



Full wwPDB X-ray Structure Validation Report ⓘ

Aug 6, 2026 – 03:54 AM EDT

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	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.50

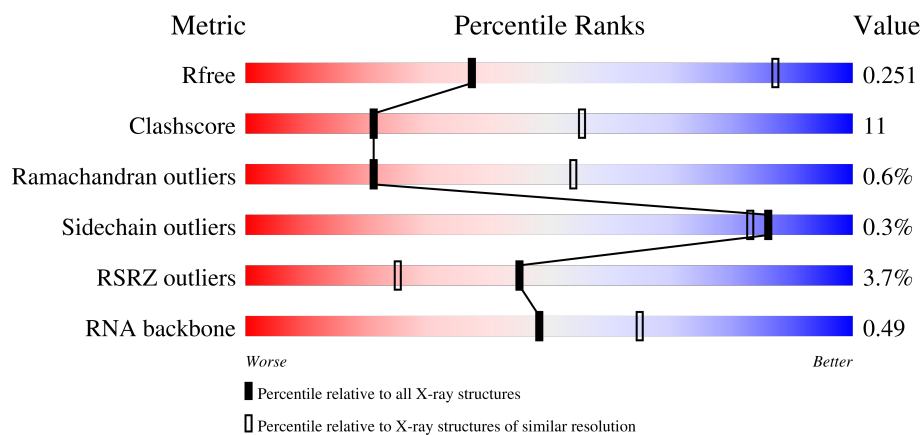
1 Overall quality at a glance

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 $\leq 5\%$. 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	2% 48% 43% 9% •
1	XA	1508	2% 48% 42% 9% •
2	QB	256	2% 58% 34% 8%
2	XB	256	2% 61% 30% 8%

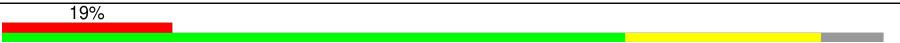
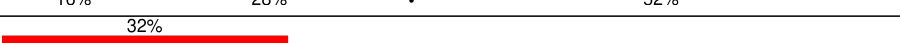
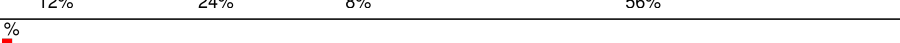
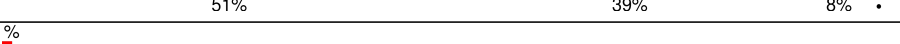
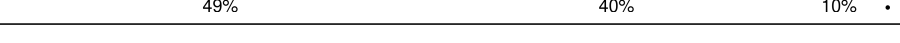
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Mol	Chain	Length	Quality of chain
3	QC	239	
3	XC	239	
4	QD	209	
4	XD	209	
5	QE	162	
5	XE	162	
6	QF	101	
6	XF	101	
7	QG	156	
7	XG	156	
8	QH	138	
8	XH	138	
9	QI	128	
9	XI	128	
10	QJ	105	
10	XJ	105	
11	QK	129	
11	XK	129	
12	QL	132	
12	XL	132	
13	QM	126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

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Mol	Chain	Length	Quality of chain
15	XO	89	
16	QP	88	
16	XP	88	
17	QQ	105	
17	XQ	105	
18	QR	88	
18	XR	88	
19	QS	93	
19	XS	93	
20	QT	106	
20	XT	106	
21	QU	27	
21	XU	27	
22	QV	77	
22	XV	77	
23	QX	25	
23	XX	25	
24	RA	2915	
24	YA	2915	
25	RB	122	
25	YB	122	
26	RD	276	
26	YD	276	
27	RE	206	
27	YE	206	

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Mol	Chain	Length	Quality of chain
28	RF	210	% 63% 32% .
28	YF	210	% 68% 29% .
29	RG	182	8% 58% 40% ...
29	YG	182	4% 65% 34% ..
30	RH	180	11% 61% 33% . .
30	YH	180	4% 61% 34% . . .
31	RI	148	10% 67% 29% . .
31	YI	148	3% 56% 39% . .
32	RN	140	6% 77% 21% .
32	YN	140	4% 66% 31% ..
33	RO	122	2% 67% 33%
33	YO	122	79% 21%
34	RP	150	5% 67% 31% .
34	YP	150	8% 61% 37% ..
35	RQ	141	9% 60% 38% .
35	YQ	141	13% 70% 30% .
36	RR	118	2% 62% 36% ..
36	YR	118	3% 65% 34% .
37	RS	112	4% 63% 35% ..
37	YS	112	6% 68% 31% .
38	RT	146	5% 62% 32% . 6%
38	YT	146	3% 63% 29% . 6%
39	RU	118	3% 73% 23% . .
39	YU	118	5% 64% 31% . .
40	RV	101	% 71% 28% .

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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	
53	Y8	65	
54	R9	37	
54	Y9	37	

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	C	N	O	P	0	0	0
			32246	14353	5981	10413	1499			
1	XA	1500	Total	C	N	O	P	0	0	0
			32248	14354	5984	10411	1499			

There are 2 discrepancies between the modelled and reference sequences:

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	QJ	99	Total	C	N	O	S	0	0	0
			801	504	157	139	1			
10	XJ	96	Total	C	N	O	S	0	0	0
			777	487	153	136	1			

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

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

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	QM	120	Total	C	N	O	S	0	0	0
			955	591	197	165	2			
13	XM	119	Total	C	N	O	S	0	0	0
			946	585	195	164	2			

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- Molecule 22 is a RNA chain called 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	C	N	O	0	0	0
			960	599	202	159			

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

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

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

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

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

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

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

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

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

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

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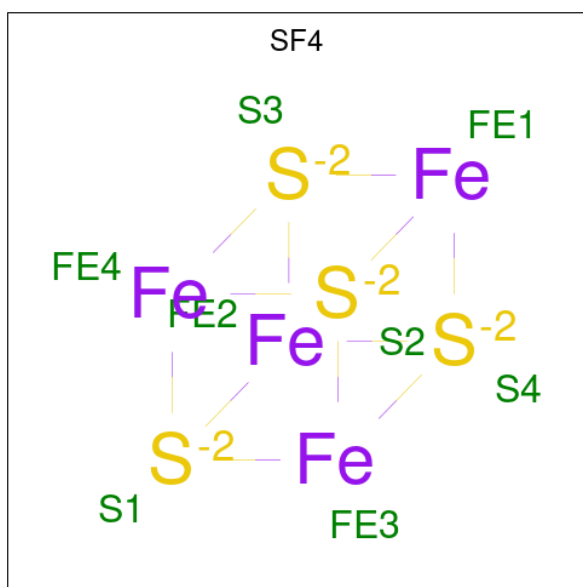
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
55	RE	4	Total 4	Mg 4	0	0
55	RF	1	Total 1	Mg 1	0	0
55	RI	1	Total 1	Mg 1	0	0
55	RN	1	Total 1	Mg 1	0	0
55	RO	1	Total 1	Mg 1	0	0
55	RP	3	Total 3	Mg 3	0	0
55	RQ	2	Total 2	Mg 2	0	0
55	RT	1	Total 1	Mg 1	0	0
55	RU	1	Total 1	Mg 1	0	0
55	RW	1	Total 1	Mg 1	0	0
55	RX	1	Total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

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

- Molecule 56 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe₄S₄).



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

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

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

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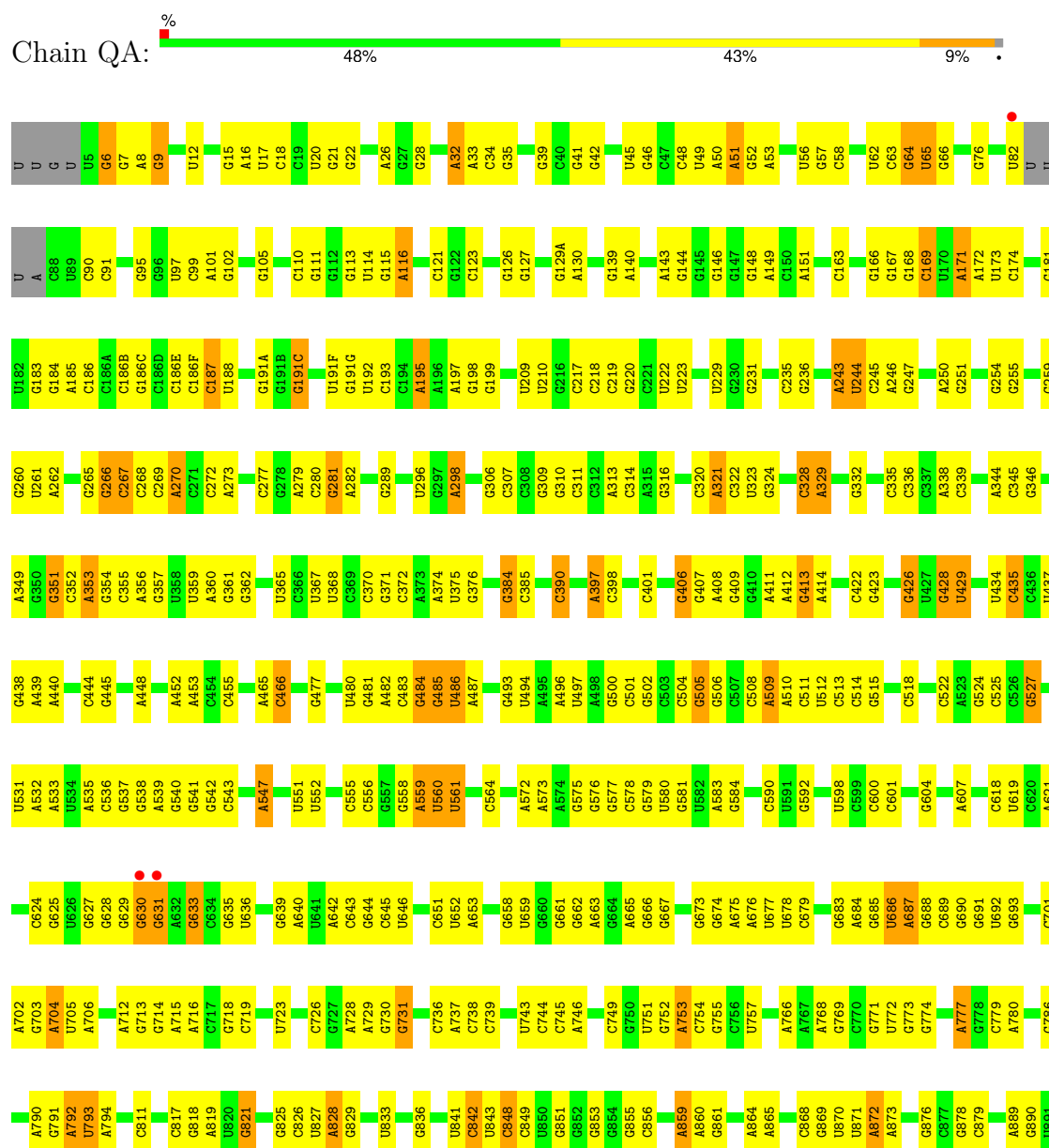
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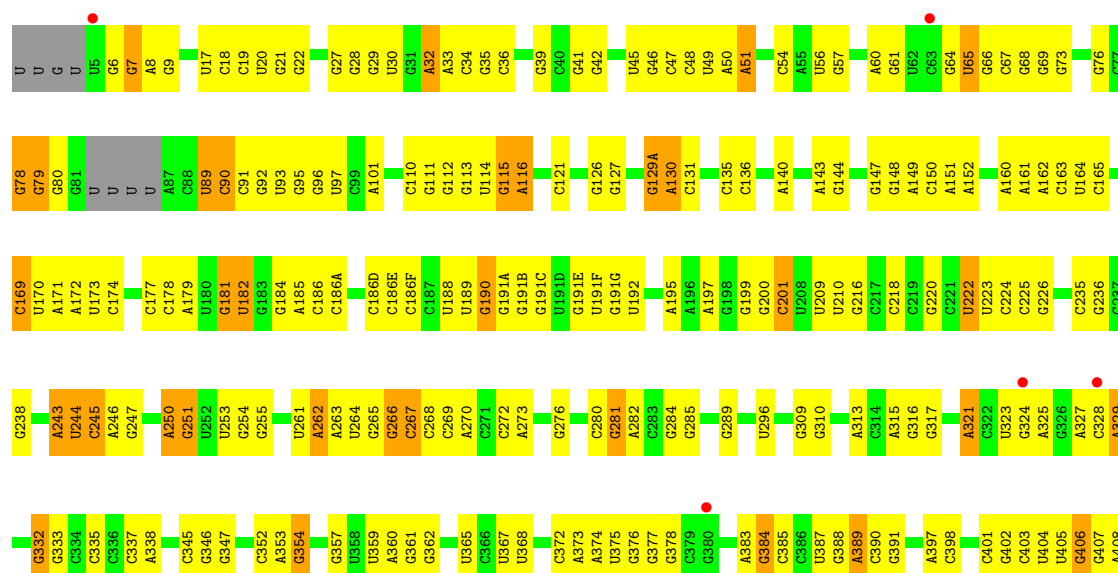
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	Y6	1	Total 1	Zn 1	0	0
57	Y9	1	Total 1	Zn 1	0	0

