



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 23, 2026 – 03:37 AM UTC

PDB ID : 6BZ8 / pdb_00006bz8
Title : Thermus thermophilus 70S containing 16S G347U point mutation and near-cognate ASL Leucine in A site
Authors : Hoffer, E.D.; Maehigashi, T.; Fagan, C.E.; Dunham, C.M.
Deposited on : 2017-12-22
Resolution : 3.74 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

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

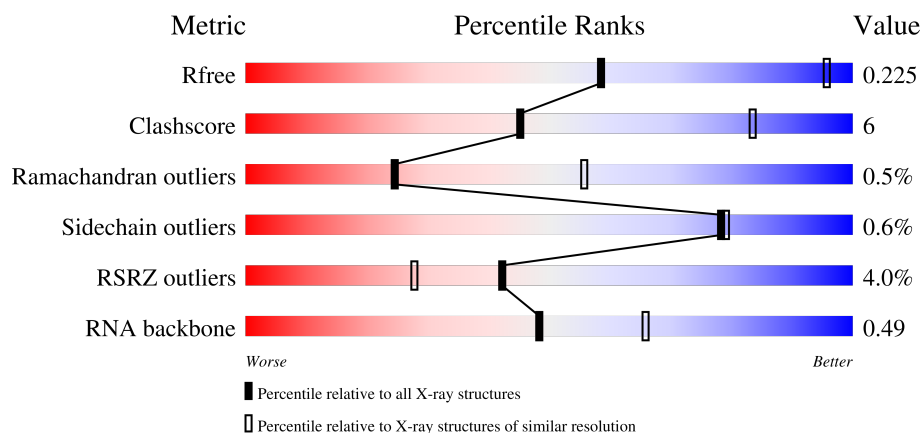
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.74 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	1234 (3.88-3.60)
Clashscore	190562	1274 (3.88-3.60)
Ramachandran outliers	187476	1226 (3.88-3.60)
Sidechain outliers	187428	1221 (3.88-3.60)
RSRZ outliers	180081	1233 (3.88-3.60)
RNA backbone	3983	1012 (4.40-3.08)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. 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% 57% 38% .
1	XA	1508	2% 57% 35% 7% .
2	QB	256	4% 71% 21% 8%
2	XB	256	2% 73% 19% 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	QW	77	
22	XV	77	
22	XW	77	
23	QX	25	
23	XX	25	
24	QY	17	
24	XY	17	
25	RA	2915	
25	YA	2915	
26	RB	122	
26	YB	122	

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Mol	Chain	Length	Quality of chain
27	RD	276	
27	YD	276	
28	RE	206	
28	YE	206	
29	RF	210	
29	YF	210	
30	RG	182	
30	YG	182	
31	RH	180	
31	YH	180	
32	RI	148	
32	YI	148	
33	RN	140	
33	YN	140	
34	RO	122	
34	YO	122	
35	RP	150	
35	YP	150	
36	RQ	141	
36	YQ	141	
37	RR	118	
37	YR	118	
38	RS	112	
38	YS	112	
39	RT	146	

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Mol	Chain	Length	Quality of chain
39	YT	146	
40	RU	118	
40	YU	118	
41	RV	101	
41	YV	101	
42	RW	113	
42	YW	113	
43	RX	96	
43	YX	96	
44	RY	110	
44	YY	110	
45	RZ	206	
45	YZ	206	
46	R0	85	
46	Y0	85	
47	R1	98	
47	Y1	98	
48	R2	72	
48	Y2	72	
49	R3	60	
49	Y3	60	
50	R4	71	
50	Y4	71	
51	R5	60	
51	Y5	60	

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Mol	Chain	Length	Quality of chain
52	R6	54	
52	Y6	54	
53	R7	49	
53	Y7	49	
54	R8	65	
54	Y8	65	
55	R9	37	
55	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
56	MG	RA	3213	-	-	-	X
56	MG	RA	3409	-	-	-	X
56	MG	YA	3520	-	-	-	X

2 Entry composition [i](#)

There are 58 unique types of molecules in this entry. The entry contains 295646 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
			32244	14352	5978	10415	1499			
1	XA	1500	Total	C	N	O	P	0	0	0
			32246	14353	5981	10413	1499			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
QA	347	U	G	engineered mutation	GB 55771382
XA	347	U	G	engineered mutation	GB 55771382

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- Molecule 22 is a RNA chain called tRNA fMet.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	QV	77	Total	C	N	O	P	0	0	0
			1644	732	297	538	77			
22	QW	77	Total	C	N	O	P	0	0	0
			1640	732	297	535	76			
22	XV	77	Total	C	N	O	P	0	0	0
			1644	732	297	538	77			
22	XW	77	Total	C	N	O	P	0	0	0
			1640	732	297	535	76			

- Molecule 23 is a RNA chain called messenger RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	QX	8	Total	C	N	O	P	0	0	0
			167	75	27	57	8			
23	XX	11	Total	C	N	O	P	0	0	0
			230	105	42	73	10			

- Molecule 24 is a RNA chain called ASL Leu.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	QY	17	Total	C	N	O	P	0	0	0
			362	162	65	118	17			
24	XY	17	Total	C	N	O	P	0	0	0
			362	162	65	118	17			

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	QA	72	Total	Mg	0	0
			72	72		
56	QC	1	Total	Mg	0	0
			1	1		
56	QF	1	Total	Mg	0	0
			1	1		
56	QH	1	Total	Mg	0	0
			1	1		

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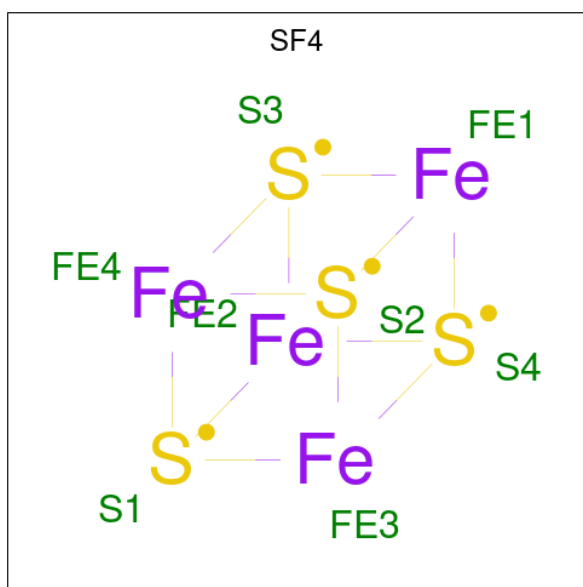
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	QV	6	Total 6	Mg 6	0	0
56	QX	1	Total 1	Mg 1	0	0
56	QY	1	Total 1	Mg 1	0	0
56	RA	513	Total 513	Mg 513	0	0
56	RB	11	Total 11	Mg 11	0	0
56	RE	3	Total 3	Mg 3	0	0
56	RN	1	Total 1	Mg 1	0	0
56	RO	1	Total 1	Mg 1	0	0
56	RP	2	Total 2	Mg 2	0	0
56	RQ	2	Total 2	Mg 2	0	0
56	RR	2	Total 2	Mg 2	0	0
56	RT	1	Total 1	Mg 1	0	0
56	RY	1	Total 1	Mg 1	0	0
56	R0	3	Total 3	Mg 3	0	0
56	R8	1	Total 1	Mg 1	0	0
56	XA	80	Total 80	Mg 80	0	0
56	XC	1	Total 1	Mg 1	0	0
56	XE	1	Total 1	Mg 1	0	0
56	XL	1	Total 1	Mg 1	0	0
56	XM	1	Total 1	Mg 1	0	0
56	XQ	1	Total 1	Mg 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	XS	1	Total 1	Mg 1	0	0
56	XV	8	Total 8	Mg 8	0	0
56	XX	1	Total 1	Mg 1	0	0
56	YA	541	Total 541	Mg 541	0	0
56	YB	12	Total 12	Mg 12	0	0
56	YD	1	Total 1	Mg 1	0	0
56	YE	3	Total 3	Mg 3	0	0
56	YO	1	Total 1	Mg 1	0	0
56	YP	4	Total 4	Mg 4	0	0
56	YQ	3	Total 3	Mg 3	0	0
56	YX	2	Total 2	Mg 2	0	0
56	YY	1	Total 1	Mg 1	0	0
56	Y0	2	Total 2	Mg 2	0	0
56	Y5	1	Total 1	Mg 1	0	0
56	Y7	1	Total 1	Mg 1	0	0
56	Y8	1	Total 1	Mg 1	0	0

- Molecule 57 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe₄S₄).



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

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

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

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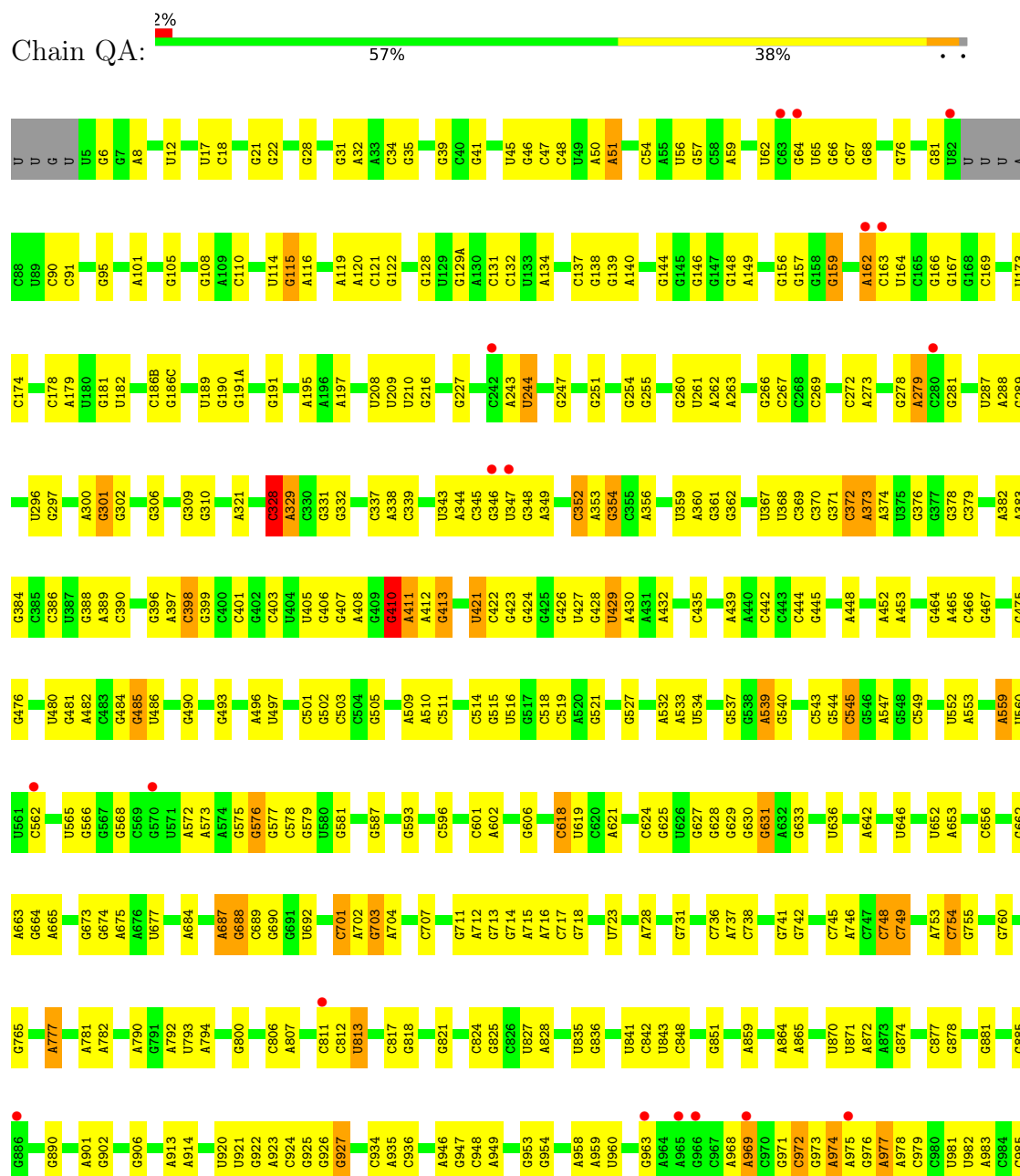
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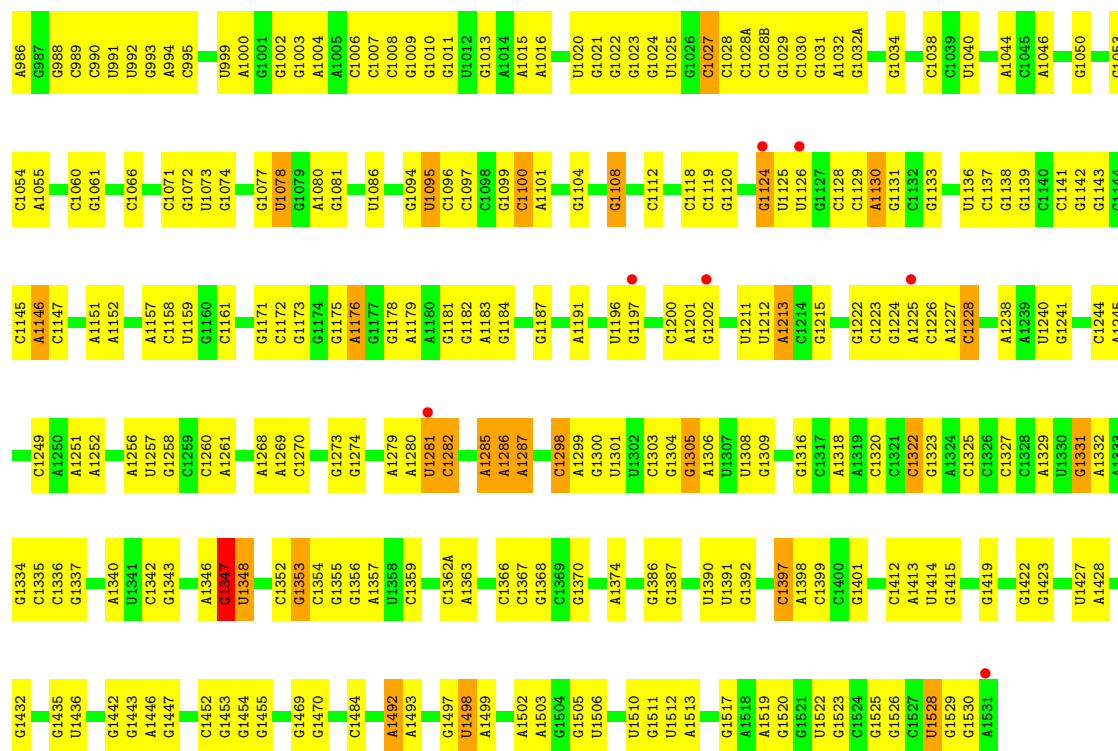
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
58	Y6	1	Total 1	Zn 1	0	0
58	Y9	1	Total 1	Zn 1	0	0

