100
46	R1	92/98 (94%)	79 (86%)	13 (14%)	0	100 100
46	Y1	91/98 (93%)	81 (89%)	10 (11%)	0	100 100
47	R2	67/72 (93%)	60 (90%)	6 (9%)	1 (2%)	8 37
47	Y2	67/72 (93%)	63 (94%)	4 (6%)	0	100 100
48	R3	57/60 (95%)	56 (98%)	1 (2%)	0	100 100
48	Y3	57/60 (95%)	55 (96%)	2 (4%)	0	100 100
49	R4	67/71 (94%)	51 (76%)	11 (16%)	5 (8%)	1 9
49	Y4	67/71 (94%)	51 (76%)	12 (18%)	4 (6%)	1 12
50	R5	57/60 (95%)	52 (91%)	5 (9%)	0	100 100
50	Y5	57/60 (95%)	53 (93%)	4 (7%)	0	100 100
51	R6	51/54 (94%)	49 (96%)	2 (4%)	0	100 100
51	Y6	51/54 (94%)	46 (90%)	5 (10%)	0	100 100
52	R7	45/49 (92%)	45 (100%)	0	0	100 100
52	Y7	46/49 (94%)	46 (100%)	0	0	100 100
53	R8	62/65 (95%)	51 (82%)	9 (14%)	2 (3%)	3 24
53	Y8	62/65 (95%)	48 (77%)	14 (23%)	0	100 100
54	R9	35/37 (95%)	34 (97%)	1 (3%)	0	100 100
54	Y9	35/37 (95%)	34 (97%)	1 (3%)	0	100 100
All	All	11456/12128 (94%)	10265 (90%)	1120 (10%)	71 (1%)	21 54

All (71) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	QC	12	LEU
20	QT	74	LYS
39	RU	91	ASP
39	RU	92	ARG
44	RZ	53	ILE
49	R4	57	GLU
53	R8	29	LYS
53	R8	30	ARG
20	XT	74	LYS
20	XT	75	ASN

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Mol	Chain	Res	Type
39	YU	91	ASP
39	YU	92	ARG
44	YZ	53	ILE
44	YZ	180	VAL
49	Y4	57	GLU
20	QT	75	ASN
31	RI	132	PRO
49	R4	58	ARG
3	XC	12	LEU
30	YH	157	TYR
31	YI	15	VAL
31	YI	122	GLU
31	YI	132	PRO
49	Y4	47	GLN
4	QD	154	ASN
12	QL	105	TYR
14	QN	17	LYS
20	QT	73	HIS
27	RE	83	ASP
29	RG	82	LEU
31	RI	122	GLU
36	RR	4	LEU
44	RZ	180	VAL
49	R4	47	GLN
4	XD	156	GLU
12	XL	105	TYR
27	YE	83	ASP
2	QB	208	ILE
31	RI	15	VAL
39	RU	93	LYS
44	RZ	60	GLU
44	RZ	179	ASP
47	R2	70	GLN
12	XL	106	ASP
13	XM	13	LYS
26	YD	243	GLY
36	YR	4	LEU
44	YZ	178	GLU
13	QM	14	ARG
27	RE	144	ARG
35	RQ	78	PRO
49	R4	48	ARG

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Mol	Chain	Res	Type
4	XD	154	ASN
14	XN	17	LYS
30	YH	156	ALA
35	YQ	105	GLU
44	YZ	60	GLU
49	Y4	48	ARG
10	QJ	55	LYS
13	QM	13	LYS
28	RF	130	ALA
19	QS	42	PRO
27	RE	130	GLY
39	RU	90	VAL
49	R4	56	VAL
35	YQ	78	PRO
39	YU	90	VAL
5	XE	74	GLY
12	QL	47	LYS
35	RQ	66	ILE
49	Y4	56	VAL

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%)	202 (100%)	1 (0%)	81	80
2	XB	204/220 (93%)	203 (100%)	1 (0%)	81	80
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

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
6	XF	90/90 (100%)	90 (100%)	0	100	100
7	QG	126/127 (99%)	124 (98%)	2 (2%)	55	70
7	XG	126/127 (99%)	126 (100%)	0	100	100
8	QH	118/119 (99%)	117 (99%)	1 (1%)	73	77
8	XH	118/119 (99%)	117 (99%)	1 (1%)	73	77
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
10	XJ	86/92 (94%)	86 (100%)	0	100	100
11	QK	90/99 (91%)	89 (99%)	1 (1%)	65	74
11	XK	88/99 (89%)	88 (100%)	0	100	100
12	QL	104/109 (95%)	102 (98%)	2 (2%)	50	68
12	XL	103/109 (94%)	103 (100%)	0	100	100
13	QM	96/101 (95%)	95 (99%)	1 (1%)	68	75
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%)	60 (98%)	1 (2%)	55	70
19	QS	72/80 (90%)	72 (100%)	0	100	100
19	XS	73/80 (91%)	73 (100%)	0	100	100
20	QT	76/82 (93%)	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

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
26	RD	214/218 (98%)	214 (100%)	0	100	100
26	YD	214/218 (98%)	214 (100%)	0	100	100
27	RE	165/166 (99%)	164 (99%)	1 (1%)	78	79
27	YE	165/166 (99%)	165 (100%)	0	100	100
28	RF	161/166 (97%)	161 (100%)	0	100	100
28	YF	161/166 (97%)	161 (100%)	0	100	100
29	RG	155/156 (99%)	155 (100%)	0	100	100
29	YG	155/156 (99%)	154 (99%)	1 (1%)	78	79
30	RH	145/148 (98%)	145 (100%)	0	100	100
30	YH	145/148 (98%)	144 (99%)	1 (1%)	76	78
31	RI	122/124 (98%)	121 (99%)	1 (1%)	73	77
31	YI	122/124 (98%)	120 (98%)	2 (2%)	55	70
32	RN	117/119 (98%)	117 (100%)	0	100	100
32	YN	117/119 (98%)	116 (99%)	1 (1%)	70	76
33	RO	100/100 (100%)	100 (100%)	0	100	100
33	YO	100/100 (100%)	100 (100%)	0	100	100
34	RP	116/116 (100%)	116 (100%)	0	100	100
34	YP	114/116 (98%)	113 (99%)	1 (1%)	70	76
35	RQ	111/111 (100%)	110 (99%)	1 (1%)	70	76
35	YQ	111/111 (100%)	111 (100%)	0	100	100
36	RR	100/101 (99%)	100 (100%)	0	100	100
36	YR	100/101 (99%)	100 (100%)	0	100	100
37	RS	87/88 (99%)	86 (99%)	1 (1%)	65	74
37	YS	87/88 (99%)	87 (100%)	0	100	100
38	RT	120/127 (94%)	119 (99%)	1 (1%)	73	77
38	YT	120/127 (94%)	119 (99%)	1 (1%)	73	77
39	RU	93/94 (99%)	93 (100%)	0	100	100
39	YU	93/94 (99%)	93 (100%)	0	100	100
40	RV	82/82 (100%)	81 (99%)	1 (1%)	63	73
40	YV	82/82 (100%)	82 (100%)	0	100	100
41	RW	92/92 (100%)	92 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
41	YW	92/92 (100%)	92 (100%)	0	100	100
42	RX	74/78 (95%)	74 (100%)	0	100	100
42	YX	74/78 (95%)	74 (100%)	0	100	100
43	RY	88/91 (97%)	88 (100%)	0	100	100
43	YY	88/91 (97%)	88 (100%)	0	100	100
44	RZ	162/179 (90%)	162 (100%)	0	100	100
44	YZ	162/179 (90%)	162 (100%)	0	100	100
45	R0	65/67 (97%)	65 (100%)	0	100	100
45	Y0	65/67 (97%)	65 (100%)	0	100	100
46	R1	81/83 (98%)	79 (98%)	2 (2%)	42	63
46	Y1	78/83 (94%)	78 (100%)	0	100	100
47	R2	64/67 (96%)	64 (100%)	0	100	100
47	Y2	64/67 (96%)	64 (100%)	0	100	100
48	R3	51/52 (98%)	51 (100%)	0	100	100
48	Y3	51/52 (98%)	51 (100%)	0	100	100
49	R4	62/63 (98%)	62 (100%)	0	100	100
49	Y4	62/63 (98%)	62 (100%)	0	100	100
50	R5	51/52 (98%)	51 (100%)	0	100	100
50	Y5	51/52 (98%)	51 (100%)	0	100	100
51	R6	51/52 (98%)	51 (100%)	0	100	100
51	Y6	51/52 (98%)	51 (100%)	0	100	100
52	R7	40/42 (95%)	40 (100%)	0	100	100
52	Y7	41/42 (98%)	41 (100%)	0	100	100
53	R8	54/55 (98%)	54 (100%)	0	100	100
53	Y8	54/55 (98%)	54 (100%)	0	100	100
54	R9	34/34 (100%)	34 (100%)	0	100	100
54	Y9	34/34 (100%)	34 (100%)	0	100	100
All	All	9690/10066 (96%)	9664 (100%)	26 (0%)	86	83

All (26) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	QB	111	ARG

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Mol	Chain	Res	Type
7	QG	49	ILE
7	QG	156	TRP
8	QH	38	ILE
11	QK	96	ARG
12	QL	46	LYS
12	QL	47	LYS
13	QM	78	ILE
27	RE	95	ILE
31	RI	114	LEU
35	RQ	79	LEU
37	RS	106	ARG
38	RT	53	ARG
40	RV	99	ILE
46	R1	85	LEU
46	R1	88	LYS
2	XB	21	ARG
8	XH	137	VAL
18	XR	65	ILE
29	YG	153	ARG
30	YH	7	LEU
31	YI	52	ARG
31	YI	87	LYS
32	YN	89	LYS
34	YP	61	ARG
38	YT	102	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (69) such sidechains are listed below:

Mol	Chain	Res	Type
2	QB	40	HIS
2	QB	76	GLN
2	QB	140	HIS
2	QB	212	GLN
3	QC	6	HIS
3	QC	110	ASN
4	QD	43	HIS
4	QD	119	GLN
5	QE	20	GLN
7	QG	37	ASN
7	QG	51	GLN
7	QG	97	GLN
7	QG	148	ASN

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Mol	Chain	Res	Type
10	QJ	13	HIS
12	QL	80	HIS
14	QN	52	GLN
26	RD	87	ASN
26	RD	96	HIS
26	RD	203	ASN
26	RD	227	ASN
27	RE	137	HIS
28	RF	40	GLN
29	RG	138	GLN
34	RP	68	GLN
36	RR	13	HIS
36	RR	50	HIS
37	RS	68	GLN
38	RT	90	GLN
41	RW	62	HIS
44	RZ	121	HIS
47	R2	56	GLN
47	R2	65	ASN
49	R4	47	GLN
51	R6	26	ASN
51	R6	29	ASN
3	XC	37	GLN
4	XD	103	ASN
4	XD	119	GLN
7	XG	64	GLN
7	XG	96	GLN
9	XI	38	GLN
10	XJ	21	GLN
10	XJ	56	HIS
12	XL	99	HIS
15	XO	62	GLN
16	XP	13	HIS
16	XP	16	HIS
17	XQ	93	GLN
19	XS	83	HIS
20	XT	90	GLN
27	YE	48	GLN
27	YE	180	ASN
27	YE	192	ASN
28	YF	40	GLN
31	YI	17	GLN

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Mol	Chain	Res	Type
31	YI	28	ASN
32	YN	69	GLN
32	YN	130	HIS
33	YO	3	GLN
33	YO	89	ASN
36	YR	31	HIS
41	YW	61	ASN
41	YW	62	HIS
42	YX	41	ASN
43	YY	92	ASN
44	YZ	32	HIS
45	Y0	3	HIS
47	Y2	46	GLN
51	Y6	29	ASN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	QA	1498/1508 (99%)	263 (17%)	30 (2%)
1	XA	1498/1508 (99%)	286 (19%)	27 (1%)
22	QV	76/77 (98%)	18 (23%)	2 (2%)
22	XV	76/77 (98%)	16 (21%)	3 (3%)
23	QX	11/25 (44%)	7 (63%)	0
23	XX	10/25 (40%)	6 (60%)	0
24	RA	2879/2915 (98%)	578 (20%)	33 (1%)
24	YA	2880/2915 (98%)	571 (19%)	36 (1%)
25	RB	119/122 (97%)	24 (20%)	1 (0%)
25	YB	119/122 (97%)	23 (19%)	1 (0%)
All	All	9166/9294 (98%)	1792 (19%)	133 (1%)

All (1792) 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	50	A
1	QA	51	A
1	QA	65	U

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Mol	Chain	Res	Type
1	QA	66	G
1	QA	76	G
1	QA	82	U
1	QA	90	C
1	QA	91	C
1	QA	95	G
1	QA	101	A
1	QA	116	A
1	QA	121	C
1	QA	127	G
1	QA	144	G
1	QA	146	G
1	QA	163	C
1	QA	169	C
1	QA	171	A
1	QA	173	U
1	QA	174	C
1	QA	187	C
1	QA	191(A)	G
1	QA	191(C)	G
1	QA	195	A
1	QA	197	A
1	QA	209	U
1	QA	210	U
1	QA	231	G
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	298	A
1	QA	321	A
1	QA	328	C
1	QA	329	A
1	QA	332	G
1	QA	346	G
1	QA	349	A
1	QA	351	G

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Mol	Chain	Res	Type
1	QA	352	C
1	QA	353	A
1	QA	354	G
1	QA	367	U
1	QA	372	C
1	QA	384	G
1	QA	390	C
1	QA	397	A
1	QA	398	C
1	QA	406	G
1	QA	412	A
1	QA	413	G
1	QA	422	C
1	QA	423	G
1	QA	426	G
1	QA	428	G
1	QA	429	U
1	QA	435	C
1	QA	440	A
1	QA	465	A
1	QA	466	C
1	QA	485	G
1	QA	486	U
1	QA	496	A
1	QA	497	U
1	QA	505	G
1	QA	508	C
1	QA	509	A
1	QA	510	A
1	QA	511	C
1	QA	518	C
1	QA	527	G
1	QA	531	U
1	QA	532	A
1	QA	533	A
1	QA	547	A
1	QA	559	A
1	QA	561	U
1	QA	564	C
1	QA	572	A
1	QA	573	A
1	QA	576	G

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Mol	Chain	Res	Type
1	QA	577	G
1	QA	592	G
1	QA	618	C
1	QA	630	G
1	QA	631	G
1	QA	633	G
1	QA	652	U
1	QA	653	A
1	QA	661	G
1	QA	665	A
1	QA	686	U
1	QA	688	G
1	QA	693	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	749	C
1	QA	754	C
1	QA	755	G
1	QA	773	G
1	QA	774	G
1	QA	777	A
1	QA	786	G
1	QA	792	A
1	QA	793	U
1	QA	794	A
1	QA	817	C
1	QA	818	G
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	868	C
1	QA	870	U
1	QA	872	A

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Mol	Chain	Res	Type
1	QA	873	A
1	QA	889	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	982	U
1	QA	989	C
1	QA	991	U
1	QA	992	U
1	QA	993	G
1	QA	994	A
1	QA	1004	A
1	QA	1006	C
1	QA	1009	G
1	QA	1020	U
1	QA	1023	G
1	QA	1024	G
1	QA	1025	U
1	QA	1027	C
1	QA	1028	C
1	QA	1028(A)	C
1	QA	1029	G
1	QA	1032(A)	G
1	QA	1033	G
1	QA	1036	G
1	QA	1040	U
1	QA	1042	G
1	QA	1046	A
1	QA	1053	G
1	QA	1054	C
1	QA	1055	A

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Mol	Chain	Res	Type
1	QA	1064	G
1	QA	1065	U
1	QA	1066	C
1	QA	1094	G
1	QA	1101	A
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	1163	C
1	QA	1171	G
1	QA	1177	G
1	QA	1181	G
1	QA	1183	A
1	QA	1187	G
1	QA	1190	G
1	QA	1196	U
1	QA	1201	A
1	QA	1211	U
1	QA	1212	U
1	QA	1221	G
1	QA	1224	G
1	QA	1225	A
1	QA	1228	C
1	QA	1238	A
1	QA	1240	U
1	QA	1241	G
1	QA	1256	A
1	QA	1257	U
1	QA	1258	G
1	QA	1260	C
1	QA	1267	C

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Mol	Chain	Res	Type
1	QA	1270	C
1	QA	1280	A
1	QA	1281	U
1	QA	1282	C
1	QA	1286	A
1	QA	1287	A
1	QA	1300	G
1	QA	1301	U
1	QA	1302	U
1	QA	1303	C
1	QA	1305	G
1	QA	1320	C
1	QA	1322	C
1	QA	1323	G
1	QA	1331	G
1	QA	1335	C
1	QA	1336	C
1	QA	1346	A
1	QA	1347	G
1	QA	1348	U
1	QA	1353	G
1	QA	1362(A)	C
1	QA	1364	U
1	QA	1378	C
1	QA	1379	G
1	QA	1397	C
1	QA	1398	A
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	1454	G
1	QA	1492	A
1	QA	1493	A
1	QA	1499	A
1	QA	1502	A
1	QA	1503	A
1	QA	1506	U
1	QA	1517	G
1	QA	1519	A

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Mol	Chain	Res	Type
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	22	A
22	QV	35	C
22	QV	36	A
22	QV	48	U
22	QV	49	C
22	QV	53	G
22	QV	54	G
22	QV	55	U
22	QV	59	A
22	QV	76	C
22	QV	77	A
23	QX	9	G
23	QX	10	G
23	QX	11	U
23	QX	12	A
23	QX	13	A
23	QX	15	A
23	QX	19	U
24	RA	10	G
24	RA	12	U
24	RA	14	A
24	RA	15	G
24	RA	34	C
24	RA	35	G
24	RA	46	C
24	RA	51	G
24	RA	55	G
24	RA	72	U
24	RA	73	A
24	RA	74	A
24	RA	75	G
24	RA	82	G

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Mol	Chain	Res	Type
24	RA	83	G
24	RA	90	U
24	RA	101	G
24	RA	103	A
24	RA	118	A
24	RA	120	U
24	RA	121	G
24	RA	131	G
24	RA	161	U
24	RA	177	G
24	RA	181	A
24	RA	188	G
24	RA	196	A
24	RA	199	A
24	RA	215	G
24	RA	216	A
24	RA	221	A
24	RA	222	A
24	RA	223	A
24	RA	229	A
24	RA	230	U
24	RA	233	A
24	RA	248	G
24	RA	249	C
24	RA	250	G
24	RA	252	G
24	RA	265	A
24	RA	266	G
24	RA	269	U
24	RA	270(L)	U
24	RA	270(M)	U
24	RA	270(N)	G
24	RA	270(P)	C
24	RA	271(C)	U
24	RA	271(D)	G
24	RA	273(F)	C
24	RA	275	G
24	RA	276	A
24	RA	277	C
24	RA	283	A
24	RA	299	A
24	RA	311	A

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Mol	Chain	Res	Type
24	RA	323	G
24	RA	324	A
24	RA	329	G
24	RA	330	A
24	RA	342	G
24	RA	346	A
24	RA	352	G
24	RA	364	C
24	RA	371	A
24	RA	372	G
24	RA	373	U
24	RA	386	G
24	RA	395	U
24	RA	405	U
24	RA	406	G
24	RA	411	G
24	RA	412	A
24	RA	428	A
24	RA	435	C
24	RA	444	C
24	RA	448	U
24	RA	454	A
24	RA	455	C
24	RA	456	C
24	RA	457	A
24	RA	467	G
24	RA	470	A
24	RA	481	G
24	RA	504	U
24	RA	505	A
24	RA	509	C
24	RA	512	G
24	RA	513	A
24	RA	528	A
24	RA	529	A
24	RA	532	A
24	RA	533	G
24	RA	537	C
24	RA	539	G
24	RA	540	G
24	RA	546	C
24	RA	547	A

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Mol	Chain	Res	Type
24	RA	549	G
24	RA	556	G
24	RA	563	G
24	RA	573	G
24	RA	574	C
24	RA	575	A
24	RA	588	U
24	RA	603	A
24	RA	607	U
24	RA	614	U
24	RA	615	G
24	RA	616	A
24	RA	617	G
24	RA	621	A
24	RA	627	A
24	RA	629	G
24	RA	637	A
24	RA	638	G
24	RA	645	C
24	RA	646	A
24	RA	651	G
24	RA	652	C
24	RA	654	A
24	RA	654(A)	G
24	RA	669	G
24	RA	670	A
24	RA	686	G
24	RA	701	G
24	RA	702	G
24	RA	708	C
24	RA	717	G
24	RA	722	A
24	RA	730	C
24	RA	752	A
24	RA	753	C
24	RA	764	A
24	RA	775	G
24	RA	776	G
24	RA	782	A
24	RA	783	A
24	RA	784	A
24	RA	785	G

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Mol	Chain	Res	Type
24	RA	790	C
24	RA	791	C
24	RA	792	G
24	RA	805	G
24	RA	812	C
24	RA	819	A
24	RA	827	U
24	RA	828	U
24	RA	846	C
24	RA	847	U
24	RA	856	C
24	RA	857	C
24	RA	859	G
24	RA	866	A
24	RA	869	G
24	RA	882	G
24	RA	884	C
24	RA	885	C
24	RA	886	C
24	RA	888	C
24	RA	889	C
24	RA	890	A
24	RA	893	C
24	RA	896	A
24	RA	897	C
24	RA	900	A
24	RA	907	U
24	RA	910	A
24	RA	914	C
24	RA	915	C
24	RA	917	A
24	RA	932	G
24	RA	938	G
24	RA	941	A
24	RA	945	A
24	RA	946	G
24	RA	959	A
24	RA	961	C
24	RA	974	G
24	RA	974(A)	C
24	RA	980	A
24	RA	983	A

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Mol	Chain	Res	Type
24	RA	989	G
24	RA	996	A
24	RA	1003	G
24	RA	1011	G
24	RA	1012	U
24	RA	1013	C
24	RA	1017	G
24	RA	1022	G
24	RA	1023	U
24	RA	1024	G
24	RA	1026	U
24	RA	1027	A
24	RA	1033	U
24	RA	1044	G
24	RA	1045	A
24	RA	1046	A
24	RA	1047	G
24	RA	1050	A
24	RA	1054	A
24	RA	1055	G
24	RA	1057	A
24	RA	1058	G
24	RA	1059	G
24	RA	1060	U
24	RA	1061	U
24	RA	1062	G
24	RA	1066	U
24	RA	1070	A
24	RA	1071	G
24	RA	1076	C
24	RA	1077	A
24	RA	1078	U
24	RA	1079	C
24	RA	1081	U
24	RA	1082	U
24	RA	1083	U
24	RA	1084	A
24	RA	1085	A
24	RA	1086	A
24	RA	1087	G
24	RA	1088	A
24	RA	1089	G

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Mol	Chain	Res	Type
24	RA	1090	U
24	RA	1091	G
24	RA	1093	G
24	RA	1096	A
24	RA	1103	A
24	RA	1105	U
24	RA	1110	G
24	RA	1111	A
24	RA	1112	G
24	RA	1122	G
24	RA	1126	A
24	RA	1131	G
24	RA	1135	C
24	RA	1136	G
24	RA	1142(A)	A
24	RA	1173	G
24	RA	1174	A
24	RA	1175	U
24	RA	1176	G
24	RA	1178	C
24	RA	1179	C
24	RA	1181	C
24	RA	1189	A
24	RA	1191	G
24	RA	1195	G
24	RA	1204	A
24	RA	1205	U
24	RA	1206	G
24	RA	1210	A
24	RA	1211	U
24	RA	1220	A
24	RA	1221	C
24	RA	1225	C
24	RA	1226	G
24	RA	1236	G
24	RA	1238	G
24	RA	1250	G
24	RA	1253	A
24	RA	1256	G
24	RA	1265	A
24	RA	1272	A
24	RA	1273	U

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Mol	Chain	Res	Type
24	RA	1288	U
24	RA	1300	U
24	RA	1301	A
24	RA	1302	A
24	RA	1312	U
24	RA	1313	U
24	RA	1314	C
24	RA	1321	A
24	RA	1329	U
24	RA	1349	A
24	RA	1352	U
24	RA	1365	A
24	RA	1370	C
24	RA	1379	A
24	RA	1380	G
24	RA	1384	A
24	RA	1385	G
24	RA	1391	U
24	RA	1395	A
24	RA	1407	C
24	RA	1408	C
24	RA	1411	C
24	RA	1416	G
24	RA	1419	A
24	RA	1420	U
24	RA	1421	G
24	RA	1428	C
24	RA	1444(A)	A
24	RA	1445	C
24	RA	1449	A
24	RA	1449(A)	G
24	RA	1454	U
24	RA	1455	G
24	RA	1460	A
24	RA	1461	G
24	RA	1471	A
24	RA	1474	C
24	RA	1482	U
24	RA	1483	G
24	RA	1487	G
24	RA	1493	C
24	RA	1494	A

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Mol	Chain	Res	Type
24	RA	1497	U
24	RA	1504	C
24	RA	1505	C
24	RA	1507	A
24	RA	1510	A
24	RA	1511	A
24	RA	1513	C
24	RA	1514	U
24	RA	1516	U
24	RA	1522	G
24	RA	1528	A
24	RA	1534	G
24	RA	1535	U
24	RA	1536	A
24	RA	1537	C
24	RA	1538	G
24	RA	1543	A
24	RA	1544	C
24	RA	1545	A
24	RA	1558	A
24	RA	1559	G
24	RA	1566	A
24	RA	1569	A
24	RA	1578	U
24	RA	1580	A
24	RA	1581	G
24	RA	1583	A
24	RA	1586	A
24	RA	1598	C
24	RA	1608	A
24	RA	1609	A
24	RA	1611	C
24	RA	1616	A
24	RA	1617	C
24	RA	1640	C
24	RA	1648	C
24	RA	1654	A
24	RA	1667	G
24	RA	1674	G
24	RA	1725	G
24	RA	1728	G
24	RA	1729	A