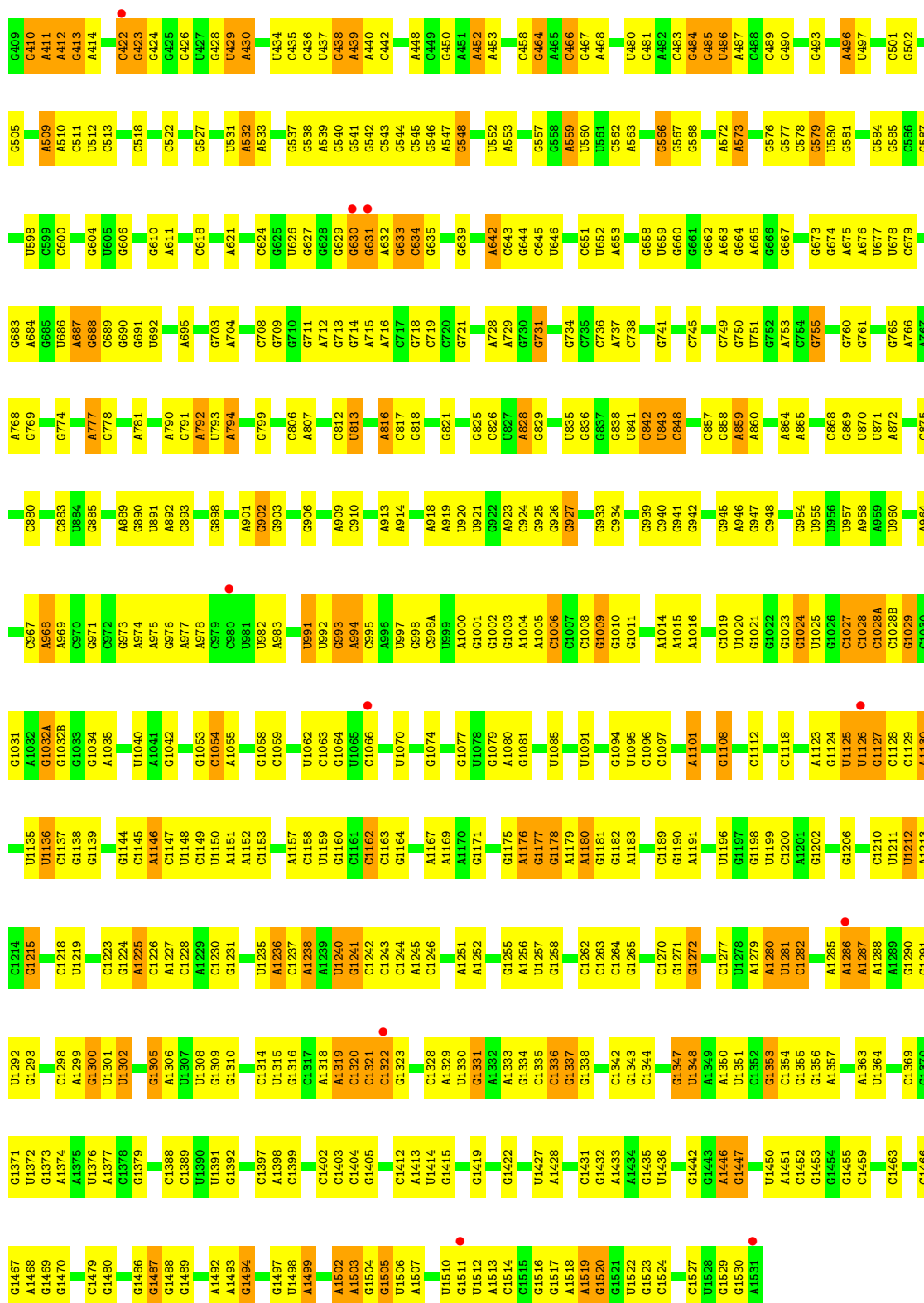
3 Residue-property plots [i](#)