3 Residue-property plots

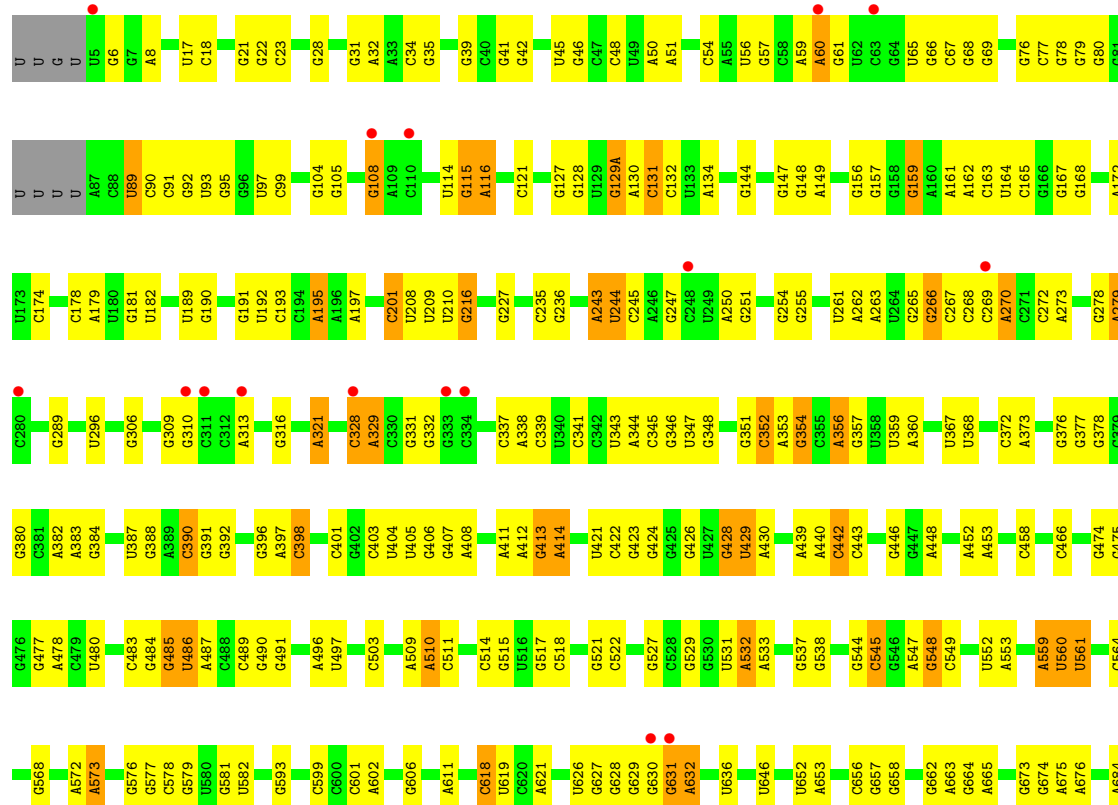
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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.

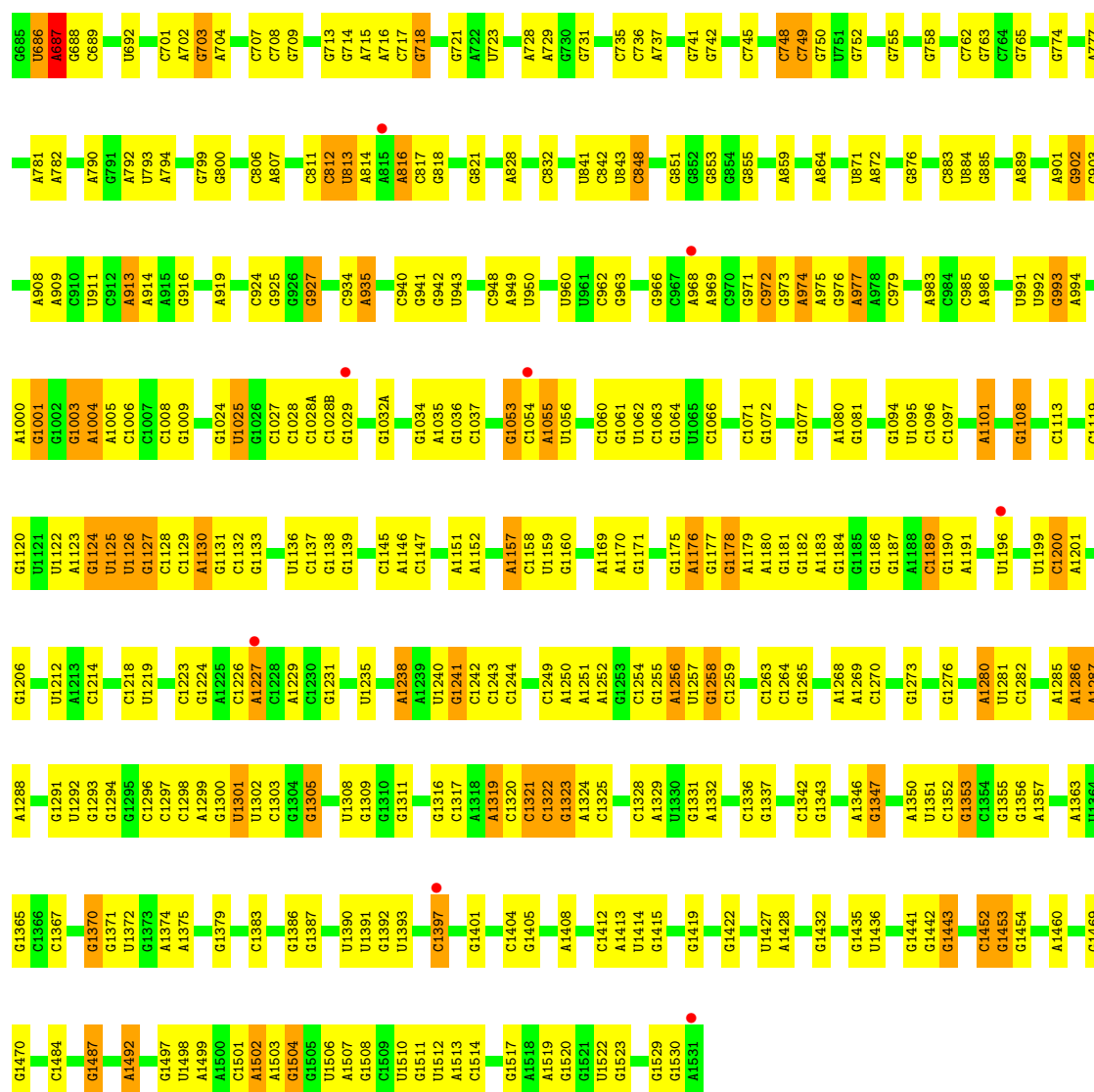
• Molecule 1: 16S rRNA



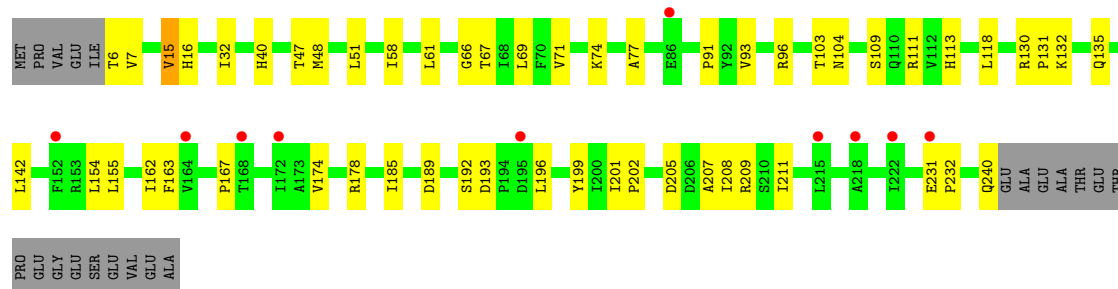
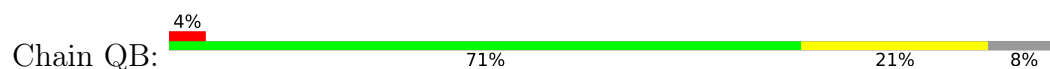


• Molecule 1: 16S rRNA

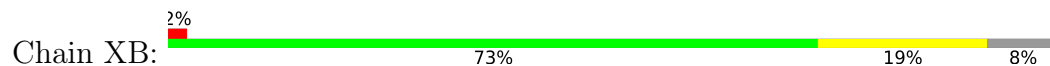


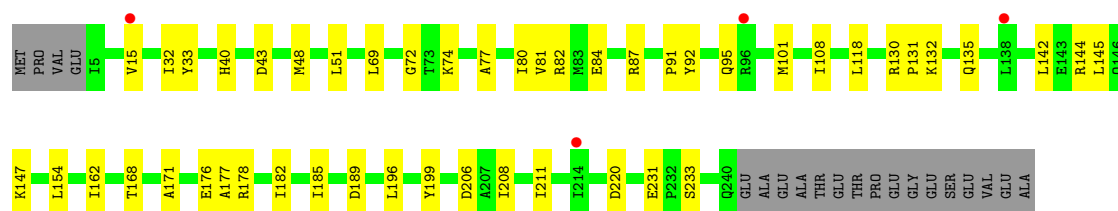


- Molecule 2: 30S ribosomal protein S2

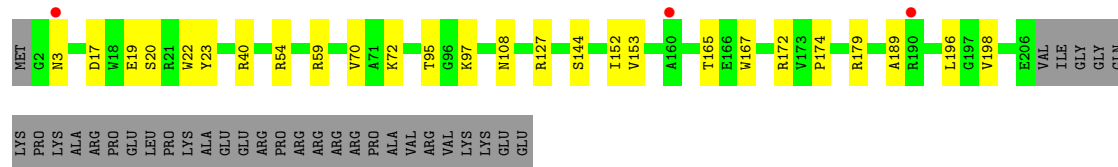
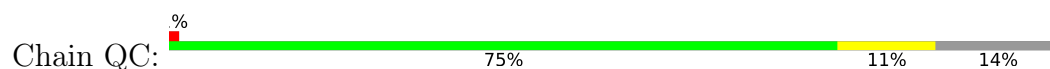


- Molecule 2: 30S ribosomal protein S2

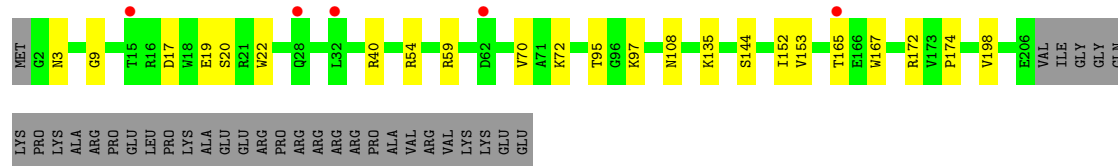
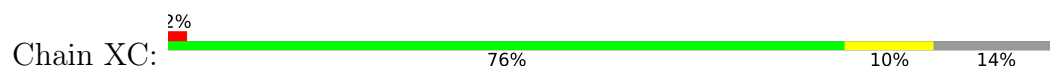