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Mol	Chain	Res	Type
24	RA	1731	G
24	RA	1742	C
24	RA	1743	G
24	RA	1750	G
24	RA	1756	G
24	RA	1762	A
24	RA	1763	G
24	RA	1764	G
24	RA	1769	G
24	RA	1773	A
24	RA	1774	C
24	RA	1779	U
24	RA	1780	A
24	RA	1782	C
24	RA	1791	A
24	RA	1799	G
24	RA	1800	C
24	RA	1801	G
24	RA	1816	G
24	RA	1820	U
24	RA	1847	A
24	RA	1848	A
24	RA	1858	G
24	RA	1869	G
24	RA	1870	C
24	RA	1871	A
24	RA	1878	G
24	RA	1882	C
24	RA	1888	G
24	RA	1889	A
24	RA	1903	G
24	RA	1905	C
24	RA	1906	G
24	RA	1914	C
24	RA	1929	G
24	RA	1930	G
24	RA	1936	A
24	RA	1938	A
24	RA	1939	U
24	RA	1955	U
24	RA	1963	U
24	RA	1967	C

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Mol	Chain	Res	Type
24	RA	1969	A
24	RA	1970	A
24	RA	1971	A
24	RA	1972	A
24	RA	1982	C
24	RA	1992	G
24	RA	1993	U
24	RA	1996	C
24	RA	2020	A
24	RA	2023	G
24	RA	2031	A
24	RA	2032	G
24	RA	2033	A
24	RA	2039	C
24	RA	2043	C
24	RA	2055	C
24	RA	2056	G
24	RA	2059	A
24	RA	2060	A
24	RA	2061	G
24	RA	2062	A
24	RA	2069	G
24	RA	2093	G
24	RA	2107	C
24	RA	2109	U
24	RA	2111	C
24	RA	2113	U
24	RA	2114	A
24	RA	2115	G
24	RA	2116	G
24	RA	2117	A
24	RA	2118	U
24	RA	2126	A
24	RA	2127	G
24	RA	2128	C
24	RA	2131	G
24	RA	2132	U
24	RA	2133	G
24	RA	2136	C
24	RA	2146	C
24	RA	2147	G
24	RA	2148	G

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Mol	Chain	Res	Type
24	RA	2157	G
24	RA	2161	C
24	RA	2163	C
24	RA	2165	G
24	RA	2166	G
24	RA	2168	G
24	RA	2173	A
24	RA	2174	C
24	RA	2189	U
24	RA	2190	G
24	RA	2192	G
24	RA	2198	A
24	RA	2210	G
24	RA	2211	G
24	RA	2212	A
24	RA	2215	G
24	RA	2225	A
24	RA	2238	G
24	RA	2239	G
24	RA	2243	U
24	RA	2246	G
24	RA	2266	A
24	RA	2273	A
24	RA	2275	C
24	RA	2278	A
24	RA	2280	G
24	RA	2283	C
24	RA	2284	C
24	RA	2285	C
24	RA	2287	A
24	RA	2288	A
24	RA	2300	G
24	RA	2307	G
24	RA	2308	G
24	RA	2311	A
24	RA	2320	A
24	RA	2325	G
24	RA	2334	G
24	RA	2336	A
24	RA	2345	G
24	RA	2346	A
24	RA	2347	C

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Mol	Chain	Res	Type
24	RA	2350	C
24	RA	2354	G
24	RA	2358	G
24	RA	2383	G
24	RA	2385	C
24	RA	2391	G
24	RA	2394	C
24	RA	2402	C
24	RA	2403	C
24	RA	2406	U
24	RA	2422	A
24	RA	2424	C
24	RA	2425	A
24	RA	2429	G
24	RA	2430	A
24	RA	2434	A
24	RA	2435	A
24	RA	2439	A
24	RA	2440	C
24	RA	2441	C
24	RA	2448	A
24	RA	2469	A
24	RA	2474	C
24	RA	2475	C
24	RA	2478	A
24	RA	2480	C
24	RA	2494	G
24	RA	2502	G
24	RA	2504	U
24	RA	2505	G
24	RA	2518	A
24	RA	2519	U
24	RA	2520	C
24	RA	2529	G
24	RA	2542	A
24	RA	2543	G
24	RA	2554	U
24	RA	2567	G
24	RA	2569	G
24	RA	2572	A
24	RA	2602	A
24	RA	2609	U

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Mol	Chain	Res	Type
24	RA	2611	U
24	RA	2612	C
24	RA	2623	G
24	RA	2629	A
24	RA	2636	U
24	RA	2654	A
24	RA	2655	G
24	RA	2665	A
24	RA	2673	G
24	RA	2689	U
24	RA	2690	C
24	RA	2691	C
24	RA	2702	U
24	RA	2703	C
24	RA	2712(A)	A
24	RA	2713	A
24	RA	2714	G
24	RA	2726	U
24	RA	2732	G
24	RA	2733	A
24	RA	2739	U
24	RA	2744	G
24	RA	2748	A
24	RA	2752	C
24	RA	2758	A
24	RA	2761	G
24	RA	2764	A
24	RA	2765	A
24	RA	2766	G
24	RA	2778	A
24	RA	2779	U
24	RA	2780	G
24	RA	2787	C
24	RA	2789	C
24	RA	2790	A
24	RA	2791	C
24	RA	2797	U
24	RA	2798	C
24	RA	2810	A
24	RA	2818	G
24	RA	2820	A
24	RA	2821	A

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Mol	Chain	Res	Type
24	RA	2833	G
24	RA	2834	G
24	RA	2835	A
24	RA	2844	G
24	RA	2847	U
24	RA	2849	U
24	RA	2867	G
24	RA	2868	A
24	RA	2871	C
24	RA	2872	G
24	RA	2879	C
24	RA	2880	C
24	RA	2884	U
24	RA	2891	G
24	RA	2892	A
24	RA	2894	G
24	RA	2895	U
24	RA	2897	U
25	RB	8	U
25	RB	13	A
25	RB	15	A
25	RB	16	G
25	RB	22	U
25	RB	25	A
25	RB	26	A
25	RB	40	U
25	RB	41	U
25	RB	42	C
25	RB	43	C
25	RB	44	G
25	RB	45	A
25	RB	47	C
25	RB	52	A
25	RB	56	G
25	RB	67	G
25	RB	73	A
25	RB	81	G
25	RB	89	G
25	RB	105	G
25	RB	108	C
25	RB	109	G
25	RB	115	G

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Mol	Chain	Res	Type
1	XA	6	G
1	XA	7	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	54	C
1	XA	61	G
1	XA	65	U
1	XA	66	G
1	XA	79	G
1	XA	80	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	116	A
1	XA	121	C
1	XA	129(A)	G
1	XA	130	A
1	XA	131	C
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	173	U
1	XA	174	C
1	XA	182	U
1	XA	190	G
1	XA	191(C)	G
1	XA	195	A
1	XA	197	A
1	XA	199	G
1	XA	201	C
1	XA	209	U

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Mol	Chain	Res	Type
1	XA	210	U
1	XA	216	G
1	XA	222	U
1	XA	226	G
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	281	G
1	XA	289	G
1	XA	316	G
1	XA	321	A
1	XA	325	A
1	XA	328	C
1	XA	329	A
1	XA	332	G
1	XA	345	C
1	XA	346	G
1	XA	352	C
1	XA	353	A
1	XA	354	G
1	XA	367	U
1	XA	372	C
1	XA	383	A
1	XA	384	G
1	XA	389	A
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	414	A
1	XA	422	C
1	XA	423	G
1	XA	424	G
1	XA	429	U
1	XA	430	A
1	XA	438	G
1	XA	439	A

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Mol	Chain	Res	Type
1	XA	452	A
1	XA	464	G
1	XA	466	C
1	XA	467	G
1	XA	485	G
1	XA	486	U
1	XA	496	A
1	XA	497	U
1	XA	505	G
1	XA	509	A
1	XA	510	A
1	XA	511	C
1	XA	518	C
1	XA	527	G
1	XA	531	U
1	XA	532	A
1	XA	533	A
1	XA	547	A
1	XA	548	G
1	XA	559	A
1	XA	562	C
1	XA	566	G
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	587	G
1	XA	618	C
1	XA	630	G
1	XA	631	G
1	XA	632	A
1	XA	633	G
1	XA	634	C
1	XA	639	G
1	XA	642	A
1	XA	653	A
1	XA	665	A
1	XA	688	G
1	XA	703	G
1	XA	704	A

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Mol	Chain	Res	Type
1	XA	721	G
1	XA	731	G
1	XA	734	G
1	XA	749	C
1	XA	753	A
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	799	G
1	XA	813	U
1	XA	816	A
1	XA	817	C
1	XA	818	G
1	XA	821	G
1	XA	828	A
1	XA	841	U
1	XA	842	C
1	XA	843	U
1	XA	848	C
1	XA	859	A
1	XA	870	U
1	XA	871	U
1	XA	872	A
1	XA	889	A
1	XA	891	U
1	XA	902	G
1	XA	914	A
1	XA	926	G
1	XA	927	G
1	XA	934	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	975	A
1	XA	976	G
1	XA	977	A

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Mol	Chain	Res	Type
1	XA	982	U
1	XA	983	A
1	XA	991	U
1	XA	992	U
1	XA	993	G
1	XA	994	A
1	XA	1002	G
1	XA	1004	A
1	XA	1006	C
1	XA	1008	C
1	XA	1009	G
1	XA	1020	U
1	XA	1024	G
1	XA	1025	U
1	XA	1027	C
1	XA	1028	C
1	XA	1028(A)	C
1	XA	1029	G
1	XA	1031	G
1	XA	1032(A)	G
1	XA	1040	U
1	XA	1042	G
1	XA	1053	G
1	XA	1054	C
1	XA	1064	G
1	XA	1066	C
1	XA	1081	G
1	XA	1085	U
1	XA	1094	G
1	XA	1101	A
1	XA	1108	G
1	XA	1124	G
1	XA	1125	U
1	XA	1126	U
1	XA	1127	G
1	XA	1130	A
1	XA	1136	U
1	XA	1137	C
1	XA	1138	G
1	XA	1139	G
1	XA	1146	A
1	XA	1157	A

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Mol	Chain	Res	Type
1	XA	1158	C
1	XA	1159	U
1	XA	1160	G
1	XA	1162	C
1	XA	1171	G
1	XA	1176	A
1	XA	1177	G
1	XA	1178	G
1	XA	1180	A
1	XA	1181	G
1	XA	1182	G
1	XA	1183	A
1	XA	1190	G
1	XA	1196	U
1	XA	1200	C
1	XA	1212	U
1	XA	1215	G
1	XA	1225	A
1	XA	1236	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	1270	C
1	XA	1272	G
1	XA	1280	A
1	XA	1281	U
1	XA	1282	C
1	XA	1286	A
1	XA	1287	A
1	XA	1300	G
1	XA	1302	U
1	XA	1305	G
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	1334	G

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Mol	Chain	Res	Type
1	XA	1335	C
1	XA	1336	C
1	XA	1337	G
1	XA	1338	G
1	XA	1348	U
1	XA	1353	G
1	XA	1363	A
1	XA	1364	U
1	XA	1379	G
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	1487	G
1	XA	1492	A
1	XA	1493	A
1	XA	1494	G
1	XA	1497	G
1	XA	1499	A
1	XA	1502	A
1	XA	1503	A
1	XA	1504	G
1	XA	1505	G
1	XA	1506	U
1	XA	1507	A
1	XA	1517	G
1	XA	1518	A
1	XA	1519	A
1	XA	1520	G
1	XA	1529	G
1	XA	1530	G
22	XV	18	U
22	XV	19	G
22	XV	20	G
22	XV	21	U
22	XV	35	C
22	XV	36	A
22	XV	48	U
22	XV	49	C

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Mol	Chain	Res	Type
22	XV	53	G
22	XV	54	G
22	XV	55	U
22	XV	59	A
22	XV	64	G
22	XV	66	C
22	XV	76	C
22	XV	77	A
23	XX	10	G
23	XX	11	U
23	XX	13	A
23	XX	14	A
23	XX	15	A
23	XX	19	U
24	YA	26	G
24	YA	34	C
24	YA	35	G
24	YA	46	C
24	YA	61	G
24	YA	64	A
24	YA	72	U
24	YA	74	A
24	YA	75	G
24	YA	101	G
24	YA	102	G
24	YA	118	A
24	YA	120	U
24	YA	125	G
24	YA	140	A
24	YA	161	U
24	YA	162	U
24	YA	181	A
24	YA	188	G
24	YA	196	A
24	YA	199	A
24	YA	214	G
24	YA	215	G
24	YA	216	A
24	YA	222	A
24	YA	223	A
24	YA	226	G
24	YA	228	A

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Mol	Chain	Res	Type
24	YA	229	A
24	YA	230	U
24	YA	232	G
24	YA	242	G
24	YA	243	U
24	YA	248	G
24	YA	252	G
24	YA	265	A
24	YA	266	G
24	YA	270(G)	C
24	YA	270(L)	U
24	YA	270(M)	U
24	YA	270(N)	G
24	YA	270(O)	U
24	YA	271(B)	G
24	YA	271(C)	U
24	YA	271(D)	G
24	YA	274	G
24	YA	275	G
24	YA	276	A
24	YA	278	A
24	YA	279	C
24	YA	299	A
24	YA	311	A
24	YA	323	G
24	YA	324	A
24	YA	329	G
24	YA	330	A
24	YA	332	A
24	YA	342	G
24	YA	345	A
24	YA	352	G
24	YA	360	G
24	YA	363	G
24	YA	363(E)	U
24	YA	364	C
24	YA	371	A
24	YA	372	G
24	YA	373	U
24	YA	386	G
24	YA	387	U
24	YA	395	U

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Mol	Chain	Res	Type
24	YA	396	G
24	YA	405	U
24	YA	406	G
24	YA	411	G
24	YA	412	A
24	YA	428	A
24	YA	443	A
24	YA	444	C
24	YA	448	U
24	YA	454	A
24	YA	455	C
24	YA	457	A
24	YA	458	G
24	YA	470	A
24	YA	481	G
24	YA	504	U
24	YA	505	A
24	YA	509	C
24	YA	510	C
24	YA	512	G
24	YA	531	C
24	YA	532	A
24	YA	537	C
24	YA	539	G
24	YA	540	G
24	YA	546	C
24	YA	547	A
24	YA	549	G
24	YA	563	G
24	YA	568	U
24	YA	571	A
24	YA	573	G
24	YA	575	A
24	YA	603	A
24	YA	607	U
24	YA	614	U
24	YA	615	G
24	YA	616	A
24	YA	617	G
24	YA	621	A
24	YA	627	A
24	YA	637	A

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Mol	Chain	Res	Type
24	YA	638	G
24	YA	645	C
24	YA	646	A
24	YA	651	G
24	YA	654(A)	G
24	YA	669	G
24	YA	686	G
24	YA	702	G
24	YA	717	G
24	YA	722	A
24	YA	730	C
24	YA	752	A
24	YA	753	C
24	YA	764	A
24	YA	775	G
24	YA	776	G
24	YA	782	A
24	YA	783	A
24	YA	784	A
24	YA	785	G
24	YA	790	C
24	YA	791	C
24	YA	792	G
24	YA	805	G
24	YA	812	C
24	YA	819	A
24	YA	827	U
24	YA	828	U
24	YA	831	G
24	YA	846	C
24	YA	847	U
24	YA	856	C
24	YA	857	C
24	YA	860	U
24	YA	866	A
24	YA	881	G
24	YA	882	G
24	YA	884	C
24	YA	885	C
24	YA	886	C
24	YA	888	C
24	YA	889	C

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Mol	Chain	Res	Type
24	YA	890	A
24	YA	896	A
24	YA	897	C
24	YA	898	C
24	YA	900	A
24	YA	907	U
24	YA	910	A
24	YA	914	C
24	YA	915	C
24	YA	917	A
24	YA	918	A
24	YA	932	G
24	YA	941	A
24	YA	945	A
24	YA	946	G
24	YA	959	A
24	YA	961	C
24	YA	973	A
24	YA	974	G
24	YA	974(A)	C
24	YA	980	A
24	YA	983	A
24	YA	996	A
24	YA	1005	C
24	YA	1011	G
24	YA	1012	U
24	YA	1013	C
24	YA	1015	G
24	YA	1022	G
24	YA	1023	U
24	YA	1025	G
24	YA	1026	U
24	YA	1027	A
24	YA	1033	U
24	YA	1046	A
24	YA	1047	G
24	YA	1050	A
24	YA	1054	A
24	YA	1059	G
24	YA	1060	U
24	YA	1061	U
24	YA	1063	G

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Mol	Chain	Res	Type
24	YA	1065	U
24	YA	1066	U
24	YA	1067	A
24	YA	1068	G
24	YA	1070	A
24	YA	1071	G
24	YA	1074	G
24	YA	1079	C
24	YA	1082	U
24	YA	1083	U
24	YA	1084	A
24	YA	1085	A
24	YA	1086	A
24	YA	1087	G
24	YA	1088	A
24	YA	1093	G
24	YA	1096	A
24	YA	1097	U
24	YA	1099	G
24	YA	1103	A
24	YA	1104	C
24	YA	1110	G
24	YA	1111	A
24	YA	1122	G
24	YA	1126	A
24	YA	1130	U
24	YA	1131	G
24	YA	1135	C
24	YA	1136	G
24	YA	1139	G
24	YA	1142(A)	A
24	YA	1151	G
24	YA	1168	G
24	YA	1173	G
24	YA	1174	A
24	YA	1175	U
24	YA	1176	G
24	YA	1179	C
24	YA	1195	G
24	YA	1204	A
24	YA	1205	U
24	YA	1211	U

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Mol	Chain	Res	Type
24	YA	1220	A
24	YA	1225	C
24	YA	1226	G
24	YA	1236	G
24	YA	1237	A
24	YA	1238	G
24	YA	1250	G
24	YA	1253	A
24	YA	1256	G
24	YA	1265	A
24	YA	1272	A
24	YA	1300	U
24	YA	1301	A
24	YA	1313	U
24	YA	1329	U
24	YA	1341	U
24	YA	1349	A
24	YA	1352	U
24	YA	1365	A
24	YA	1368	G
24	YA	1370	C
24	YA	1379	A
24	YA	1384	A
24	YA	1385	G
24	YA	1391	U
24	YA	1406	U
24	YA	1407	C
24	YA	1411	C
24	YA	1416	G
24	YA	1419	A
24	YA	1420	U
24	YA	1421	G
24	YA	1428	C
24	YA	1444(A)	A
24	YA	1445	C
24	YA	1449	A
24	YA	1449(A)	G
24	YA	1455	G
24	YA	1458	C
24	YA	1460	A
24	YA	1461	G
24	YA	1467	C

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Mol	Chain	Res	Type
24	YA	1471	A
24	YA	1478	G
24	YA	1482	U
24	YA	1483	G
24	YA	1487	G
24	YA	1490	A
24	YA	1493	C
24	YA	1496	A
24	YA	1497	U
24	YA	1506	C
24	YA	1507	A
24	YA	1510	A
24	YA	1511	A
24	YA	1520	U
24	YA	1522	G
24	YA	1523	U
24	YA	1535	U
24	YA	1536	A
24	YA	1537	C
24	YA	1538	G
24	YA	1540	G
24	YA	1541	U
24	YA	1543	A
24	YA	1544	C
24	YA	1545	A
24	YA	1547	C
24	YA	1558	A
24	YA	1559	G
24	YA	1566	A
24	YA	1569	A
24	YA	1578	U
24	YA	1580	A
24	YA	1581	G
24	YA	1586	A
24	YA	1591	G
24	YA	1597	A
24	YA	1598	C
24	YA	1608	A
24	YA	1609	A
24	YA	1616	A
24	YA	1617	C
24	YA	1618	A

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Mol	Chain	Res	Type
24	YA	1640	C
24	YA	1648	C
24	YA	1654	A
24	YA	1672	C
24	YA	1674	G
24	YA	1675	C
24	YA	1688	U
24	YA	1693	U
24	YA	1695	G
24	YA	1698	A
24	YA	1725	G
24	YA	1729	A
24	YA	1731	G
24	YA	1732	A
24	YA	1733	G
24	YA	1743	G
24	YA	1750	G
24	YA	1753	G
24	YA	1754	C
24	YA	1756	G
24	YA	1763	G
24	YA	1764	G
24	YA	1773	A
24	YA	1780	A
24	YA	1782	C
24	YA	1784	A
24	YA	1786	A
24	YA	1791	A
24	YA	1799	G
24	YA	1800	C
24	YA	1801	G
24	YA	1809	A
24	YA	1816	G
24	YA	1829	A
24	YA	1847	A
24	YA	1848	A
24	YA	1858	G
24	YA	1869	G
24	YA	1870	C
24	YA	1872	A
24	YA	1878	G
24	YA	1882	C

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Mol	Chain	Res	Type
24	YA	1889	A
24	YA	1899	G
24	YA	1903	G
24	YA	1906	G
24	YA	1913	A
24	YA	1914	C
24	YA	1919	A
24	YA	1927	A
24	YA	1929	G
24	YA	1930	G
24	YA	1936	A
24	YA	1938	A
24	YA	1939	U
24	YA	1940	U
24	YA	1955	U
24	YA	1960	A
24	YA	1963	U
24	YA	1967	C
24	YA	1969	A
24	YA	1970	A
24	YA	1971	A
24	YA	1972	A
24	YA	1982	C
24	YA	1992	G
24	YA	1993	U
24	YA	2013	A
24	YA	2020	A
24	YA	2021	C
24	YA	2023	G
24	YA	2031	A
24	YA	2033	A
24	YA	2043	C
24	YA	2052	G
24	YA	2055	C
24	YA	2056	G
24	YA	2059	A
24	YA	2060	A
24	YA	2061	G
24	YA	2062	A
24	YA	2069	G
24	YA	2093	G
24	YA	2099	U

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Mol	Chain	Res	Type
24	YA	2100	G
24	YA	2104	G
24	YA	2105	C
24	YA	2111	C
24	YA	2113	U
24	YA	2114	A
24	YA	2115	G
24	YA	2116	G
24	YA	2117	A
24	YA	2118	U
24	YA	2120	G
24	YA	2122	U
24	YA	2126	A
24	YA	2127	G
24	YA	2128	C
24	YA	2132	U
24	YA	2133	G
24	YA	2134	A
24	YA	2136	C
24	YA	2138	C
24	YA	2145	C
24	YA	2146	C
24	YA	2147	G
24	YA	2149	G
24	YA	2152	G
24	YA	2155	G
24	YA	2156	G
24	YA	2157	G
24	YA	2158	A
24	YA	2163	C
24	YA	2164	C
24	YA	2165	G
24	YA	2166	G
24	YA	2168	G
24	YA	2169	A
24	YA	2171	A
24	YA	2173	A
24	YA	2175	C
24	YA	2176	A
24	YA	2180	U
24	YA	2189	U
24	YA	2190	G

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Mol	Chain	Res	Type
24	YA	2192	G
24	YA	2193	G
24	YA	2194	G
24	YA	2198	A
24	YA	2210	G
24	YA	2211	G
24	YA	2212	A
24	YA	2213	U
24	YA	2215	G
24	YA	2225	A
24	YA	2238	G
24	YA	2239	G
24	YA	2243	U
24	YA	2266	A
24	YA	2275	C
24	YA	2278	A
24	YA	2280	G
24	YA	2283	C
24	YA	2287	A
24	YA	2288	A
24	YA	2305	A
24	YA	2307	G
24	YA	2308	G
24	YA	2311	A
24	YA	2320	A
24	YA	2325	G
24	YA	2334	G
24	YA	2335	A
24	YA	2346	A
24	YA	2347	C
24	YA	2350	C
24	YA	2358	G
24	YA	2383	G
24	YA	2385	C
24	YA	2392	A
24	YA	2394	C
24	YA	2402	C
24	YA	2403	C
24	YA	2406	U
24	YA	2410	G
24	YA	2423	U
24	YA	2425	A

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Mol	Chain	Res	Type
24	YA	2427	C
24	YA	2429	G
24	YA	2430	A
24	YA	2435	A
24	YA	2439	A
24	YA	2441	C
24	YA	2446	G
24	YA	2448	A
24	YA	2450	A
24	YA	2465	C
24	YA	2469	A
24	YA	2470	G
24	YA	2475	C
24	YA	2480	C
24	YA	2494	G
24	YA	2502	G
24	YA	2505	G
24	YA	2518	A
24	YA	2520	C
24	YA	2525	G
24	YA	2529	G
24	YA	2542	A
24	YA	2554	U
24	YA	2567	G
24	YA	2576	G
24	YA	2602	A
24	YA	2609	U
24	YA	2611	U
24	YA	2612	C
24	YA	2615	U
24	YA	2629	A
24	YA	2655	G
24	YA	2656	U
24	YA	2665	A
24	YA	2666	C
24	YA	2673	G
24	YA	2675	A
24	YA	2682	U
24	YA	2689	U
24	YA	2701	C
24	YA	2702	U
24	YA	2707	G

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Mol	Chain	Res	Type
24	YA	2712	U
24	YA	2712(A)	A
24	YA	2713	A
24	YA	2724	C
24	YA	2726	U
24	YA	2733	A
24	YA	2734	A
24	YA	2739	U
24	YA	2744	G
24	YA	2758	A
24	YA	2762	G
24	YA	2764	A
24	YA	2765	A
24	YA	2766	G
24	YA	2777	G
24	YA	2778	A
24	YA	2779	U
24	YA	2789	C
24	YA	2790	A
24	YA	2791	C
24	YA	2797	U
24	YA	2804	C
24	YA	2807	G
24	YA	2808	U
24	YA	2818	G
24	YA	2820	A
24	YA	2821	A
24	YA	2830	G
24	YA	2832	U
24	YA	2833	G
24	YA	2834	G
24	YA	2835	A
24	YA	2867	G
24	YA	2868	A
24	YA	2872	G
24	YA	2891	G
24	YA	2892	A
24	YA	2893	G
24	YA	2894	G
25	YB	8	U
25	YB	13	A
25	YB	15	A

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Mol	Chain	Res	Type
25	YB	16	G
25	YB	19	G
25	YB	21	G
25	YB	25	A
25	YB	32	C
25	YB	33	G
25	YB	41	U
25	YB	42	C
25	YB	44	G
25	YB	45	A
25	YB	52	A
25	YB	56	G
25	YB	67	G
25	YB	73	A
25	YB	81	G
25	YB	82	G
25	YB	89	G
25	YB	105	G
25	YB	108	C
25	YB	109	G

All (133) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	QA	64	G
1	QA	115	G
1	QA	243	A
1	QA	244	U
1	QA	250	A
1	QA	266	G
1	QA	328	C
1	QA	412	A
1	QA	428	G
1	QA	484	G
1	QA	485	G
1	QA	509	A
1	QA	560	U
1	QA	687	A
1	QA	703	G
1	QA	753	A
1	QA	792	A
1	QA	913	A

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Mol	Chain	Res	Type
1	QA	992	U
1	QA	1027	C
1	QA	1065	U
1	QA	1200	C
1	QA	1285	A
1	QA	1301	U
1	QA	1346	A
1	QA	1347	G
1	QA	1446	A
1	QA	1453	G
1	QA	1498	U
1	QA	1528	U
22	QV	35	C
22	QV	53	G
24	RA	74	A
24	RA	99	U
24	RA	229	A
24	RA	271(B)	G
24	RA	345	A
24	RA	372	G
24	RA	404	C
24	RA	508	G
24	RA	512	G
24	RA	587	C
24	RA	637	A
24	RA	752	A
24	RA	846	C
24	RA	856	C
24	RA	1022	G
24	RA	1026	U
24	RA	1085	A
24	RA	1178	C
24	RA	1204	A
24	RA	1210	A
24	RA	1312	U
24	RA	1427	A
24	RA	1558	A
24	RA	1653	G
24	RA	1786	A
24	RA	1819	A
24	RA	1992	G
24	RA	2126	A

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Mol	Chain	Res	Type
24	RA	2439	A
24	RA	2566	A
24	RA	2610	C
24	RA	2689	U
24	RA	2867	G
25	RB	66	A
1	XA	60	A
1	XA	78	G
1	XA	89	U
1	XA	115	G
1	XA	181	G
1	XA	243	A
1	XA	244	U
1	XA	250	A
1	XA	266	G
1	XA	328	C
1	XA	388	G
1	XA	410	G
1	XA	412	A
1	XA	429	U
1	XA	484	G
1	XA	485	G
1	XA	509	A
1	XA	687	A
1	XA	703	G
1	XA	812	C
1	XA	913	A
1	XA	992	U
1	XA	1285	A
1	XA	1336	C
1	XA	1347	G
1	XA	1446	A
1	XA	1498	U
22	XV	20	G
22	XV	35	C
22	XV	53	G
24	YA	99	U
24	YA	229	A
24	YA	241	A
24	YA	242	G
24	YA	271(B)	G
24	YA	278	A

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Mol	Chain	Res	Type
24	YA	372	G
24	YA	404	C
24	YA	503	A
24	YA	637	A
24	YA	654	A
24	YA	752	A
24	YA	846	C
24	YA	856	C
24	YA	859	G
24	YA	1022	G
24	YA	1026	U
24	YA	1082	U
24	YA	1085	A
24	YA	1178	C
24	YA	1204	A
24	YA	1225	C
24	YA	1427	A
24	YA	1460	A
24	YA	1558	A
24	YA	1653	G
24	YA	1694	C
24	YA	1799	G
24	YA	1992	G
24	YA	2566	A
24	YA	2610	C
24	YA	2681	C
24	YA	2712	U
24	YA	2776	A
24	YA	2832	U
24	YA	2867	G
25	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 1464 ligands modelled in this entry, 1462 are monoatomic - leaving 2 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
56	SF4	XD	301	4	0,12,12	-	-	-		
56	SF4	QD	301	-	0,12,12	-	-	-		

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
56	SF4	XD	301	4	-	-	0/6/5/5
56	SF4	QD	301	-	-	-	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.