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

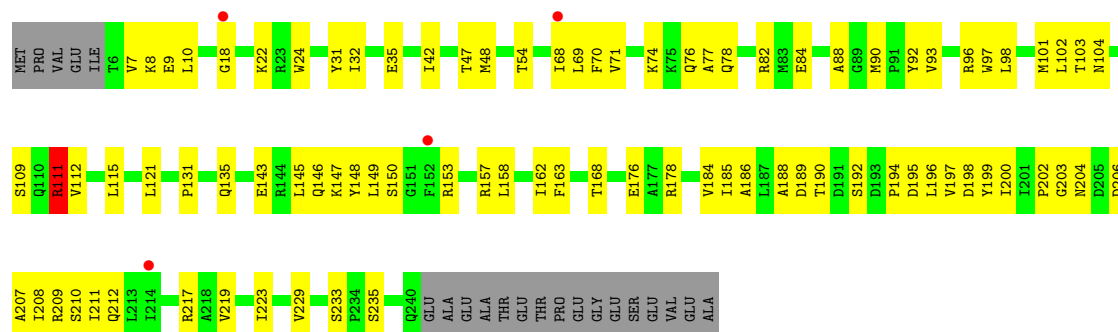




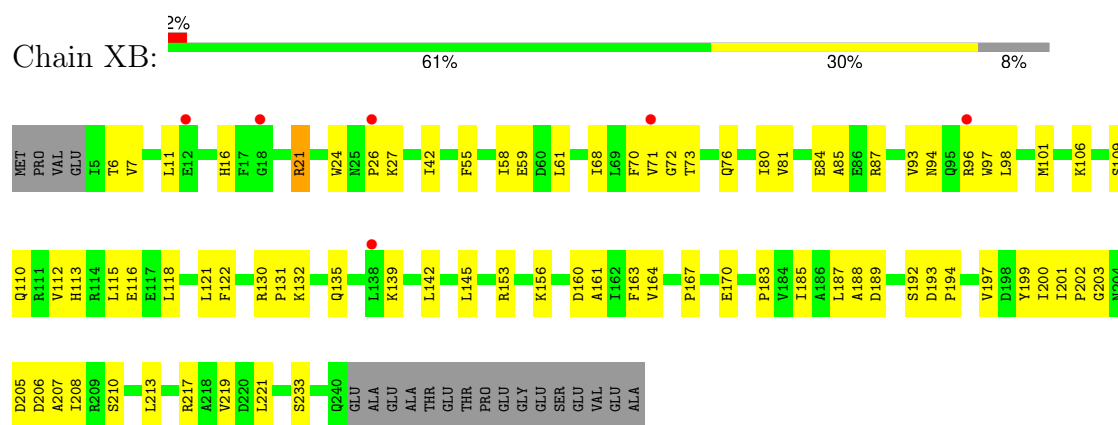


• Molecule 2: 30S ribosomal protein S2

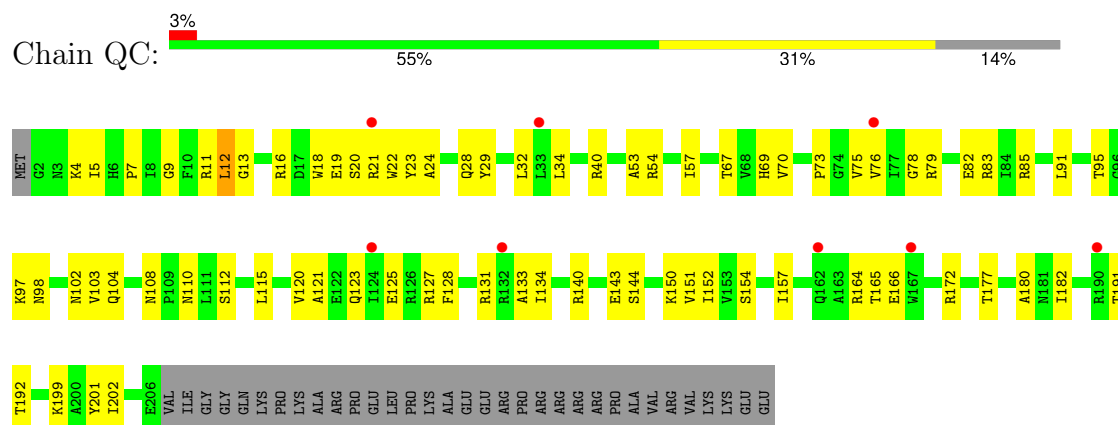




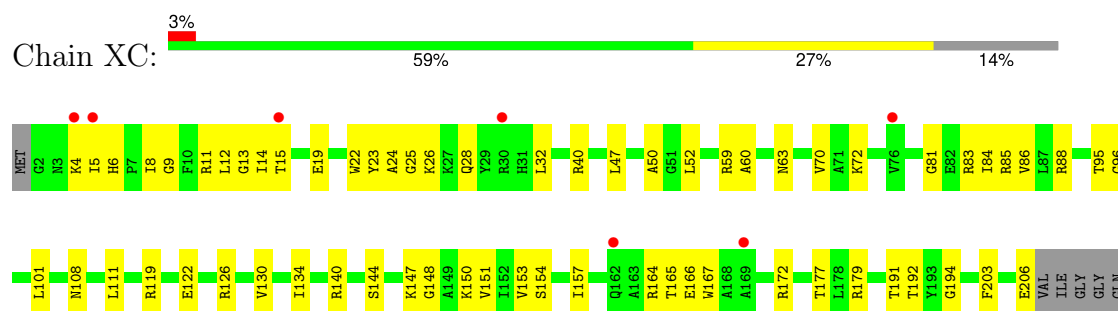
• Molecule 2: 30S ribosomal protein S2



• Molecule 3: 30S ribosomal protein S3

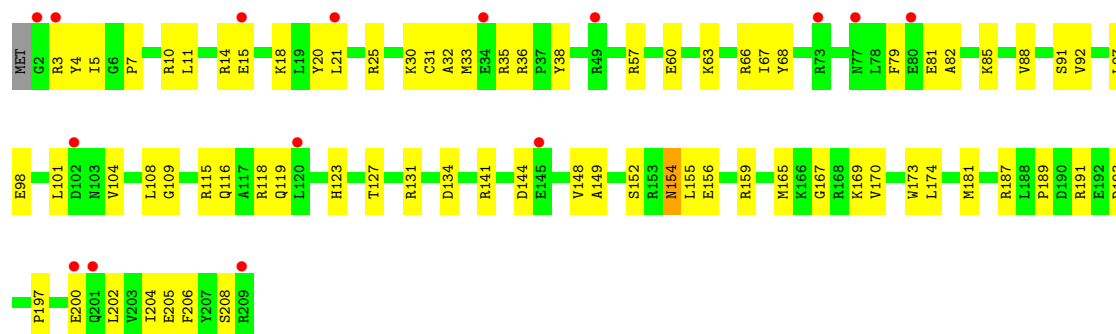


• Molecule 3: 30S ribosomal protein S3

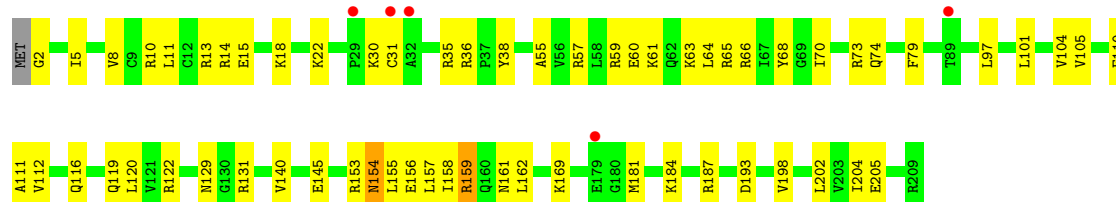


LYS
PRO
LYS
ALA
ARG
PRO
GLU
LEU
PRO
LYS
ALA
GLU
GLU
ARG
PRO
ARG
ARG
PRO
ALA
VAL
ARG
VAL
LYS
LYS
GLU
GLU

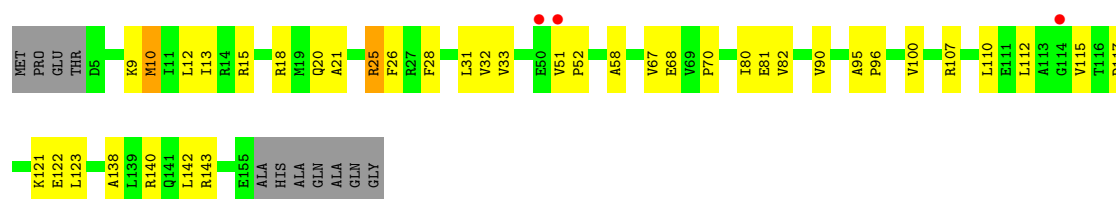
• Molecule 4: 30S ribosomal protein S4



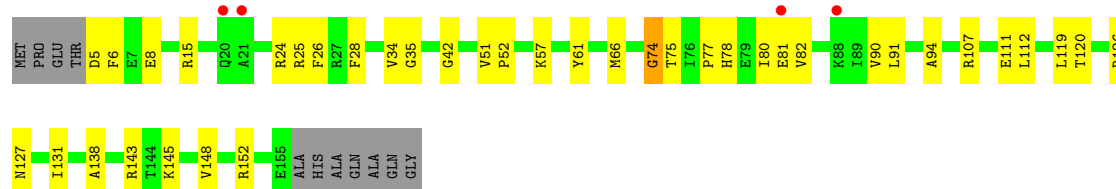
• Molecule 4: 30S ribosomal protein S4



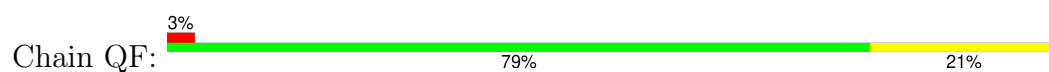
• Molecule 5: 30S ribosomal protein S5



• Molecule 5: 30S ribosomal protein S5



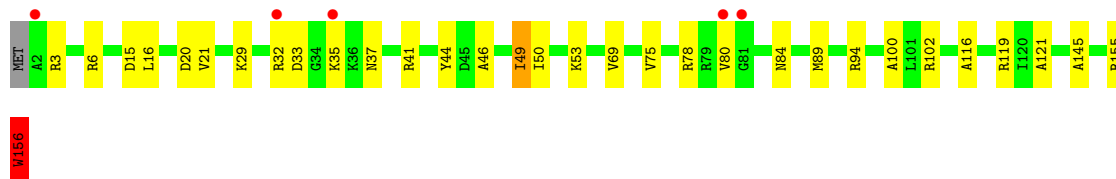
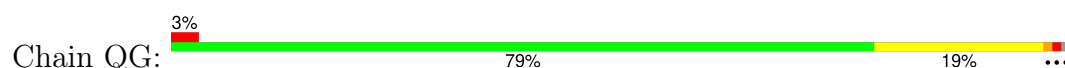
• Molecule 6: 30S ribosomal protein S6



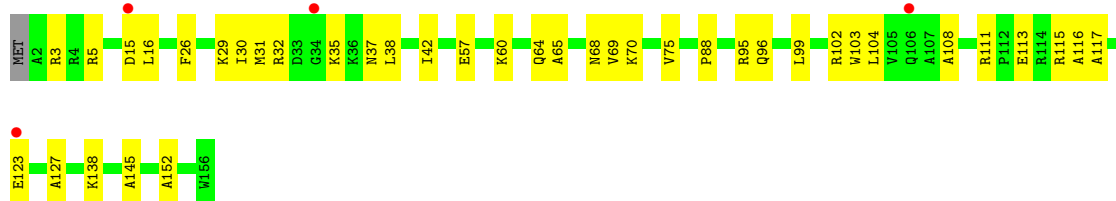
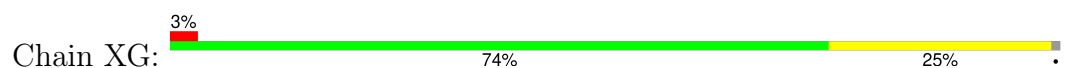
- Molecule 6: 30S ribosomal protein S6