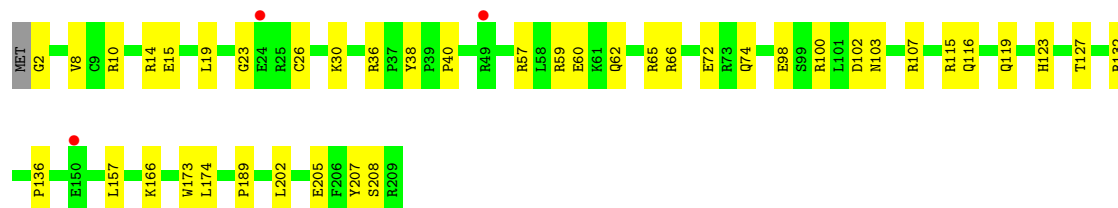
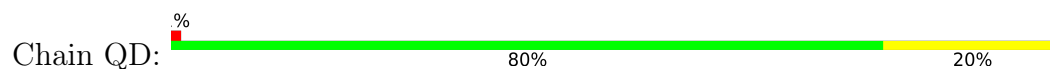
• Molecule 3: 30S ribosomal protein S3



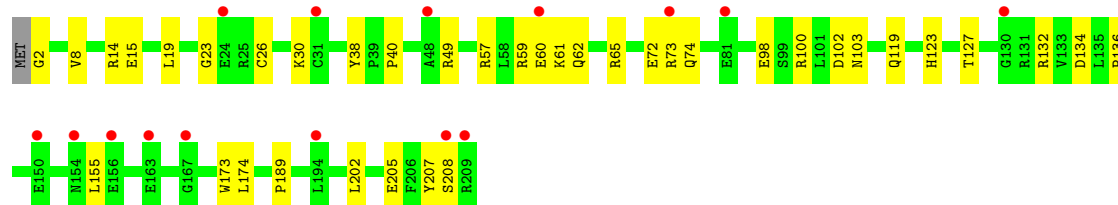
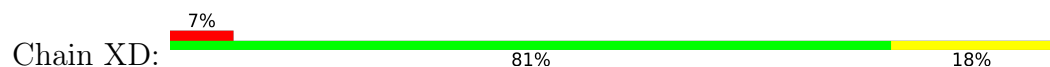
• Molecule 3: 30S ribosomal protein S3



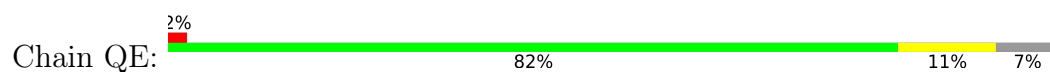
• Molecule 4: 30S ribosomal protein S4



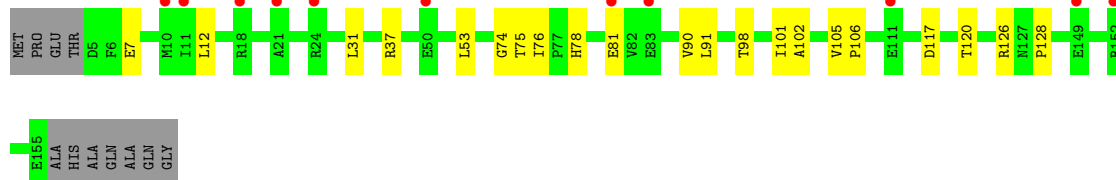
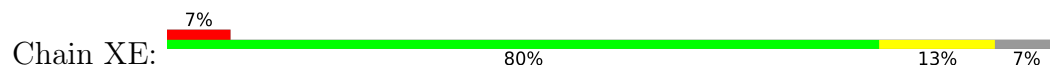
• Molecule 4: 30S ribosomal protein S4



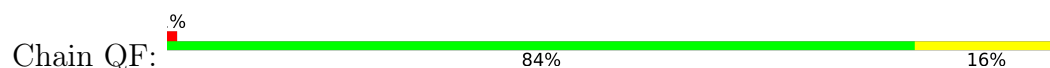
• Molecule 5: 30S ribosomal protein S5



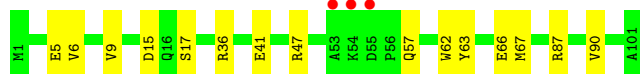
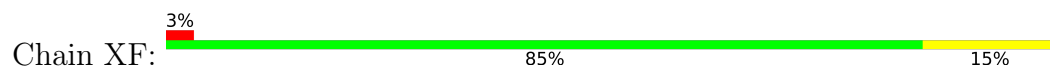
- Molecule 5: 30S ribosomal protein S5



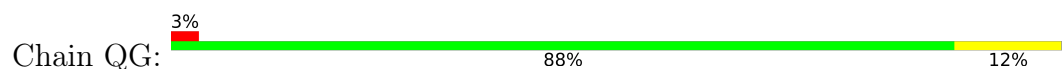
- Molecule 6: 30S ribosomal protein S6



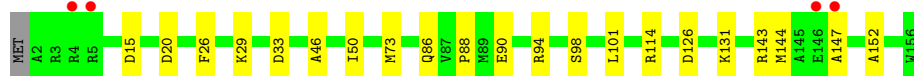
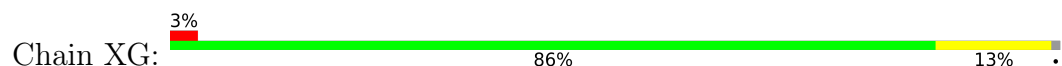
- Molecule 6: 30S ribosomal protein S6



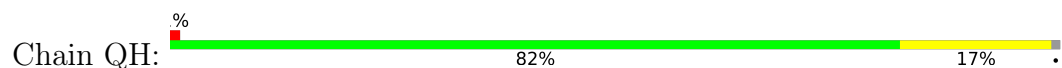
- Molecule 7: 30S ribosomal protein S7



- Molecule 7: 30S ribosomal protein S7

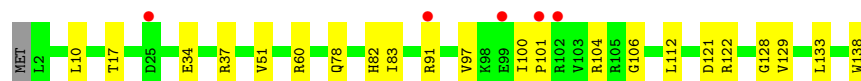
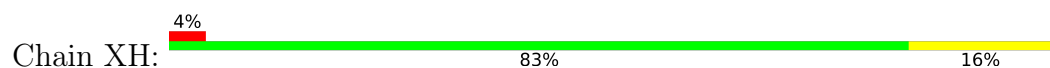


- Molecule 8: 30S ribosomal protein S8

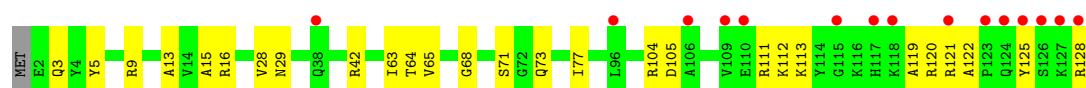
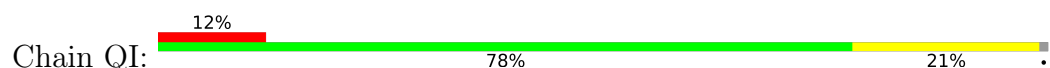




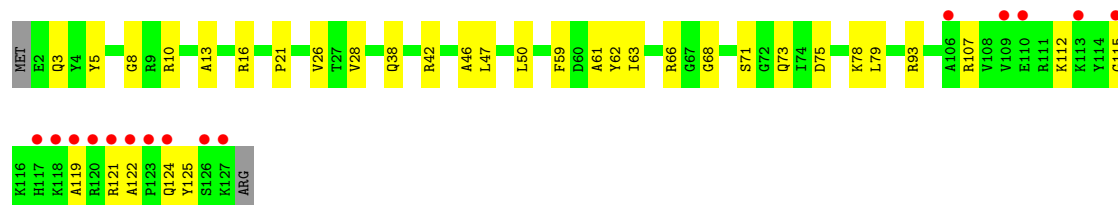
- Molecule 8: 30S ribosomal protein S8



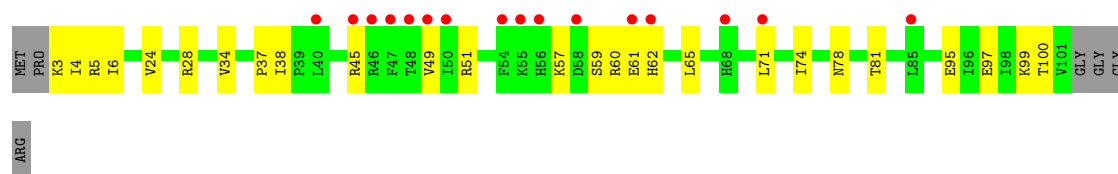
- Molecule 9: 30S ribosomal protein S9



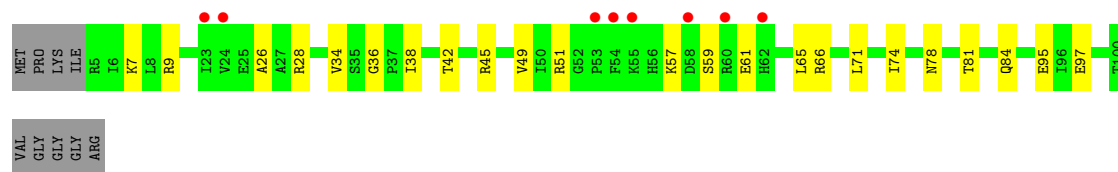
- Molecule 9: 30S ribosomal protein S9



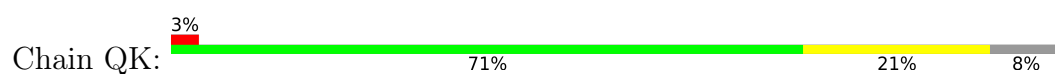
- Molecule 10: 30S ribosomal protein S10



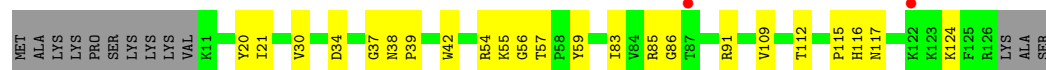
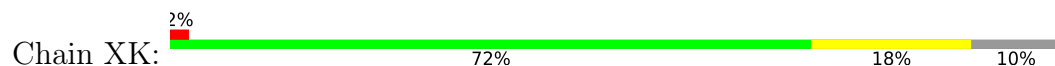
- Molecule 10: 30S ribosomal protein S10



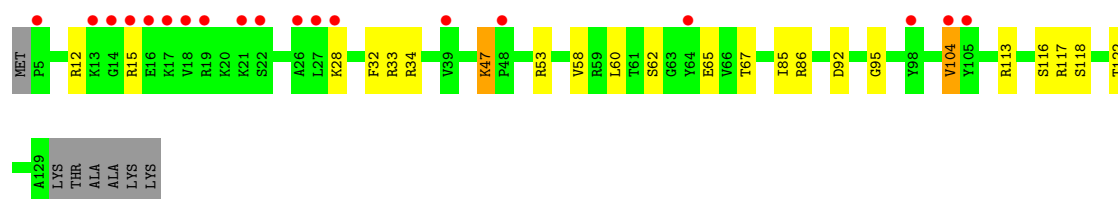
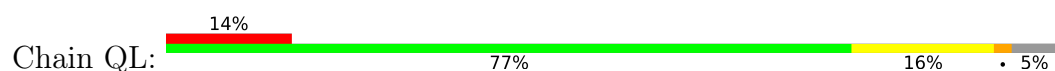
- Molecule 11: 30S ribosomal protein S11



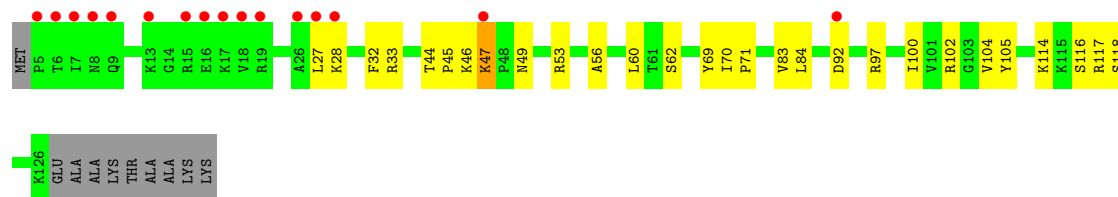
- Molecule 11: 30S ribosomal protein S11



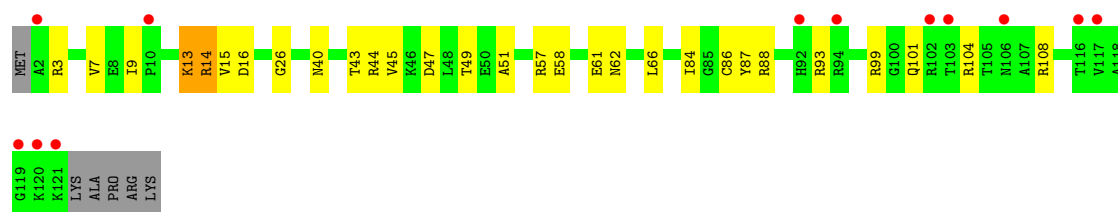
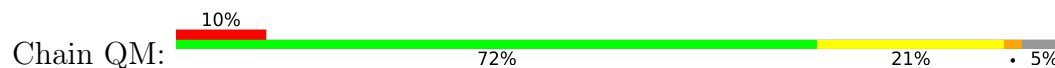
- Molecule 12: 30S ribosomal protein S12