2 monomers are involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	XD	301	SF4	2	0
56	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%)	0.16	21 (1%) 73 48	44, 105, 204, 408	0
1	XA	1500/1508 (99%)	-0.02	15 (1%) 79 56	32, 93, 196, 349	0
2	QB	235/256 (91%)	0.39	4 (1%) 69 43	91, 152, 223, 286	0
2	XB	236/256 (92%)	0.44	6 (2%) 58 35	58, 124, 196, 243	0
3	QC	205/239 (85%)	0.49	8 (3%) 43 23	77, 139, 196, 224	0
3	XC	205/239 (85%)	0.41	7 (3%) 48 27	56, 106, 164, 206	0
4	QD	208/209 (99%)	0.67	15 (7%) 21 14	65, 111, 168, 257	0
4	XD	208/209 (99%)	0.24	5 (2%) 59 35	49, 88, 141, 183	0
5	QE	151/162 (93%)	0.33	3 (1%) 65 39	66, 108, 158, 199	0
5	XE	151/162 (93%)	0.27	4 (2%) 57 33	50, 91, 141, 200	0
6	QF	101/101 (100%)	0.09	3 (2%) 52 30	66, 104, 149, 281	0
6	XF	101/101 (100%)	0.25	1 (0%) 79 56	51, 103, 160, 173	0
7	QG	155/156 (99%)	0.26	5 (3%) 50 29	58, 111, 165, 251	0
7	XG	155/156 (99%)	0.31	4 (2%) 57 33	71, 108, 171, 202	0
8	QH	137/138 (99%)	0.59	10 (7%) 21 13	65, 114, 158, 181	0
8	XH	137/138 (99%)	0.34	2 (1%) 72 47	55, 94, 131, 171	0
9	QI	127/128 (99%)	1.10	20 (15%) 5 5	84, 138, 188, 216	0
9	XI	126/128 (98%)	0.61	10 (7%) 18 12	68, 126, 181, 223	0
10	QJ	99/105 (94%)	0.81	10 (10%) 12 8	87, 141, 200, 247	0
10	XJ	96/105 (91%)	0.76	11 (11%) 9 6	71, 127, 181, 234	0
11	QK	119/129 (92%)	0.42	4 (3%) 48 27	58, 100, 166, 268	0
11	XK	116/129 (89%)	0.45	4 (3%) 48 27	55, 96, 163, 219	0
12	QL	125/132 (94%)	0.73	15 (12%) 9 6	51, 95, 170, 242	0
12	XL	122/132 (92%)	0.54	12 (9%) 13 9	44, 77, 136, 195	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	QM	120/126 (95%)	0.68	13 (10%) 11 8	77, 126, 183, 244	0
13	XM	119/126 (94%)	0.43	6 (5%) 34 19	57, 107, 157, 214	0
14	QN	60/61 (98%)	1.10	9 (15%) 5 5	90, 131, 173, 228	0
14	XN	60/61 (98%)	0.93	7 (11%) 9 6	64, 101, 127, 158	0
15	QO	88/89 (98%)	0.40	3 (3%) 48 27	51, 104, 152, 205	0
15	XO	87/89 (97%)	0.10	0 100 100	54, 89, 124, 141	0
16	QP	84/88 (95%)	0.36	1 (1%) 76 52	61, 94, 134, 145	0
16	XP	84/88 (95%)	0.86	9 (10%) 11 8	62, 96, 154, 205	0
17	QQ	100/105 (95%)	0.50	2 (2%) 65 39	55, 97, 143, 167	0
17	XQ	100/105 (95%)	0.66	6 (6%) 27 16	65, 97, 148, 172	0
18	QR	70/88 (79%)	0.37	2 (2%) 53 31	57, 110, 169, 208	0
18	XR	70/88 (79%)	0.30	1 (1%) 73 48	58, 98, 158, 212	0
19	QS	83/93 (89%)	0.68	11 (13%) 7 6	98, 145, 201, 252	0
19	XS	84/93 (90%)	0.42	4 (4%) 35 19	76, 114, 176, 226	0
20	QT	99/106 (93%)	0.69	6 (6%) 27 16	55, 96, 157, 245	0
20	XT	99/106 (93%)	1.18	20 (20%) 3 3	66, 121, 178, 207	0
21	QU	25/27 (92%)	1.23	5 (20%) 3 3	66, 127, 171, 197	0
21	XU	25/27 (92%)	1.01	3 (12%) 9 6	78, 106, 135, 158	0
22	QV	77/77 (100%)	0.15	1 (1%) 75 50	57, 100, 151, 210	0
22	XV	77/77 (100%)	-0.07	2 (2%) 57 33	47, 81, 133, 192	0
23	QX	12/25 (48%)	2.25	8 (66%) 0 0	68, 195, 252, 261	0
23	XX	11/25 (44%)	2.19	8 (72%) 0 0	56, 166, 214, 246	0
24	RA	2882/2915 (98%)	-0.14	35 (1%) 76 52	28, 72, 228, 408	0
24	YA	2883/2915 (98%)	-0.23	37 (1%) 75 50	22, 64, 223, 495	0
25	RB	120/122 (98%)	0.17	0 100 100	66, 108, 153, 183	0
25	YB	120/122 (98%)	0.10	3 (2%) 58 35	59, 93, 137, 158	0
26	RD	272/276 (98%)	0.32	11 (4%) 42 23	25, 64, 109, 270	0
26	YD	272/276 (98%)	0.28	9 (3%) 49 28	23, 57, 104, 219	0
27	RE	205/206 (99%)	0.53	6 (2%) 53 31	40, 76, 146, 227	0
27	YE	205/206 (99%)	0.49	8 (3%) 43 23	26, 73, 158, 274	0
28	RF	202/210 (96%)	0.38	2 (0%) 79 56	29, 80, 144, 167	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	YF	202/210 (96%)	0.12	3 (1%) 72 47	26, 65, 124, 177	0
29	RG	181/182 (99%)	0.63	14 (7%) 19 13	78, 119, 167, 219	0
29	YG	181/182 (99%)	0.50	7 (3%) 43 23	60, 103, 156, 217	0
30	RH	174/180 (96%)	0.95	19 (10%) 10 7	97, 152, 216, 254	0
30	YH	174/180 (96%)	0.35	7 (4%) 42 23	45, 91, 137, 299	0
31	RI	146/148 (98%)	0.63	15 (10%) 12 8	52, 117, 167, 219	0
31	YI	146/148 (98%)	0.39	4 (2%) 56 33	53, 116, 161, 190	0
32	RN	138/140 (98%)	0.65	9 (6%) 25 15	40, 87, 151, 183	0
32	YN	138/140 (98%)	0.53	6 (4%) 40 21	39, 77, 147, 197	0
33	RO	122/122 (100%)	0.20	2 (1%) 70 45	39, 70, 105, 146	0
33	YO	122/122 (100%)	0.19	0 100 100	21, 65, 111, 139	0
34	RP	150/150 (100%)	0.40	7 (4%) 36 20	33, 93, 155, 267	0
34	YP	147/150 (98%)	0.74	12 (8%) 17 11	27, 77, 137, 196	0
35	RQ	141/141 (100%)	0.64	13 (9%) 14 9	46, 88, 147, 238	0
35	YQ	141/141 (100%)	0.69	18 (12%) 7 6	34, 76, 141, 281	0
36	RR	117/118 (99%)	0.15	2 (1%) 69 43	40, 66, 114, 176	0
36	YR	117/118 (99%)	0.40	3 (2%) 57 33	41, 74, 113, 158	0
37	RS	111/112 (99%)	0.70	5 (4%) 38 20	55, 116, 160, 242	0
37	YS	111/112 (99%)	0.58	7 (6%) 26 15	52, 100, 160, 286	0
38	RT	137/146 (93%)	0.53	7 (5%) 33 19	38, 86, 150, 190	0
38	YT	137/146 (93%)	0.35	5 (3%) 46 25	41, 80, 160, 232	0
39	RU	117/118 (99%)	0.41	4 (3%) 48 27	38, 75, 136, 224	0
39	YU	117/118 (99%)	0.42	6 (5%) 33 19	29, 64, 115, 213	0
40	RV	101/101 (100%)	0.41	1 (0%) 79 56	43, 98, 169, 295	0
40	YV	101/101 (100%)	0.56	6 (5%) 28 16	27, 82, 147, 296	0
41	RW	113/113 (100%)	0.29	6 (5%) 32 18	33, 64, 113, 217	0
41	YW	113/113 (100%)	0.21	3 (2%) 56 33	32, 61, 125, 216	0
42	RX	92/96 (95%)	0.21	3 (3%) 49 28	38, 74, 111, 158	0
42	YX	92/96 (95%)	0.21	0 100 100	37, 60, 112, 171	0
43	RY	107/110 (97%)	0.82	14 (13%) 7 6	65, 107, 151, 224	0
43	YY	107/110 (97%)	0.62	4 (3%) 45 25	44, 85, 141, 214	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	RZ	183/206 (88%)	0.44	4 (2%) 62 37	73, 120, 187, 289	0
44	YZ	183/206 (88%)	0.55	10 (5%) 30 18	48, 111, 170, 227	0
45	R0	81/85 (95%)	0.83	10 (12%) 8 6	52, 79, 161, 227	0
45	Y0	82/85 (96%)	0.74	9 (10%) 10 7	45, 78, 145, 198	0
46	R1	96/98 (97%)	0.98	14 (14%) 6 5	30, 79, 159, 297	0
46	Y1	93/98 (94%)	0.80	9 (9%) 13 9	33, 72, 138, 184	0
47	R2	69/72 (95%)	0.12	1 (1%) 73 48	53, 101, 176, 215	0
47	Y2	69/72 (95%)	0.23	4 (5%) 29 17	37, 71, 137, 222	0
48	R3	59/60 (98%)	0.47	0 100 100	44, 89, 129, 184	0
48	Y3	59/60 (98%)	0.10	1 (1%) 69 43	41, 71, 136, 221	0
49	R4	69/71 (97%)	0.18	1 (1%) 73 48	97, 152, 212, 268	0
49	Y4	69/71 (97%)	0.28	0 100 100	80, 136, 218, 265	0
50	R5	59/60 (98%)	0.41	4 (6%) 23 14	46, 77, 181, 194	0
50	Y5	59/60 (98%)	0.35	1 (1%) 69 43	37, 73, 164, 198	0
51	R6	53/54 (98%)	1.38	11 (20%) 2 3	143, 171, 235, 272	0
51	Y6	53/54 (98%)	0.50	2 (3%) 44 24	150, 181, 231, 252	0
52	R7	47/49 (95%)	0.57	3 (6%) 25 15	28, 55, 91, 161	0
52	Y7	48/49 (97%)	0.22	4 (8%) 17 11	27, 44, 88, 147	0
53	R8	64/65 (98%)	0.97	9 (14%) 6 5	38, 80, 139, 239	0
53	Y8	64/65 (98%)	0.83	8 (12%) 8 6	35, 70, 118, 268	0
54	R9	37/37 (100%)	1.50	9 (24%) 2 2	102, 146, 191, 244	0
54	Y9	37/37 (100%)	0.87	3 (8%) 18 12	88, 108, 148, 162	0
All	All	20836/21422 (97%)	0.24	766 (3%) 45 25	21, 90, 184, 495	0

All (766) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
10	QJ	62	HIS	7.5
9	XI	121	ARG	6.7
9	QI	121	ARG	6.1
26	RD	36	PRO	6.1
7	QG	32	ARG	5.9
45	R0	4	LYS	5.6
34	YP	13	ASN	5.6

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Mol	Chain	Res	Type	RSRZ
45	Y0	5	LYS	5.5
12	QL	64	TYR	5.5
13	QM	102	ARG	5.4
45	Y0	8	GLY	5.4
12	XL	28	LYS	5.3
20	XT	9	ASN	5.3
39	RU	91	ASP	5.3
21	QU	2	GLY	5.1
17	XQ	91	ARG	5.1
30	RH	154	PRO	4.9
27	RE	79	ARG	4.9
52	R7	1	MET	4.9
10	QJ	55	LYS	4.9
23	XX	9	G	4.9
26	YD	35	LYS	4.8
45	R0	3	HIS	4.8
9	QI	127	LYS	4.8
46	R1	75	GLU	4.7
10	QJ	47	PHE	4.7
46	R1	92	LYS	4.6
43	YY	1	MET	4.6
35	YQ	100	GLY	4.4
35	RQ	80	GLU	4.4
21	QU	6	ARG	4.4
11	QK	127	LYS	4.4
27	YE	163	GLU	4.4
34	RP	13	ASN	4.4
37	YS	2	ALA	4.4
1	XA	1531	A	4.4
23	QX	8	A	4.4
35	YQ	80	GLU	4.4
24	YA	2804	C	4.4
12	XL	29	GLY	4.4
45	Y0	3	HIS	4.4
12	XL	16	GLU	4.4
9	QI	128	ARG	4.3
13	QM	100	GLY	4.3
24	RA	2188	C	4.3
44	YZ	178	GLU	4.3
41	RW	92	ARG	4.3
39	YU	91	ASP	4.3
45	R0	5	LYS	4.3

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Mol	Chain	Res	Type	RSRZ
27	YE	204	ALA	4.3
54	Y9	34	GLN	4.2
30	RH	150	ALA	4.2
32	RN	89	LYS	4.2
20	XT	16	HIS	4.2
30	RH	170	ARG	4.1
24	RA	1026	U	4.1
32	YN	68	GLU	4.1
35	YQ	21	THR	4.1
40	YV	36	PRO	4.1
35	YQ	139	GLU	4.1
38	YT	94	ALA	4.1
26	YD	36	PRO	4.1
23	QX	14	A	4.1
12	XL	115	LYS	4.1
4	QD	209	ARG	4.0
45	R0	7	LEU	4.0
29	YG	59	GLU	4.0
43	YY	64	GLU	4.0
23	XX	10	G	4.0
37	YS	13	ARG	4.0
35	YQ	19	GLY	4.0
7	QG	2	ALA	4.0
34	YP	61	ARG	4.0
8	QH	99	GLU	3.9
17	QQ	24	GLU	3.9
29	RG	35	GLU	3.9
12	QL	19	ARG	3.9
45	Y0	2	ALA	3.9
26	RD	44	ASN	3.9
36	RR	9	LYS	3.9
26	RD	35	LYS	3.9
46	R1	26	ARG	3.9
12	QL	27	LEU	3.8
10	QJ	54	PHE	3.8
46	R1	89	GLU	3.8
46	Y1	91	LYS	3.8
11	QK	128	ALA	3.8
20	XT	69	GLY	3.8
1	XA	630	G	3.7
9	QI	126	SER	3.7
7	XG	123	GLU	3.7

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Mol	Chain	Res	Type	RSRZ
16	XP	67	THR	3.7
29	YG	35	GLU	3.7
32	YN	93	THR	3.7
20	XT	20	LEU	3.7
24	RA	2211	G	3.7
31	YI	1	MET	3.7
13	QM	101	GLN	3.7
31	RI	17	GLN	3.7
35	YQ	140	ALA	3.6
28	YF	131	GLY	3.6
2	XB	96	ARG	3.6
32	YN	46	VAL	3.6
54	R9	22	ARG	3.6
45	Y0	9	SER	3.6
13	QM	78	ILE	3.6
9	XI	106	ALA	3.6
27	YE	79	ARG	3.6
31	RI	18	VAL	3.6
11	QK	129	SER	3.6
12	QL	29	GLY	3.6
12	XL	19	ARG	3.6
16	XP	22	THR	3.6
1	QA	975	A	3.6
26	YD	26	LYS	3.6
12	XL	21	LYS	3.5
29	RG	75	LYS	3.5
46	R1	98	LEU	3.5
23	QX	19	U	3.5
9	QI	10	ARG	3.5
46	R1	93	GLU	3.5
35	RQ	90	VAL	3.5
14	QN	29	ARG	3.4
34	YP	18	ARG	3.4
46	R1	95	LEU	3.4
29	RG	91	ARG	3.4
28	YF	132	VAL	3.4
8	QH	4	ASP	3.4
41	YW	92	ARG	3.4
1	QA	1202	G	3.4
45	Y0	4	LYS	3.4
1	QA	1224	G	3.4
1	XA	631	G	3.4

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Mol	Chain	Res	Type	RSRZ
46	R1	91	LYS	3.4
35	YQ	90	VAL	3.4
35	RQ	91	GLU	3.3
35	YQ	18	LYS	3.4
26	RD	33	LEU	3.3
28	RF	96	ASP	3.3
4	XD	32	ALA	3.3
20	XT	11	SER	3.3
44	YZ	152	ALA	3.3
4	QD	77	ASN	3.3
53	R8	50	LEU	3.3
12	QL	95	GLY	3.3
35	YQ	83	MET	3.3
20	XT	23	ARG	3.3
21	QU	10	ARG	3.3
14	XN	2	ALA	3.3
29	RG	126	ASP	3.3
46	Y1	92	LYS	3.3
39	RU	92	ARG	3.3
28	RF	131	GLY	3.3
41	RW	112	GLY	3.3
16	XP	34	GLU	3.3
31	YI	117	GLU	3.3
31	RI	12	LEU	3.2
38	YT	104	ASN	3.2
53	Y8	64	TYR	3.2
43	RY	33	LYS	3.2
35	YQ	91	GLU	3.2
12	XL	89	ARG	3.2
24	RA	2145	C	3.2
24	YA	2402	C	3.2
20	QT	29	LYS	3.2
24	YA	2805	G	3.2
35	RQ	104	PHE	3.2
43	RY	29	GLU	3.2
23	QX	11	U	3.2
24	YA	2188	C	3.2
12	QL	128	ALA	3.2
43	RY	1	MET	3.2
43	RY	107	ASP	3.2
26	RD	28	GLU	3.2
31	RI	15	VAL	3.2

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Mol	Chain	Res	Type	RSRZ
51	R6	48	VAL	3.2
9	QI	117	HIS	3.2
35	YQ	104	PHE	3.1
14	QN	34	TYR	3.1
14	XN	34	TYR	3.1
15	QO	26	GLU	3.1
24	RA	2189	U	3.1
27	RE	186	GLY	3.1
46	Y1	9	GLY	3.1
20	XT	106	ALA	3.1
21	XU	10	ARG	3.1
30	RH	140	LYS	3.1
31	RI	118	LYS	3.1
35	RQ	88	GLY	3.1
9	QI	124	GLN	3.1
26	RD	37	LEU	3.1
24	RA	2143	C	3.1
31	RI	122	GLU	3.1
10	QJ	63	PHE	3.1
31	RI	20	ASP	3.1
35	YQ	87	LYS	3.1
30	RH	71	LEU	3.1
23	XX	19	U	3.1
50	R5	2	ALA	3.1
20	QT	74	LYS	3.1
50	R5	13	LYS	3.1
26	YD	33	LEU	3.1
39	YU	117	GLN	3.0
27	RE	117	MET	3.0
37	RS	88	ASP	3.0
34	RP	71	VAL	3.0
13	QM	121	LYS	3.0
4	QD	102	ASP	3.0
8	QH	18	ARG	3.0
10	XJ	60	ARG	3.0
29	RG	34	LEU	3.0
23	QX	15	A	3.0
13	QM	117	VAL	3.0
38	RT	106	SER	3.0
38	YT	109	GLU	3.0
21	XU	2	GLY	3.0
9	XI	126	SER	3.0

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Mol	Chain	Res	Type	RSRZ
10	XJ	59	SER	3.0
9	QI	75	ASP	3.0
35	RQ	6	ARG	3.0
1	QA	1531	A	3.0
24	RA	2166	G	3.0
31	RI	41	GLU	3.0
20	XT	30	LYS	3.0
2	XB	71	VAL	3.0
9	XI	109	VAL	3.0
34	YP	65	ARG	3.0
44	YZ	113	ALA	3.0
4	QD	80	GLU	2.9
13	QM	108	ARG	2.9
44	RZ	152	ALA	2.9
47	Y2	72	ALA	2.9
24	YA	2168	G	2.9
1	QA	82	U	2.9
19	QS	67	VAL	2.9
29	RG	76	SER	2.9
35	RQ	21	THR	2.9
11	XK	117	ASN	2.9
35	RQ	89	ASN	2.9
53	Y8	63	PRO	2.9
10	QJ	85	LEU	2.9
43	RY	46	LYS	2.9
27	YE	205	ALA	2.9
23	XX	15	A	2.9
20	QT	22	ARG	2.9
30	RH	159	GLU	2.9
52	Y7	47	ARG	2.9
24	RA	2165	G	2.9
43	RY	55	TYR	2.9
13	QM	106	ASN	2.9
20	XT	73	HIS	2.8
20	QT	104	LEU	2.8
19	QS	66	MET	2.8
1	QA	1322	C	2.8
24	RA	34	C	2.8
54	R9	19	ARG	2.8
10	QJ	64	GLU	2.8
30	RH	86	GLU	2.8
10	XJ	98	ILE	2.8

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Mol	Chain	Res	Type	RSRZ
41	RW	94	ASP	2.8
44	YZ	118	GLN	2.8
9	XI	42	ARG	2.8
16	XP	35	LYS	2.8
53	R8	29	LYS	2.8
46	R1	27	GLU	2.8
20	QT	73	HIS	2.8
44	YZ	114	GLY	2.8
54	R9	20	HIS	2.8
11	XK	77	MET	2.8
51	R6	42	TRP	2.8
11	XK	126	ARG	2.8
17	XQ	81	ARG	2.8
32	RN	68	GLU	2.8
53	Y8	48	PHE	2.8
42	RX	65	ARG	2.8
24	YA	2189	U	2.8
20	XT	70	SER	2.8
30	RH	43	VAL	2.8
43	YY	40	GLU	2.8
35	YQ	1	MET	2.8
1	QA	1190	G	2.8
24	RA	2141	G	2.8
29	YG	116	ASP	2.8
53	R8	34	TRP	2.8
43	RY	45	VAL	2.8
9	XI	110	GLU	2.8
51	R6	24	GLU	2.8
9	XI	127	LYS	2.8
13	XM	105	THR	2.8
35	RQ	20	ALA	2.8
24	RA	2144	U	2.8
2	QB	152	PHE	2.7
9	QI	78	LYS	2.7
52	R7	36	GLN	2.7
4	QD	15	GLU	2.7
4	QD	200	GLU	2.7
5	XE	81	GLU	2.7
27	RE	200	GLU	2.7
24	YA	1176	G	2.7
24	YA	2182	G	2.7
24	RA	161	U	2.7

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Mol	Chain	Res	Type	RSRZ
52	Y7	46	VAL	2.7
7	QG	35	LYS	2.7
13	QM	120	LYS	2.7
50	R5	5	PRO	2.7
1	QA	631	G	2.7
19	QS	79	THR	2.7
20	XT	21	LYS	2.7
35	RQ	3	MET	2.7
1	QA	980	C	2.7
1	XA	422	C	2.7
14	XN	14	PRO	2.7
4	QD	3	ARG	2.7
17	XQ	68	ARG	2.7
20	XT	27	LYS	2.7
32	RN	37	LYS	2.7
1	XA	324	G	2.7
12	XL	5	PRO	2.7
16	XP	48	TRP	2.7
30	YH	154	PRO	2.7
30	YH	152	ARG	2.7
9	QI	106	ALA	2.7
45	R0	8	GLY	2.7
37	YS	5	THR	2.7
29	YG	80	PHE	2.7
38	YT	106	SER	2.7
47	Y2	70	GLN	2.6
54	R9	17	ILE	2.6
12	XL	6	THR	2.6
24	YA	529	A	2.6
34	YP	76	LYS	2.6
31	RI	10	GLU	2.6
52	Y7	1	MET	2.6
3	QC	76	VAL	2.6
22	XV	1	C	2.6
24	RA	2140	C	2.6
28	YF	175	THR	2.6
51	R6	12	GLU	2.6
43	RY	43	ASN	2.6
20	XT	83	ARG	2.6
22	XV	77	A	2.6
36	RR	2	ARG	2.6
54	R9	31	LYS	2.6