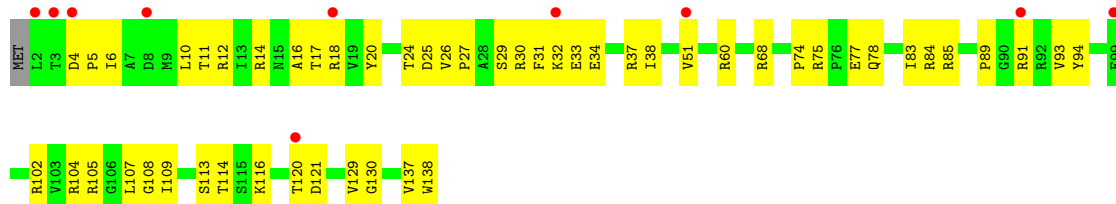
- Molecule 7: 30S ribosomal protein S7



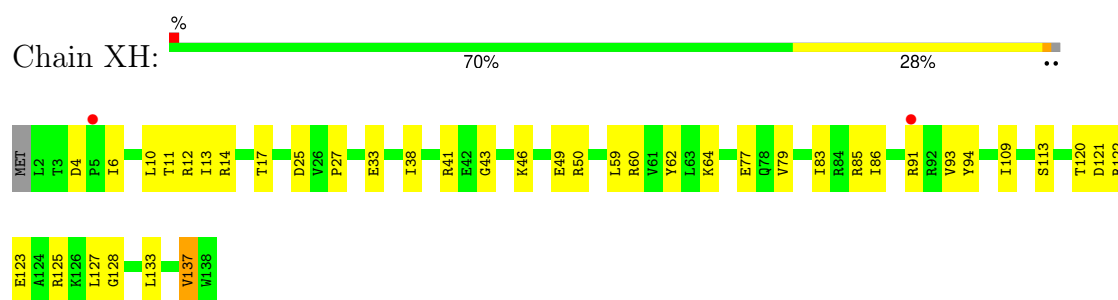
- Molecule 7: 30S ribosomal protein S7



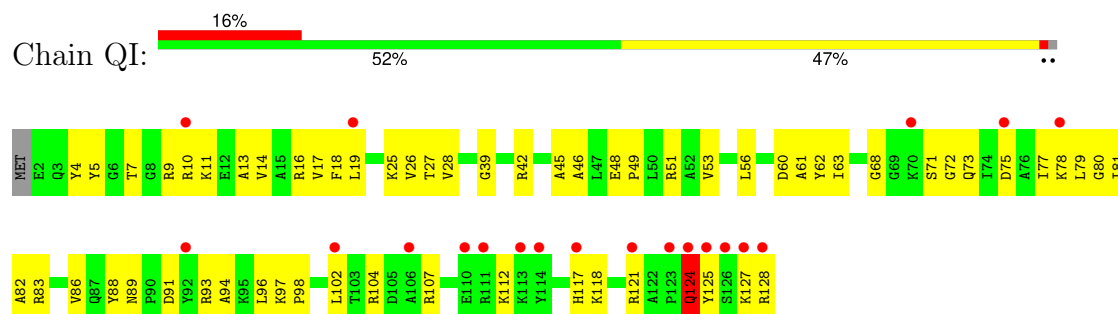
- Molecule 8: 30S ribosomal protein S8



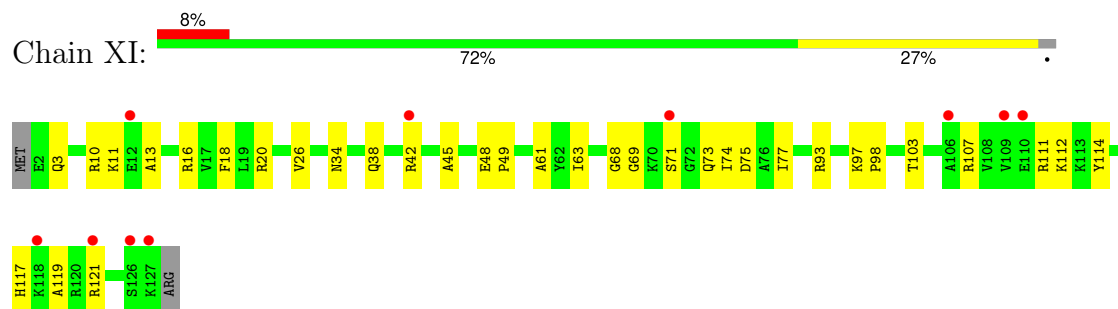
- Molecule 8: 30S ribosomal protein S8



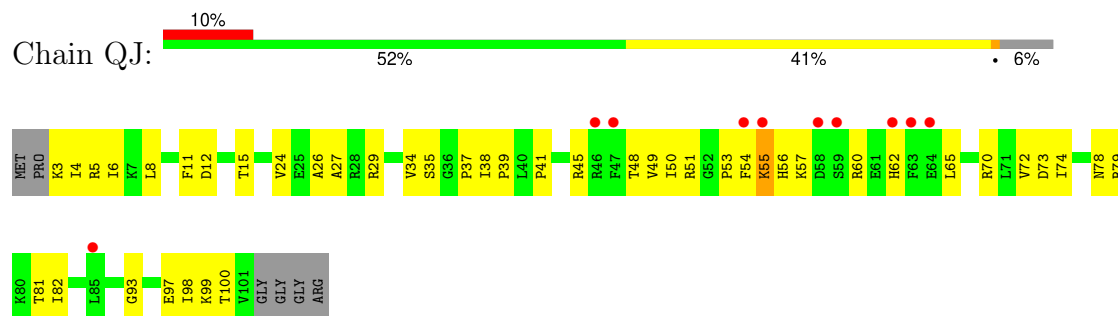
- Molecule 9: 30S ribosomal protein S9



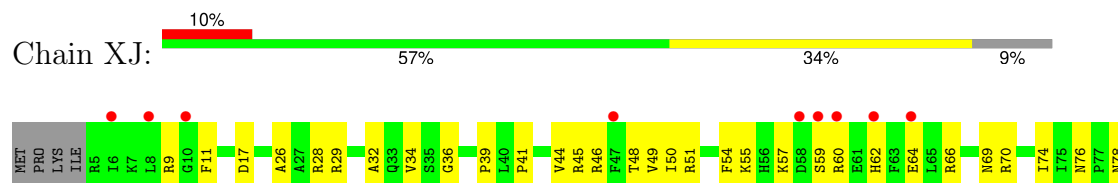
- Molecule 9: 30S ribosomal protein S9

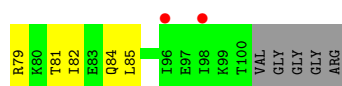


- Molecule 10: 30S ribosomal protein S10



- Molecule 10: 30S ribosomal protein S10

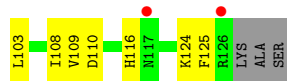




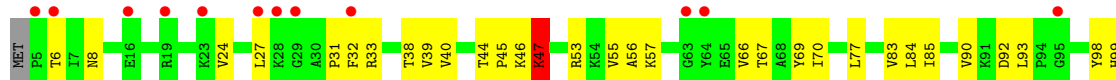
- Molecule 11: 30S ribosomal protein S11



- Molecule 11: 30S ribosomal protein S11



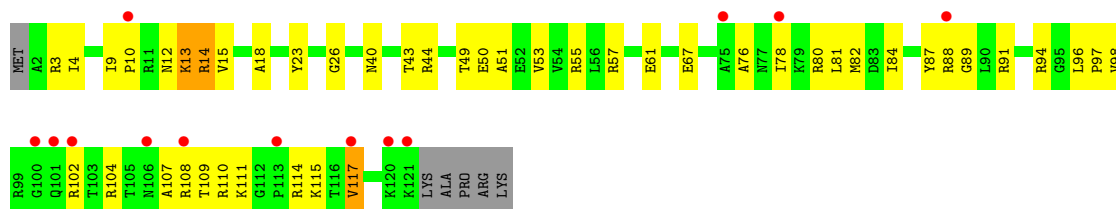
- Molecule 12: 30S ribosomal protein S12



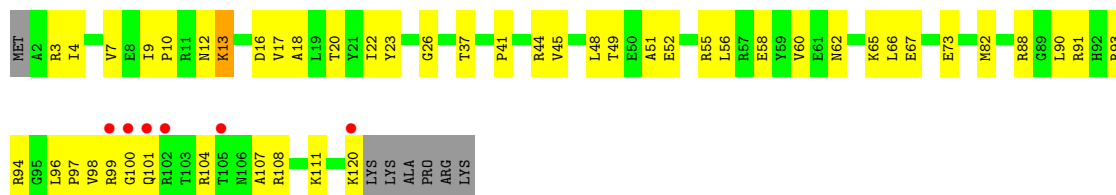
- Molecule 12: 30S ribosomal protein S12



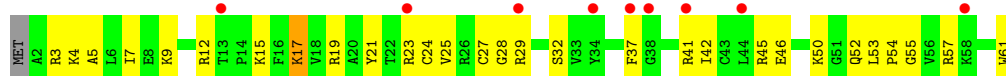
- Molecule 13: 30S ribosomal protein S13



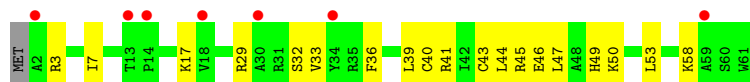
- Molecule 13: 30S ribosomal protein S13



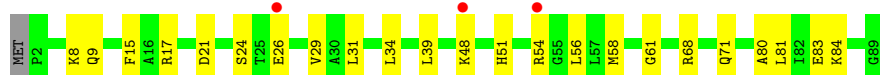
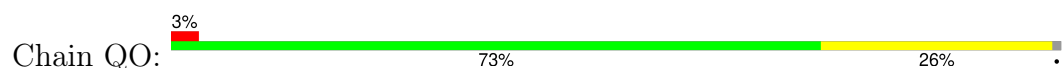
- Molecule 14: 30S ribosomal protein S14 type Z



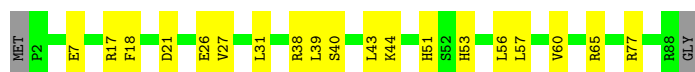
- Molecule 14: 30S ribosomal protein S14 type Z



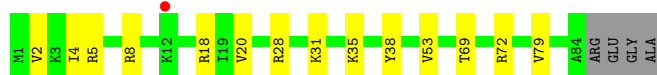
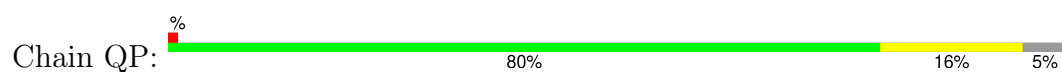
- Molecule 15: 30S ribosomal protein S15



- Molecule 15: 30S ribosomal protein S15



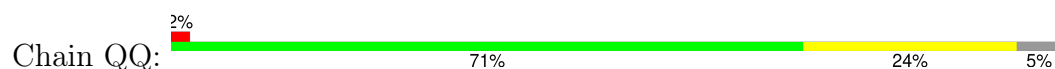
- Molecule 16: 30S ribosomal protein S16



- Molecule 16: 30S ribosomal protein S16



- Molecule 17: 30S ribosomal protein S17



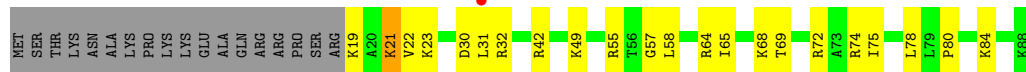
- Molecule 17: 30S ribosomal protein S17



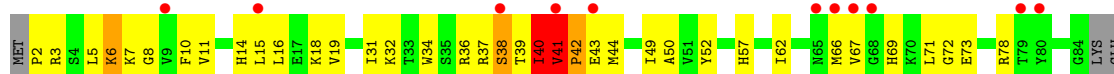
- Molecule 18: 30S ribosomal protein S18



- Molecule 18: 30S ribosomal protein S18



- Molecule 19: 30S ribosomal protein S19



ALA
LYS
LYS
ALA
THR
LYS
LYS
LYS

- Molecule 19: 30S ribosomal protein S19



MET P2 F2 V9 F10 V11 L15 L16 V19 I31 K32 R36 T39 I40 V41 M44 I49 A50 K55 K56 H57 T63 E64 R65 M66 V67 K70 L71 F74 R78 T79 Y80 R81 K85 GLU ALA LYS ALA THR LYS LYS LYS

- Molecule 20: 30S ribosomal protein S20



MET ALA GLN LYS PRO LYS R8 R9 L10 L11 A12 R22 N26 K29 K30 K34 T35 K38 K39 K54 K55 M56 M57 E60 K68 T71 L72 H73 K74 N75 A76 A77 A78 R79 R80 K81 K82 R83 L84 M85 V88 R89 A94 A97 I100 G101

G102 G103 L104 S105 A106

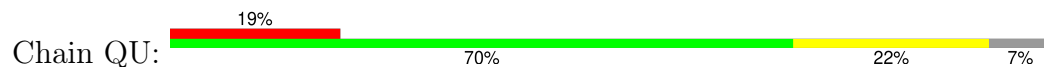
- Molecule 20: 30S ribosomal protein S20



MET ALA GLN LYS PRO LYS R8 R9 L10 L11 K14 R15 H16 R17 Q18 S19 L20 K21 R22 R23 L24 L25 R26 K27 A28 K29 K30 S31 A32 I33 K34 K38 K39 Q45 A49 I55 M56 R57 D64 K65 A66 A67 K68 G69 S70 T71 L72 H73 K74 N75 A76 R80

R83 L84 M85 R86 K87 R88 R89 Q90 L91 A94 L99 I100 G101 G102 A106

- Molecule 21: 30S ribosomal protein Thx



MET G2 R6 R7 R8 R9 R10 R15 K20 K26 LYS

- Molecule 21: 30S ribosomal protein Thx



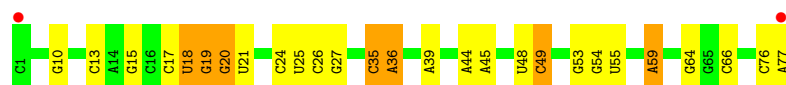
MET G2 R6 R10 V14 R15 G16 T17 R22 K26 LYS

- Molecule 22: P-site tRNA fMet

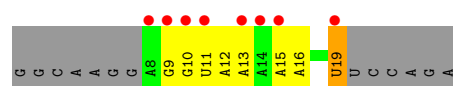




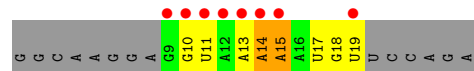
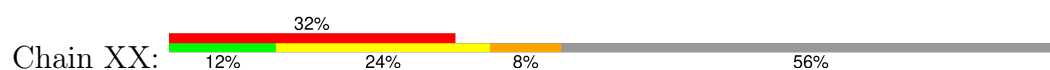
- Molecule 22: P-site tRNA fMet