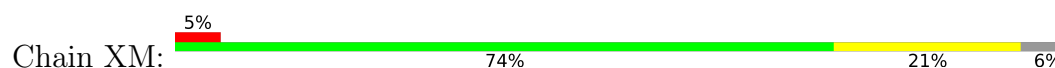
- Molecule 12: 30S ribosomal protein S12



- Molecule 13: 30S ribosomal protein S13

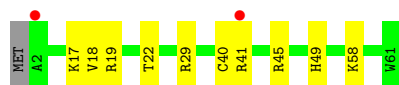
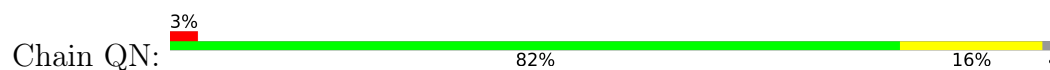


- Molecule 13: 30S ribosomal protein S13

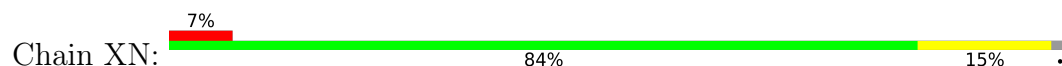




- Molecule 14: 30S ribosomal protein S14 type Z



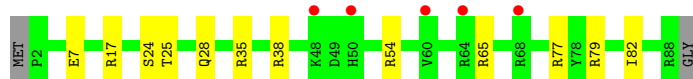
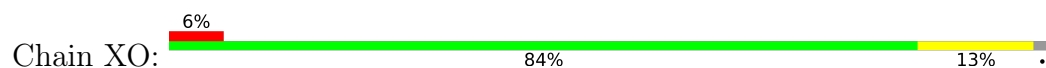
- Molecule 14: 30S ribosomal protein S14 type Z



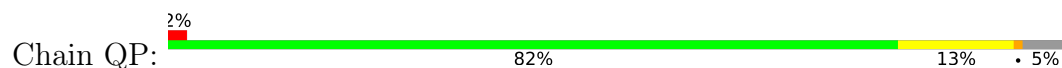
- Molecule 15: 30S ribosomal protein S15



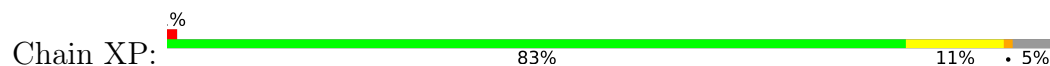
- Molecule 15: 30S ribosomal protein S15



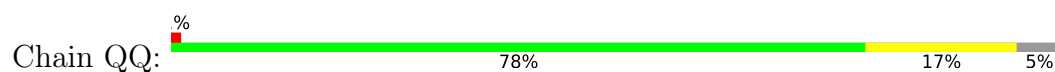
- Molecule 16: 30S ribosomal protein S16



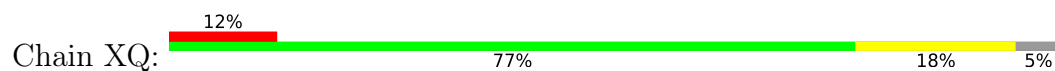
- Molecule 16: 30S ribosomal protein S16



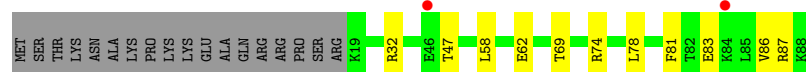
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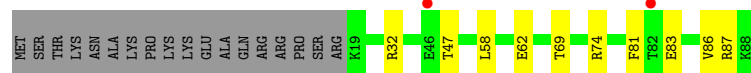
- Molecule 17: 30S ribosomal protein S17



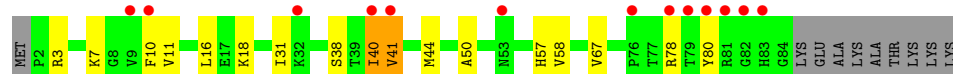
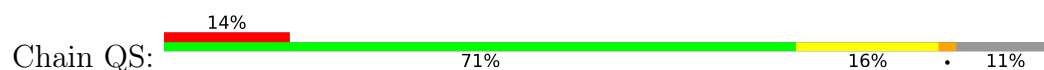
- Molecule 18: 30S ribosomal protein S18



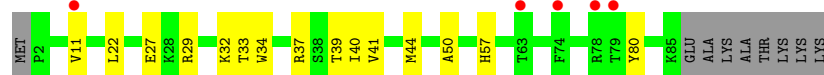
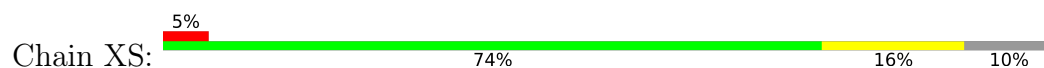
- Molecule 18: 30S ribosomal protein S18



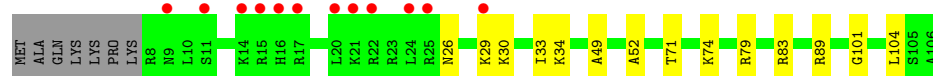
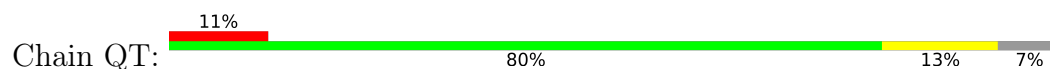
- Molecule 19: 30S ribosomal protein S19



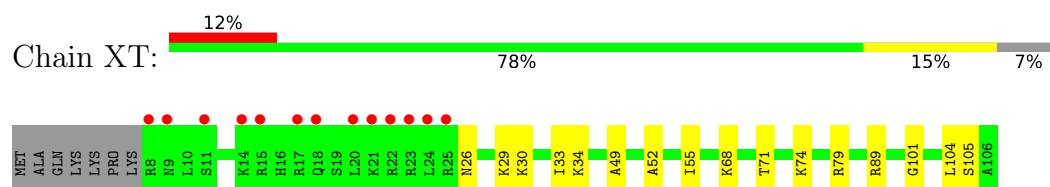
- Molecule 19: 30S ribosomal protein S19



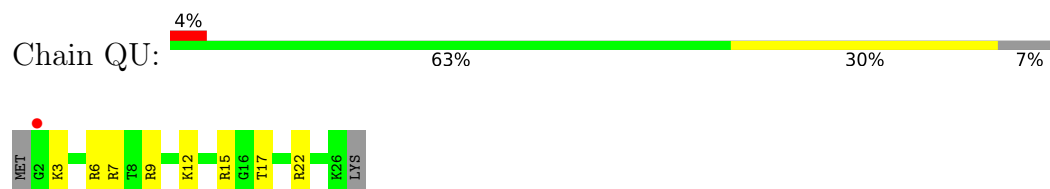
- Molecule 20: 30S ribosomal protein S20



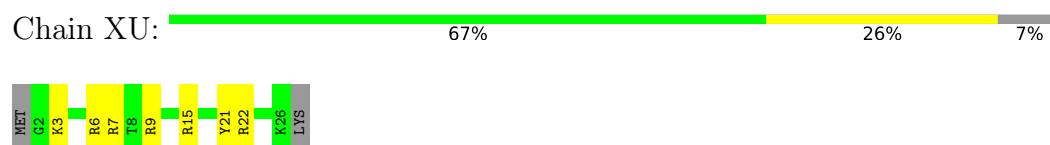
- Molecule 20: 30S ribosomal protein S20



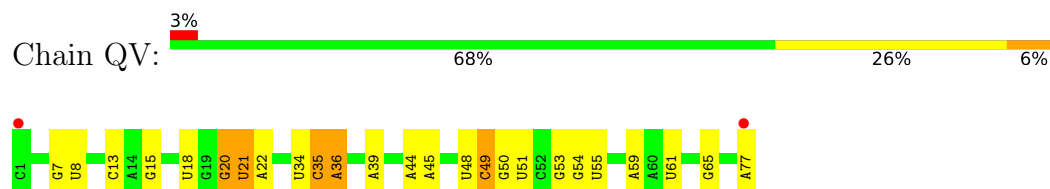
- Molecule 21: 30S ribosomal protein Thx



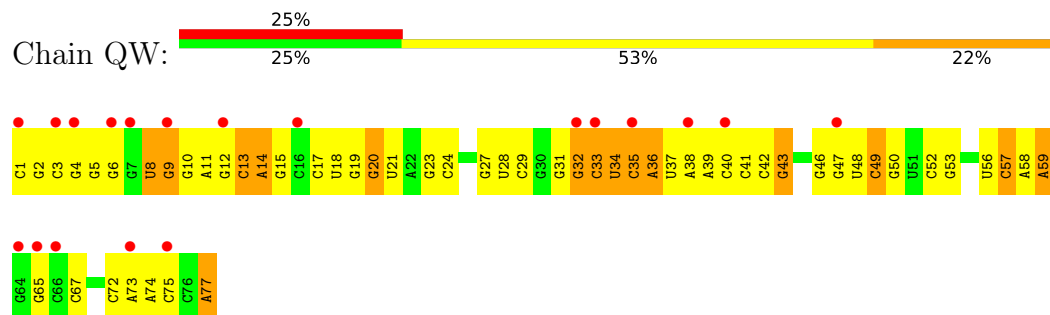
- Molecule 21: 30S ribosomal protein Thx