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Mol	Chain	Res	Type	RSRZ
44	YZ	163	LEU	2.6
24	RA	2795	G	2.6
32	YN	96	GLU	2.6
10	XJ	96	ILE	2.6
19	XS	9	VAL	2.6
29	RG	28	VAL	2.6
45	Y0	24	LYS	2.6
54	R9	15	LYS	2.6
8	QH	2	LEU	2.6
8	QH	120	THR	2.6
14	QN	37	PHE	2.6
10	XJ	64	GLU	2.6
45	R0	24	LYS	2.6
36	YR	49	ASP	2.6
43	RY	17	SER	2.6
14	QN	58	LYS	2.6
16	QP	12	LYS	2.6
20	XT	80	ARG	2.6
22	QV	1	C	2.6
30	YH	6	ARG	2.6
2	XB	138	LEU	2.6
24	RA	2062	A	2.6
24	YA	1536	A	2.6
23	XX	11	U	2.6
24	YA	2144	U	2.6
35	YQ	88	GLY	2.6
10	XJ	62	HIS	2.5
35	RQ	87	LYS	2.5
46	Y1	11	ARG	2.5
53	Y8	11	LYS	2.5
16	XP	68	ASP	2.5
19	QS	65	ASN	2.5
24	YA	2181	G	2.5
30	RH	123	PHE	2.5
34	YP	24	GLY	2.5
25	YB	88	C	2.5
5	XE	88	LYS	2.5
31	RI	9	LEU	2.5
37	YS	18	ILE	2.5
19	QS	38	SER	2.5
29	YG	13	GLU	2.5
29	YG	14	GLU	2.5

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Mol	Chain	Res	Type	RSRZ
40	YV	46	VAL	2.5
46	R1	97	LEU	2.5
1	XA	63	C	2.5
24	RA	2142	C	2.5
24	YA	277	C	2.5
3	QC	162	GLN	2.5
12	QL	129	ALA	2.5
14	XN	30	ALA	2.5
24	RA	614	U	2.5
29	RG	33	ARG	2.5
9	QI	102	LEU	2.5
4	QD	145	GLU	2.5
41	RW	78	GLU	2.5
12	QL	28	LYS	2.5
13	XM	101	GLN	2.5
14	XN	59	ALA	2.5
4	XD	29	PRO	2.5
35	YQ	25	ASP	2.5
54	Y9	26	ILE	2.5
9	QI	19	LEU	2.5
32	RN	1	MET	2.5
24	YA	1225	C	2.5
23	QX	10	G	2.5
41	YW	78	GLU	2.5
7	XG	106	GLN	2.5
46	R1	54	ALA	2.5
46	R1	90	ILE	2.5
31	RI	16	GLY	2.5
39	RU	95	LEU	2.5
44	YZ	155	LEU	2.5
45	Y0	7	LEU	2.5
30	RH	24	VAL	2.5
53	R8	64	TYR	2.5
38	RT	11	GLU	2.4
50	R5	3	LYS	2.4
14	QN	44	LEU	2.4
3	XC	30	ARG	2.4
4	QD	73	ARG	2.4
13	QM	88	ARG	2.4
13	XM	99	ARG	2.4
47	Y2	69	ARG	2.4
4	XD	89	THR	2.4

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Mol	Chain	Res	Type	RSRZ
1	QA	1451	A	2.4
23	XX	14	A	2.4
24	YA	2190	G	2.4
30	RH	9	ILE	2.4
43	RY	62	GLU	2.4
14	QN	41	ARG	2.4
8	QH	8	ASP	2.4
12	QL	6	THR	2.4
17	QQ	91	ARG	2.4
24	YA	2167	U	2.4
25	YB	1	U	2.4
1	QA	974	A	2.4
13	QM	10	PRO	2.4
38	RT	1	MET	2.4
23	QX	9	G	2.4
3	XC	4	LYS	2.4
10	QJ	59	SER	2.4
34	YP	36	LYS	2.4
50	Y5	60	VAL	2.4
29	RG	97	ASP	2.4
9	QI	92	TYR	2.4
20	XT	72	LEU	2.4
4	XD	31	CYS	2.4
30	YH	124	GLU	2.4
43	RY	40	GLU	2.4
38	RT	96	ARG	2.4
31	RI	84	GLY	2.4
3	XC	15	THR	2.4
27	RE	166	THR	2.4
43	RY	12	THR	2.4
44	RZ	128	VAL	2.4
51	Y6	21	TYR	2.4
3	QC	21	ARG	2.4
8	XH	91	ARG	2.4
14	QN	23	ARG	2.4
4	QD	201	GLN	2.4
53	R8	31	HIS	2.4
1	QA	630	G	2.4
9	XI	118	LYS	2.4
13	XM	120	LYS	2.4
20	XT	74	LYS	2.4
26	RD	38	LYS	2.4

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Mol	Chain	Res	Type	RSRZ
19	XS	10	PHE	2.4
14	XN	13	THR	2.4
13	XM	102	ARG	2.4
29	RG	164	GLU	2.4
34	RP	70	GLN	2.3
52	Y7	36	GLN	2.3
53	R8	3	LYS	2.4
10	XJ	47	PHE	2.3
51	R6	41	PRO	2.3
24	YA	34	C	2.3
46	Y1	94	LEU	2.3
45	Y0	10	THR	2.3
9	QI	114	TYR	2.3
33	RO	1	MET	2.3
35	RQ	83	MET	2.3
12	XL	17	LYS	2.3
24	YA	226	G	2.3
24	YA	2793	G	2.3
39	YU	56	ASP	2.3
40	RV	84	LYS	2.3
51	Y6	38	LYS	2.3
46	Y1	93	GLU	2.3
2	QB	68	ILE	2.3
2	XB	26	PRO	2.3
4	QD	120	LEU	2.3
9	QI	123	PRO	2.3
13	XM	100	GLY	2.3
30	RH	168	PRO	2.3
44	RZ	183	LEU	2.3
45	R0	9	SER	2.3
53	R8	60	LEU	2.3
53	Y8	50	LEU	2.3
14	QN	13	THR	2.3
1	XA	5	U	2.3
24	YA	2506	U	2.3
8	QH	32	LYS	2.3
1	QA	1286	A	2.3
41	RW	81	ALA	2.3
10	QJ	58	ASP	2.3
24	RA	2164	C	2.3
24	YA	2062	A	2.3
53	Y8	65	GLU	2.3

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Mol	Chain	Res	Type	RSRZ
18	QR	85	LEU	2.3
26	RD	29	PRO	2.3
31	RI	2	LYS	2.3
32	RN	134	ARG	2.3
34	YP	16	ARG	2.3
45	R0	55	ARG	2.3
32	RN	92	ALA	2.3
35	YQ	79	LEU	2.3
40	YV	35	LEU	2.3
27	YE	171	GLU	2.3
46	R1	72	GLU	2.3
12	QL	5	PRO	2.3
40	YV	37	VAL	2.3
54	Y9	7	VAL	2.3
12	QL	23	LYS	2.3
23	XX	13	A	2.3
39	YU	92	ARG	2.3
41	RW	97	LYS	2.3
1	QA	1397	C	2.3
3	XC	5	ILE	2.3
10	XJ	6	ILE	2.3
34	YP	31	ALA	2.3
53	R8	55	ALA	2.3
54	R9	36	GLN	2.3
41	YW	30	GLU	2.3
54	R9	28	GLU	2.3
12	QL	63	GLY	2.3
3	QC	132	ARG	2.3
16	XP	25	ARG	2.3
26	YD	44	ASN	2.3
33	RO	97	ARG	2.3
24	YA	11	G	2.3
24	YA	2101	G	2.3
24	RA	2506	U	2.3
3	XC	162	GLN	2.3
1	QA	977	A	2.3
2	XB	12	GLU	2.3
1	XA	1066	C	2.3
24	RA	2146	C	2.3
39	RU	7	GLY	2.3
46	Y1	84	GLY	2.3
51	R6	52	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
38	RT	18	ASP	2.3
3	XC	169	ALA	2.2
9	XI	71	SER	2.2
42	RX	33	LYS	2.2
29	YG	30	GLU	2.2
32	RN	9	VAL	2.2
1	QA	1235	U	2.2
2	XB	18	GLY	2.2
17	XQ	101	ARG	2.2
24	RA	1093	G	2.2
24	RA	2805	G	2.2
24	YA	2112	G	2.2
24	YA	2211	G	2.2
24	YA	2807	G	2.2
37	YS	109	GLY	2.2
13	QM	75	ALA	2.2
24	RA	2285	C	2.2
24	RA	2896	C	2.2
30	RH	85	LYS	2.2
38	YT	8	LYS	2.2
5	QE	50	GLU	2.2
11	XK	92	GLU	2.2
14	XN	18	VAL	2.2
26	YD	262	ARG	2.2
34	RP	61	ARG	2.2
46	Y1	89	GLU	2.2
51	R6	51	GLU	2.2
3	QC	167	TRP	2.2
5	XE	21	ALA	2.2
26	RD	26	LYS	2.2
30	RH	156	ALA	2.2
1	XA	380	G	2.2
3	QC	33	LEU	2.2
10	QJ	46	ARG	2.2
29	RG	21	ARG	2.2
46	Y1	40	ARG	2.2
4	QD	34	GLU	2.2
19	QS	43	GLU	2.2
1	XA	1286	A	2.2
17	XQ	36	ILE	2.2
1	XA	980	C	2.2
24	RA	2402	C	2.2

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Mol	Chain	Res	Type	RSRZ
6	QF	101	ALA	2.2
26	YD	116	GLN	2.2
31	RI	38	LEU	2.2
47	R2	55	ARG	2.2
4	XD	179	GLU	2.2
14	QN	38	GLY	2.2
16	XP	66	PRO	2.2
37	RS	2	ALA	2.2
1	QA	1492	A	2.2
4	QD	21	LEU	2.2
10	XJ	8	LEU	2.2
23	XX	12	A	2.2
24	RA	2802	G	2.2
30	YH	59	ARG	2.2
37	YS	3	ARG	2.2
1	XA	328	C	2.2
12	QL	16	GLU	2.2
24	RA	1102	C	2.2
34	YP	136	GLU	2.2
53	Y8	28	GLY	2.2
20	XT	68	LYS	2.2
26	RD	147	LEU	2.2
1	QA	1240	U	2.1
8	QH	91	ARG	2.1
10	XJ	58	ASP	2.1
21	QU	15	ARG	2.1
29	RG	83	ARG	2.1
34	RP	16	ARG	2.1
43	YY	107	ASP	2.1
42	RX	69	TYR	2.1
8	XH	5	PRO	2.1
17	XQ	34	LYS	2.1
19	QS	68	GLY	2.1
43	RY	63	LYS	2.1
45	R0	68	GLU	2.1
24	RA	2159	G	2.1
24	YA	1059	G	2.1
38	RT	114	LEU	2.1
53	Y8	62	LEU	2.1
11	QK	89	ALA	2.1
51	R6	22	ALA	2.1
4	QD	49	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
34	RP	15	ARG	2.1
1	QA	1054	C	2.1
1	QA	1366	C	2.1
1	QA	1367	C	2.1
24	RA	2138	C	2.1
24	RA	2804	C	2.1
19	QS	9	VAL	2.1
12	QL	32	PHE	2.1
27	RE	152	LYS	2.1
34	RP	36	LYS	2.1
43	RY	19	LYS	2.1
7	XG	34	GLY	2.1
9	XI	12	GLU	2.1
27	YE	74	PRO	2.1
49	R4	52	THR	2.1
19	QS	15	LEU	2.1
3	QC	190	ARG	2.1
44	RZ	149	SER	2.1
5	XE	20	GLN	2.1
5	QE	51	VAL	2.1
30	RH	169	VAL	2.1
47	Y2	15	LYS	2.1
23	QX	13	A	2.1
19	XS	2	PRO	2.1
35	RQ	78	PRO	2.1
9	QI	110	GLU	2.1
12	XL	27	LEU	2.1
34	YP	98	GLU	2.1
44	YZ	67	LEU	2.1
51	R6	36	LEU	2.1
1	XA	1511	G	2.1
24	YA	1110	G	2.1
24	YA	2792	G	2.1
15	QO	54	ARG	2.1
30	YH	3	ARG	2.1
37	YS	20	ARG	2.1
32	RN	118	LYS	2.1
3	XC	76	VAL	2.1
8	QH	51	VAL	2.1
24	YA	1026	U	2.1
7	QG	81	GLY	2.1
27	YE	151	TYR	2.1

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Mol	Chain	Res	Type	RSRZ
30	YH	137	ASP	2.1
45	R0	6	GLY	2.1
31	YI	134	PRO	2.1
8	QH	3	THR	2.1
32	YN	88	GLU	2.1
51	R6	4	GLU	2.1
53	R8	65	GLU	2.1
24	RA	6	A	2.1
9	QI	70	LYS	2.1
44	YZ	52	SER	2.1
51	R6	8	LYS	2.1
7	QG	80	VAL	2.1
31	RI	145	VAL	2.1
5	QE	114	GLY	2.1
24	YA	2105	C	2.1
24	YA	2142	C	2.1
16	XP	23	ASP	2.1
44	YZ	179	ASP	2.1
12	QL	127	GLU	2.1
40	YV	34	GLU	2.1
37	RS	20	ARG	2.1
3	QC	124	ILE	2.1
9	QI	113	LYS	2.1
12	XL	91	LYS	2.1
37	RS	105	ALA	2.1
19	XS	11	VAL	2.1
10	XJ	10	GLY	2.0
24	RA	1095	A	2.0
7	XG	15	ASP	2.0
6	XF	95	GLU	2.0
20	XT	71	THR	2.0
26	RD	27	THR	2.0
30	RH	152	ARG	2.0
15	QO	48	LYS	2.0
26	YD	31	LYS	2.0
35	YQ	66	ILE	2.0
1	XA	1322	C	2.0
24	RA	886	C	2.0
24	RA	2139	C	2.0
24	YA	2794	C	2.0
25	YB	108	C	2.0
40	YV	80	GLN	2.0

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Mol	Chain	Res	Type	RSRZ
27	YE	143	ASN	2.0
30	RH	74	ASN	2.0
24	YA	2166	G	2.0
2	QB	18	GLY	2.0
38	RT	4	GLY	2.0
19	QS	80	TYR	2.0
2	QB	214	ILE	2.0
36	YR	2	ARG	2.0
39	YU	81	HIS	2.0
6	QF	55	ASP	2.0
6	QF	83	ASP	2.0
29	RG	167	GLU	2.0
36	YR	69	ASP	2.0
37	RS	87	PHE	2.0
31	YI	3	VAL	2.0
4	QD	2	GLY	2.0
9	QI	111	ARG	2.0
18	QR	88	LYS	2.0
20	QT	102	GLY	2.0
20	XT	102	GLY	2.0
21	QU	26	LYS	2.0
21	XU	26	LYS	2.0
9	QI	125	TYR	2.0
13	QM	113	PRO	2.0
29	RG	136	ARG	2.0
30	RH	89	ILE	2.0
34	YP	79	ARG	2.0
35	YQ	84	GLY	2.0
46	R1	87	PRO	2.0
52	R7	47	ARG	2.0
54	R9	13	LYS	2.0
24	RA	1225	C	2.0
24	YA	2179	C	2.0
24	YA	2803	C	2.0
18	XR	31	LEU	2.0
26	YD	30	GLU	2.0
32	RN	50	ASP	2.0
32	YN	138	LEU	2.0
48	Y3	60	GLU	2.0
39	YU	97	ASP	2.0
1	XA	1126	U	2.0
20	XT	76	ALA	2.0