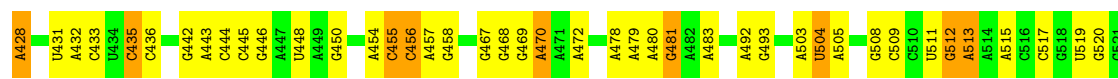
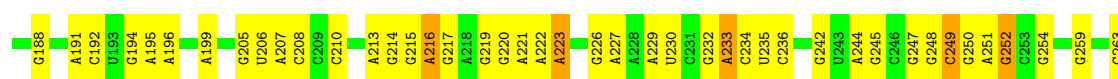
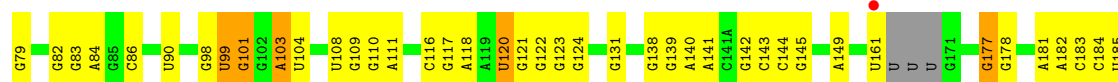
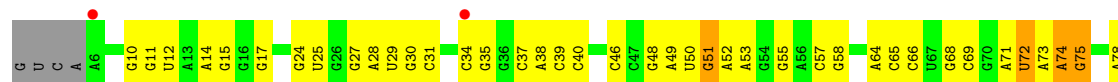
- Molecule 23: messenger RNA



- Molecule 23: messenger RNA

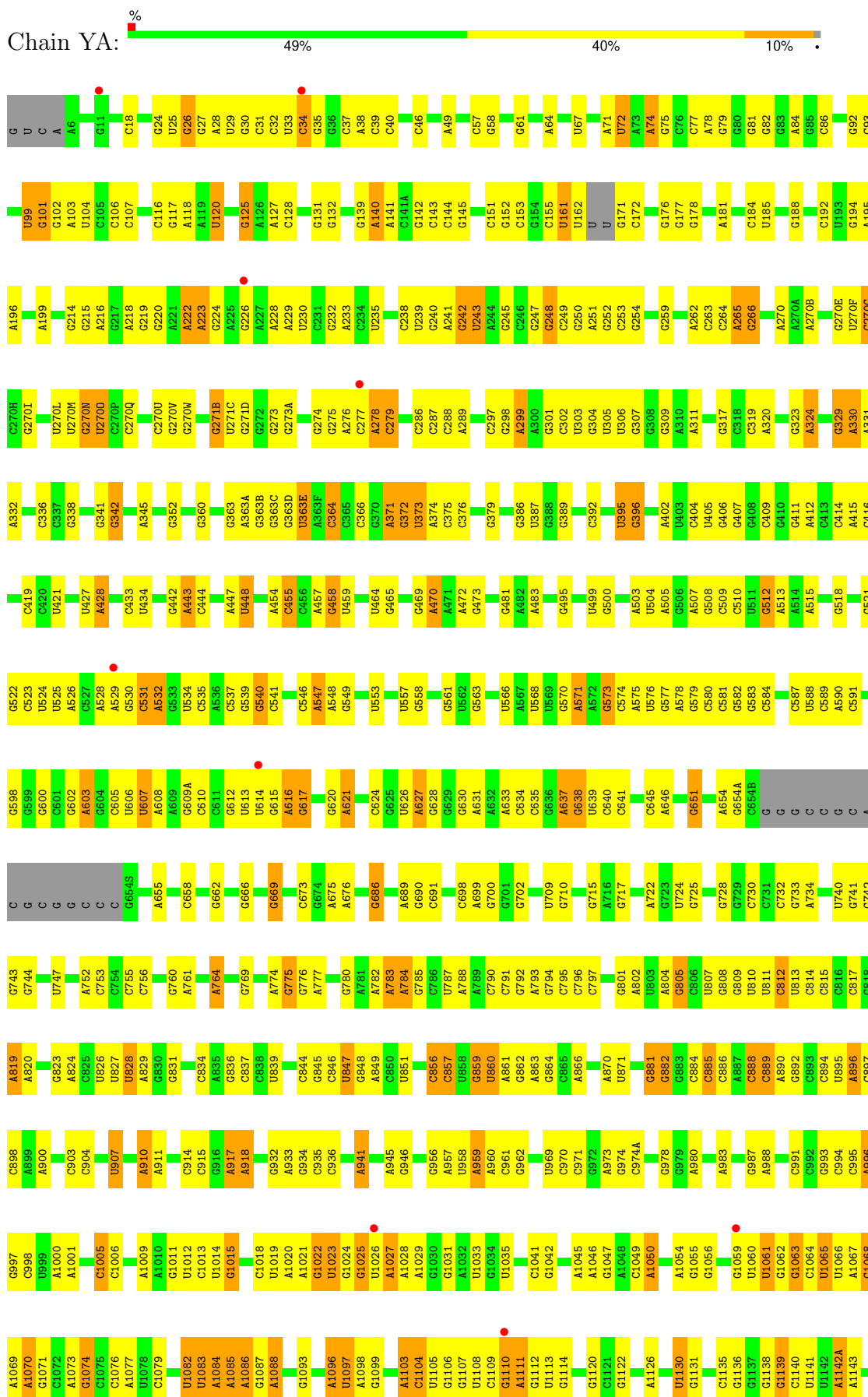


- Molecule 24: 23S rRNA

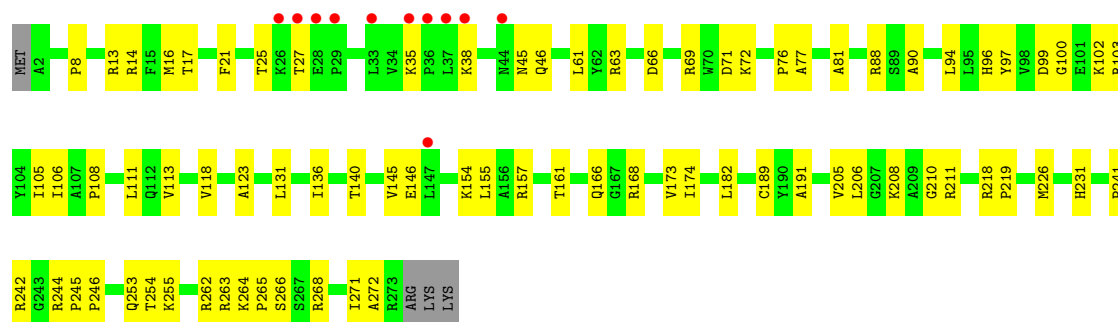


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A1586	G1418	A1336	U1255	C1166	U1078	G1002	U907	A824	A722	C	G600	C523
A1587	A1419	G1337	G1256	G1167	C1079	G1003	G1168	C825	G726	G	C601	U524
C1588	U1420	G1338	C1257	G1168	C1080	A1010	A910	U826	G727	C	G602	U525
U1589	G1421	G1338	C1258	G1169	U1081	G1011	A911	U827	G728	C	A603	A526
C1590	G1422	G1338	G1259	G1170	U1082	U1012	A912	U828	G729	C	G604	G527
C1591	G1423	U1341	G1260	G1171	U1083	U1013	C914	G831	G730	C	A528	A528
C1592	G1424	G1346	U1263	G1172	A1084	C1014	C915	U832	A734	G654S	U606	A529
A1593	G1425	G1347	G1264	U1175	A1085	G1015	C916	A835	A734	G	U607	G530
C1594	G1426	G1348	A1265	G1176	A1086	G1016	A917	A836	A734	G	A608	A531
G1595	A1427	A1348	G1266	A1177	G1087	G1017	A918	C840	A751	G656	G533	A532
A1596	G1428	A1349	G1267	U1178	A1088	G1018	C922	A841	A752	G657	U534	U534
A1597	G1429	U1352	G1270	G1179	G1089	U1019	C923	C842	C753	C658	C535	C535
C1598	C1430	A1353	G1271	G1180	U1090	U1020	C924	A843	C754	G659	A536	A536
G1599	U1431	A1354	A1272	G1181	G1091	A1021	C925	C844	C755	G660	C537	G539
C1600	C1432	A1354	U1273	A1182	C1092	G1022	A932	C845	C756	G661	A616	G540
U1516	U1433	A1359	A1274	G1186	G1093	U1023	A933	C846	G760	G662	G620	C546
U1520	G1436	A1359	A1275	U1187	A1094	U1024	G934	U847	A761	G663	A621	A547
G1521	G1436	A1359	A1276	U1188	A1095	G1025	C935	C848	A762	G664	G622	A548
G1522	G1444	A1365	G1277	U1189	A1096	U1026	C936	A849	A763	G665	G623	G549
U1525	A1444A	A1366	A1278	A1189	U1097	A1027	U937	C850	A764	G666	C824	G550
A1600	C1445	A1367	G1279	G1190	A1098	A1028	G938	U851	A764	G669	G625	G551
A1610	C1445	C1370	G1282	G1191	A1098	A1029	A941	C852	G768	A670	U626	G556
C1611	A1449	G1371	U1283	G1195	C1102	U1033	A945	C856	G775	C673	G628	G561
A1616	G1449A	U1372	G1286	C1196	C1104	G1034	G946	U858	G776	G674	G629	U562
C1617	U1454	A1379	A1287	G1197	U1105	C1040	G947	C859	A782	A675	A631	G563
G1627	G1455	G1380	U1288	C1201	G1107	C1041	G948	U860	A783	A676	A632	U566
G1628	A1460	A1384	C1289	G1202	G1110	G1044	A957	C862	A784	A677	A633	A567
U1629	G1461	G1385	G1290	A1204	G1111	U1045	U958	C863	G785	C678	C636	U568
A1632	C1464	C1389	C1291	U1205	G1112	A1046	A959	C864	A788	C679	C635	U569
G1633	U1472	U1394	G1292	A1047	C1116	G1047	A960	C865	A789	G680	G636	G570
C1636	C1474	U1396	G1296	A1050	G1117	A1050	C961	A866	C790	G686	A637	G570
A1637	U1475	U1397	U1210	G1051	G1122	G1051	G968	C869	C791	C687	G638	G573
C1638	A1476	C1398	C1297	G1055	A1126	A1054	U969	C873	G792	U688	U639	C574
U1639	A1477	G1400	G1298	G1056	G1131	G1056	C970	C882	A793	A689	C640	A575
C1640	U1478	G1401	G1299	A1221	G1136	A1057	G974	C883	C796	G690	C641	U576
G1648	C1479	C1399	C1299	C1222	G1136	G1058	C975	C884	C797	C692	C642	G577
C1651	U1482	G1402	A1308	G1224	C1136	U1059	G978	C885	G801	C698	C645	A578
A1652	G1483	C1403	G1309	C1225	U1141	U1060	G979	C886	A802	C699	A646	G579
A1654	G1484	U1405	G1310	G1226	U1142	U1061	A980	C887	G805	G701	G647	C580
C1657	G1485	U1406	G1311	A1227	A1142	G1063	A981	C888	G806	G702	G651	C581
C1658	A1486	U1407	U1312	G1235	A1142A	G1064	A883	C889	U807	U703	C652	G582
G1667	G1487	C1408	C1313	A1237	A1148	U1065	A884	A890	G808	A705	A654	A586
G1674	A1490	C1409	A1317	G1238	A1148	U1066	G989	C892	G809	C708	G654A	C587
U1678	G1493	G1410	U1246	A1246	A1155	A1069	C994	A896	C812	U709	C654B	U588
C1683	A1494	A1411	G1247	A1156	U1156	G1070	C995	C897	U813	G	G	C589
C1684	A1495	A1412	U1248	A1322	U1159	A1071	A996	A900	C814	G711	C	A590
C1685	U1497	G1413	U1249	U1159	U1159	C1072	A997	A901	G712	G712	C	G592
C1686	U1498	G1416	G1250	U1163	G1164	A1073	A1000	C903	A819	G713	C	G593
			A1253	G1164	G1164	C1076			A820	G717	C	G598