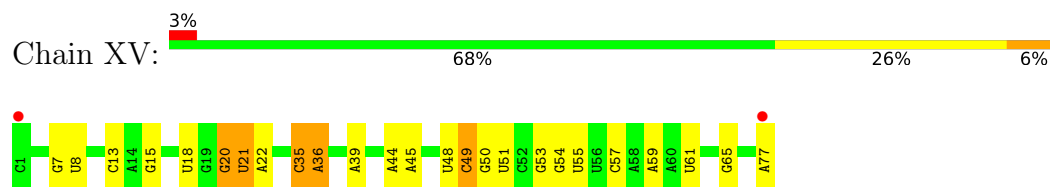
- Molecule 22: tRNA fMet



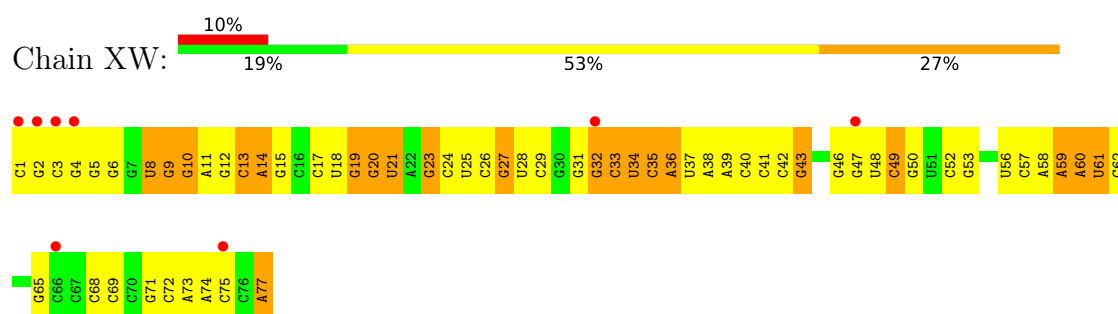
- Molecule 22: tRNA fMet



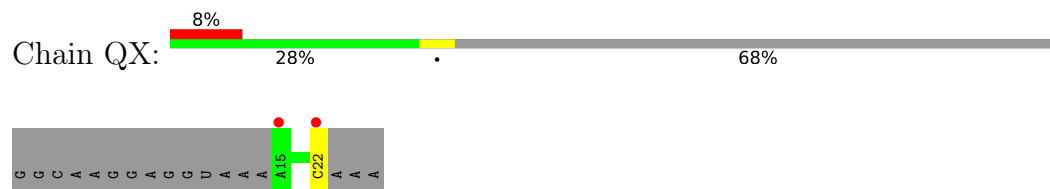
- Molecule 22: tRNA fMet



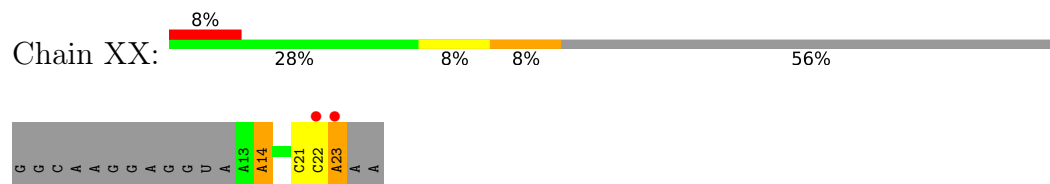
- Molecule 22: tRNA fMet



- Molecule 23: messenger RNA



- Molecule 23: messenger RNA



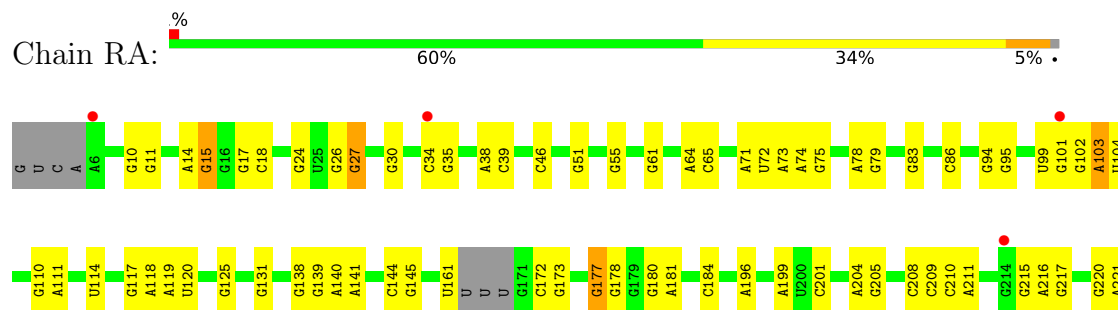
- Molecule 24: ASL Leu



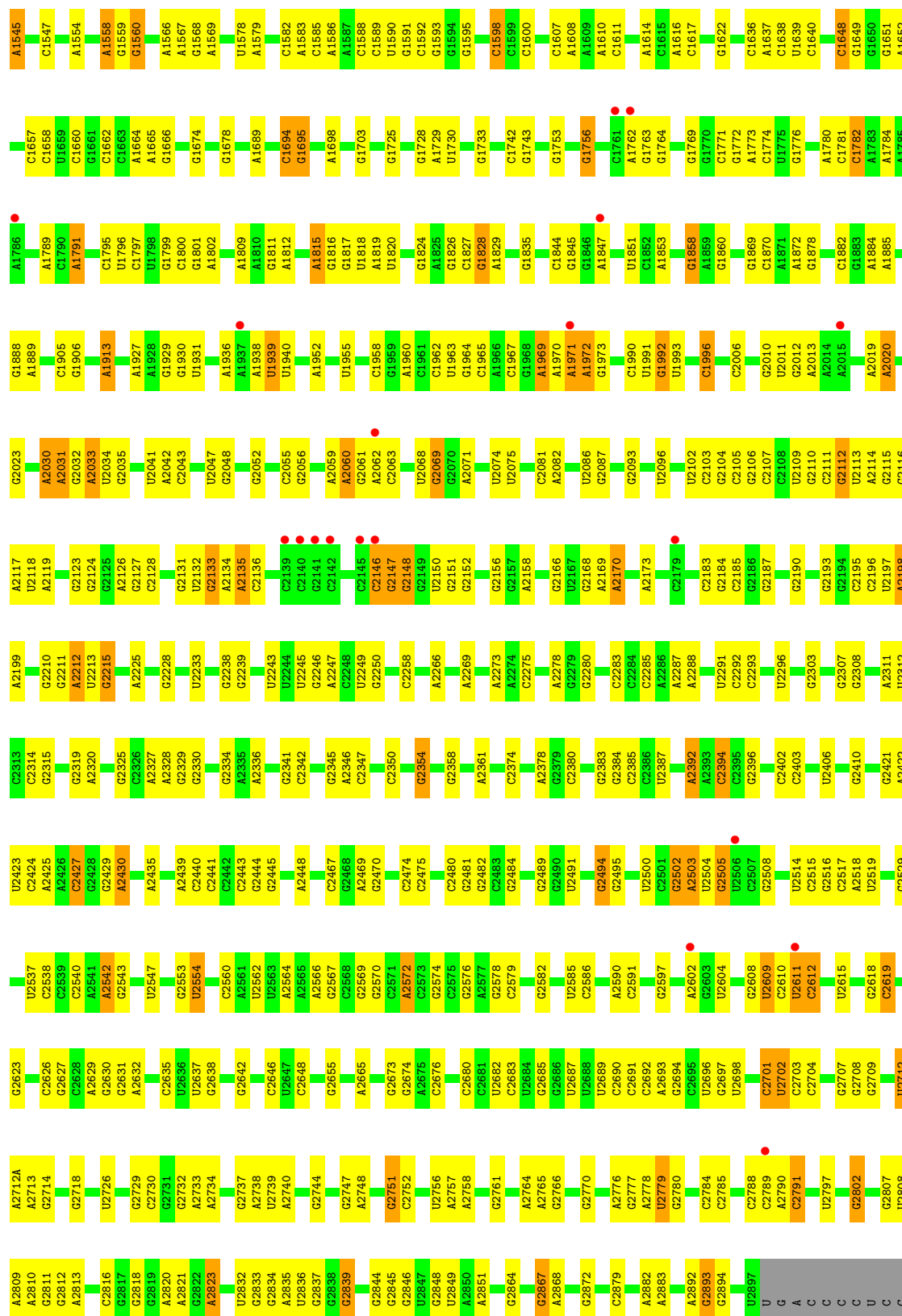
- Molecule 24: ASL Leu

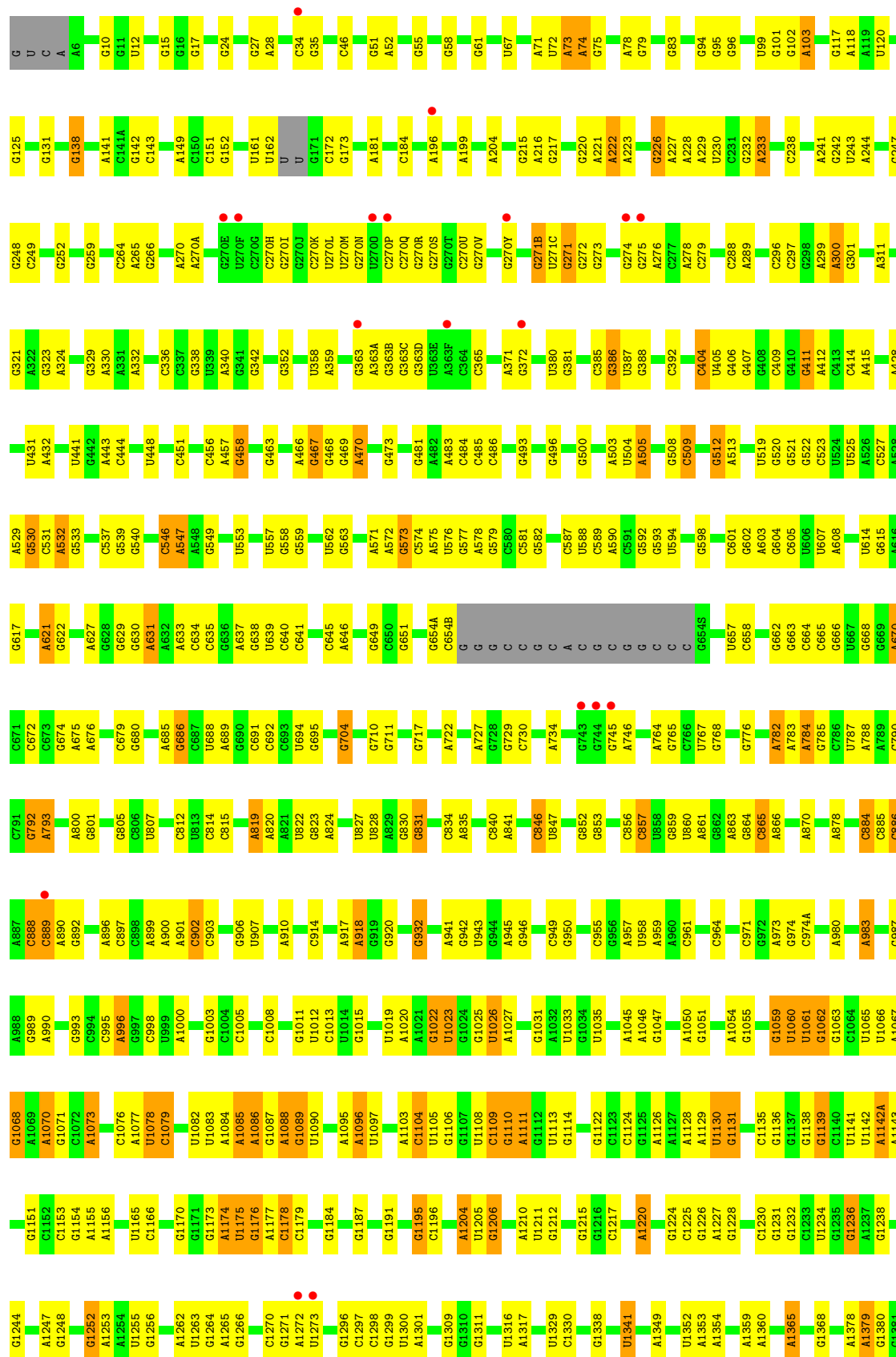


- Molecule 25: 23S rRNA



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U1352	A1353	A1354	A1359	C1363	A1364	A1365	G1368	G1369	C1370	G1371	U1372	A1378	A1379	G1380	A1384	G1385	U1391	A1392	A1393	G1394	A1395	C1399	G1400	U1497	C1505	C1506	A1507	A1508	C1509	A1510	A1511	U1514	C1515	U1520	G1525	G1527	A1528	G1534	U1535	A1536	C1537	G1538	G1542	A1543	C1544								
G1236	A1237	G1238	A1247	A1253	A1254	A1255	G1256	A1262	U1263	G1264	A1265	G1266	C1270	G1271	A1272	U1273	U1288	G1296	C1297	G1298	A1299	U1300	A1301	G1309	U1312	U1313	U1406	C1407	U1410	A1411	U1412	U1413	U1414	G1415	C1417	G1418	A1419	U1420	G1422	G1423	G1424	A1427	C1428	U1433	U1341	A1444	C1445						
G1055	G1056	A1057	U1060	U1061	G1062	U1065	U1066	A1067	G1068	A1069	A1070	C1072	A1073	G1074	C1075	C1076	U1077	U1078	C1079	C1080	U1081	U1082	U1083	G1090	U1091	C1092	G1093	U1094	A1095	A1096	U1097	A1098	G1099	A1204	U1205	G1206	A1210	U1211	G1212	A1213	G1214	A1220	G1228	C1230	G1231	G1232							
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C	C	G554S	C654T	C659	G660	G661	G662	C665	G666	G667	G668	G669	A670	G674	A675	A676	C679	G680	G686	A819	A820	A821	U822	G823	A824	U827	U828	A829	G830	G831	C840	A841	G848	A849	C850	G851	G852	U847	G848	A849	C850	G851	G852	C856	C857	U858	G859	U860	A863	G864	G873	C881	C882
C589	A590	G593	A603	U607	A608	A609	U614	G615	A616	G617	G618	G620	A621	G622	A627	G628	G629	G630	A631	A632	A633	C634	C635	G636	A637	U638	U639	C640	C645	A646	G649	C650	G651	A654	G654A	C654B	C	C	C	C	C	C	A	C	G	G	C	C	C				
G512	A513	A514	A515	C516	C517	G521	G522	C523	U524	C525	U526	A527	A528	A529	C531	A532	G533	C544	G545	C546	C547	G550	U553	U554	G555	U557	G558	G563	G570	A571	A572	G573	C574	A575	U576	G577	A578	G579	C580	C581	G582	G583	C584	G585	A586	C587	U588						
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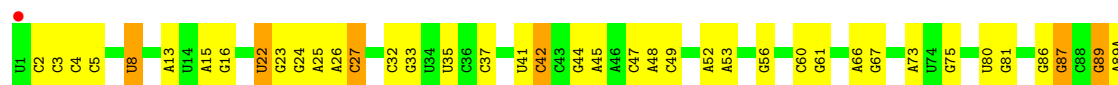




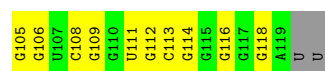
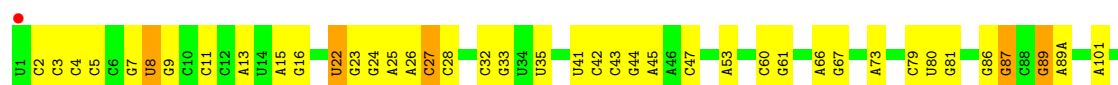
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C2111	G2112	U2113	A2114	G2115	G2116	A2117	U2118	A2119	G2120	G2123	A2126	G2127	C2128	C2129	U2130	G2131	U2132	A2134	A2135	G2141	C2142	C2143	U2144	C2145	G2146	G2147	G2148	G2154	G2155	G2156	A2157	A2158	G2159	C2163	C2164	G2165	G2166	U2167	A2169	A2173	C2174	C2175	C2178	C2185	G2186	G2187	C2188	U2189
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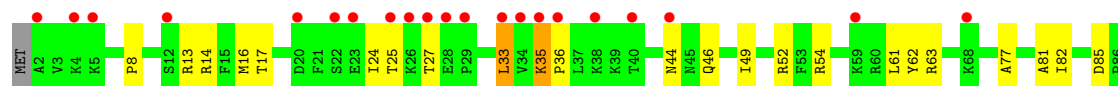
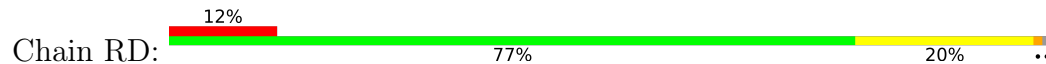
• Molecule 26: 5S rRNA