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Mol	Chain	Res	Type	RSRZ
24	YA	614	U	2.0
19	QS	41	VAL	2.0
30	RH	76	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
55	MG	RA	3419	1/1	0.01	0.17	156,156,156,156	0
55	MG	XA	1703	1/1	0.23	0.18	184,184,184,184	0
55	MG	YA	3287	1/1	0.23	0.28	115,115,115,115	0
55	MG	XV	106	1/1	0.36	0.36	140,140,140,140	0
55	MG	RA	3273	1/1	0.42	0.21	158,158,158,158	0
55	MG	RA	3411	1/1	0.47	0.18	94,94,94,94	0
55	MG	YA	3341	1/1	0.49	0.16	131,131,131,131	0
55	MG	YA	3360	1/1	0.51	0.30	80,80,80,80	0
55	MG	RB	210	1/1	0.52	0.20	99,99,99,99	0
55	MG	RA	3443	1/1	0.52	0.12	216,216,216,216	0
55	MG	QA	1779	1/1	0.53	0.15	78,78,78,78	0
55	MG	XA	1636	1/1	0.54	0.16	104,104,104,104	0
55	MG	QA	1681	1/1	0.59	0.23	122,122,122,122	0
55	MG	XA	1730	1/1	0.60	0.14	73,73,73,73	0
55	MG	YA	3478	1/1	0.60	0.31	106,106,106,106	0
55	MG	QA	1778	1/1	0.61	0.24	109,109,109,109	0
55	MG	XA	1661	1/1	0.61	0.11	80,80,80,80	0
55	MG	RA	3435	1/1	0.61	0.16	82,82,82,82	0
55	MG	QA	1757	1/1	0.63	0.20	100,100,100,100	0
55	MG	QA	1727	1/1	0.64	0.36	117,117,117,117	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3383	1/1	0.65	0.63	105,105,105,105	0
55	MG	RA	3134	1/1	0.66	0.14	65,65,65,65	0
55	MG	QA	1765	1/1	0.68	0.22	100,100,100,100	0
57	ZN	YY	501	1/1	0.68	0.20	305,305,305,305	0
55	MG	QA	1726	1/1	0.69	0.19	35,35,35,35	0
55	MG	XA	1749	1/1	0.69	0.27	101,101,101,101	0
55	MG	RA	3201	1/1	0.70	0.30	81,81,81,81	0
55	MG	QA	1717	1/1	0.70	0.10	122,122,122,122	0
55	MG	RA	3311	1/1	0.70	0.19	64,64,64,64	0
55	MG	QA	1711	1/1	0.70	0.15	60,60,60,60	0
55	MG	YA	3172	1/1	0.71	0.17	50,50,50,50	0
55	MG	RA	3468	1/1	0.71	0.28	91,91,91,91	0
55	MG	RA	3203	1/1	0.72	0.38	65,65,65,65	0
55	MG	RA	3460	1/1	0.72	0.07	54,54,54,54	0
55	MG	RA	3326	1/1	0.72	0.33	100,100,100,100	0
55	MG	RA	3135	1/1	0.72	0.23	37,37,37,37	0
55	MG	YA	3498	1/1	0.73	0.14	59,59,59,59	0
55	MG	QF	201	1/1	0.73	0.20	62,62,62,62	0
55	MG	RA	3356	1/1	0.74	0.17	65,65,65,65	0
55	MG	YA	3288	1/1	0.75	0.10	28,28,28,28	0
55	MG	XA	1648	1/1	0.75	0.14	118,118,118,118	0
55	MG	RA	3090	1/1	0.76	0.09	29,29,29,29	0
55	MG	YB	205	1/1	0.76	0.22	65,65,65,65	0
55	MG	RA	3053	1/1	0.76	0.18	24,24,24,24	0
55	MG	RA	3204	1/1	0.77	0.21	61,61,61,61	0
55	MG	RA	3316	1/1	0.77	0.10	35,35,35,35	0
55	MG	YA	3443	1/1	0.77	0.25	73,73,73,73	0
55	MG	QA	1672	1/1	0.77	0.17	61,61,61,61	0
55	MG	YA	3188	1/1	0.77	0.19	88,88,88,88	0
55	MG	RA	3448	1/1	0.77	0.19	98,98,98,98	0
55	MG	XA	1739	1/1	0.77	0.15	69,69,69,69	0
55	MG	YA	3179	1/1	0.78	0.24	26,26,26,26	0
55	MG	YA	3384	1/1	0.78	0.07	44,44,44,44	0
55	MG	QA	1728	1/1	0.78	0.28	101,101,101,101	0
55	MG	RA	3082	1/1	0.78	0.07	16,16,16,16	0
55	MG	YA	3479	1/1	0.78	0.19	100,100,100,100	0
55	MG	QV	106	1/1	0.78	0.69	71,71,71,71	0
55	MG	YA	3318	1/1	0.78	0.17	62,62,62,62	0
55	MG	RA	3120	1/1	0.78	0.24	47,47,47,47	0
55	MG	QA	1698	1/1	0.79	0.07	58,58,58,58	0
55	MG	YA	3252	1/1	0.79	0.16	28,28,28,28	0
55	MG	RA	3199	1/1	0.79	0.17	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	XA	1664	1/1	0.79	0.07	62,62,62,62	0
55	MG	YA	3480	1/1	0.79	0.10	81,81,81,81	0
55	MG	YA	3106	1/1	0.79	0.25	54,54,54,54	0
55	MG	QA	1710	1/1	0.79	0.16	72,72,72,72	0
55	MG	YB	209	1/1	0.79	0.16	48,48,48,48	0
55	MG	QA	1612	1/1	0.79	0.30	45,45,45,45	0
55	MG	RA	3434	1/1	0.80	0.19	55,55,55,55	0
55	MG	YA	3315	1/1	0.80	0.21	52,52,52,52	0
55	MG	RA	3314	1/1	0.80	0.16	50,50,50,50	0
55	MG	YA	3484	1/1	0.80	0.12	80,80,80,80	0
55	MG	QA	1644	1/1	0.80	0.26	69,69,69,69	0
55	MG	RA	3317	1/1	0.80	0.18	60,60,60,60	0
55	MG	XA	1651	1/1	0.80	0.30	99,99,99,99	0
57	ZN	R4	100	1/1	0.80	0.09	243,243,243,243	0
55	MG	QA	1768	1/1	0.80	0.21	67,67,67,67	0
55	MG	QA	1770	1/1	0.81	0.14	85,85,85,85	0
55	MG	YA	3164	1/1	0.81	0.27	96,96,96,96	0
55	MG	YA	3379	1/1	0.81	0.13	66,66,66,66	0
55	MG	QA	1712	1/1	0.81	0.10	83,83,83,83	0
55	MG	YA	3178	1/1	0.81	0.47	37,37,37,37	0
55	MG	QA	1720	1/1	0.81	0.06	52,52,52,52	0
55	MG	XA	1737	1/1	0.81	0.06	45,45,45,45	0
55	MG	RA	3151	1/1	0.81	0.12	80,80,80,80	0
55	MG	RA	3152	1/1	0.81	0.15	47,47,47,47	0
55	MG	YA	3490	1/1	0.81	0.32	100,100,100,100	0
55	MG	XA	1766	1/1	0.81	0.12	76,76,76,76	0
55	MG	YA	3304	1/1	0.81	0.17	56,56,56,56	0
55	MG	QA	1725	1/1	0.81	0.09	126,126,126,126	0
55	MG	YA	3105	1/1	0.81	0.26	23,23,23,23	0
55	MG	YA	3336	1/1	0.81	0.08	114,114,114,114	0
55	MG	XA	1705	1/1	0.82	0.23	59,59,59,59	0
55	MG	RA	3251	1/1	0.82	0.18	56,56,56,56	0
55	MG	RA	3270	1/1	0.82	0.28	53,53,53,53	0
55	MG	YA	3483	1/1	0.82	0.10	23,23,23,23	0
55	MG	QA	1756	1/1	0.82	0.22	121,121,121,121	0
55	MG	RA	3284	1/1	0.82	0.23	61,61,61,61	0
55	MG	RA	3158	1/1	0.82	0.14	47,47,47,47	0
55	MG	RX	101	1/1	0.82	0.06	63,63,63,63	0
55	MG	YA	3003	1/1	0.82	0.18	44,44,44,44	0
55	MG	YA	3279	1/1	0.82	0.21	52,52,52,52	0
55	MG	YA	3004	1/1	0.82	0.10	51,51,51,51	0
55	MG	QA	1608	1/1	0.83	0.13	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3409	1/1	0.83	0.10	53,53,53,53	0
55	MG	RA	3447	1/1	0.83	0.48	64,64,64,64	0
55	MG	RA	3327	1/1	0.83	0.09	38,38,38,38	0
55	MG	XA	1660	1/1	0.83	0.12	33,33,33,33	0
55	MG	RA	3355	1/1	0.83	0.20	49,49,49,49	0
55	MG	XA	1663	1/1	0.83	0.19	39,39,39,39	0
55	MG	RA	3427	1/1	0.83	0.12	60,60,60,60	0
55	MG	RB	205	1/1	0.83	0.25	69,69,69,69	0
55	MG	YA	3123	1/1	0.83	0.34	60,60,60,60	0
55	MG	RB	206	1/1	0.83	0.20	74,74,74,74	0
55	MG	QA	1758	1/1	0.83	0.28	69,69,69,69	0
55	MG	XA	1736	1/1	0.83	0.09	67,67,67,67	0
55	MG	RA	3245	1/1	0.84	0.17	54,54,54,54	0
55	MG	YA	3193	1/1	0.84	0.07	28,28,28,28	0
55	MG	YA	3244	1/1	0.84	0.15	34,34,34,34	0
55	MG	YA	3424	1/1	0.84	0.28	64,64,64,64	0
55	MG	XA	1687	1/1	0.84	0.08	35,35,35,35	0
55	MG	YA	3262	1/1	0.84	0.15	33,33,33,33	0
55	MG	QH	201	1/1	0.84	0.31	95,95,95,95	0
55	MG	XA	1759	1/1	0.84	0.23	81,81,81,81	0
55	MG	YA	3162	1/1	0.84	0.22	49,49,49,49	0
55	MG	YA	3292	1/1	0.84	0.13	45,45,45,45	0
55	MG	QA	1721	1/1	0.84	0.19	47,47,47,47	0
55	MG	YA	3496	1/1	0.84	0.20	114,114,114,114	0
55	MG	XA	1770	1/1	0.84	0.26	79,79,79,79	0
55	MG	QA	1716	1/1	0.84	0.15	70,70,70,70	0
55	MG	YA	3334	1/1	0.84	0.12	61,61,61,61	0
55	MG	RA	3238	1/1	0.84	0.39	60,60,60,60	0
55	MG	YA	3182	1/1	0.84	0.19	119,119,119,119	0
55	MG	RA	3299	1/1	0.85	0.09	45,45,45,45	0
55	MG	QA	1697	1/1	0.85	0.19	61,61,61,61	0
55	MG	RA	3193	1/1	0.85	0.12	82,82,82,82	0
55	MG	YA	3268	1/1	0.85	0.20	65,65,65,65	0
55	MG	YA	3359	1/1	0.85	0.06	16,16,16,16	0
55	MG	QA	1731	1/1	0.85	0.07	44,44,44,44	0
55	MG	RA	3358	1/1	0.85	0.34	79,79,79,79	0
55	MG	QA	1660	1/1	0.85	0.07	98,98,98,98	0
55	MG	RA	3388	1/1	0.85	0.05	37,37,37,37	0
57	ZN	RY	501	1/1	0.85	0.14	313,313,313,313	0
55	MG	RO	201	1/1	0.85	0.27	61,61,61,61	0
55	MG	YA	3114	1/1	0.85	0.14	39,39,39,39	0
55	MG	RA	3485	1/1	0.86	0.16	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3307	1/1	0.86	0.22	38,38,38,38	0
55	MG	QA	1741	1/1	0.86	0.12	44,44,44,44	0
55	MG	QA	1708	1/1	0.86	0.11	67,67,67,67	0
55	MG	QA	1658	1/1	0.86	0.13	68,68,68,68	0
55	MG	RA	3250	1/1	0.86	0.17	49,49,49,49	0
55	MG	YA	3387	1/1	0.86	0.11	71,71,71,71	0
55	MG	RA	3098	1/1	0.86	0.17	32,32,32,32	0
55	MG	YA	3237	1/1	0.86	0.23	74,74,74,74	0
55	MG	YA	3468	1/1	0.86	0.33	91,91,91,91	0
55	MG	RA	3196	1/1	0.86	0.08	43,43,43,43	0
55	MG	RA	3338	1/1	0.86	0.11	46,46,46,46	0
55	MG	RA	3340	1/1	0.86	0.15	66,66,66,66	0
55	MG	RA	3347	1/1	0.86	0.20	66,66,66,66	0
55	MG	YA	3081	1/1	0.86	0.26	35,35,35,35	0
55	MG	YA	3089	1/1	0.86	0.11	51,51,51,51	0
55	MG	YA	3491	1/1	0.86	0.22	60,60,60,60	0
55	MG	YA	3102	1/1	0.86	0.26	37,37,37,37	0
55	MG	QA	1718	1/1	0.86	0.05	55,55,55,55	0
55	MG	QA	1653	1/1	0.86	0.10	138,138,138,138	0
55	MG	YB	206	1/1	0.86	0.08	69,69,69,69	0
55	MG	RA	3462	1/1	0.86	0.11	48,48,48,48	0
55	MG	QA	1707	1/1	0.86	0.13	67,67,67,67	0
55	MG	YA	3328	1/1	0.86	0.10	58,58,58,58	0
57	ZN	R5	101	1/1	0.86	0.16	388,388,388,388	0
55	MG	RA	3477	1/1	0.86	0.24	75,75,75,75	0
55	MG	RA	3148	1/1	0.87	0.25	27,27,27,27	0
55	MG	RA	3211	1/1	0.87	0.13	67,67,67,67	0
55	MG	RA	3070	1/1	0.87	0.20	59,59,59,59	0
55	MG	RA	3241	1/1	0.87	0.24	36,36,36,36	0
55	MG	YA	3342	1/1	0.87	0.15	68,68,68,68	0
55	MG	RA	3243	1/1	0.87	0.24	52,52,52,52	0
55	MG	YA	3135	1/1	0.87	0.10	46,46,46,46	0
55	MG	YA	3144	1/1	0.87	0.22	39,39,39,39	0
55	MG	RA	3330	1/1	0.87	0.17	70,70,70,70	0
55	MG	QA	1722	1/1	0.87	0.10	58,58,58,58	0
55	MG	YA	3408	1/1	0.87	0.20	73,73,73,73	0
55	MG	YA	3413	1/1	0.87	0.24	43,43,43,43	0
55	MG	RA	3457	1/1	0.87	0.09	59,59,59,59	0
55	MG	RA	3085	1/1	0.87	0.22	27,27,27,27	0
55	MG	XA	1729	1/1	0.87	0.14	62,62,62,62	0
55	MG	YA	3473	1/1	0.87	0.16	45,45,45,45	0
55	MG	RA	3169	1/1	0.87	0.18	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3264	1/1	0.87	0.15	44,44,44,44	0
55	MG	RA	3179	1/1	0.87	0.25	53,53,53,53	0
55	MG	YA	3224	1/1	0.87	0.16	32,32,32,32	0
55	MG	RA	3484	1/1	0.87	0.10	54,54,54,54	0
55	MG	QA	1685	1/1	0.87	0.20	61,61,61,61	0
55	MG	XA	1755	1/1	0.87	0.18	60,60,60,60	0
55	MG	RA	3376	1/1	0.87	0.13	62,62,62,62	0
55	MG	QA	1759	1/1	0.87	0.14	55,55,55,55	0
55	MG	XA	1767	1/1	0.87	0.11	87,87,87,87	0
55	MG	QA	1738	1/1	0.87	0.07	53,53,53,53	0
55	MG	RD	301	1/1	0.87	0.37	74,74,74,74	0
55	MG	RA	3407	1/1	0.87	0.10	50,50,50,50	0
55	MG	QA	1699	1/1	0.87	0.07	49,49,49,49	0
55	MG	XA	1633	1/1	0.87	0.28	43,43,43,43	0
55	MG	QA	1617	1/1	0.87	0.12	50,50,50,50	0
57	ZN	Y5	101	1/1	0.87	0.14	214,214,214,214	0
55	MG	YA	3311	1/1	0.88	0.10	63,63,63,63	0
55	MG	RA	3414	1/1	0.88	0.21	58,58,58,58	0
55	MG	YA	3317	1/1	0.88	0.18	55,55,55,55	0
55	MG	XV	107	1/1	0.88	0.23	37,37,37,37	0
55	MG	YA	3325	1/1	0.88	0.14	52,52,52,52	0
55	MG	XA	1632	1/1	0.88	0.31	33,33,33,33	0
55	MG	RA	3202	1/1	0.88	0.16	39,39,39,39	0
55	MG	QA	1652	1/1	0.88	0.09	49,49,49,49	0
55	MG	YA	3085	1/1	0.88	0.29	25,25,25,25	0
55	MG	XA	1645	1/1	0.88	0.11	87,87,87,87	0
55	MG	YA	3099	1/1	0.88	0.27	41,41,41,41	0
55	MG	QA	1661	1/1	0.88	0.23	62,62,62,62	0
55	MG	YA	3377	1/1	0.88	0.10	48,48,48,48	0
55	MG	RA	3126	1/1	0.88	0.14	89,89,89,89	0
55	MG	RA	3230	1/1	0.88	0.26	47,47,47,47	0
55	MG	QA	1615	1/1	0.88	0.14	86,86,86,86	0
55	MG	YA	3404	1/1	0.88	0.14	43,43,43,43	0
55	MG	YA	3405	1/1	0.88	0.16	65,65,65,65	0
55	MG	QA	1657	1/1	0.88	0.19	45,45,45,45	0
55	MG	RA	3452	1/1	0.88	0.33	80,80,80,80	0
55	MG	XA	1674	1/1	0.88	0.18	73,73,73,73	0
55	MG	XA	1677	1/1	0.88	0.10	32,32,32,32	0
55	MG	QX	101	1/1	0.88	0.22	72,72,72,72	0
55	MG	XA	1689	1/1	0.88	0.08	41,41,41,41	0
55	MG	YA	3474	1/1	0.88	0.12	44,44,44,44	0
55	MG	YA	3475	1/1	0.88	0.14	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3007	1/1	0.88	0.16	55,55,55,55	0
55	MG	RA	3042	1/1	0.88	0.32	26,26,26,26	0
55	MG	XA	1725	1/1	0.88	0.11	53,53,53,53	0
55	MG	RA	3155	1/1	0.88	0.10	26,26,26,26	0
55	MG	RA	3472	1/1	0.88	0.27	78,78,78,78	0
55	MG	YA	3196	1/1	0.88	0.17	64,64,64,64	0
55	MG	QA	1651	1/1	0.88	0.08	86,86,86,86	0
55	MG	RA	3054	1/1	0.88	0.19	16,16,16,16	0
55	MG	QA	1691	1/1	0.88	0.06	35,35,35,35	0
55	MG	YB	203	1/1	0.88	0.12	54,54,54,54	0
55	MG	RA	3492	1/1	0.88	0.19	76,76,76,76	0
55	MG	QA	1693	1/1	0.88	0.12	61,61,61,61	0
55	MG	RA	3389	1/1	0.88	0.06	73,73,73,73	0
55	MG	XA	1760	1/1	0.88	0.16	119,119,119,119	0
55	MG	QA	1774	1/1	0.88	0.20	78,78,78,78	0
55	MG	RA	3089	1/1	0.88	0.17	25,25,25,25	0
55	MG	QA	1750	1/1	0.88	0.11	44,44,44,44	0
55	MG	XV	103	1/1	0.88	0.15	67,67,67,67	0
55	MG	QA	1683	1/1	0.89	0.25	62,62,62,62	0
55	MG	RA	3312	1/1	0.89	0.08	27,27,27,27	0
55	MG	RA	3313	1/1	0.89	0.05	23,23,23,23	0
55	MG	YA	3337	1/1	0.89	0.26	55,55,55,55	0
55	MG	RA	3008	1/1	0.89	0.30	61,61,61,61	0
55	MG	XA	1724	1/1	0.89	0.25	66,66,66,66	0
55	MG	RA	3172	1/1	0.89	0.19	54,54,54,54	0
55	MG	RA	3107	1/1	0.89	0.19	65,65,65,65	0
55	MG	YA	3362	1/1	0.89	0.23	65,65,65,65	0
55	MG	QA	1776	1/1	0.89	0.07	40,40,40,40	0
55	MG	YA	3156	1/1	0.89	0.31	32,32,32,32	0
55	MG	XA	1735	1/1	0.89	0.09	41,41,41,41	0
55	MG	RA	3422	1/1	0.89	0.35	76,76,76,76	0
55	MG	YA	3389	1/1	0.89	0.09	39,39,39,39	0
55	MG	YA	3403	1/1	0.89	0.10	53,53,53,53	0
55	MG	RA	3425	1/1	0.89	0.09	54,54,54,54	0
55	MG	XA	1738	1/1	0.89	0.12	64,64,64,64	0
55	MG	RA	3195	1/1	0.89	0.22	48,48,48,48	0
55	MG	YA	3411	1/1	0.89	0.31	52,52,52,52	0
55	MG	YA	3412	1/1	0.89	0.20	47,47,47,47	0
55	MG	XA	1746	1/1	0.89	0.17	74,74,74,74	0
55	MG	YA	3414	1/1	0.89	0.25	49,49,49,49	0
55	MG	QA	1714	1/1	0.89	0.25	66,66,66,66	0
55	MG	YA	3191	1/1	0.89	0.09	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3446	1/1	0.89	0.13	56,56,56,56	0
55	MG	YA	3463	1/1	0.89	0.09	56,56,56,56	0
55	MG	YA	3466	1/1	0.89	0.08	38,38,38,38	0
55	MG	XA	1752	1/1	0.89	0.13	58,58,58,58	0
55	MG	YA	3470	1/1	0.89	0.09	38,38,38,38	0
55	MG	XA	1626	1/1	0.89	0.09	49,49,49,49	0
55	MG	YA	3202	1/1	0.89	0.10	66,66,66,66	0
55	MG	YA	3212	1/1	0.89	0.10	53,53,53,53	0
55	MG	XA	1757	1/1	0.89	0.11	43,43,43,43	0
55	MG	QA	1709	1/1	0.89	0.10	59,59,59,59	0
55	MG	RA	3440	1/1	0.89	0.05	50,50,50,50	0
55	MG	YA	3246	1/1	0.89	0.13	58,58,58,58	0
55	MG	QA	1736	1/1	0.89	0.08	36,36,36,36	0
55	MG	YA	3487	1/1	0.89	0.14	63,63,63,63	0
55	MG	XA	1637	1/1	0.89	0.15	28,28,28,28	0
55	MG	RA	3445	1/1	0.89	0.21	68,68,68,68	0
55	MG	YA	3495	1/1	0.89	0.09	32,32,32,32	0
55	MG	YA	3273	1/1	0.89	0.18	46,46,46,46	0
55	MG	XE	202	1/1	0.89	0.14	70,70,70,70	0
55	MG	YA	3514	1/1	0.89	0.14	84,84,84,84	0
55	MG	RA	3072	1/1	0.89	0.25	29,29,29,29	0
55	MG	RA	3353	1/1	0.89	0.11	45,45,45,45	0
55	MG	QA	1723	1/1	0.89	0.22	59,59,59,59	0
55	MG	RA	3290	1/1	0.89	0.17	50,50,50,50	0
55	MG	YB	210	1/1	0.89	0.05	51,51,51,51	0
55	MG	QA	1704	1/1	0.89	0.09	38,38,38,38	0
55	MG	YA	3016	1/1	0.89	0.28	4,4,4,4	0
55	MG	RA	3461	1/1	0.89	0.22	47,47,47,47	0
57	ZN	R9	101	1/1	0.89	0.19	174,174,174,174	0
55	MG	QA	1613	1/1	0.89	0.26	47,47,47,47	0
57	ZN	Y4	100	1/1	0.89	0.10	237,237,237,237	0
55	MG	RA	3310	1/1	0.89	0.17	49,49,49,49	0
55	MG	RA	3012	1/1	0.90	0.29	18,18,18,18	0
55	MG	YA	3305	1/1	0.90	0.17	77,77,77,77	0
55	MG	RA	3206	1/1	0.90	0.18	51,51,51,51	0
55	MG	RA	3207	1/1	0.90	0.11	61,61,61,61	0
55	MG	RA	3332	1/1	0.90	0.07	72,72,72,72	0
55	MG	RA	3208	1/1	0.90	0.23	49,49,49,49	0
55	MG	YA	3324	1/1	0.90	0.17	33,33,33,33	0
55	MG	RA	3339	1/1	0.90	0.09	29,29,29,29	0
55	MG	RA	3493	1/1	0.90	0.20	34,34,34,34	0
55	MG	RA	3209	1/1	0.90	0.18	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3346	1/1	0.90	0.09	42,42,42,42	0
55	MG	XL	201	1/1	0.90	0.12	54,54,54,54	0
55	MG	RA	3034	1/1	0.90	0.20	27,27,27,27	0
55	MG	RA	3352	1/1	0.90	0.16	50,50,50,50	0
55	MG	RE	302	1/1	0.90	0.12	71,71,71,71	0
55	MG	RA	3217	1/1	0.90	0.06	51,51,51,51	0
55	MG	RT	201	1/1	0.90	0.13	48,48,48,48	0
55	MG	YA	3015	1/1	0.90	0.32	24,24,24,24	0
55	MG	QA	1604	1/1	0.90	0.17	37,37,37,37	0
55	MG	R0	101	1/1	0.90	0.17	38,38,38,38	0
55	MG	XA	1621	1/1	0.90	0.15	43,43,43,43	0
55	MG	RA	3231	1/1	0.90	0.29	50,50,50,50	0
55	MG	YA	3093	1/1	0.90	0.25	36,36,36,36	0
55	MG	RA	3140	1/1	0.90	0.33	66,66,66,66	0
55	MG	RA	3374	1/1	0.90	0.10	17,17,17,17	0
55	MG	RA	3144	1/1	0.90	0.10	26,26,26,26	0
55	MG	RA	3145	1/1	0.90	0.19	62,62,62,62	0
55	MG	RA	3051	1/1	0.90	0.18	32,32,32,32	0
55	MG	RA	3247	1/1	0.90	0.18	54,54,54,54	0
55	MG	XA	1649	1/1	0.90	0.24	59,59,59,59	0
55	MG	YA	3420	1/1	0.90	0.15	23,23,23,23	0
55	MG	YA	3142	1/1	0.90	0.19	44,44,44,44	0
55	MG	YA	3435	1/1	0.90	0.06	32,32,32,32	0
55	MG	RA	3405	1/1	0.90	0.23	49,49,49,49	0
55	MG	RA	3406	1/1	0.90	0.14	61,61,61,61	0
55	MG	QA	1647	1/1	0.90	0.20	72,72,72,72	0
55	MG	YA	3465	1/1	0.90	0.07	73,73,73,73	0
55	MG	YA	3163	1/1	0.90	0.38	66,66,66,66	0
55	MG	QA	1619	1/1	0.90	0.21	68,68,68,68	0
55	MG	YA	3168	1/1	0.90	0.11	51,51,51,51	0
55	MG	QA	1622	1/1	0.90	0.15	42,42,42,42	0
55	MG	YA	3175	1/1	0.90	0.23	49,49,49,49	0
55	MG	QA	1734	1/1	0.90	0.18	58,58,58,58	0
55	MG	RA	3168	1/1	0.90	0.19	74,74,74,74	0
55	MG	XA	1682	1/1	0.90	0.10	44,44,44,44	0
55	MG	XA	1686	1/1	0.90	0.12	42,42,42,42	0
55	MG	RA	3077	1/1	0.90	0.31	16,16,16,16	0
55	MG	RA	3080	1/1	0.90	0.10	17,17,17,17	0
55	MG	XA	1692	1/1	0.90	0.15	31,31,31,31	0
55	MG	YA	3198	1/1	0.90	0.13	45,45,45,45	0
55	MG	RA	3291	1/1	0.90	0.20	59,59,59,59	0
55	MG	RA	3295	1/1	0.90	0.10	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	QA	1735	1/1	0.90	0.07	36,36,36,36	0
55	MG	RA	3191	1/1	0.90	0.08	60,60,60,60	0
55	MG	YA	3509	1/1	0.90	0.05	41,41,41,41	0
55	MG	RA	3308	1/1	0.90	0.07	33,33,33,33	0