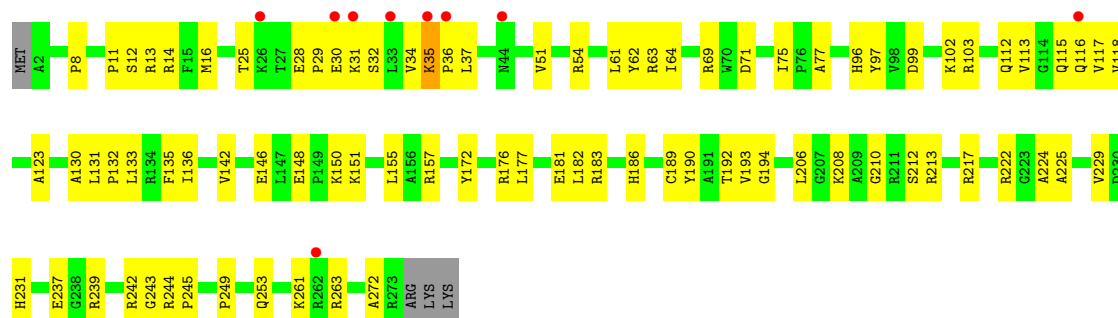
- Molecule 24: 23S rRNA



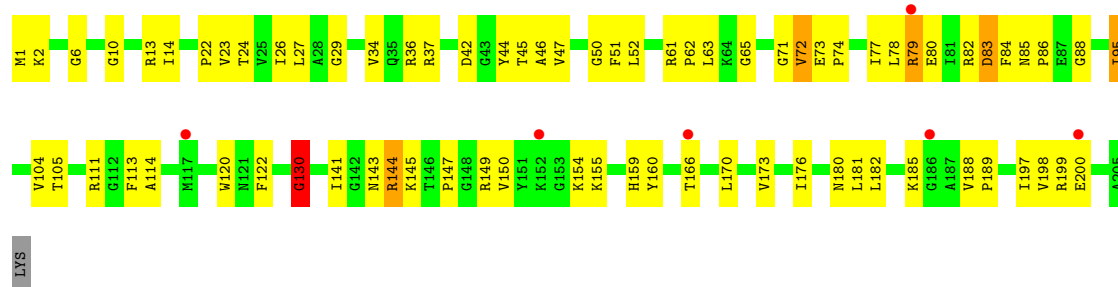




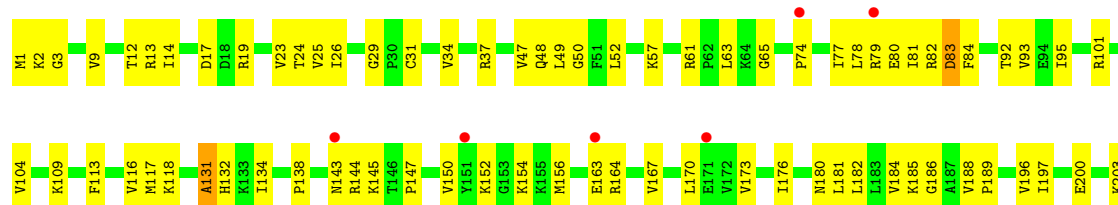
• Molecule 26: 50S ribosomal protein L2



• Molecule 27: 50S ribosomal protein L3

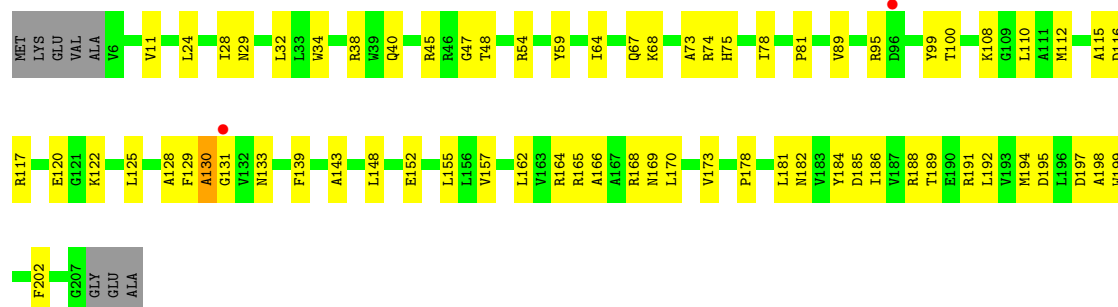


• Molecule 27: 50S ribosomal protein L3

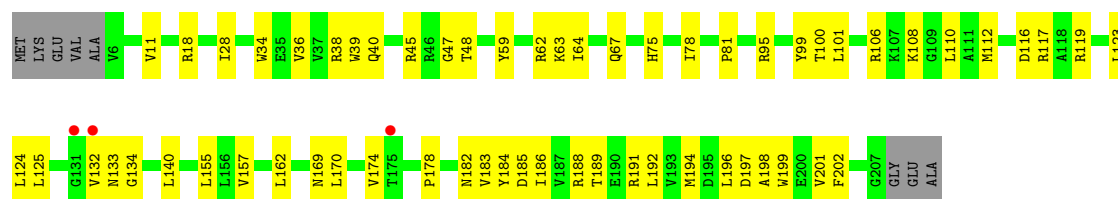




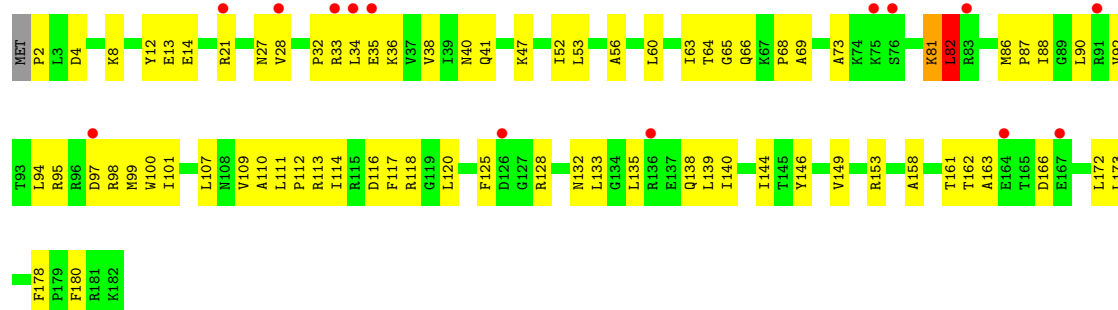
- Molecule 28: 50S ribosomal protein L4



- Molecule 28: 50S ribosomal protein L4



- Molecule 29: 50S ribosomal protein L5

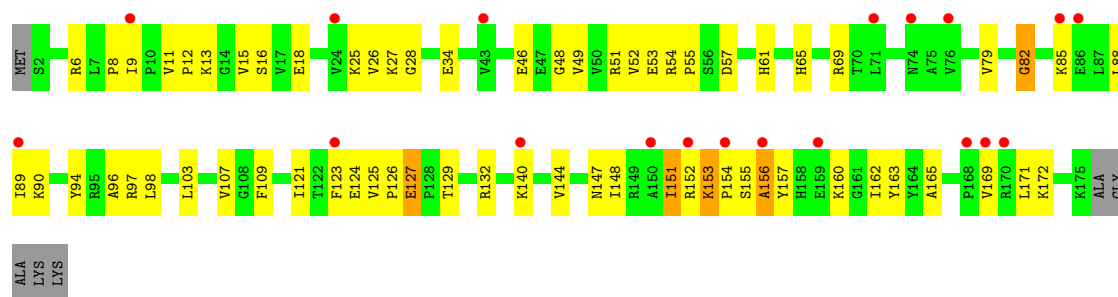


- Molecule 29: 50S ribosomal protein L5

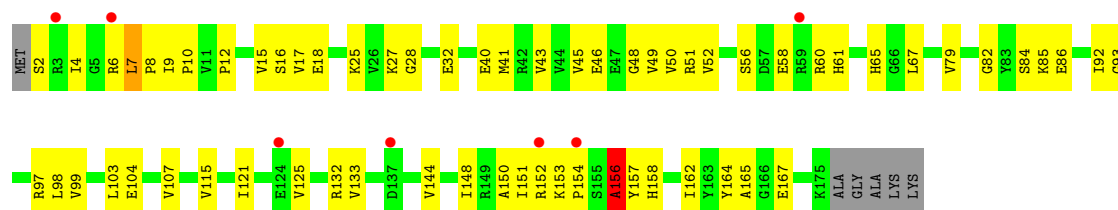




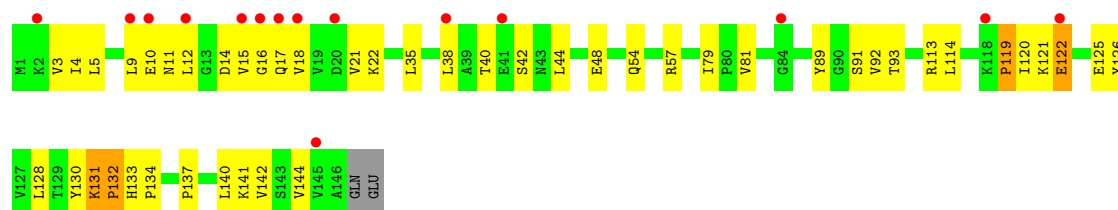
- Molecule 30: 50S ribosomal protein L6



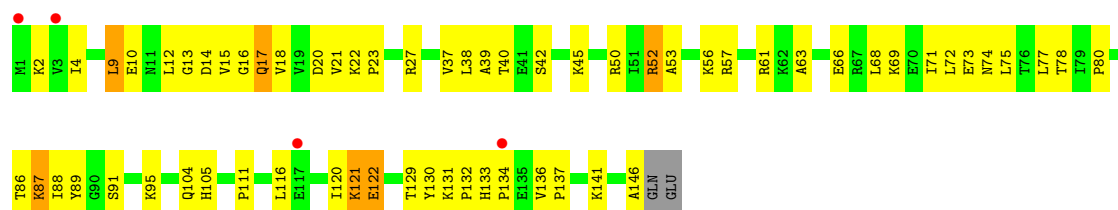
- Molecule 30: 50S ribosomal protein L6



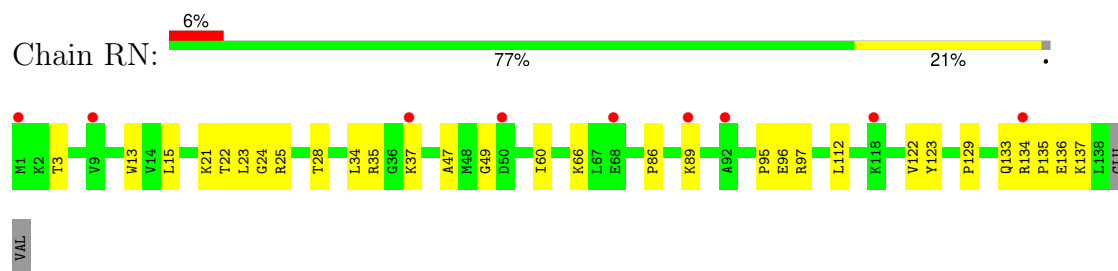
- Molecule 31: 50S ribosomal protein L9



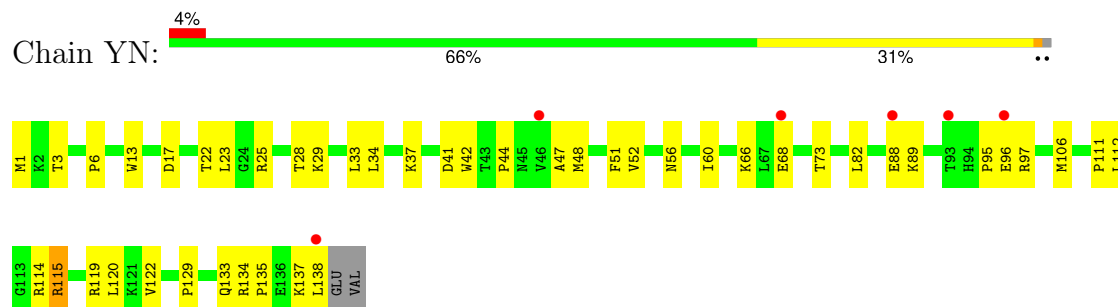
- Molecule 31: 50S ribosomal protein L9



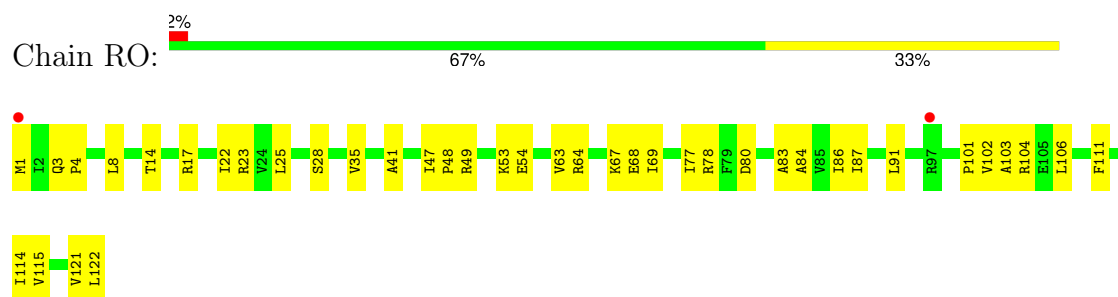
- Molecule 32: 50S ribosomal protein L13



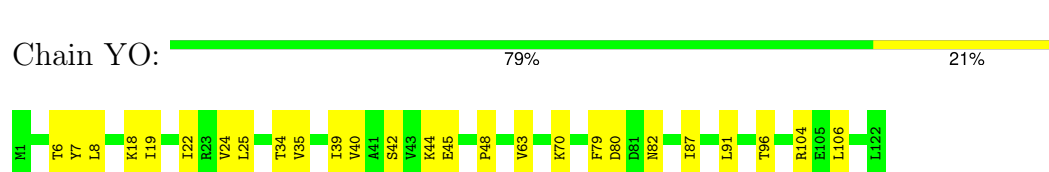
- Molecule 32: 50S ribosomal protein L13



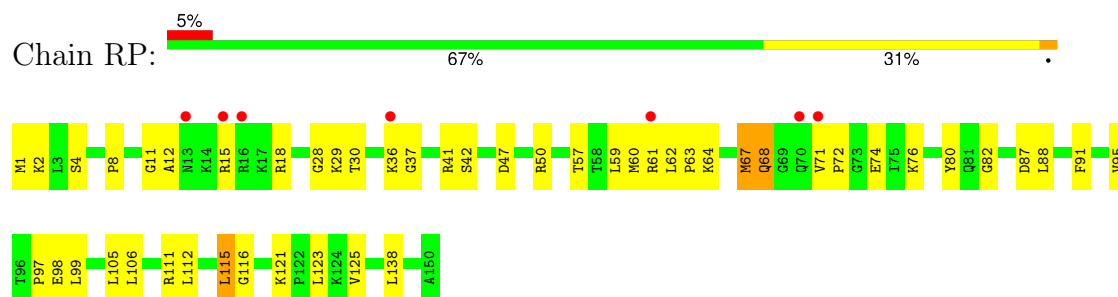