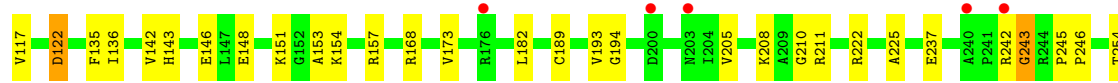
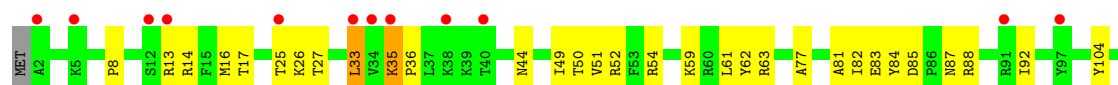
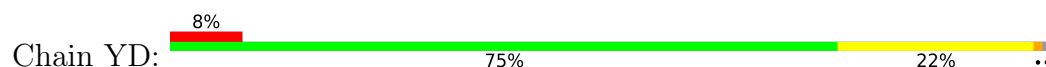
• Molecule 26: 5S rRNA

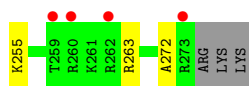


• Molecule 27: 50S ribosomal protein L2

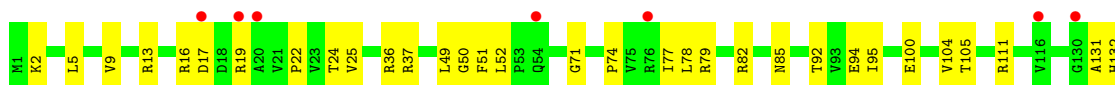
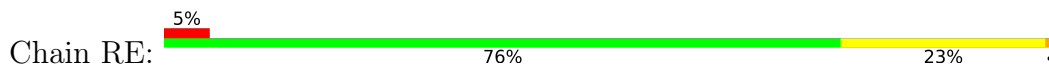


• Molecule 27: 50S ribosomal protein L2

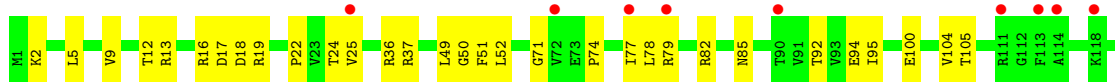
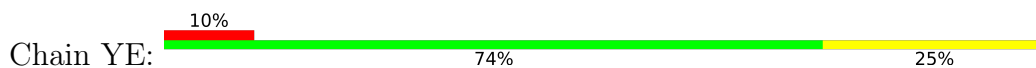




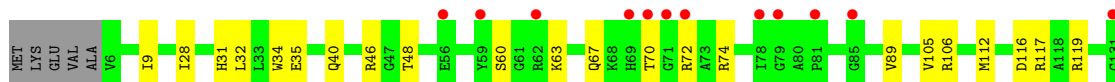
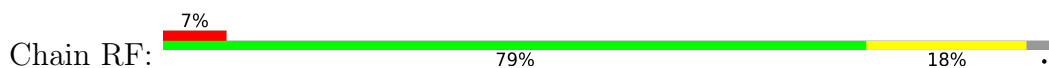
- Molecule 28: 50S ribosomal protein L3



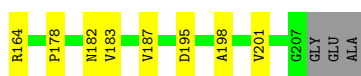
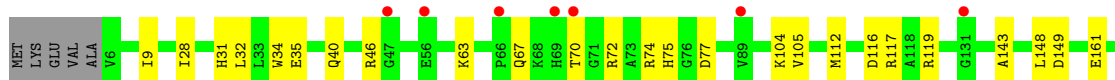
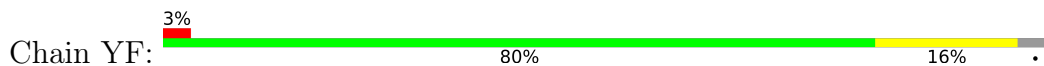
- Molecule 28: 50S ribosomal protein L3



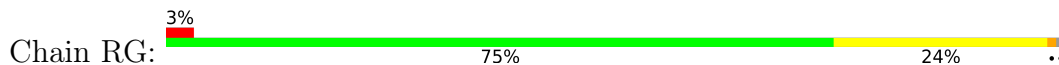
- Molecule 29: 50S ribosomal protein L4

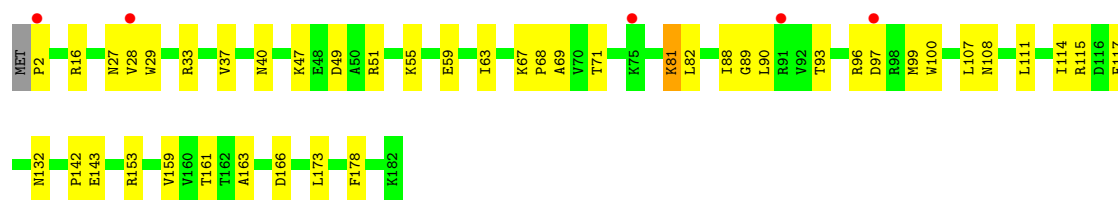


- Molecule 29: 50S ribosomal protein L4

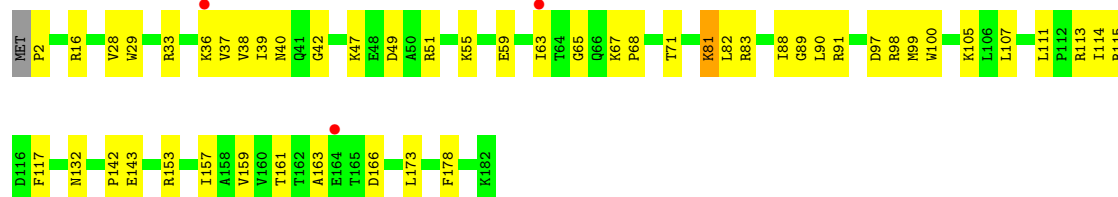
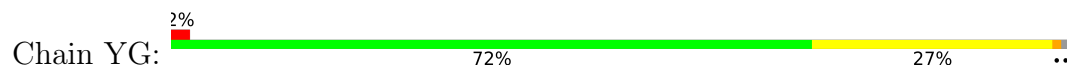


- Molecule 30: 50S ribosomal protein L5

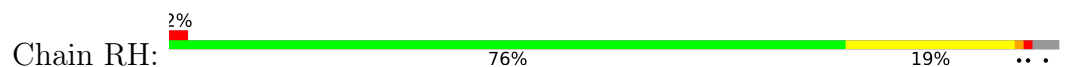




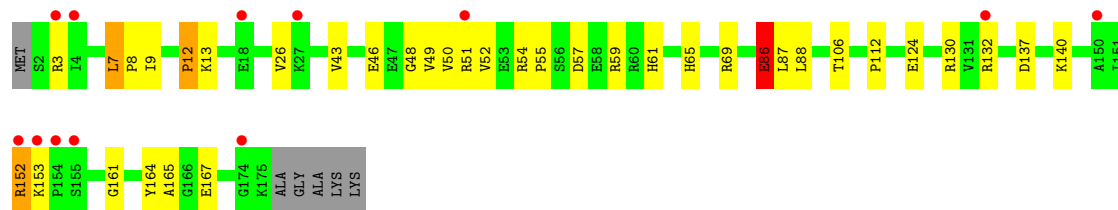
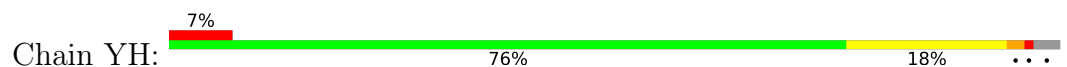
- Molecule 30: 50S ribosomal protein L5



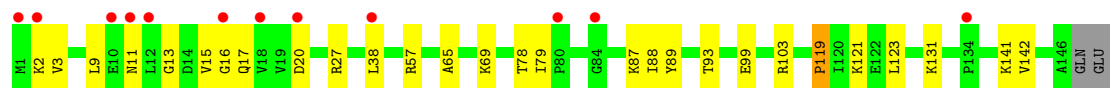
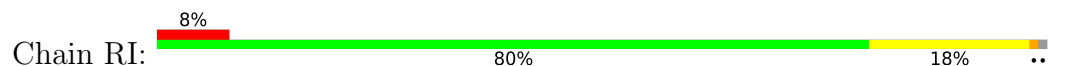
- Molecule 31: 50S ribosomal protein L6



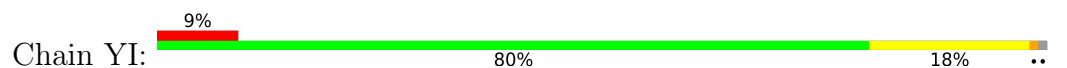
- Molecule 31: 50S ribosomal protein L6

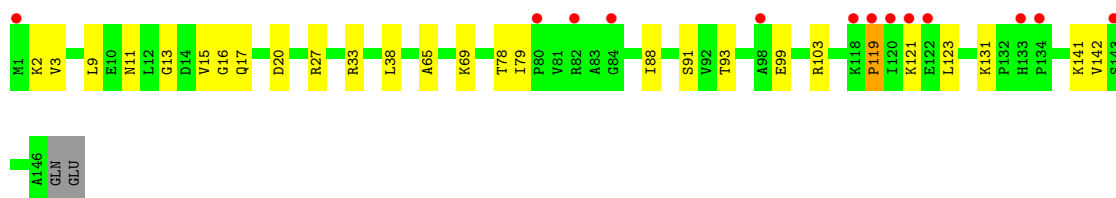


- Molecule 32: 50S ribosomal protein L9



- Molecule 32: 50S ribosomal protein L9





- Molecule 33: 50S ribosomal protein L13

Chain RN: 7% 84% 13% ..



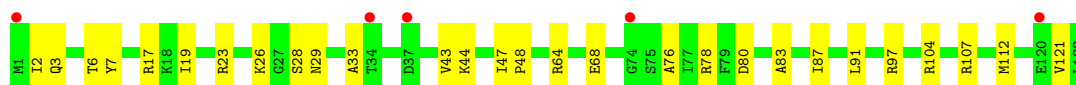
- Molecule 33: 50S ribosomal protein L13

Chain YN: 8% 84% 14% ..



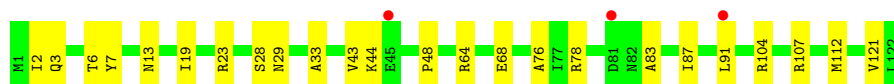
- Molecule 34: 50S ribosomal protein L14

Chain RO: 4% 77% 23%



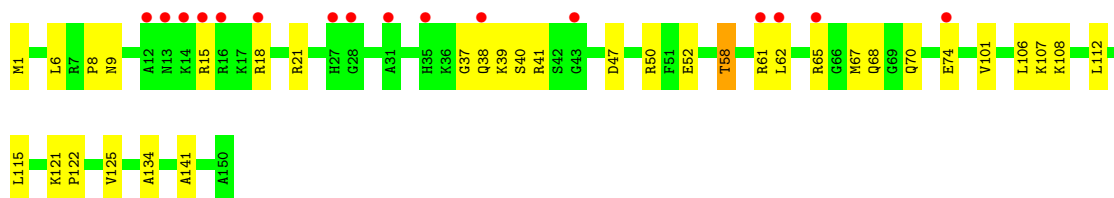
- Molecule 34: 50S ribosomal protein L14

Chain YO: 2% 80% 20%



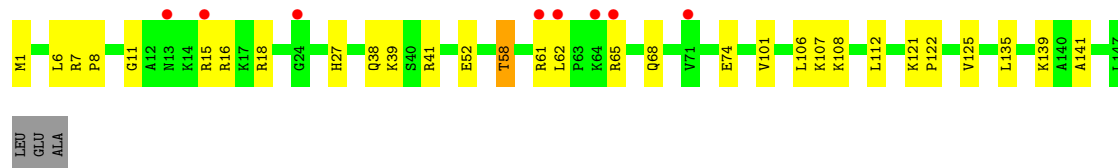
- Molecule 35: 50S ribosomal protein L15

Chain RP: 11% 77% 22% .

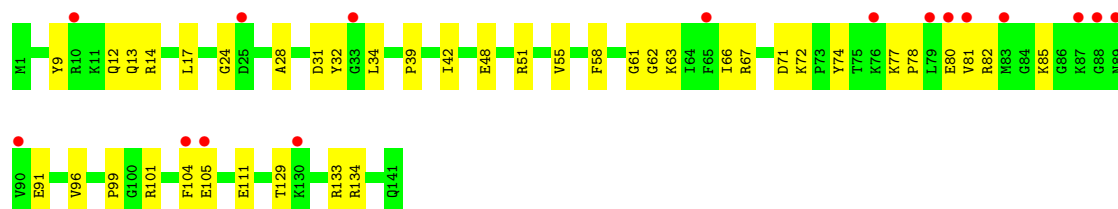
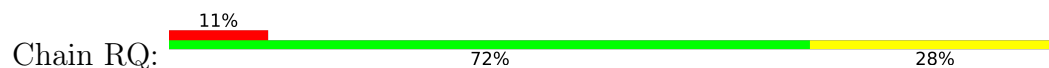


- Molecule 35: 50S ribosomal protein L15

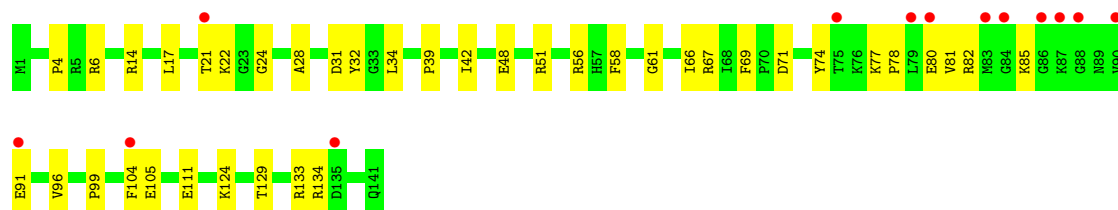
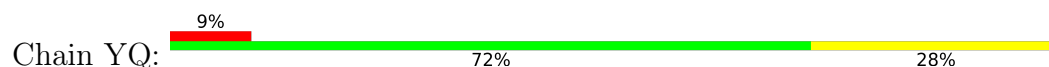
Chain YP: 5% 78% 19% ..