55	MG	YA	3245	1/1	0.90	0.15	40,40,40,40	0
55	MG	QV	103	1/1	0.90	0.18	65,65,65,65	0
55	MG	QA	1626	1/1	0.90	0.13	34,34,34,34	0
55	MG	YA	3256	1/1	0.90	0.14	26,26,26,26	0
55	MG	QA	1677	1/1	0.90	0.11	55,55,55,55	0
55	MG	YE	303	1/1	0.90	0.06	19,19,19,19	0
55	MG	Y7	101	1/1	0.90	0.18	54,54,54,54	0
55	MG	QA	1769	1/1	0.90	0.07	35,35,35,35	0
55	MG	QA	1739	1/1	0.90	0.07	48,48,48,48	0
55	MG	RA	3010	1/1	0.90	0.20	29,29,29,29	0
55	MG	RA	3123	1/1	0.90	0.12	27,27,27,27	0
55	MG	XA	1747	1/1	0.90	0.15	49,49,49,49	0
55	MG	RA	3320	1/1	0.90	0.14	42,42,42,42	0
55	MG	YA	3297	1/1	0.90	0.12	26,26,26,26	0
55	MG	RA	3112	1/1	0.91	0.30	39,39,39,39	0
55	MG	YA	3293	1/1	0.91	0.13	50,50,50,50	0
55	MG	RA	3116	1/1	0.91	0.09	40,40,40,40	0
55	MG	YA	3001	1/1	0.91	0.15	19,19,19,19	0
55	MG	QA	1748	1/1	0.91	0.09	63,63,63,63	0
55	MG	RA	3345	1/1	0.91	0.14	72,72,72,72	0
55	MG	QV	105	1/1	0.91	0.25	39,39,39,39	0
55	MG	QA	1749	1/1	0.91	0.11	42,42,42,42	0
55	MG	YA	3041	1/1	0.91	0.27	23,23,23,23	0
55	MG	YA	3319	1/1	0.91	0.23	52,52,52,52	0
55	MG	YA	3042	1/1	0.91	0.24	18,18,18,18	0
55	MG	YA	3075	1/1	0.91	0.29	18,18,18,18	0
55	MG	YA	3327	1/1	0.91	0.12	48,48,48,48	0
55	MG	RA	3350	1/1	0.91	0.09	32,32,32,32	0
55	MG	YA	3082	1/1	0.91	0.16	40,40,40,40	0
55	MG	YA	3084	1/1	0.91	0.12	39,39,39,39	0
55	MG	RA	3455	1/1	0.91	0.06	52,52,52,52	0
55	MG	RA	3127	1/1	0.91	0.15	64,64,64,64	0
55	MG	RA	3288	1/1	0.91	0.21	28,28,28,28	0
55	MG	YA	3356	1/1	0.91	0.12	32,32,32,32	0
55	MG	XA	1678	1/1	0.91	0.06	19,19,19,19	0
55	MG	XA	1680	1/1	0.91	0.17	29,29,29,29	0
55	MG	RA	3068	1/1	0.91	0.20	48,48,48,48	0
55	MG	YA	3369	1/1	0.91	0.13	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3374	1/1	0.91	0.34	76,76,76,76	0
55	MG	XA	1684	1/1	0.91	0.04	34,34,34,34	0
55	MG	YA	3107	1/1	0.91	0.19	26,26,26,26	0
55	MG	YA	3382	1/1	0.91	0.06	59,59,59,59	0
55	MG	YA	3109	1/1	0.91	0.17	29,29,29,29	0
55	MG	YA	3386	1/1	0.91	0.09	27,27,27,27	0
55	MG	YA	3110	1/1	0.91	0.15	66,66,66,66	0
55	MG	YA	3112	1/1	0.91	0.24	35,35,35,35	0
55	MG	QA	1724	1/1	0.91	0.07	35,35,35,35	0
55	MG	YA	3119	1/1	0.91	0.16	30,30,30,30	0
55	MG	RA	3466	1/1	0.91	0.07	38,38,38,38	0
55	MG	RA	3006	1/1	0.91	0.17	32,32,32,32	0
55	MG	YA	3136	1/1	0.91	0.08	16,16,16,16	0
55	MG	YA	3137	1/1	0.91	0.19	40,40,40,40	0
55	MG	QA	1689	1/1	0.91	0.14	58,58,58,58	0
55	MG	RA	3476	1/1	0.91	0.11	33,33,33,33	0
55	MG	YA	3145	1/1	0.91	0.09	37,37,37,37	0
55	MG	YA	3146	1/1	0.91	0.23	38,38,38,38	0
55	MG	RA	3375	1/1	0.91	0.09	54,54,54,54	0
55	MG	XA	1706	1/1	0.91	0.14	38,38,38,38	0
55	MG	YA	3444	1/1	0.91	0.21	115,115,115,115	0
55	MG	XA	1707	1/1	0.91	0.11	29,29,29,29	0
55	MG	XA	1722	1/1	0.91	0.11	40,40,40,40	0
55	MG	YA	3464	1/1	0.91	0.14	44,44,44,44	0
55	MG	QA	1684	1/1	0.91	0.14	28,28,28,28	0
55	MG	YA	3169	1/1	0.91	0.15	55,55,55,55	0
55	MG	QA	1715	1/1	0.91	0.07	75,75,75,75	0
55	MG	QA	1625	1/1	0.91	0.05	52,52,52,52	0
55	MG	YA	3472	1/1	0.91	0.06	26,26,26,26	0
55	MG	RA	3210	1/1	0.91	0.15	38,38,38,38	0
55	MG	XA	1733	1/1	0.91	0.08	42,42,42,42	0
55	MG	YA	3180	1/1	0.91	0.23	32,32,32,32	0
55	MG	RA	3390	1/1	0.91	0.36	57,57,57,57	0
55	MG	RA	3087	1/1	0.91	0.15	25,25,25,25	0
55	MG	RA	3020	1/1	0.91	0.20	2,2,2,2	0
55	MG	YA	3192	1/1	0.91	0.31	72,72,72,72	0
55	MG	RA	3030	1/1	0.91	0.21	19,19,19,19	0
55	MG	YA	3194	1/1	0.91	0.07	39,39,39,39	0
55	MG	QA	1764	1/1	0.91	0.12	51,51,51,51	0
55	MG	YA	3197	1/1	0.91	0.15	44,44,44,44	0
55	MG	RA	3234	1/1	0.91	0.20	17,17,17,17	0
55	MG	RQ	202	1/1	0.91	0.15	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3204	1/1	0.91	0.05	8,8,8,8	0
55	MG	YA	3501	1/1	0.91	0.22	38,38,38,38	0
55	MG	RA	3104	1/1	0.91	0.15	56,56,56,56	0
55	MG	RA	3416	1/1	0.91	0.08	29,29,29,29	0
55	MG	YA	3515	1/1	0.91	0.06	41,41,41,41	0
55	MG	XA	1753	1/1	0.91	0.11	76,76,76,76	0
55	MG	QA	1688	1/1	0.91	0.15	42,42,42,42	0
55	MG	XA	1608	1/1	0.91	0.17	38,38,38,38	0
55	MG	RA	3175	1/1	0.91	0.13	64,64,64,64	0
55	MG	RA	3424	1/1	0.91	0.14	63,63,63,63	0
55	MG	XA	1627	1/1	0.91	0.10	33,33,33,33	0
55	MG	YO	201	1/1	0.91	0.18	40,40,40,40	0
55	MG	YQ	202	1/1	0.91	0.28	151,151,151,151	0
55	MG	YA	3260	1/1	0.91	0.13	34,34,34,34	0
55	MG	RA	3177	1/1	0.91	0.13	85,85,85,85	0
55	MG	XA	1769	1/1	0.91	0.11	70,70,70,70	0
55	MG	RA	3111	1/1	0.91	0.21	59,59,59,59	0
55	MG	XA	1635	1/1	0.91	0.06	51,51,51,51	0
55	MG	YA	3283	1/1	0.91	0.23	49,49,49,49	0
55	MG	RA	3431	1/1	0.91	0.07	32,32,32,32	0
55	MG	RA	3337	1/1	0.91	0.20	48,48,48,48	0
55	MG	YA	3326	1/1	0.92	0.21	49,49,49,49	0
55	MG	RA	3267	1/1	0.92	0.20	45,45,45,45	0
55	MG	QA	1747	1/1	0.92	0.07	47,47,47,47	0
55	MG	YA	3332	1/1	0.92	0.05	29,29,29,29	0
55	MG	RA	3197	1/1	0.92	0.16	30,30,30,30	0
55	MG	RA	3275	1/1	0.92	0.13	24,24,24,24	0
55	MG	RA	3281	1/1	0.92	0.06	25,25,25,25	0
55	MG	RA	3128	1/1	0.92	0.21	5,5,5,5	0
55	MG	RA	3357	1/1	0.92	0.18	74,74,74,74	0
55	MG	YA	3347	1/1	0.92	0.12	41,41,41,41	0
55	MG	YA	3354	1/1	0.92	0.07	26,26,26,26	0
55	MG	RA	3467	1/1	0.92	0.09	44,44,44,44	0
55	MG	RA	3129	1/1	0.92	0.20	32,32,32,32	0
55	MG	YA	3117	1/1	0.92	0.21	62,62,62,62	0
55	MG	RA	3470	1/1	0.92	0.30	63,63,63,63	0
55	MG	RA	3370	1/1	0.92	0.10	76,76,76,76	0
55	MG	YA	3373	1/1	0.92	0.15	59,59,59,59	0
55	MG	XA	1704	1/1	0.92	0.21	53,53,53,53	0
55	MG	RA	3289	1/1	0.92	0.28	49,49,49,49	0
55	MG	RA	3075	1/1	0.92	0.23	23,23,23,23	0
55	MG	RA	3482	1/1	0.92	0.10	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	XA	1712	1/1	0.92	0.19	48,48,48,48	0
55	MG	YA	3385	1/1	0.92	0.19	60,60,60,60	0
55	MG	XA	1713	1/1	0.92	0.19	44,44,44,44	0
55	MG	XA	1714	1/1	0.92	0.18	54,54,54,54	0
55	MG	YA	3153	1/1	0.92	0.16	84,84,84,84	0
55	MG	YA	3394	1/1	0.92	0.22	23,23,23,23	0
55	MG	RA	3076	1/1	0.92	0.15	59,59,59,59	0
55	MG	YA	3159	1/1	0.92	0.14	59,59,59,59	0
55	MG	QC	301	1/1	0.92	0.06	111,111,111,111	0
55	MG	RA	3387	1/1	0.92	0.05	46,46,46,46	0
55	MG	RA	3014	1/1	0.92	0.10	30,30,30,30	0
55	MG	RB	202	1/1	0.92	0.09	68,68,68,68	0
55	MG	RB	204	1/1	0.92	0.12	75,75,75,75	0
55	MG	RA	3305	1/1	0.92	0.22	46,46,46,46	0
55	MG	YA	3417	1/1	0.92	0.07	48,48,48,48	0
55	MG	QA	1687	1/1	0.92	0.10	27,27,27,27	0
55	MG	RA	3392	1/1	0.92	0.12	41,41,41,41	0
55	MG	YA	3430	1/1	0.92	0.06	33,33,33,33	0
55	MG	RA	3395	1/1	0.92	0.13	41,41,41,41	0
55	MG	YA	3437	1/1	0.92	0.14	43,43,43,43	0
55	MG	RA	3026	1/1	0.92	0.25	36,36,36,36	0
55	MG	RE	304	1/1	0.92	0.09	37,37,37,37	0
55	MG	YA	3186	1/1	0.92	0.15	50,50,50,50	0
55	MG	RA	3028	1/1	0.92	0.21	23,23,23,23	0
55	MG	QA	1614	1/1	0.92	0.08	41,41,41,41	0
55	MG	XA	1750	1/1	0.92	0.12	59,59,59,59	0
55	MG	QA	1601	1/1	0.92	0.09	19,19,19,19	0
55	MG	YA	3467	1/1	0.92	0.05	40,40,40,40	0
55	MG	QA	1664	1/1	0.92	0.21	68,68,68,68	0
55	MG	RY	502	1/1	0.92	0.34	196,196,196,196	0
55	MG	RA	3224	1/1	0.92	0.35	51,51,51,51	0
55	MG	RA	3228	1/1	0.92	0.30	63,63,63,63	0
55	MG	XA	1609	1/1	0.92	0.18	29,29,29,29	0
55	MG	XA	1617	1/1	0.92	0.12	67,67,67,67	0
55	MG	QA	1771	1/1	0.92	0.12	42,42,42,42	0
55	MG	QA	1773	1/1	0.92	0.14	48,48,48,48	0
55	MG	RA	3324	1/1	0.92	0.08	36,36,36,36	0
55	MG	XA	1630	1/1	0.92	0.17	47,47,47,47	0
55	MG	QA	1667	1/1	0.92	0.06	17,17,17,17	0
55	MG	RA	3174	1/1	0.92	0.12	30,30,30,30	0
55	MG	YA	3248	1/1	0.92	0.25	34,34,34,34	0
55	MG	RA	3429	1/1	0.92	0.08	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3494	1/1	0.92	0.16	69,69,69,69	0
55	MG	RA	3055	1/1	0.92	0.13	53,53,53,53	0
55	MG	RA	3061	1/1	0.92	0.18	34,34,34,34	0
55	MG	XA	1643	1/1	0.92	0.21	58,58,58,58	0
55	MG	XA	1644	1/1	0.92	0.09	17,17,17,17	0
55	MG	QA	1659	1/1	0.92	0.14	89,89,89,89	0
55	MG	YA	3511	1/1	0.92	0.08	43,43,43,43	0
55	MG	YA	3275	1/1	0.92	0.14	53,53,53,53	0
55	MG	YA	3277	1/1	0.92	0.15	51,51,51,51	0
55	MG	RA	3437	1/1	0.92	0.20	24,24,24,24	0
55	MG	YA	3025	1/1	0.92	0.18	17,17,17,17	0
55	MG	YA	3029	1/1	0.92	0.15	6,6,6,6	0
55	MG	YA	3034	1/1	0.92	0.18	11,11,11,11	0
55	MG	RA	3182	1/1	0.92	0.12	59,59,59,59	0
55	MG	RA	3069	1/1	0.92	0.23	37,37,37,37	0
55	MG	YE	304	1/1	0.92	0.09	87,87,87,87	0
55	MG	YA	3054	1/1	0.92	0.15	45,45,45,45	0
55	MG	YA	3061	1/1	0.92	0.06	21,21,21,21	0
55	MG	YQ	203	1/1	0.92	0.07	34,34,34,34	0
55	MG	XA	1659	1/1	0.92	0.12	47,47,47,47	0
55	MG	RA	3125	1/1	0.92	0.18	65,65,65,65	0
55	MG	RA	3258	1/1	0.92	0.12	18,18,18,18	0
55	MG	QA	1742	1/1	0.92	0.09	23,23,23,23	0
55	MG	RA	3450	1/1	0.92	0.10	55,55,55,55	0
55	MG	XA	1665	1/1	0.92	0.11	44,44,44,44	0
55	MG	YA	3091	1/1	0.92	0.20	34,34,34,34	0
55	MG	XA	1669	1/1	0.92	0.21	19,19,19,19	0
55	MG	QA	1628	1/1	0.93	0.14	66,66,66,66	0
55	MG	YA	3127	1/1	0.93	0.17	44,44,44,44	0
55	MG	RA	3058	1/1	0.93	0.20	41,41,41,41	0
55	MG	YA	3346	1/1	0.93	0.08	50,50,50,50	0
55	MG	XA	1631	1/1	0.93	0.14	36,36,36,36	0
55	MG	RA	3456	1/1	0.93	0.17	48,48,48,48	0
55	MG	YA	3138	1/1	0.93	0.25	46,46,46,46	0
55	MG	YA	3140	1/1	0.93	0.07	35,35,35,35	0
55	MG	RA	3019	1/1	0.93	0.18	16,16,16,16	0
55	MG	RA	3063	1/1	0.93	0.20	28,28,28,28	0
55	MG	XA	1740	1/1	0.93	0.05	57,57,57,57	0
55	MG	RA	3066	1/1	0.93	0.15	26,26,26,26	0
55	MG	RA	3146	1/1	0.93	0.13	39,39,39,39	0
55	MG	XA	1748	1/1	0.93	0.14	57,57,57,57	0
55	MG	YA	3158	1/1	0.93	0.17	22,22,22,22	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	XA	1642	1/1	0.93	0.06	44,44,44,44	0
55	MG	YA	3160	1/1	0.93	0.16	42,42,42,42	0
55	MG	YA	3161	1/1	0.93	0.27	39,39,39,39	0
55	MG	RA	3465	1/1	0.93	0.13	49,49,49,49	0
55	MG	RA	3319	1/1	0.93	0.13	55,55,55,55	0
55	MG	QA	1673	1/1	0.93	0.12	34,34,34,34	0
55	MG	YA	3392	1/1	0.93	0.30	38,38,38,38	0
55	MG	YA	3167	1/1	0.93	0.06	31,31,31,31	0
55	MG	YA	3395	1/1	0.93	0.15	55,55,55,55	0
55	MG	YA	3402	1/1	0.93	0.05	26,26,26,26	0
55	MG	XA	1647	1/1	0.93	0.10	32,32,32,32	0
55	MG	XA	1756	1/1	0.93	0.09	49,49,49,49	0
55	MG	RA	3321	1/1	0.93	0.19	56,56,56,56	0
55	MG	YA	3406	1/1	0.93	0.11	47,47,47,47	0
55	MG	RA	3394	1/1	0.93	0.05	37,37,37,37	0
55	MG	XA	1650	1/1	0.93	0.06	42,42,42,42	0
55	MG	RA	3110	1/1	0.93	0.30	56,56,56,56	0
55	MG	XA	1653	1/1	0.93	0.08	28,28,28,28	0
55	MG	XA	1658	1/1	0.93	0.20	47,47,47,47	0
55	MG	RA	3473	1/1	0.93	0.09	50,50,50,50	0
55	MG	RA	3404	1/1	0.93	0.18	44,44,44,44	0
55	MG	RA	3325	1/1	0.93	0.18	55,55,55,55	0
55	MG	RA	3262	1/1	0.93	0.17	47,47,47,47	0
55	MG	YA	3431	1/1	0.93	0.25	75,75,75,75	0
55	MG	RA	3021	1/1	0.93	0.18	33,33,33,33	0
55	MG	QA	1638	1/1	0.93	0.14	43,43,43,43	0
55	MG	YA	3442	1/1	0.93	0.24	100,100,100,100	0
55	MG	XA	1667	1/1	0.93	0.10	38,38,38,38	0
55	MG	RA	3205	1/1	0.93	0.27	58,58,58,58	0
55	MG	RA	3335	1/1	0.93	0.08	43,43,43,43	0
55	MG	YA	3449	1/1	0.93	0.11	28,28,28,28	0
55	MG	YA	3450	1/1	0.93	0.22	56,56,56,56	0
55	MG	YA	3453	1/1	0.93	0.20	74,74,74,74	0
55	MG	YA	3457	1/1	0.93	0.11	60,60,60,60	0
55	MG	YA	3460	1/1	0.93	0.10	27,27,27,27	0
55	MG	YA	3014	1/1	0.93	0.21	20,20,20,20	0
55	MG	RB	201	1/1	0.93	0.05	42,42,42,42	0
55	MG	RA	3071	1/1	0.93	0.18	40,40,40,40	0
55	MG	YA	3219	1/1	0.93	0.12	77,77,77,77	0
55	MG	RA	3161	1/1	0.93	0.17	37,37,37,37	0
55	MG	YA	3027	1/1	0.93	0.26	12,12,12,12	0
55	MG	RA	3119	1/1	0.93	0.17	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3030	1/1	0.93	0.24	10,10,10,10	0
55	MG	YA	3031	1/1	0.93	0.21	11,11,11,11	0
55	MG	RA	3282	1/1	0.93	0.20	53,53,53,53	0
55	MG	RA	3002	1/1	0.93	0.11	30,30,30,30	0
55	MG	YA	3476	1/1	0.93	0.11	46,46,46,46	0
55	MG	RA	3004	1/1	0.93	0.11	15,15,15,15	0
55	MG	YA	3052	1/1	0.93	0.20	13,13,13,13	0
55	MG	YA	3261	1/1	0.93	0.17	35,35,35,35	0
55	MG	QA	1690	1/1	0.93	0.12	72,72,72,72	0
55	MG	YA	3263	1/1	0.93	0.10	35,35,35,35	0
55	MG	YA	3485	1/1	0.93	0.09	32,32,32,32	0
55	MG	YA	3486	1/1	0.93	0.12	33,33,33,33	0
55	MG	RA	3348	1/1	0.93	0.10	35,35,35,35	0
55	MG	XA	1693	1/1	0.93	0.11	45,45,45,45	0
55	MG	YA	3077	1/1	0.93	0.23	27,27,27,27	0
55	MG	YA	3078	1/1	0.93	0.17	44,44,44,44	0
55	MG	RA	3433	1/1	0.93	0.12	48,48,48,48	0
55	MG	QA	1754	1/1	0.93	0.12	52,52,52,52	0
55	MG	RA	3223	1/1	0.93	0.14	59,59,59,59	0
55	MG	YA	3500	1/1	0.93	0.06	45,45,45,45	0
55	MG	RA	3176	1/1	0.93	0.05	74,74,74,74	0
55	MG	YA	3507	1/1	0.93	0.16	36,36,36,36	0
55	MG	YA	3291	1/1	0.93	0.28	28,28,28,28	0
55	MG	YA	3088	1/1	0.93	0.23	12,12,12,12	0
55	MG	QA	1702	1/1	0.93	0.05	40,40,40,40	0
55	MG	RA	3441	1/1	0.93	0.24	66,66,66,66	0
55	MG	YB	202	1/1	0.93	0.18	50,50,50,50	0
55	MG	YA	3299	1/1	0.93	0.21	55,55,55,55	0
55	MG	QA	1703	1/1	0.93	0.06	56,56,56,56	0
55	MG	QA	1678	1/1	0.93	0.20	36,36,36,36	0
55	MG	YA	3310	1/1	0.93	0.12	23,23,23,23	0
55	MG	XA	1715	1/1	0.93	0.07	44,44,44,44	0
55	MG	YA	3103	1/1	0.93	0.15	11,11,11,11	0
55	MG	XA	1716	1/1	0.93	0.23	40,40,40,40	0
55	MG	XA	1720	1/1	0.93	0.14	42,42,42,42	0
55	MG	YQ	201	1/1	0.93	0.16	33,33,33,33	0
55	MG	XA	1616	1/1	0.93	0.12	23,23,23,23	0
55	MG	XA	1723	1/1	0.93	0.06	29,29,29,29	0
55	MG	YX	102	1/1	0.93	0.14	106,106,106,106	0
55	MG	YY	502	1/1	0.93	0.14	79,79,79,79	0
55	MG	RA	3232	1/1	0.93	0.16	30,30,30,30	0
55	MG	XA	1619	1/1	0.93	0.12	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3113	1/1	0.93	0.26	57,57,57,57	0
55	MG	RA	3367	1/1	0.93	0.10	62,62,62,62	0
55	MG	YA	3331	1/1	0.93	0.15	45,45,45,45	0
55	MG	RA	3184	1/1	0.93	0.18	43,43,43,43	0
55	MG	YA	3118	1/1	0.93	0.16	73,73,73,73	0
55	MG	XA	1732	1/1	0.93	0.12	41,41,41,41	0
57	ZN	Y6	101	1/1	0.93	0.11	200,200,200,200	0
55	MG	YA	3024	1/1	0.94	0.24	25,25,25,25	0
55	MG	QA	1632	1/1	0.94	0.03	5,5,5,5	0
55	MG	RA	3086	1/1	0.94	0.20	15,15,15,15	0
55	MG	RA	3047	1/1	0.94	0.21	10,10,10,10	0
55	MG	YA	3313	1/1	0.94	0.13	49,49,49,49	0
55	MG	RA	3213	1/1	0.94	0.08	43,43,43,43	0
55	MG	YA	3316	1/1	0.94	0.08	26,26,26,26	0
55	MG	XA	1646	1/1	0.94	0.03	28,28,28,28	0
55	MG	RA	3315	1/1	0.94	0.04	34,34,34,34	0
55	MG	RA	3049	1/1	0.94	0.12	42,42,42,42	0
55	MG	YA	3320	1/1	0.94	0.12	24,24,24,24	0
55	MG	RA	3219	1/1	0.94	0.29	37,37,37,37	0
55	MG	RA	3221	1/1	0.94	0.09	20,20,20,20	0
55	MG	QA	1676	1/1	0.94	0.15	51,51,51,51	0
55	MG	RA	3157	1/1	0.94	0.07	37,37,37,37	0
55	MG	YA	3070	1/1	0.94	0.24	15,15,15,15	0
55	MG	XA	1654	1/1	0.94	0.15	34,34,34,34	0
55	MG	RA	3438	1/1	0.94	0.09	39,39,39,39	0
55	MG	RA	3227	1/1	0.94	0.19	39,39,39,39	0
55	MG	QA	1744	1/1	0.94	0.13	69,69,69,69	0
55	MG	RA	3160	1/1	0.94	0.17	45,45,45,45	0
55	MG	QA	1655	1/1	0.94	0.10	81,81,81,81	0
55	MG	RA	3166	1/1	0.94	0.06	38,38,38,38	0
55	MG	QA	1706	1/1	0.94	0.11	42,42,42,42	0
55	MG	RA	3333	1/1	0.94	0.11	26,26,26,26	0
55	MG	YA	3349	1/1	0.94	0.15	50,50,50,50	0
55	MG	RA	3451	1/1	0.94	0.06	47,47,47,47	0
55	MG	YA	3355	1/1	0.94	0.17	63,63,63,63	0
55	MG	XA	1673	1/1	0.94	0.15	30,30,30,30	0
55	MG	YA	3095	1/1	0.94	0.10	17,17,17,17	0
55	MG	RA	3334	1/1	0.94	0.12	59,59,59,59	0
55	MG	RA	3235	1/1	0.94	0.19	40,40,40,40	0
55	MG	YA	3363	1/1	0.94	0.10	47,47,47,47	0
55	MG	YA	3364	1/1	0.94	0.21	47,47,47,47	0
55	MG	YA	3366	1/1	0.94	0.09	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3336	1/1	0.94	0.15	35,35,35,35	0
55	MG	RA	3108	1/1	0.94	0.13	13,13,13,13	0
55	MG	QA	1636	1/1	0.94	0.14	33,33,33,33	0
55	MG	XA	1683	1/1	0.94	0.10	74,74,74,74	0
55	MG	QA	1733	1/1	0.94	0.11	90,90,90,90	0
55	MG	YA	3381	1/1	0.94	0.08	31,31,31,31	0
55	MG	XA	1685	1/1	0.94	0.11	40,40,40,40	0
55	MG	YA	3383	1/1	0.94	0.05	46,46,46,46	0
55	MG	RA	3062	1/1	0.94	0.14	37,37,37,37	0
55	MG	RA	3342	1/1	0.94	0.17	55,55,55,55	0
55	MG	RA	3344	1/1	0.94	0.17	49,49,49,49	0
55	MG	YA	3115	1/1	0.94	0.08	49,49,49,49	0
55	MG	YA	3388	1/1	0.94	0.10	47,47,47,47	0
55	MG	XA	1690	1/1	0.94	0.10	45,45,45,45	0
55	MG	XA	1691	1/1	0.94	0.09	58,58,58,58	0
55	MG	RA	3114	1/1	0.94	0.13	35,35,35,35	0
55	MG	QA	1751	1/1	0.94	0.08	40,40,40,40	0
55	MG	YA	3397	1/1	0.94	0.12	24,24,24,24	0
55	MG	YA	3398	1/1	0.94	0.10	21,21,21,21	0
55	MG	YA	3399	1/1	0.94	0.23	47,47,47,47	0
55	MG	YA	3400	1/1	0.94	0.17	27,27,27,27	0
55	MG	XA	1698	1/1	0.94	0.17	57,57,57,57	0
55	MG	RA	3065	1/1	0.94	0.20	16,16,16,16	0
55	MG	RA	3254	1/1	0.94	0.23	41,41,41,41	0
55	MG	RA	3181	1/1	0.94	0.16	35,35,35,35	0
55	MG	RA	3261	1/1	0.94	0.23	55,55,55,55	0
55	MG	QA	1752	1/1	0.94	0.10	52,52,52,52	0
55	MG	RA	3478	1/1	0.94	0.17	74,74,74,74	0
55	MG	YA	3143	1/1	0.94	0.18	14,14,14,14	0
55	MG	RA	3183	1/1	0.94	0.09	50,50,50,50	0
55	MG	QA	1680	1/1	0.94	0.11	41,41,41,41	0
55	MG	YA	3415	1/1	0.94	0.10	69,69,69,69	0
55	MG	RA	3185	1/1	0.94	0.08	70,70,70,70	0
55	MG	RA	3491	1/1	0.94	0.17	14,14,14,14	0
55	MG	YA	3155	1/1	0.94	0.15	16,16,16,16	0
55	MG	XA	1717	1/1	0.94	0.15	48,48,48,48	0