- Molecule 33: 50S ribosomal protein L14



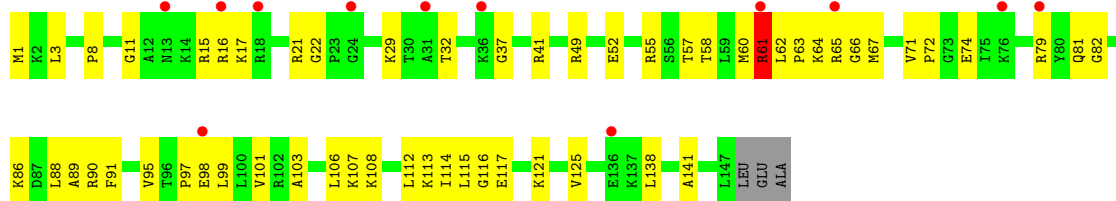
- Molecule 33: 50S ribosomal protein L14



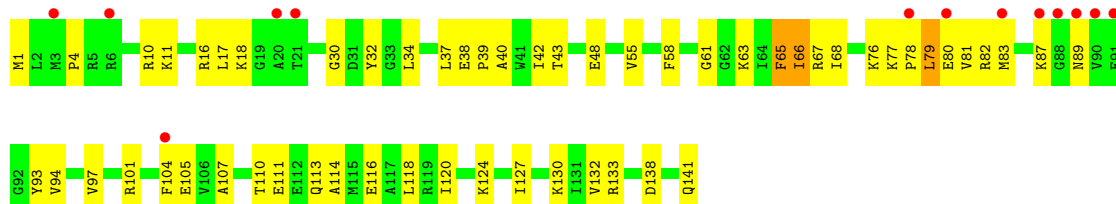
- Molecule 34: 50S ribosomal protein L15



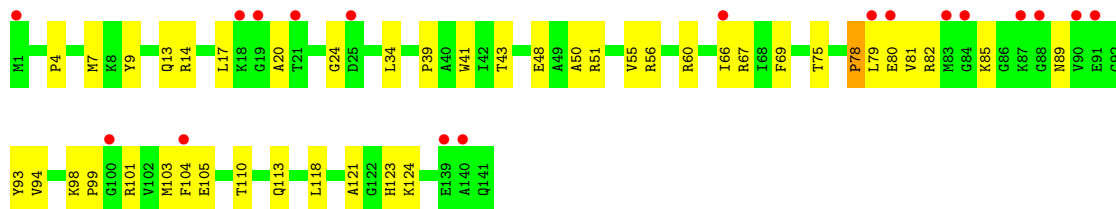
- Molecule 34: 50S ribosomal protein L15



• Molecule 35: 50S ribosomal protein L16



• Molecule 35: 50S ribosomal protein L16



• Molecule 36: 50S ribosomal protein L17



• Molecule 36: 50S ribosomal protein L17





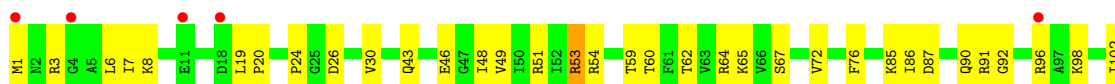
- Molecule 37: 50S ribosomal protein L18



- Molecule 37: 50S ribosomal protein L18



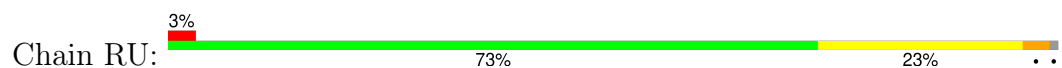
- Molecule 38: 50S ribosomal protein L19



- Molecule 38: 50S ribosomal protein L19

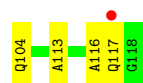
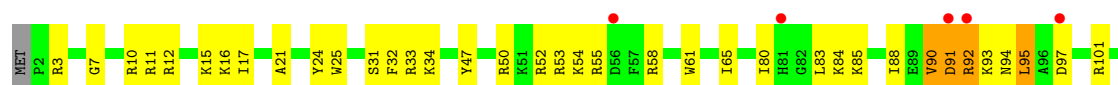


- Molecule 39: 50S ribosomal protein L20

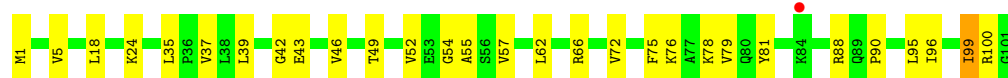
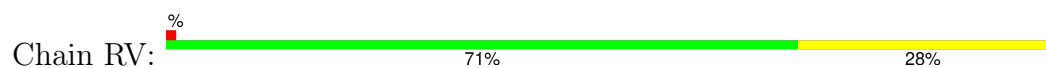




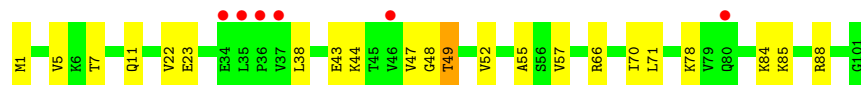
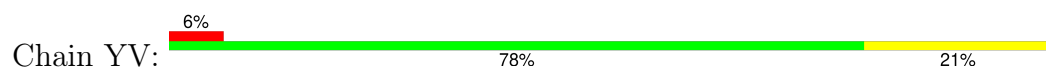
- Molecule 39: 50S ribosomal protein L20



- Molecule 40: 50S ribosomal protein L21



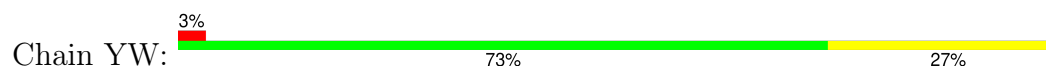
- Molecule 40: 50S ribosomal protein L21