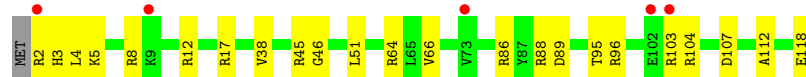
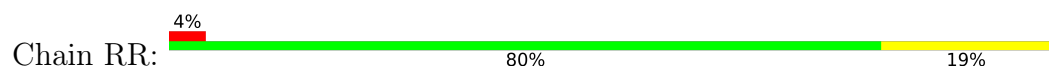
- Molecule 36: 50S ribosomal protein L16



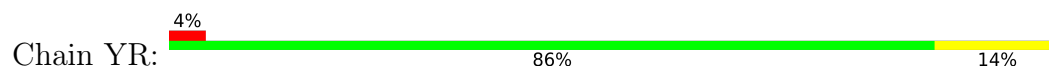
- Molecule 36: 50S ribosomal protein L16



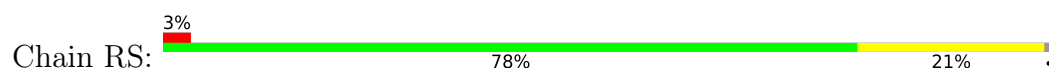
- Molecule 37: 50S ribosomal protein L17



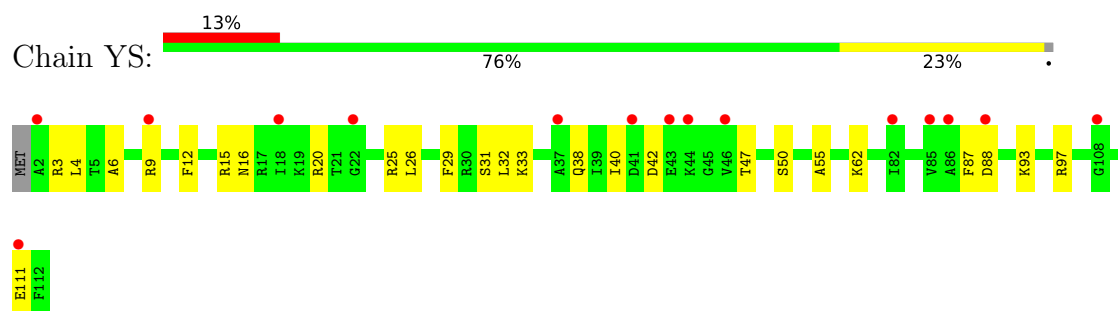
- Molecule 37: 50S ribosomal protein L17



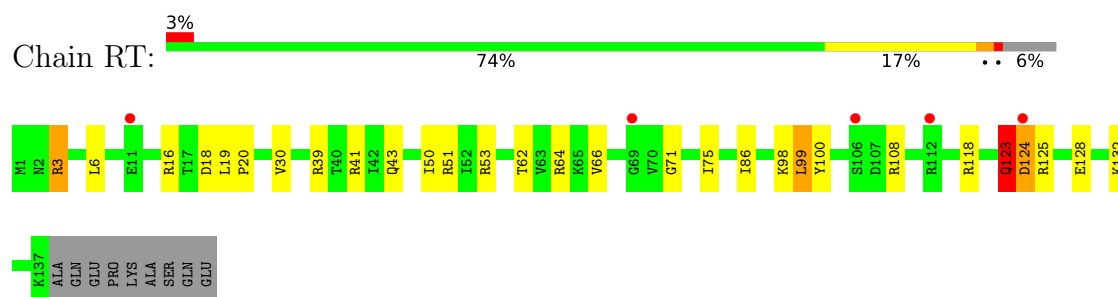
- Molecule 38: 50S ribosomal protein L18



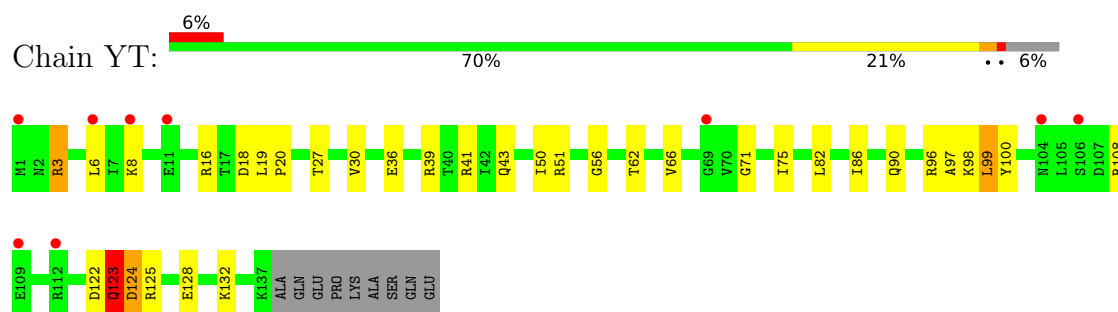
- Molecule 38: 50S ribosomal protein L18



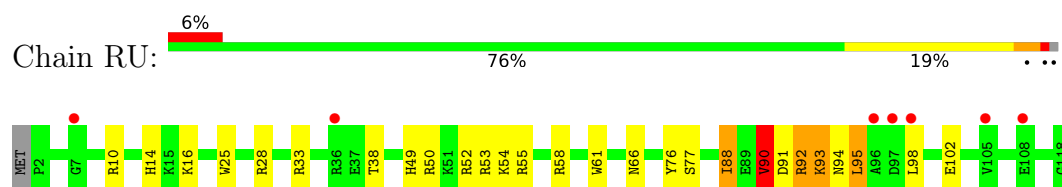
- Molecule 39: 50S ribosomal protein L19



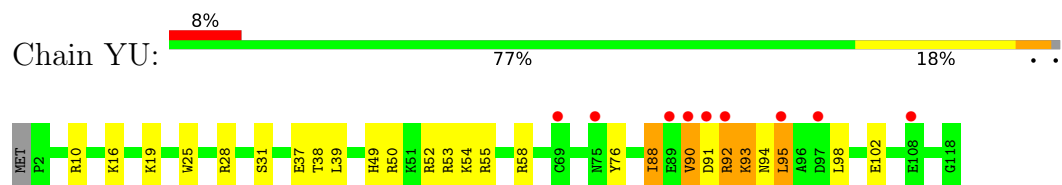
- Molecule 39: 50S ribosomal protein L19



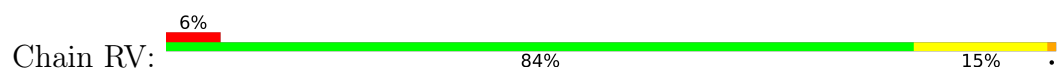
- Molecule 40: 50S ribosomal protein L20

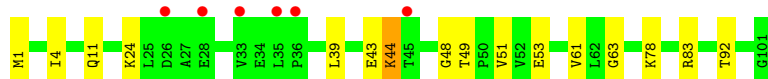


- Molecule 40: 50S ribosomal protein L20

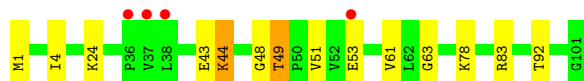
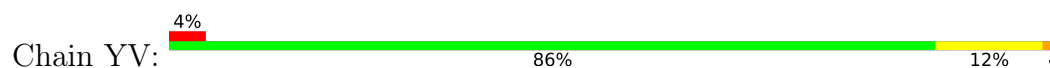


- Molecule 41: 50S ribosomal protein L21

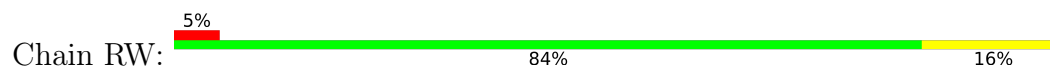




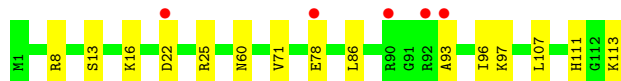
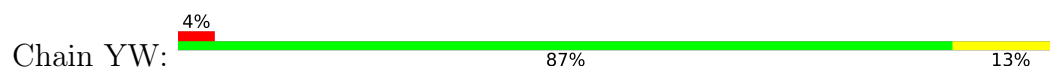
- Molecule 41: 50S ribosomal protein L21



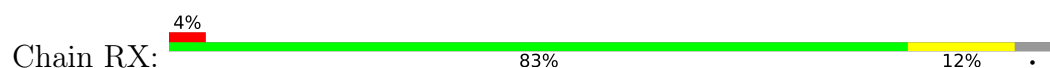
- Molecule 42: 50S ribosomal protein L22



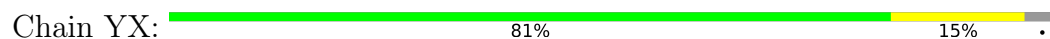
- Molecule 42: 50S ribosomal protein L22



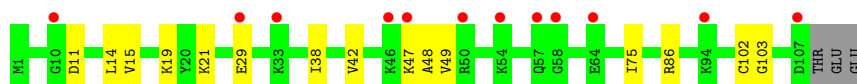
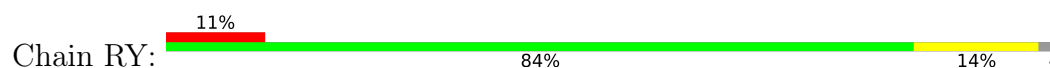
- Molecule 43: 50S ribosomal protein L23



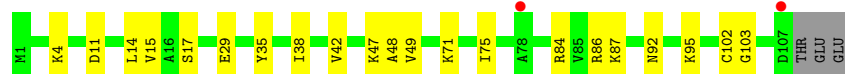
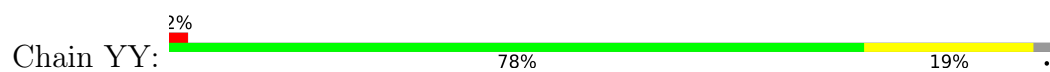
- Molecule 43: 50S ribosomal protein L23



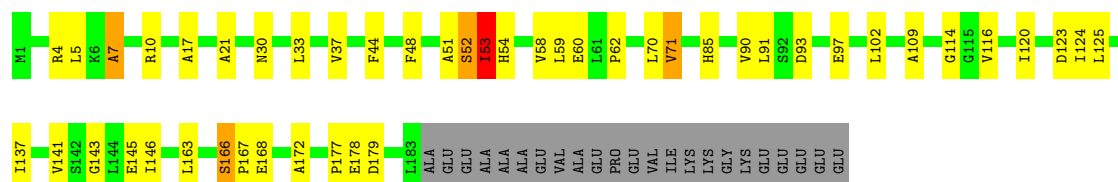
- Molecule 44: 50S ribosomal protein L24



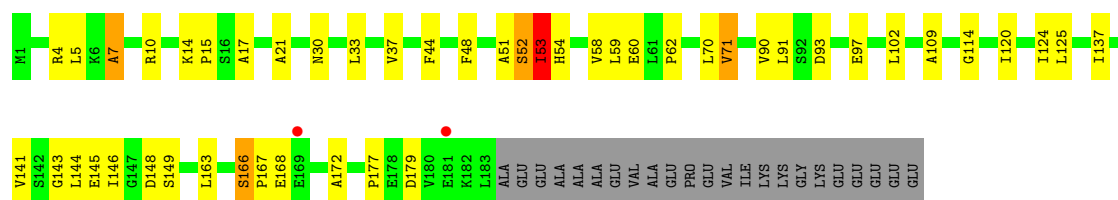
- Molecule 44: 50S ribosomal protein L24



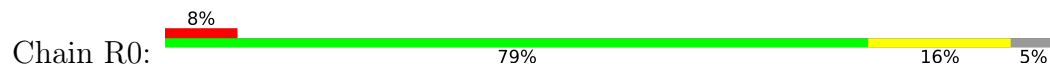
- Molecule 45: 50S ribosomal protein L25



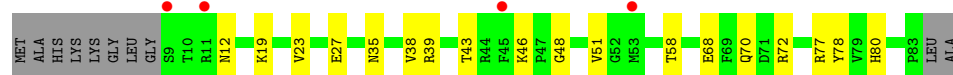
- Molecule 45: 50S ribosomal protein L25