55	MG	RA	3188	1/1	0.94	0.11	68,68,68,68	0
55	MG	YA	3432	1/1	0.94	0.10	33,33,33,33	0
55	MG	RA	3359	1/1	0.94	0.25	42,42,42,42	0
55	MG	RA	3360	1/1	0.94	0.09	68,68,68,68	0
55	MG	RA	3366	1/1	0.94	0.23	49,49,49,49	0
55	MG	RB	203	1/1	0.94	0.20	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	QA	1665	1/1	0.94	0.10	25,25,25,25	0
55	MG	RA	3368	1/1	0.94	0.05	25,25,25,25	0
55	MG	YA	3448	1/1	0.94	0.11	49,49,49,49	0
55	MG	YA	3165	1/1	0.94	0.07	33,33,33,33	0
55	MG	XA	1731	1/1	0.94	0.13	57,57,57,57	0
55	MG	RA	3278	1/1	0.94	0.17	64,64,64,64	0
55	MG	YA	3454	1/1	0.94	0.10	34,34,34,34	0
55	MG	RA	3279	1/1	0.94	0.12	39,39,39,39	0
55	MG	YA	3459	1/1	0.94	0.11	34,34,34,34	0
55	MG	QA	1620	1/1	0.94	0.18	74,74,74,74	0
55	MG	YA	3173	1/1	0.94	0.16	29,29,29,29	0
55	MG	RE	301	1/1	0.94	0.15	29,29,29,29	0
55	MG	QA	1669	1/1	0.94	0.10	21,21,21,21	0
55	MG	RE	303	1/1	0.94	0.12	70,70,70,70	0
55	MG	QA	1640	1/1	0.94	0.07	30,30,30,30	0
55	MG	RF	301	1/1	0.94	0.07	42,42,42,42	0
55	MG	YA	3184	1/1	0.94	0.27	48,48,48,48	0
55	MG	YA	3471	1/1	0.94	0.11	54,54,54,54	0
55	MG	XA	1742	1/1	0.94	0.04	26,26,26,26	0
55	MG	XA	1743	1/1	0.94	0.09	32,32,32,32	0
55	MG	XA	1744	1/1	0.94	0.06	32,32,32,32	0
55	MG	RI	201	1/1	0.94	0.12	46,46,46,46	0
55	MG	RA	3285	1/1	0.94	0.21	41,41,41,41	0
55	MG	YA	3477	1/1	0.94	0.05	27,27,27,27	0
55	MG	RP	202	1/1	0.94	0.20	33,33,33,33	0
55	MG	YA	3195	1/1	0.94	0.17	81,81,81,81	0
55	MG	RA	3287	1/1	0.94	0.27	58,58,58,58	0
55	MG	RA	3074	1/1	0.94	0.19	24,24,24,24	0
55	MG	XA	1751	1/1	0.94	0.19	37,37,37,37	0
55	MG	RU	201	1/1	0.94	0.12	51,51,51,51	0
55	MG	RA	3027	1/1	0.94	0.18	32,32,32,32	0
55	MG	YA	3211	1/1	0.94	0.12	49,49,49,49	0
55	MG	YA	3488	1/1	0.94	0.22	43,43,43,43	0
55	MG	XA	1754	1/1	0.94	0.11	46,46,46,46	0
55	MG	YA	3213	1/1	0.94	0.07	30,30,30,30	0
55	MG	QA	1761	1/1	0.94	0.24	75,75,75,75	0
55	MG	YA	3221	1/1	0.94	0.05	20,20,20,20	0
55	MG	RA	3138	1/1	0.94	0.10	28,28,28,28	0
55	MG	YA	3497	1/1	0.94	0.09	43,43,43,43	0
55	MG	YA	3228	1/1	0.94	0.06	14,14,14,14	0
55	MG	RA	3293	1/1	0.94	0.20	30,30,30,30	0
55	MG	YA	3239	1/1	0.94	0.12	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3397	1/1	0.94	0.15	43,43,43,43	0
55	MG	XA	1610	1/1	0.94	0.14	28,28,28,28	0
55	MG	XA	1761	1/1	0.94	0.07	36,36,36,36	0
55	MG	RA	3403	1/1	0.94	0.17	35,35,35,35	0
55	MG	YA	3251	1/1	0.94	0.18	20,20,20,20	0
55	MG	QV	104	1/1	0.94	0.11	81,81,81,81	0
55	MG	YA	3255	1/1	0.94	0.13	29,29,29,29	0
55	MG	RA	3141	1/1	0.94	0.19	42,42,42,42	0
55	MG	RA	3303	1/1	0.94	0.10	41,41,41,41	0
55	MG	XA	1625	1/1	0.94	0.06	27,27,27,27	0
55	MG	RA	3304	1/1	0.94	0.11	48,48,48,48	0
55	MG	XS	101	1/1	0.94	0.04	53,53,53,53	0
55	MG	RA	3142	1/1	0.94	0.10	7,7,7,7	0
55	MG	XV	104	1/1	0.94	0.07	48,48,48,48	0
55	MG	XA	1628	1/1	0.94	0.08	34,34,34,34	0
55	MG	RA	3410	1/1	0.94	0.05	70,70,70,70	0
55	MG	RA	3143	1/1	0.94	0.13	29,29,29,29	0
55	MG	YA	3282	1/1	0.94	0.17	34,34,34,34	0
55	MG	RA	3412	1/1	0.94	0.14	57,57,57,57	0
55	MG	YA	3284	1/1	0.94	0.18	37,37,37,37	0
55	MG	Y8	101	1/1	0.94	0.07	40,40,40,40	0
55	MG	RA	3031	1/1	0.94	0.14	16,16,16,16	0
55	MG	YA	3008	1/1	0.94	0.18	25,25,25,25	0
55	MG	YA	3010	1/1	0.94	0.19	26,26,26,26	0
55	MG	YA	3012	1/1	0.94	0.24	23,23,23,23	0
55	MG	RA	3309	1/1	0.94	0.06	23,23,23,23	0
55	MG	YA	3294	1/1	0.94	0.18	38,38,38,38	0
55	MG	RA	3417	1/1	0.94	0.13	33,33,33,33	0
55	MG	QA	1762	1/1	0.94	0.07	50,50,50,50	0
57	ZN	Y9	101	1/1	0.94	0.14	181,181,181,181	0
55	MG	YA	3321	1/1	0.95	0.04	25,25,25,25	0
55	MG	YA	3096	1/1	0.95	0.15	47,47,47,47	0
55	MG	YA	3098	1/1	0.95	0.19	62,62,62,62	0
55	MG	XA	1709	1/1	0.95	0.07	57,57,57,57	0
55	MG	YA	3100	1/1	0.95	0.20	33,33,33,33	0
55	MG	XA	1711	1/1	0.95	0.11	50,50,50,50	0
55	MG	YA	3329	1/1	0.95	0.04	36,36,36,36	0
55	MG	YA	3330	1/1	0.95	0.11	65,65,65,65	0
55	MG	QA	1645	1/1	0.95	0.09	73,73,73,73	0
55	MG	RA	3426	1/1	0.95	0.08	37,37,37,37	0
55	MG	RW	201	1/1	0.95	0.23	136,136,136,136	0
55	MG	YA	3335	1/1	0.95	0.19	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3192	1/1	0.95	0.12	43,43,43,43	0
55	MG	RA	3018	1/1	0.95	0.17	1,1,1,1	0
55	MG	YA	3339	1/1	0.95	0.15	49,49,49,49	0
55	MG	RA	3268	1/1	0.95	0.17	25,25,25,25	0
55	MG	XA	1718	1/1	0.95	0.04	29,29,29,29	0
55	MG	YA	3345	1/1	0.95	0.09	35,35,35,35	0
55	MG	R0	102	1/1	0.95	0.05	19,19,19,19	0
55	MG	R1	102	1/1	0.95	0.50	112,112,112,112	0
55	MG	XA	1601	1/1	0.95	0.14	27,27,27,27	0
55	MG	YA	3353	1/1	0.95	0.11	43,43,43,43	0
55	MG	YA	3116	1/1	0.95	0.08	41,41,41,41	0
55	MG	XA	1602	1/1	0.95	0.17	28,28,28,28	0
55	MG	XA	1606	1/1	0.95	0.07	21,21,21,21	0
55	MG	YA	3357	1/1	0.95	0.07	43,43,43,43	0
55	MG	XA	1726	1/1	0.95	0.05	32,32,32,32	0
55	MG	YA	3120	1/1	0.95	0.16	34,34,34,34	0
55	MG	RA	3432	1/1	0.95	0.08	43,43,43,43	0
55	MG	YA	3126	1/1	0.95	0.13	61,61,61,61	0
55	MG	RA	3269	1/1	0.95	0.10	31,31,31,31	0
55	MG	YA	3132	1/1	0.95	0.07	62,62,62,62	0
55	MG	YA	3368	1/1	0.95	0.17	36,36,36,36	0
55	MG	YA	3133	1/1	0.95	0.07	56,56,56,56	0
55	MG	YA	3372	1/1	0.95	0.09	39,39,39,39	0
55	MG	YA	3134	1/1	0.95	0.14	11,11,11,11	0
55	MG	QA	1646	1/1	0.95	0.15	44,44,44,44	0
55	MG	YA	3376	1/1	0.95	0.23	45,45,45,45	0
55	MG	XA	1612	1/1	0.95	0.17	12,12,12,12	0
55	MG	RA	3272	1/1	0.95	0.09	29,29,29,29	0
55	MG	XA	1734	1/1	0.95	0.12	70,70,70,70	0
55	MG	RA	3343	1/1	0.95	0.06	33,33,33,33	0
55	MG	XA	1618	1/1	0.95	0.18	24,24,24,24	0
55	MG	QA	1746	1/1	0.95	0.18	56,56,56,56	0
55	MG	RA	3274	1/1	0.95	0.10	20,20,20,20	0
55	MG	QA	1705	1/1	0.95	0.04	28,28,28,28	0
55	MG	RA	3024	1/1	0.95	0.16	31,31,31,31	0
55	MG	YA	3150	1/1	0.95	0.07	34,34,34,34	0
55	MG	YA	3151	1/1	0.95	0.22	19,19,19,19	0
55	MG	YA	3391	1/1	0.95	0.13	42,42,42,42	0
55	MG	RA	3025	1/1	0.95	0.21	44,44,44,44	0
55	MG	YA	3154	1/1	0.95	0.10	37,37,37,37	0
55	MG	RA	3280	1/1	0.95	0.10	55,55,55,55	0
55	MG	YA	3396	1/1	0.95	0.10	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3078	1/1	0.95	0.15	7,7,7,7	0
55	MG	XA	1745	1/1	0.95	0.07	22,22,22,22	0
55	MG	QA	1610	1/1	0.95	0.19	29,29,29,29	0
55	MG	QA	1777	1/1	0.95	0.04	39,39,39,39	0
55	MG	RA	3084	1/1	0.95	0.21	14,14,14,14	0
55	MG	QA	1648	1/1	0.95	0.09	32,32,32,32	0
55	MG	QA	1650	1/1	0.95	0.09	63,63,63,63	0
55	MG	QA	1637	1/1	0.95	0.07	72,72,72,72	0
55	MG	XA	1638	1/1	0.95	0.19	48,48,48,48	0
55	MG	XA	1641	1/1	0.95	0.11	53,53,53,53	0
55	MG	YA	3410	1/1	0.95	0.04	16,16,16,16	0
55	MG	QA	1671	1/1	0.95	0.22	53,53,53,53	0
55	MG	RA	3154	1/1	0.95	0.05	32,32,32,32	0
55	MG	RA	3038	1/1	0.95	0.19	10,10,10,10	0
55	MG	RA	3096	1/1	0.95	0.18	86,86,86,86	0
55	MG	QA	1730	1/1	0.95	0.05	44,44,44,44	0
55	MG	RA	3372	1/1	0.95	0.26	62,62,62,62	0
55	MG	RA	3218	1/1	0.95	0.18	23,23,23,23	0
55	MG	XA	1762	1/1	0.95	0.19	60,60,60,60	0
55	MG	YA	3426	1/1	0.95	0.05	47,47,47,47	0
55	MG	RA	3469	1/1	0.95	0.05	64,64,64,64	0
55	MG	RA	3159	1/1	0.95	0.07	32,32,32,32	0
55	MG	RA	3220	1/1	0.95	0.10	43,43,43,43	0
55	MG	YA	3187	1/1	0.95	0.24	38,38,38,38	0
55	MG	RA	3102	1/1	0.95	0.20	21,21,21,21	0
55	MG	RA	3474	1/1	0.95	0.05	37,37,37,37	0
55	MG	XA	1655	1/1	0.95	0.14	38,38,38,38	0
55	MG	XM	201	1/1	0.95	0.07	45,45,45,45	0
55	MG	XA	1656	1/1	0.95	0.12	36,36,36,36	0
55	MG	YA	3447	1/1	0.95	0.06	32,32,32,32	0
55	MG	QV	102	1/1	0.95	0.13	75,75,75,75	0
55	MG	QA	1616	1/1	0.95	0.11	31,31,31,31	0
55	MG	XV	105	1/1	0.95	0.14	42,42,42,42	0
55	MG	QA	1623	1/1	0.95	0.20	37,37,37,37	0
55	MG	YA	3199	1/1	0.95	0.17	64,64,64,64	0
55	MG	YA	3200	1/1	0.95	0.18	33,33,33,33	0
55	MG	RA	3480	1/1	0.95	0.15	37,37,37,37	0
55	MG	XV	108	1/1	0.95	0.11	34,34,34,34	0
55	MG	YA	3462	1/1	0.95	0.10	33,33,33,33	0
55	MG	YA	3209	1/1	0.95	0.17	43,43,43,43	0
55	MG	RA	3481	1/1	0.95	0.18	31,31,31,31	0
55	MG	YA	3002	1/1	0.95	0.08	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	QA	1692	1/1	0.95	0.18	44,44,44,44	0
55	MG	YA	3215	1/1	0.95	0.08	52,52,52,52	0
55	MG	RA	3229	1/1	0.95	0.26	23,23,23,23	0
55	MG	YA	3469	1/1	0.95	0.12	56,56,56,56	0
55	MG	YA	3007	1/1	0.95	0.14	27,27,27,27	0
55	MG	YA	3222	1/1	0.95	0.17	38,38,38,38	0
55	MG	QA	1674	1/1	0.95	0.11	42,42,42,42	0
55	MG	XA	1668	1/1	0.95	0.15	16,16,16,16	0
55	MG	YA	3233	1/1	0.95	0.15	10,10,10,10	0
55	MG	YA	3236	1/1	0.95	0.47	57,57,57,57	0
55	MG	RA	3487	1/1	0.95	0.18	43,43,43,43	0
55	MG	XA	1670	1/1	0.95	0.14	17,17,17,17	0
55	MG	YA	3242	1/1	0.95	0.15	25,25,25,25	0
55	MG	YA	3243	1/1	0.95	0.15	17,17,17,17	0
55	MG	XA	1671	1/1	0.95	0.07	20,20,20,20	0
55	MG	QA	1760	1/1	0.95	0.10	38,38,38,38	0
55	MG	RA	3396	1/1	0.95	0.08	40,40,40,40	0
55	MG	QX	102	1/1	0.95	0.08	34,34,34,34	0
55	MG	RA	3398	1/1	0.95	0.19	54,54,54,54	0
55	MG	YA	3028	1/1	0.95	0.17	24,24,24,24	0
55	MG	YA	3254	1/1	0.95	0.21	28,28,28,28	0
55	MG	QA	1641	1/1	0.95	0.11	45,45,45,45	0
55	MG	RA	3118	1/1	0.95	0.13	58,58,58,58	0
55	MG	YA	3258	1/1	0.95	0.17	26,26,26,26	0
55	MG	RA	3178	1/1	0.95	0.08	31,31,31,31	0
55	MG	QA	1737	1/1	0.95	0.18	47,47,47,47	0
55	MG	YA	3035	1/1	0.95	0.14	19,19,19,19	0
55	MG	QA	1642	1/1	0.95	0.17	49,49,49,49	0
55	MG	YA	3265	1/1	0.95	0.12	35,35,35,35	0
55	MG	RB	208	1/1	0.95	0.11	75,75,75,75	0
55	MG	YA	3502	1/1	0.95	0.20	13,13,13,13	0
55	MG	YA	3272	1/1	0.95	0.16	24,24,24,24	0
55	MG	YA	3049	1/1	0.95	0.15	37,37,37,37	0
55	MG	YA	3050	1/1	0.95	0.13	13,13,13,13	0
55	MG	YA	3276	1/1	0.95	0.07	2,2,2,2	0
55	MG	YA	3051	1/1	0.95	0.20	33,33,33,33	0
55	MG	YB	201	1/1	0.95	0.05	47,47,47,47	0
55	MG	RB	209	1/1	0.95	0.05	77,77,77,77	0
55	MG	RA	3323	1/1	0.95	0.03	13,13,13,13	0
55	MG	YB	204	1/1	0.95	0.07	20,20,20,20	0
55	MG	RA	3121	1/1	0.95	0.07	35,35,35,35	0
55	MG	YA	3062	1/1	0.95	0.11	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YB	207	1/1	0.95	0.10	40,40,40,40	0
55	MG	YB	208	1/1	0.95	0.13	53,53,53,53	0
55	MG	YA	3063	1/1	0.95	0.12	9,9,9,9	0
55	MG	YA	3065	1/1	0.95	0.17	13,13,13,13	0
55	MG	YA	3067	1/1	0.95	0.23	21,21,21,21	0
55	MG	QA	1643	1/1	0.95	0.13	39,39,39,39	0
55	MG	QA	1766	1/1	0.95	0.10	46,46,46,46	0
55	MG	QA	1740	1/1	0.95	0.14	75,75,75,75	0
55	MG	XA	1694	1/1	0.95	0.08	35,35,35,35	0
55	MG	YA	3080	1/1	0.95	0.16	22,22,22,22	0
55	MG	YA	3303	1/1	0.95	0.05	24,24,24,24	0
55	MG	XA	1696	1/1	0.95	0.10	39,39,39,39	0
55	MG	RA	3329	1/1	0.95	0.14	20,20,20,20	0
55	MG	XA	1699	1/1	0.95	0.06	28,28,28,28	0
55	MG	RA	3186	1/1	0.95	0.17	48,48,48,48	0
55	MG	YA	3086	1/1	0.95	0.27	19,19,19,19	0
55	MG	YA	3314	1/1	0.95	0.18	32,32,32,32	0
55	MG	RA	3187	1/1	0.95	0.04	70,70,70,70	0
55	MG	RA	3420	1/1	0.95	0.11	39,39,39,39	0
55	MG	RA	3260	1/1	0.95	0.09	27,27,27,27	0
55	MG	QA	1624	1/1	0.95	0.11	42,42,42,42	0
55	MG	YA	3094	1/1	0.95	0.10	17,17,17,17	0
55	MG	XA	1708	1/1	0.95	0.10	59,59,59,59	0
55	MG	RA	3150	1/1	0.96	0.18	14,14,14,14	0
55	MG	RA	3105	1/1	0.96	0.14	47,47,47,47	0
55	MG	YA	3338	1/1	0.96	0.09	18,18,18,18	0
55	MG	XA	1634	1/1	0.96	0.15	54,54,54,54	0
55	MG	RA	3449	1/1	0.96	0.07	37,37,37,37	0
55	MG	QA	1775	1/1	0.96	0.04	54,54,54,54	0
55	MG	RA	3277	1/1	0.96	0.19	34,34,34,34	0
55	MG	RA	3064	1/1	0.96	0.14	23,23,23,23	0
55	MG	YA	3139	1/1	0.96	0.11	19,19,19,19	0
55	MG	RA	3349	1/1	0.96	0.16	47,47,47,47	0
55	MG	YA	3351	1/1	0.96	0.17	42,42,42,42	0
55	MG	YA	3352	1/1	0.96	0.05	37,37,37,37	0
55	MG	YA	3141	1/1	0.96	0.13	16,16,16,16	0
55	MG	QA	1656	1/1	0.96	0.05	17,17,17,17	0
55	MG	RA	3351	1/1	0.96	0.11	57,57,57,57	0
55	MG	RA	3459	1/1	0.96	0.09	35,35,35,35	0
55	MG	QA	1621	1/1	0.96	0.08	42,42,42,42	0
55	MG	XA	1758	1/1	0.96	0.17	71,71,71,71	0
55	MG	RA	3029	1/1	0.96	0.16	2,2,2,2	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3113	1/1	0.96	0.13	15,15,15,15	0
55	MG	RA	3283	1/1	0.96	0.09	26,26,26,26	0
55	MG	QA	1763	1/1	0.96	0.12	85,85,85,85	0
55	MG	XA	1763	1/1	0.96	0.05	65,65,65,65	0
55	MG	YA	3367	1/1	0.96	0.09	31,31,31,31	0
55	MG	RA	3115	1/1	0.96	0.16	22,22,22,22	0
55	MG	RA	3286	1/1	0.96	0.07	25,25,25,25	0
55	MG	YA	3370	1/1	0.96	0.07	55,55,55,55	0
55	MG	YA	3371	1/1	0.96	0.03	19,19,19,19	0
55	MG	XA	1652	1/1	0.96	0.17	33,33,33,33	0
55	MG	RA	3214	1/1	0.96	0.16	25,25,25,25	0
55	MG	RA	3363	1/1	0.96	0.11	31,31,31,31	0
55	MG	YA	3375	1/1	0.96	0.05	28,28,28,28	0
55	MG	RA	3215	1/1	0.96	0.10	6,6,6,6	0
55	MG	RA	3163	1/1	0.96	0.05	27,27,27,27	0
55	MG	RA	3164	1/1	0.96	0.18	32,32,32,32	0
55	MG	YA	3380	1/1	0.96	0.12	20,20,20,20	0
55	MG	XV	101	1/1	0.96	0.19	31,31,31,31	0
55	MG	RA	3475	1/1	0.96	0.26	55,55,55,55	0
55	MG	RA	3165	1/1	0.96	0.15	55,55,55,55	0
55	MG	QA	1629	1/1	0.96	0.04	31,31,31,31	0
55	MG	YA	3170	1/1	0.96	0.08	19,19,19,19	0
55	MG	RA	3294	1/1	0.96	0.11	39,39,39,39	0
55	MG	RA	3167	1/1	0.96	0.11	55,55,55,55	0
55	MG	YA	3174	1/1	0.96	0.09	45,45,45,45	0
55	MG	RA	3298	1/1	0.96	0.06	30,30,30,30	0
55	MG	YA	3390	1/1	0.96	0.14	28,28,28,28	0
55	MG	YA	3177	1/1	0.96	0.10	57,57,57,57	0
55	MG	XA	1666	1/1	0.96	0.09	59,59,59,59	0
55	MG	YA	3393	1/1	0.96	0.11	22,22,22,22	0
55	MG	RA	3377	1/1	0.96	0.08	39,39,39,39	0
55	MG	RA	3483	1/1	0.96	0.18	21,21,21,21	0
55	MG	YA	3181	1/1	0.96	0.04	42,42,42,42	0
55	MG	RA	3378	1/1	0.96	0.10	31,31,31,31	0
55	MG	YA	3006	1/1	0.96	0.21	9,9,9,9	0
55	MG	RA	3381	1/1	0.96	0.10	31,31,31,31	0
55	MG	RA	3382	1/1	0.96	0.13	41,41,41,41	0
55	MG	RA	3490	1/1	0.96	0.17	32,32,32,32	0
55	MG	YA	3011	1/1	0.96	0.19	26,26,26,26	0
55	MG	RA	3032	1/1	0.96	0.14	21,21,21,21	0
55	MG	RA	3384	1/1	0.96	0.12	44,44,44,44	0
55	MG	RA	3300	1/1	0.96	0.14	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	QA	1609	1/1	0.96	0.07	52,52,52,52	0
55	MG	YA	3018	1/1	0.96	0.13	39,39,39,39	0
55	MG	YA	3019	1/1	0.96	0.14	26,26,26,26	0
55	MG	YA	3020	1/1	0.96	0.25	22,22,22,22	0
55	MG	YA	3022	1/1	0.96	0.20	22,22,22,22	0
55	MG	YA	3023	1/1	0.96	0.19	13,13,13,13	0
55	MG	XA	1681	1/1	0.96	0.14	40,40,40,40	0
55	MG	RA	3226	1/1	0.96	0.08	1,1,1,1	0
55	MG	YA	3418	1/1	0.96	0.10	23,23,23,23	0
55	MG	YA	3419	1/1	0.96	0.18	43,43,43,43	0
55	MG	YA	3206	1/1	0.96	0.16	36,36,36,36	0
55	MG	RA	3170	1/1	0.96	0.08	17,17,17,17	0
55	MG	RA	3306	1/1	0.96	0.17	30,30,30,30	0
55	MG	YA	3428	1/1	0.96	0.12	32,32,32,32	0
55	MG	RA	3035	1/1	0.96	0.15	12,12,12,12	0
55	MG	RA	3037	1/1	0.96	0.09	10,10,10,10	0
55	MG	RA	3122	1/1	0.96	0.14	16,16,16,16	0
55	MG	QA	1753	1/1	0.96	0.10	37,37,37,37	0
55	MG	YA	3220	1/1	0.96	0.24	74,74,74,74	0
55	MG	YA	3438	1/1	0.96	0.04	32,32,32,32	0
55	MG	YA	3441	1/1	0.96	0.09	47,47,47,47	0
55	MG	RA	3041	1/1	0.96	0.16	24,24,24,24	0
55	MG	RA	3233	1/1	0.96	0.18	49,49,49,49	0
55	MG	QA	1767	1/1	0.96	0.07	39,39,39,39	0
55	MG	YA	3445	1/1	0.96	0.03	42,42,42,42	0
55	MG	YA	3227	1/1	0.96	0.07	39,39,39,39	0
55	MG	YA	3045	1/1	0.96	0.04	13,13,13,13	0
55	MG	YA	3231	1/1	0.96	0.10	33,33,33,33	0
55	MG	YA	3046	1/1	0.96	0.12	13,13,13,13	0
55	MG	YA	3235	1/1	0.96	0.20	19,19,19,19	0
55	MG	YA	3452	1/1	0.96	0.11	52,52,52,52	0
55	MG	RA	3045	1/1	0.96	0.21	51,51,51,51	0
55	MG	QV	101	1/1	0.96	0.10	22,22,22,22	0
55	MG	YA	3238	1/1	0.96	0.10	13,13,13,13	0
55	MG	YA	3458	1/1	0.96	0.17	52,52,52,52	0
55	MG	XA	1695	1/1	0.96	0.06	42,42,42,42	0
55	MG	YA	3241	1/1	0.96	0.07	8,8,8,8	0
55	MG	RA	3239	1/1	0.96	0.13	29,29,29,29	0
55	MG	RA	3016	1/1	0.96	0.20	23,23,23,23	0
55	MG	YA	3057	1/1	0.96	0.15	31,31,31,31	0
55	MG	YA	3058	1/1	0.96	0.18	12,12,12,12	0
55	MG	YA	3059	1/1	0.96	0.15	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3247	1/1	0.96	0.15	30,30,30,30	0
55	MG	YA	3060	1/1	0.96	0.08	42,42,42,42	0
55	MG	YA	3250	1/1	0.96	0.14	32,32,32,32	0
55	MG	RA	3318	1/1	0.96	0.09	41,41,41,41	0
55	MG	XA	1701	1/1	0.96	0.07	28,28,28,28	0
55	MG	XA	1702	1/1	0.96	0.07	29,29,29,29	0
55	MG	RA	3130	1/1	0.96	0.12	35,35,35,35	0
55	MG	RA	3244	1/1	0.96	0.14	19,19,19,19	0
55	MG	YA	3069	1/1	0.96	0.20	3,3,3,3	0
55	MG	RP	203	1/1	0.96	0.08	86,86,86,86	0
55	MG	YA	3074	1/1	0.96	0.17	21,21,21,21	0
55	MG	RQ	201	1/1	0.96	0.18	56,56,56,56	0
55	MG	RA	3132	1/1	0.96	0.12	20,20,20,20	0
55	MG	RA	3415	1/1	0.96	0.12	45,45,45,45	0
55	MG	YA	3267	1/1	0.96	0.14	20,20,20,20	0
55	MG	YA	3079	1/1	0.96	0.17	43,43,43,43	0
55	MG	YA	3269	1/1	0.96	0.09	23,23,23,23	0
55	MG	YA	3270	1/1	0.96	0.14	43,43,43,43	0
55	MG	RA	3322	1/1	0.96	0.05	15,15,15,15	0
55	MG	XA	1710	1/1	0.96	0.11	35,35,35,35	0
55	MG	RA	3017	1/1	0.96	0.19	20,20,20,20	0
55	MG	YA	3083	1/1	0.96	0.17	20,20,20,20	0
55	MG	RA	3418	1/1	0.96	0.13	77,77,77,77	0
55	MG	RA	3248	1/1	0.96	0.15	51,51,51,51	0
55	MG	RA	3249	1/1	0.96	0.17	41,41,41,41	0
55	MG	RA	3052	1/1	0.96	0.10	36,36,36,36	0