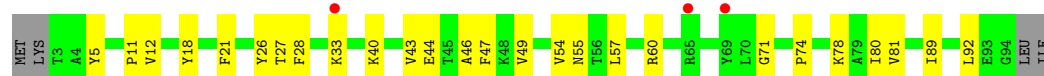
- Molecule 41: 50S ribosomal protein L22



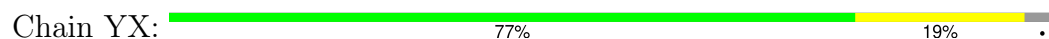
- Molecule 41: 50S ribosomal protein L22



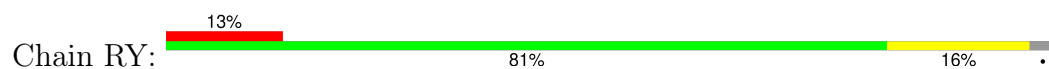
- Molecule 42: 50S ribosomal protein L23



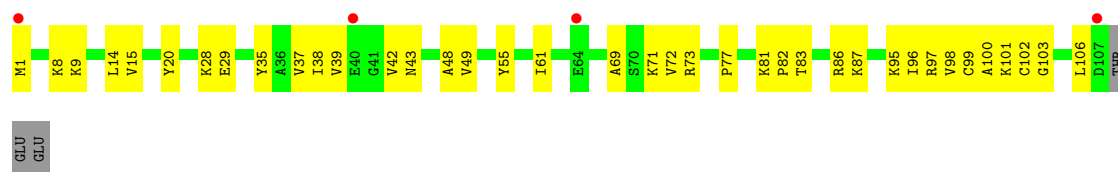
- Molecule 42: 50S ribosomal protein L23



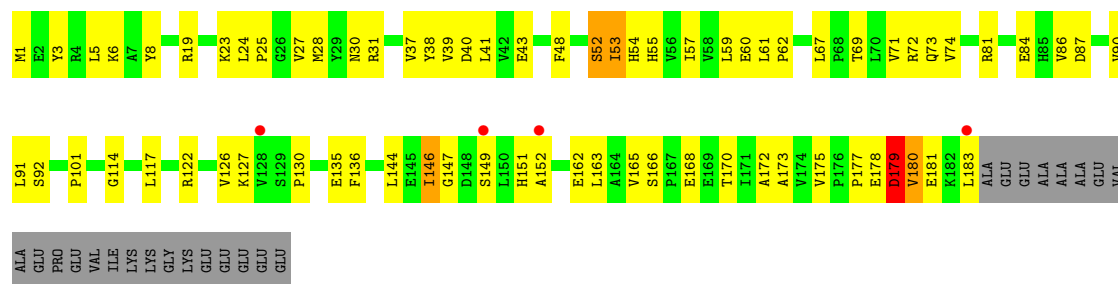
- Molecule 43: 50S ribosomal protein L24



- Molecule 43: 50S ribosomal protein L24

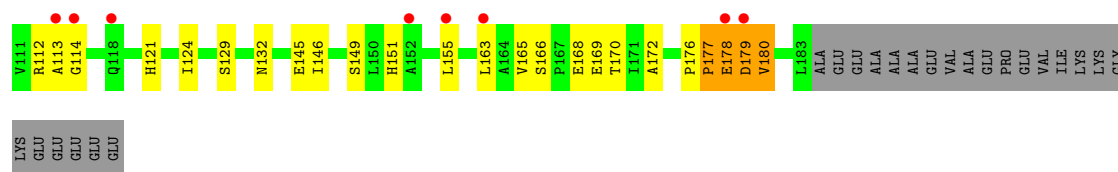


- Molecule 44: 50S ribosomal protein L25



- Molecule 44: 50S ribosomal protein L25





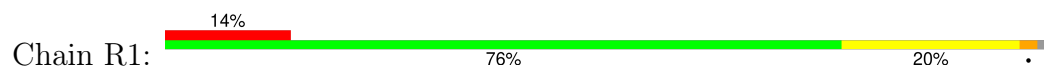
- Molecule 45: 50S ribosomal protein L27



- Molecule 45: 50S ribosomal protein L27



- Molecule 46: 50S ribosomal protein L28



- Molecule 46: 50S ribosomal protein L28



- Molecule 47: 50S ribosomal protein L29

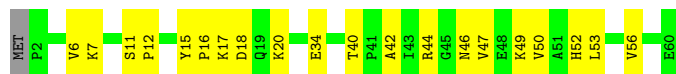


- Molecule 47: 50S ribosomal protein L29



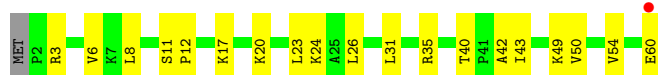
- Molecule 48: 50S ribosomal protein L30

Chain R3:  65% 33% .



- Molecule 48: 50S ribosomal protein L30

Chain Y3:  2% 67% 32% .



- Molecule 49: 50S ribosomal protein L31

Chain R4:  % 58% 30% 8% . .



- Molecule 49: 50S ribosomal protein L31

Chain Y4:  68% 23% . . .



- Molecule 50: 50S ribosomal protein L32

Chain R5:  7% 75% 23% .



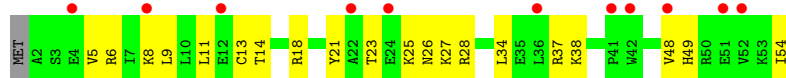
- Molecule 50: 50S ribosomal protein L32

Chain Y5:  2% 72% 25% . .

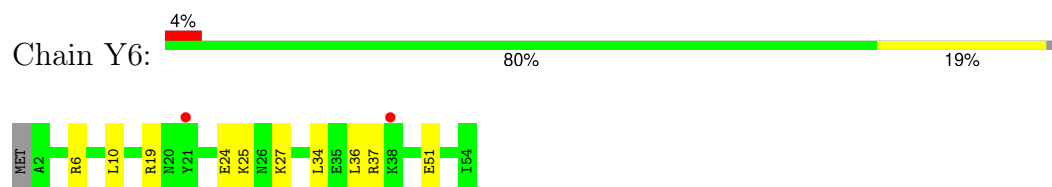


- Molecule 51: 50S ribosomal protein L33

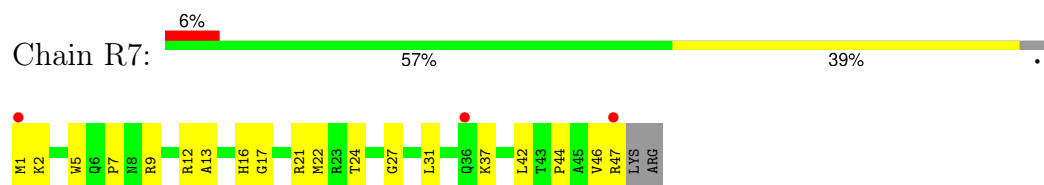
Chain R6:  20% 61% 37% .



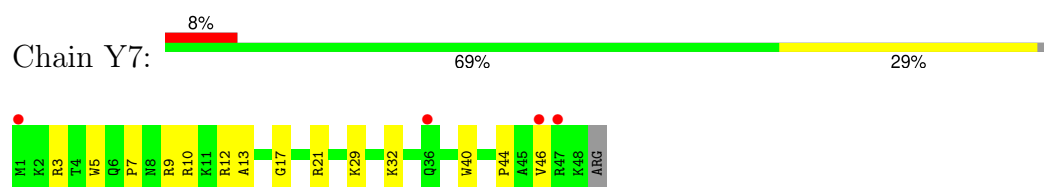
- Molecule 51: 50S ribosomal protein L33



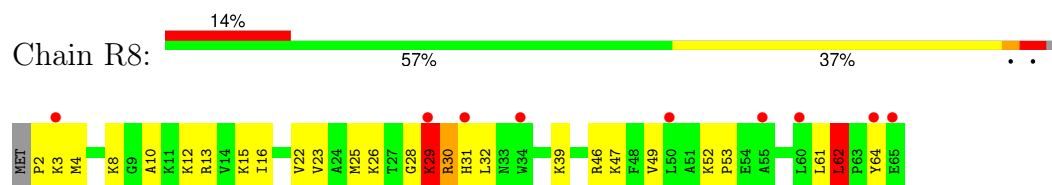
- Molecule 52: 50S ribosomal protein L34



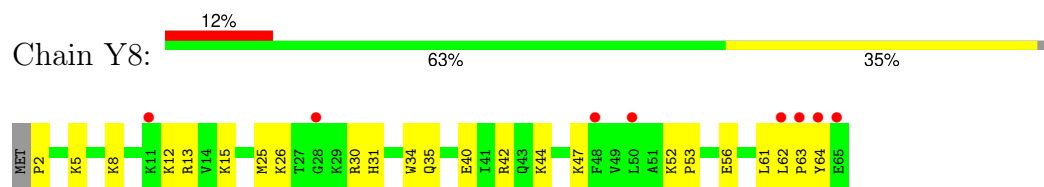
- Molecule 52: 50S ribosomal protein L34



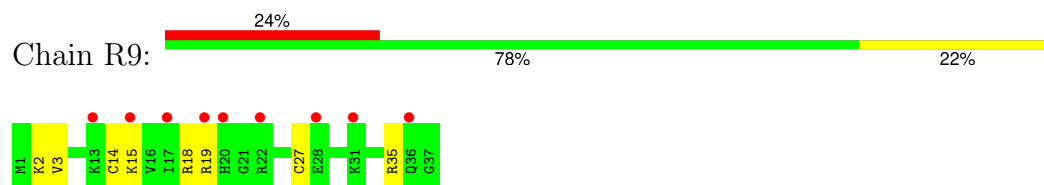
- Molecule 53: 50S ribosomal protein L35



- Molecule 53: 50S ribosomal protein L35

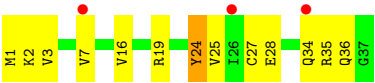


- Molecule 54: 50S ribosomal protein L36



- Molecule 54: 50S ribosomal protein L36





4 Data and refinement statistics

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
$\langle I/\sigma(I) \rangle$ 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	$\langle L \rangle = 0.41$, $\langle L^2 \rangle = 0.23$	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.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ 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: ZN, SF4, 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(°)	Ideal(°)
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(°)	Ideal(°)
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

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:YN: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:H2	24:YA:1210:A:O2'	1.90	0.55
24:YA:330:A:O2'	24:YA:331:A:H8	1.89	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:QL:5:TYR:CE1	9:QL: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:YN:41:ARG:HB2	2.44	0.47
14:YN:47:LEU:HB3	14:YN: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:YN: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:YN:39:LEU:HB2	14:YN: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:YN:32:SER:OG	14:YN: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:O2'	1:XA:1333:A:N3	2.43	0.42
1:XA:946:A:C2	1:XA:947:G:C5	3.08	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 ⓘ

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

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	QD	301	-	0,12,12	-	-	-		
56	SF4	XD	301	4	0,12,12	-	-	-		

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

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

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

2 monomers are involved in 3 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
56	QD	301	SF4	1	0
56	XD	301	SF4	2	0

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th 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, 95th 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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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($\text{\AA}^2$)	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.