55	MG	RA	3137	1/1	0.96	0.05	26,26,26,26	0
55	MG	YA	3499	1/1	0.96	0.14	36,36,36,36	0
55	MG	YA	3286	1/1	0.96	0.04	22,22,22,22	0
55	MG	R5	102	1/1	0.96	0.10	32,32,32,32	0
55	MG	RA	3328	1/1	0.96	0.11	22,22,22,22	0
55	MG	YA	3505	1/1	0.96	0.29	78,78,78,78	0
55	MG	XA	1719	1/1	0.96	0.27	63,63,63,63	0
55	MG	QA	1695	1/1	0.96	0.20	57,57,57,57	0
55	MG	XA	1721	1/1	0.96	0.15	33,33,33,33	0
55	MG	YA	3513	1/1	0.96	0.13	22,22,22,22	0
55	MG	XA	1604	1/1	0.96	0.21	30,30,30,30	0
55	MG	RA	3257	1/1	0.96	0.19	38,38,38,38	0
55	MG	YA	3298	1/1	0.96	0.18	28,28,28,28	0
55	MG	XA	1607	1/1	0.96	0.08	84,84,84,84	0
55	MG	YA	3302	1/1	0.96	0.06	17,17,17,17	0
55	MG	YA	3101	1/1	0.96	0.16	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3331	1/1	0.96	0.07	37,37,37,37	0
55	MG	RA	3430	1/1	0.96	0.14	64,64,64,64	0
55	MG	YA	3307	1/1	0.96	0.23	53,53,53,53	0
55	MG	YA	3104	1/1	0.96	0.14	29,29,29,29	0
55	MG	XA	1728	1/1	0.96	0.10	42,42,42,42	0
55	MG	RA	3190	1/1	0.96	0.17	27,27,27,27	0
55	MG	YD	302	1/1	0.96	0.12	10,10,10,10	0
55	MG	YE	302	1/1	0.96	0.15	38,38,38,38	0
55	MG	RA	3139	1/1	0.96	0.06	49,49,49,49	0
55	MG	YA	3108	1/1	0.96	0.17	1,1,1,1	0
55	MG	XA	1615	1/1	0.96	0.14	8,8,8,8	0
55	MG	YP	203	1/1	0.96	0.21	58,58,58,58	0
55	MG	QA	1686	1/1	0.96	0.10	25,25,25,25	0
55	MG	YA	3111	1/1	0.96	0.18	38,38,38,38	0
55	MG	QA	1654	1/1	0.96	0.06	48,48,48,48	0
55	MG	QA	1679	1/1	0.96	0.14	23,23,23,23	0
55	MG	RA	3097	1/1	0.96	0.15	14,14,14,14	0
55	MG	Y0	101	1/1	0.96	0.19	25,25,25,25	0
55	MG	Y5	102	1/1	0.96	0.10	39,39,39,39	0
55	MG	RA	3059	1/1	0.96	0.12	18,18,18,18	0
55	MG	XA	1622	1/1	0.96	0.10	59,59,59,59	0
56	SF4	XD	301	8/8	0.96	0.09	75,80,85,91	0
55	MG	XA	1623	1/1	0.96	0.11	45,45,45,45	0
55	MG	RA	3439	1/1	0.96	0.16	59,59,59,59	0
55	MG	RA	3099	1/1	0.96	0.18	31,31,31,31	0
57	ZN	R6	101	1/1	0.96	0.11	152,152,152,152	0
55	MG	QA	1700	1/1	0.96	0.14	50,50,50,50	0
55	MG	RA	3442	1/1	0.96	0.07	39,39,39,39	0
55	MG	RA	3271	1/1	0.96	0.14	36,36,36,36	0
55	MG	QA	1603	1/1	0.96	0.13	24,24,24,24	0
55	MG	YA	3128	1/1	0.96	0.13	69,69,69,69	0
55	MG	YA	3129	1/1	0.96	0.16	27,27,27,27	0
55	MG	QA	1602	1/1	0.97	0.09	28,28,28,28	0
55	MG	RA	3486	1/1	0.97	0.21	56,56,56,56	0
55	MG	RA	3237	1/1	0.97	0.17	34,34,34,34	0
55	MG	YA	3021	1/1	0.97	0.21	7,7,7,7	0
55	MG	XA	1639	1/1	0.97	0.06	15,15,15,15	0
55	MG	RA	3488	1/1	0.97	0.10	29,29,29,29	0
55	MG	QA	1701	1/1	0.97	0.05	33,33,33,33	0
55	MG	RA	3050	1/1	0.97	0.23	23,23,23,23	0
55	MG	RA	3240	1/1	0.97	0.11	26,26,26,26	0
55	MG	RA	3117	1/1	0.97	0.13	5,5,5,5	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3274	1/1	0.97	0.06	38,38,38,38	0
55	MG	RA	3242	1/1	0.97	0.18	9,9,9,9	0
55	MG	RA	3421	1/1	0.97	0.08	41,41,41,41	0
55	MG	RA	3022	1/1	0.97	0.16	19,19,19,19	0
55	MG	YA	3278	1/1	0.97	0.15	36,36,36,36	0
55	MG	YA	3033	1/1	0.97	0.16	18,18,18,18	0
55	MG	YA	3281	1/1	0.97	0.08	14,14,14,14	0
55	MG	RA	3081	1/1	0.97	0.17	18,18,18,18	0
55	MG	YA	3422	1/1	0.97	0.05	24,24,24,24	0
55	MG	YA	3149	1/1	0.97	0.15	42,42,42,42	0
55	MG	RA	3301	1/1	0.97	0.11	16,16,16,16	0
55	MG	YA	3285	1/1	0.97	0.14	32,32,32,32	0
55	MG	YA	3429	1/1	0.97	0.08	54,54,54,54	0
55	MG	YA	3037	1/1	0.97	0.25	24,24,24,24	0
55	MG	YA	3038	1/1	0.97	0.16	0,0,0,0	0
55	MG	RA	3302	1/1	0.97	0.17	37,37,37,37	0
55	MG	YA	3433	1/1	0.97	0.12	32,32,32,32	0
55	MG	YA	3434	1/1	0.97	0.04	24,24,24,24	0
55	MG	YA	3289	1/1	0.97	0.13	37,37,37,37	0
55	MG	RB	207	1/1	0.97	0.12	32,32,32,32	0
55	MG	RA	3354	1/1	0.97	0.03	34,34,34,34	0
55	MG	QA	1772	1/1	0.97	0.05	40,40,40,40	0
55	MG	YA	3048	1/1	0.97	0.09	2,2,2,2	0
55	MG	YA	3295	1/1	0.97	0.15	31,31,31,31	0
55	MG	YA	3296	1/1	0.97	0.14	30,30,30,30	0
55	MG	RA	3246	1/1	0.97	0.14	28,28,28,28	0
55	MG	RA	3200	1/1	0.97	0.15	36,36,36,36	0
55	MG	XA	1657	1/1	0.97	0.04	37,37,37,37	0
55	MG	YA	3300	1/1	0.97	0.17	50,50,50,50	0
55	MG	YA	3301	1/1	0.97	0.05	25,25,25,25	0
55	MG	RA	3083	1/1	0.97	0.10	15,15,15,15	0
55	MG	YA	3053	1/1	0.97	0.17	26,26,26,26	0
55	MG	QA	1713	1/1	0.97	0.05	22,22,22,22	0
55	MG	YA	3055	1/1	0.97	0.04	13,13,13,13	0
55	MG	YA	3456	1/1	0.97	0.08	33,33,33,33	0
55	MG	YA	3056	1/1	0.97	0.13	11,11,11,11	0
55	MG	RA	3162	1/1	0.97	0.14	24,24,24,24	0
55	MG	QA	1668	1/1	0.97	0.18	46,46,46,46	0
55	MG	XA	1662	1/1	0.97	0.12	31,31,31,31	0
55	MG	RA	3365	1/1	0.97	0.15	54,54,54,54	0
55	MG	RA	3124	1/1	0.97	0.12	16,16,16,16	0
55	MG	RA	3256	1/1	0.97	0.10	16,16,16,16	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3176	1/1	0.97	0.10	44,44,44,44	0
55	MG	QA	1743	1/1	0.97	0.04	47,47,47,47	0
55	MG	QA	1630	1/1	0.97	0.04	56,56,56,56	0
55	MG	RA	3371	1/1	0.97	0.17	32,32,32,32	0
55	MG	RA	3259	1/1	0.97	0.19	31,31,31,31	0
55	MG	YA	3323	1/1	0.97	0.16	16,16,16,16	0
55	MG	RA	3444	1/1	0.97	0.09	47,47,47,47	0
55	MG	YA	3072	1/1	0.97	0.12	34,34,34,34	0
55	MG	RA	3373	1/1	0.97	0.15	36,36,36,36	0
55	MG	QA	1745	1/1	0.97	0.12	54,54,54,54	0
55	MG	YA	3076	1/1	0.97	0.15	25,25,25,25	0
55	MG	QA	1670	1/1	0.97	0.18	33,33,33,33	0
55	MG	YA	3189	1/1	0.97	0.27	28,28,28,28	0
55	MG	YA	3190	1/1	0.97	0.09	14,14,14,14	0
55	MG	XA	1675	1/1	0.97	0.12	20,20,20,20	0
55	MG	YA	3333	1/1	0.97	0.09	26,26,26,26	0
55	MG	YA	3482	1/1	0.97	0.07	54,54,54,54	0
55	MG	RA	3095	1/1	0.97	0.09	32,32,32,32	0
55	MG	QA	1606	1/1	0.97	0.13	36,36,36,36	0
55	MG	RA	3265	1/1	0.97	0.09	26,26,26,26	0
55	MG	RA	3171	1/1	0.97	0.15	36,36,36,36	0
55	MG	RA	3454	1/1	0.97	0.04	50,50,50,50	0
55	MG	RA	3009	1/1	0.97	0.15	8,8,8,8	0
55	MG	YA	3340	1/1	0.97	0.23	60,60,60,60	0
55	MG	QA	1634	1/1	0.97	0.12	69,69,69,69	0
55	MG	YA	3493	1/1	0.97	0.11	51,51,51,51	0
55	MG	QA	1719	1/1	0.97	0.06	35,35,35,35	0
55	MG	YA	3087	1/1	0.97	0.13	3,3,3,3	0
55	MG	XA	1764	1/1	0.97	0.14	10,10,10,10	0
55	MG	YA	3203	1/1	0.97	0.06	23,23,23,23	0
55	MG	YA	3348	1/1	0.97	0.08	37,37,37,37	0
55	MG	RA	3136	1/1	0.97	0.06	7,7,7,7	0
55	MG	YA	3350	1/1	0.97	0.12	32,32,32,32	0
55	MG	YA	3090	1/1	0.97	0.14	1,1,1,1	0
55	MG	YA	3207	1/1	0.97	0.11	37,37,37,37	0
55	MG	YA	3504	1/1	0.97	0.15	19,19,19,19	0
55	MG	YA	3208	1/1	0.97	0.04	23,23,23,23	0
55	MG	RA	3100	1/1	0.97	0.10	56,56,56,56	0
55	MG	YA	3508	1/1	0.97	0.13	50,50,50,50	0
55	MG	RA	3101	1/1	0.97	0.07	30,30,30,30	0
55	MG	QA	1663	1/1	0.97	0.14	8,8,8,8	0
55	MG	YA	3512	1/1	0.97	0.06	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	XA	1771	1/1	0.97	0.06	45,45,45,45	0
55	MG	XE	201	1/1	0.97	0.11	27,27,27,27	0
55	MG	YA	3216	1/1	0.97	0.13	27,27,27,27	0
55	MG	RA	3464	1/1	0.97	0.05	37,37,37,37	0
55	MG	RA	3222	1/1	0.97	0.13	19,19,19,19	0
55	MG	XA	1613	1/1	0.97	0.13	19,19,19,19	0
55	MG	YA	3365	1/1	0.97	0.07	21,21,21,21	0
55	MG	XA	1614	1/1	0.97	0.09	18,18,18,18	0
55	MG	RA	3276	1/1	0.97	0.12	19,19,19,19	0
55	MG	YA	3225	1/1	0.97	0.05	15,15,15,15	0
55	MG	XV	102	1/1	0.97	0.07	47,47,47,47	0
55	MG	RA	3180	1/1	0.97	0.03	29,29,29,29	0
55	MG	YA	3229	1/1	0.97	0.14	34,34,34,34	0
55	MG	YD	301	1/1	0.97	0.04	13,13,13,13	0
55	MG	RA	3067	1/1	0.97	0.14	19,19,19,19	0
55	MG	YE	301	1/1	0.97	0.13	27,27,27,27	0
55	MG	RA	3225	1/1	0.97	0.17	28,28,28,28	0
55	MG	YA	3234	1/1	0.97	0.15	1,1,1,1	0
55	MG	XA	1700	1/1	0.97	0.04	38,38,38,38	0
55	MG	QL	2601	1/1	0.97	0.11	38,38,38,38	0
55	MG	YP	202	1/1	0.97	0.06	14,14,14,14	0
55	MG	XA	1620	1/1	0.97	0.05	15,15,15,15	0
55	MG	RA	3399	1/1	0.97	0.07	34,34,34,34	0
55	MG	RA	3402	1/1	0.97	0.08	47,47,47,47	0
55	MG	RA	3039	1/1	0.97	0.15	24,24,24,24	0
55	MG	YU	201	1/1	0.97	0.11	26,26,26,26	0
55	MG	YX	101	1/1	0.97	0.09	45,45,45,45	0
55	MG	RA	3040	1/1	0.97	0.18	15,15,15,15	0
55	MG	YA	3005	1/1	0.97	0.03	15,15,15,15	0
55	MG	RA	3109	1/1	0.97	0.10	14,14,14,14	0
55	MG	QA	1627	1/1	0.97	0.11	33,33,33,33	0
55	MG	QA	1675	1/1	0.97	0.09	26,26,26,26	0
55	MG	YA	3009	1/1	0.97	0.15	23,23,23,23	0
56	SF4	QD	301	8/8	0.97	0.07	95,98,100,103	0
55	MG	RA	3479	1/1	0.97	0.10	53,53,53,53	0
55	MG	RA	3408	1/1	0.97	0.05	30,30,30,30	0
55	MG	YA	3122	1/1	0.97	0.08	26,26,26,26	0
55	MG	QA	1607	1/1	0.97	0.06	36,36,36,36	0
55	MG	YA	3013	1/1	0.97	0.15	16,16,16,16	0
55	MG	RA	3189	1/1	0.97	0.14	36,36,36,36	0
55	MG	RA	3341	1/1	0.97	0.13	38,38,38,38	0
55	MG	YA	3257	1/1	0.97	0.08	11,11,11,11	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3046	1/1	0.97	0.12	24,24,24,24	0
55	MG	YA	3259	1/1	0.97	0.26	26,26,26,26	0
55	MG	YA	3131	1/1	0.97	0.12	26,26,26,26	0
55	MG	YA	3423	1/1	0.98	0.12	25,25,25,25	0
55	MG	RA	3048	1/1	0.98	0.10	15,15,15,15	0
55	MG	YA	3425	1/1	0.98	0.06	46,46,46,46	0
55	MG	RA	3296	1/1	0.98	0.11	26,26,26,26	0
55	MG	YA	3427	1/1	0.98	0.03	57,57,57,57	0
55	MG	RA	3297	1/1	0.98	0.10	18,18,18,18	0
55	MG	YA	3092	1/1	0.98	0.15	6,6,6,6	0
55	MG	RA	3156	1/1	0.98	0.07	16,16,16,16	0
55	MG	YA	3306	1/1	0.98	0.07	15,15,15,15	0
55	MG	XA	1640	1/1	0.98	0.11	28,28,28,28	0
55	MG	YA	3308	1/1	0.98	0.11	16,16,16,16	0
55	MG	YA	3309	1/1	0.98	0.09	30,30,30,30	0
55	MG	RA	3385	1/1	0.98	0.03	33,33,33,33	0
55	MG	YA	3436	1/1	0.98	0.08	34,34,34,34	0
55	MG	RA	3386	1/1	0.98	0.16	32,32,32,32	0
55	MG	YA	3312	1/1	0.98	0.23	23,23,23,23	0
55	MG	YA	3439	1/1	0.98	0.09	31,31,31,31	0
55	MG	YA	3440	1/1	0.98	0.11	35,35,35,35	0
55	MG	RA	3011	1/1	0.98	0.17	29,29,29,29	0
55	MG	QA	1755	1/1	0.98	0.07	74,74,74,74	0
55	MG	QA	1666	1/1	0.98	0.26	40,40,40,40	0
55	MG	QA	1694	1/1	0.98	0.09	40,40,40,40	0
55	MG	RA	3446	1/1	0.98	0.04	35,35,35,35	0
55	MG	YA	3201	1/1	0.98	0.11	30,30,30,30	0
55	MG	RA	3391	1/1	0.98	0.10	37,37,37,37	0
55	MG	RA	3263	1/1	0.98	0.24	36,36,36,36	0
55	MG	RA	3393	1/1	0.98	0.04	24,24,24,24	0
55	MG	YA	3322	1/1	0.98	0.06	29,29,29,29	0
55	MG	YA	3205	1/1	0.98	0.14	2,2,2,2	0
55	MG	RA	3103	1/1	0.98	0.07	22,22,22,22	0
55	MG	RN	201	1/1	0.98	0.16	42,42,42,42	0
55	MG	YA	3455	1/1	0.98	0.05	29,29,29,29	0
55	MG	YA	3017	1/1	0.98	0.18	0,0,0,0	0
55	MG	QA	1682	1/1	0.98	0.07	36,36,36,36	0
55	MG	YA	3210	1/1	0.98	0.05	18,18,18,18	0
55	MG	RP	201	1/1	0.98	0.06	21,21,21,21	0
55	MG	XA	1727	1/1	0.98	0.03	48,48,48,48	0
55	MG	RA	3266	1/1	0.98	0.18	36,36,36,36	0
55	MG	YA	3214	1/1	0.98	0.07	20,20,20,20	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	RA	3453	1/1	0.98	0.05	28,28,28,28	0
55	MG	RA	3194	1/1	0.98	0.05	49,49,49,49	0
55	MG	RA	3001	1/1	0.98	0.05	3,3,3,3	0
55	MG	RA	3133	1/1	0.98	0.10	38,38,38,38	0
55	MG	RA	3400	1/1	0.98	0.07	27,27,27,27	0
55	MG	RA	3458	1/1	0.98	0.08	37,37,37,37	0
55	MG	YA	3223	1/1	0.98	0.25	62,62,62,62	0
55	MG	RA	3401	1/1	0.98	0.07	13,13,13,13	0
55	MG	RA	3106	1/1	0.98	0.09	35,35,35,35	0
55	MG	YA	3226	1/1	0.98	0.11	2,2,2,2	0
55	MG	YA	3343	1/1	0.98	0.13	38,38,38,38	0
55	MG	YA	3344	1/1	0.98	0.15	57,57,57,57	0
55	MG	RA	3036	1/1	0.98	0.14	10,10,10,10	0
55	MG	YA	3032	1/1	0.98	0.07	6,6,6,6	0
55	MG	YA	3124	1/1	0.98	0.18	50,50,50,50	0
55	MG	YA	3125	1/1	0.98	0.09	26,26,26,26	0
55	MG	YA	3232	1/1	0.98	0.14	14,14,14,14	0
55	MG	RA	3079	1/1	0.98	0.11	3,3,3,3	0
55	MG	R1	101	1/1	0.98	0.11	28,28,28,28	0
55	MG	RA	3056	1/1	0.98	0.11	16,16,16,16	0
55	MG	YA	3036	1/1	0.98	0.13	15,15,15,15	0
55	MG	RA	3236	1/1	0.98	0.17	27,27,27,27	0
55	MG	RA	3057	1/1	0.98	0.13	18,18,18,18	0
55	MG	YA	3039	1/1	0.98	0.12	8,8,8,8	0
55	MG	YA	3240	1/1	0.98	0.17	11,11,11,11	0
55	MG	YA	3040	1/1	0.98	0.12	21,21,21,21	0
55	MG	YA	3492	1/1	0.98	0.06	23,23,23,23	0
55	MG	QA	1696	1/1	0.98	0.11	25,25,25,25	0
55	MG	YA	3361	1/1	0.98	0.06	37,37,37,37	0
55	MG	XA	1603	1/1	0.98	0.17	1,1,1,1	0
55	MG	YA	3043	1/1	0.98	0.09	8,8,8,8	0
55	MG	YA	3044	1/1	0.98	0.13	0,0,0,0	0
55	MG	XA	1672	1/1	0.98	0.14	26,26,26,26	0
55	MG	RA	3003	1/1	0.98	0.18	13,13,13,13	0
55	MG	XA	1605	1/1	0.98	0.16	20,20,20,20	0
55	MG	YA	3249	1/1	0.98	0.13	8,8,8,8	0
55	MG	QA	1729	1/1	0.98	0.06	17,17,17,17	0
55	MG	YA	3503	1/1	0.98	0.13	20,20,20,20	0
55	MG	XA	1676	1/1	0.98	0.12	9,9,9,9	0
55	MG	RA	3173	1/1	0.98	0.05	46,46,46,46	0
55	MG	RA	3471	1/1	0.98	0.05	56,56,56,56	0
55	MG	XA	1679	1/1	0.98	0.13	19,19,19,19	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	YA	3147	1/1	0.98	0.05	19,19,19,19	0
55	MG	YA	3510	1/1	0.98	0.09	81,81,81,81	0
55	MG	YA	3148	1/1	0.98	0.03	16,16,16,16	0
55	MG	RA	3005	1/1	0.98	0.14	3,3,3,3	0
55	MG	RA	3413	1/1	0.98	0.10	39,39,39,39	0
55	MG	YA	3378	1/1	0.98	0.08	17,17,17,17	0
55	MG	RA	3361	1/1	0.98	0.06	47,47,47,47	0
55	MG	YA	3152	1/1	0.98	0.08	60,60,60,60	0
55	MG	RA	3362	1/1	0.98	0.10	30,30,30,30	0
55	MG	QA	1635	1/1	0.98	0.15	26,26,26,26	0
55	MG	YA	3264	1/1	0.98	0.12	10,10,10,10	0
55	MG	QA	1605	1/1	0.98	0.13	8,8,8,8	0
55	MG	RA	3088	1/1	0.98	0.04	11,11,11,11	0
55	MG	YA	3157	1/1	0.98	0.10	43,43,43,43	0
55	MG	RA	3043	1/1	0.98	0.05	5,5,5,5	0
55	MG	XA	1688	1/1	0.98	0.07	12,12,12,12	0
55	MG	YA	3271	1/1	0.98	0.10	8,8,8,8	0
55	MG	RA	3147	1/1	0.98	0.11	23,23,23,23	0
55	MG	RA	3369	1/1	0.98	0.07	38,38,38,38	0
55	MG	XA	1765	1/1	0.98	0.13	17,17,17,17	0
55	MG	YA	3068	1/1	0.98	0.11	17,17,17,17	0
55	MG	RA	3044	1/1	0.98	0.08	7,7,7,7	0
55	MG	RA	3423	1/1	0.98	0.21	59,59,59,59	0
55	MG	YA	3071	1/1	0.98	0.11	19,19,19,19	0
55	MG	YP	201	1/1	0.98	0.19	90,90,90,90	0
55	MG	XA	1768	1/1	0.98	0.04	39,39,39,39	0
55	MG	YA	3280	1/1	0.98	0.10	29,29,29,29	0
55	MG	YA	3073	1/1	0.98	0.06	11,11,11,11	0
55	MG	RA	3149	1/1	0.98	0.02	26,26,26,26	0
55	MG	YA	3401	1/1	0.98	0.04	36,36,36,36	0
55	MG	YA	3171	1/1	0.98	0.09	22,22,22,22	0
55	MG	RA	3091	1/1	0.98	0.09	34,34,34,34	0
55	MG	XA	1624	1/1	0.98	0.09	24,24,24,24	0
55	MG	QA	1732	1/1	0.98	0.10	21,21,21,21	0
55	MG	XA	1697	1/1	0.98	0.04	42,42,42,42	0
55	MG	YA	3407	1/1	0.98	0.18	30,30,30,30	0
55	MG	RA	3253	1/1	0.98	0.04	11,11,11,11	0
55	MG	YA	3409	1/1	0.98	0.05	67,67,67,67	0
55	MG	RA	3428	1/1	0.98	0.12	33,33,33,33	0
55	MG	RA	3489	1/1	0.98	0.29	32,32,32,32	0
57	ZN	QN	101	1/1	0.98	0.04	107,107,107,107	0
55	MG	XA	1629	1/1	0.98	0.12	21,21,21,21	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	QA	1633	1/1	0.98	0.07	45,45,45,45	0
55	MG	RA	3292	1/1	0.98	0.10	6,6,6,6	0
55	MG	RA	3255	1/1	0.98	0.16	25,25,25,25	0
55	MG	YA	3183	1/1	0.98	0.06	16,16,16,16	0
55	MG	QA	1618	1/1	0.98	0.06	31,31,31,31	0
55	MG	YA	3185	1/1	0.98	0.16	31,31,31,31	0
55	MG	RA	3379	1/1	0.98	0.09	31,31,31,31	0
55	MG	YA	3421	1/1	0.98	0.04	14,14,14,14	0
55	MG	RA	3380	1/1	0.98	0.23	29,29,29,29	0
55	MG	RA	3153	1/1	0.99	0.10	28,28,28,28	0
55	MG	RA	3463	1/1	0.99	0.04	34,34,34,34	0
55	MG	YA	3121	1/1	0.99	0.06	21,21,21,21	0
55	MG	QA	1662	1/1	0.99	0.17	37,37,37,37	0
55	MG	RA	3092	1/1	0.99	0.10	11,11,11,11	0
55	MG	XA	1611	1/1	0.99	0.03	16,16,16,16	0
55	MG	YA	3266	1/1	0.99	0.14	26,26,26,26	0
55	MG	RA	3093	1/1	0.99	0.09	26,26,26,26	0
55	MG	RA	3094	1/1	0.99	0.03	4,4,4,4	0
55	MG	YA	3230	1/1	0.99	0.21	1,1,1,1	0
55	MG	YA	3064	1/1	0.99	0.09	11,11,11,11	0
55	MG	QA	1631	1/1	0.99	0.06	76,76,76,76	0
55	MG	YA	3097	1/1	0.99	0.04	17,17,17,17	0
55	MG	YA	3130	1/1	0.99	0.13	38,38,38,38	0
55	MG	YA	3481	1/1	0.99	0.25	54,54,54,54	0
55	MG	QA	1611	1/1	0.99	0.08	12,12,12,12	0
55	MG	XA	1741	1/1	0.99	0.03	38,38,38,38	0
55	MG	YA	3166	1/1	0.99	0.03	10,10,10,10	0
55	MG	RA	3252	1/1	0.99	0.07	40,40,40,40	0
55	MG	YA	3358	1/1	0.99	0.09	34,34,34,34	0
55	MG	RA	3212	1/1	0.99	0.04	40,40,40,40	0
55	MG	QA	1780	1/1	0.99	0.03	53,53,53,53	0
55	MG	YA	3489	1/1	0.99	0.08	29,29,29,29	0
55	MG	RA	3060	1/1	0.99	0.11	8,8,8,8	0
55	MG	RA	3013	1/1	0.99	0.08	7,7,7,7	0
55	MG	RA	3216	1/1	0.99	0.13	7,7,7,7	0
55	MG	RA	3073	1/1	0.99	0.08	6,6,6,6	0
55	MG	RA	3364	1/1	0.99	0.10	27,27,27,27	0
55	MG	XQ	201	1/1	0.99	0.04	65,65,65,65	0
55	MG	YA	3047	1/1	0.99	0.18	12,12,12,12	0
55	MG	YA	3451	1/1	0.99	0.14	34,34,34,34	0
55	MG	RA	3198	1/1	0.99	0.04	14,14,14,14	0
55	MG	RA	3131	1/1	0.99	0.05	16,16,16,16	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
55	MG	QA	1639	1/1	0.99	0.08	49,49,49,49	0
55	MG	YA	3290	1/1	0.99	0.08	14,14,14,14	0
55	MG	RA	3023	1/1	0.99	0.03	3,3,3,3	0
55	MG	RA	3033	1/1	0.99	0.10	9,9,9,9	0
55	MG	YA	3253	1/1	0.99	0.10	9,9,9,9	0
55	MG	YA	3416	1/1	0.99	0.14	42,42,42,42	0
55	MG	RA	3436	1/1	0.99	0.20	42,42,42,42	0
55	MG	YA	3461	1/1	0.99	0.06	29,29,29,29	0
57	ZN	XN	101	1/1	0.99	0.03	70,70,70,70	0
55	MG	YA	3217	1/1	0.99	0.10	24,24,24,24	0
55	MG	YA	3218	1/1	0.99	0.06	43,43,43,43	0
55	MG	RA	3015	1/1	0.99	0.11	35,35,35,35	0
55	MG	YA	3026	1/1	0.99	0.06	0,0,0,0	0
55	MG	QA	1649	1/1	0.99	0.04	26,26,26,26	0
55	MG	YA	3066	1/1	1.00	0.16	1,1,1,1	0
55	MG	YA	3506	1/1	1.00	0.02	4,4,4,4	0

6.5 Other polymers (i)

There are no such residues in this entry.