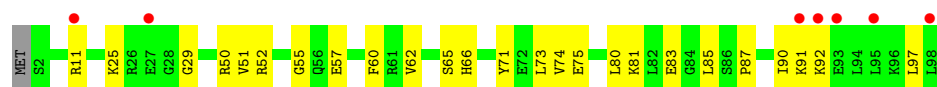
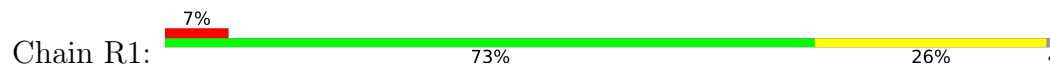
- Molecule 46: 50S ribosomal protein L27



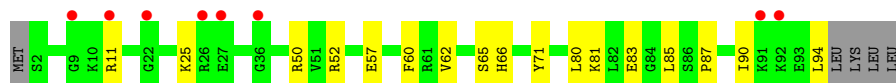
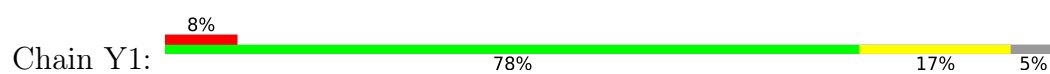
- Molecule 46: 50S ribosomal protein L27



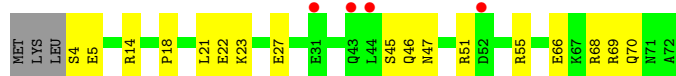
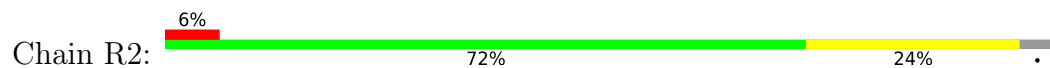
- Molecule 47: 50S ribosomal protein L28



- Molecule 47: 50S ribosomal protein L28



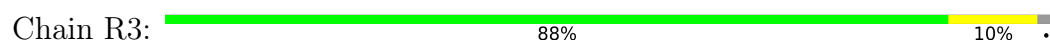
- Molecule 48: 50S ribosomal protein L29



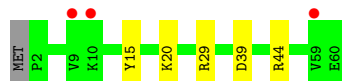
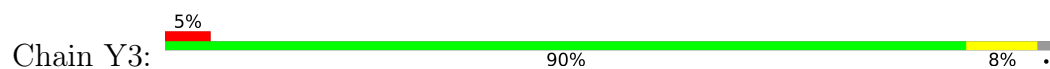
- Molecule 48: 50S ribosomal protein L29



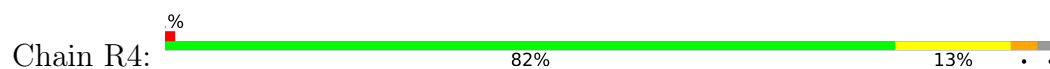
- Molecule 49: 50S ribosomal protein L30



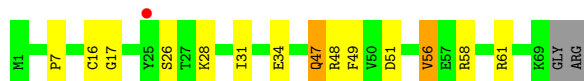
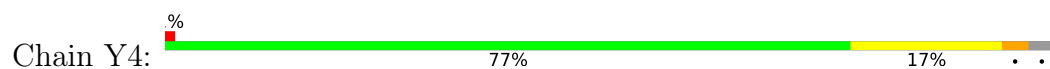
- Molecule 49: 50S ribosomal protein L30



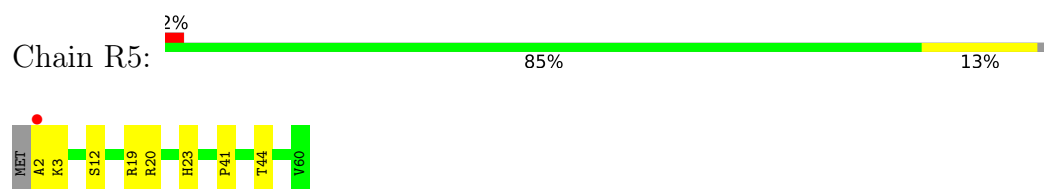
- Molecule 50: 50S ribosomal protein L31



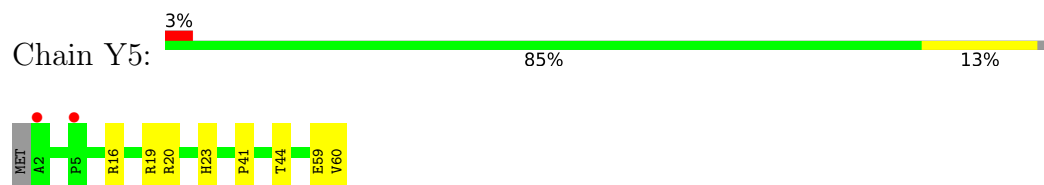
- Molecule 50: 50S ribosomal protein L31



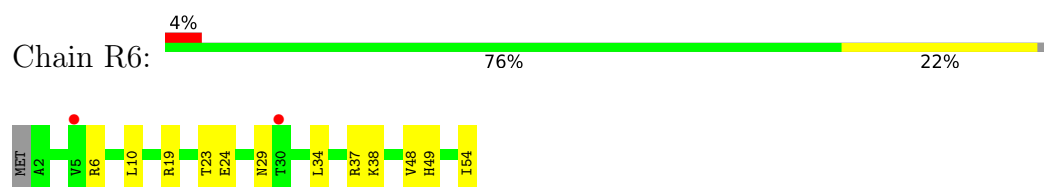
- Molecule 51: 50S ribosomal protein L32



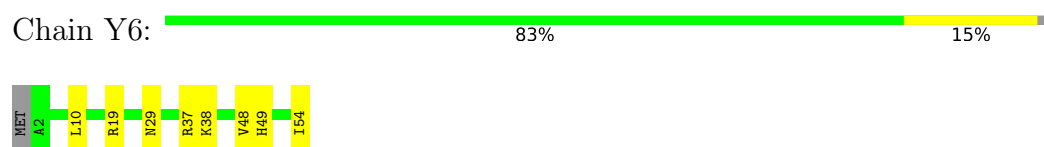
- Molecule 51: 50S ribosomal protein L32



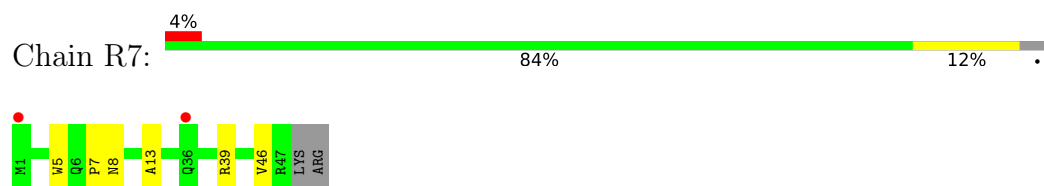
- Molecule 52: 50S ribosomal protein L33



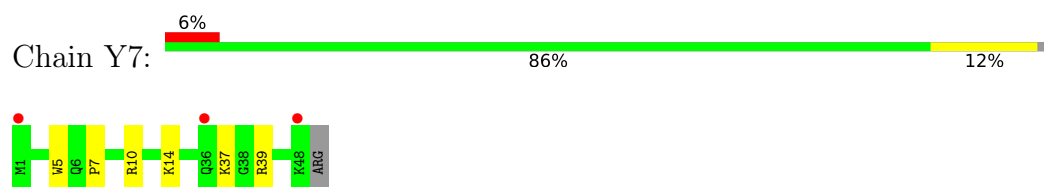
- Molecule 52: 50S ribosomal protein L33



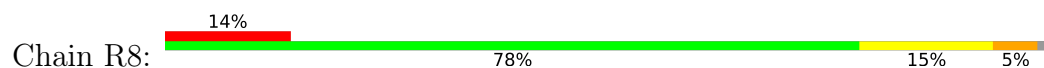
- Molecule 53: 50S ribosomal protein L34



- Molecule 53: 50S ribosomal protein L34

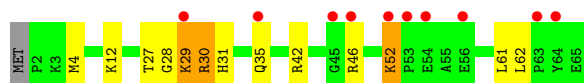
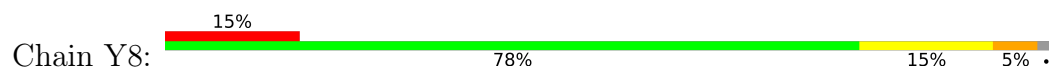


- Molecule 54: 50S ribosomal protein L35

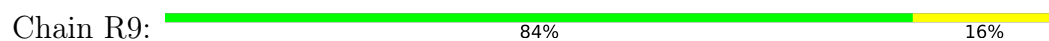




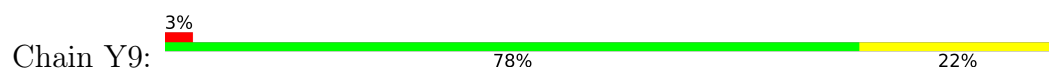
- Molecule 54: 50S ribosomal protein L35



- Molecule 55: 50S ribosomal protein L36



- Molecule 55: 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	210.81Å 448.83Å 618.45Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	134.68 – 3.74 134.68 – 3.74	Depositor EDS
% Data completeness (in resolution range)	100.0 (134.68-3.74) 100.0 (134.68-3.74)	Depositor EDS
R_{merge}	0.23	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.60 (at 3.58Å)	Xtriage
Refinement program	PHENIX 1.12_2829	Depositor
R, R_{free}	0.204 , 0.225 0.205 , 0.225	Depositor DCC
R_{free} test set	33305 reflections (5.00%)	wwPDB-VP
Wilson B-factor (Å ²)	112.7	Xtriage
Anisotropy	0.103	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.30 , 139.7	EDS
L-test for twinning ²	$\langle L \rangle = 0.44$, $\langle L^2 \rangle = 0.27$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.92	EDS
Total number of atoms	295646	wwPDB-VP
Average B, all atoms (Å ²)	121.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.70% 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: MG, ZN, SF4

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	0.49	0/36094	0.50	8/56334 (0.0%)
1	XA	0.48	0/36097	0.50	5/56339 (0.0%)
2	QB	0.37	0/1942	0.70	2/2619 (0.1%)
2	XB	0.39	0/1950	0.64	0/2630
3	QC	0.34	0/1629	0.60	0/2195
3	XC	0.34	0/1629	0.60	0/2195
4	QD	0.43	0/1733	0.67	2/2318 (0.1%)
4	XD	0.43	0/1733	0.67	0/2318
5	QE	0.41	0/1171	0.62	0/1576
5	XE	0.41	0/1171	0.62	0/1576
6	QF	0.41	0/856	0.57	0/1154
6	XF	0.41	0/856	0.57	0/1154
7	QG	0.33	0/1276	0.56	0/1709
7	XG	0.33	0/1276	0.56	0/1709
8	QH	0.42	0/1128	0.58	0/1517
8	XH	0.42	0/1128	0.58	0/1517
9	QI	0.41	0/1029	0.70	0/1379
9	XI	0.37	0/1017	0.65	0/1365
10	QJ	0.40	0/814	0.65	0/1095
10	XJ	0.37	0/790	0.61	0/1063
11	QK	0.42	0/900	0.54	0/1213
11	XK	0.41	0/879	0.56	2/1187 (0.2%)
12	QL	0.49	0/991	0.76	0/1327
12	XL	0.53	0/972	0.77	0/1301
13	QM	0.39	0/965	0.80	3/1292 (0.2%)
13	XM	0.37	0/956	0.74	1/1281 (0.1%)
14	QN	0.44	0/501	0.71	0/664
14	XN	0.44	0/501	0.71	0/664
15	QO	0.40	0/745	0.58	0/992
15	XO	0.41	0/740	0.55	0/987
16	QP	0.46	0/721	0.63	0/970
16	XP	0.46	0/721	0.63	0/970

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	QQ	0.42	0/847	0.58	0/1131
17	XQ	0.42	0/847	0.58	0/1131
18	QR	0.40	0/579	0.65	0/768
18	XR	0.40	0/579	0.65	0/768
19	QS	0.38	0/680	0.88	3/915 (0.3%)
19	XS	0.40	0/689	0.88	1/926 (0.1%)
20	QT	0.37	0/765	0.74	0/1007
20	XT	0.37	0/765	0.74	0/1007
21	QU	0.42	0/221	0.55	0/288
21	XU	0.42	0/221	0.55	0/288
22	QV	0.46	0/1836	0.49	0/2859
22	QW	0.18	0/1832	0.40	0/2855
22	XV	0.47	0/1836	0.49	0/2859
22	XW	0.17	0/1832	0.37	0/2855
23	QX	0.63	0/185	0.38	0/285
23	XX	0.67	1/257 (0.4%)	0.56	0/398
24	QY	0.39	0/404	0.39	0/627
24	XY	0.39	0/404	0.39	0/627
25	RA	0.57	0/69521	0.52	14/108529 (0.0%)
25	YA	0.58	0/69543	0.53	8/108563 (0.0%)
26	RB	0.42	0/2878	0.48	0/4490
26	YB	0.42	0/2878	0.48	0/4490
27	RD	0.60	0/2165	0.76	0/2919
27	YD	0.60	0/2165	0.76	0/2919
28	RE	0.51	0/1601	0.84	0/2160
28	YE	0.50	0/1601	0.84	0/2160
29	RF	0.61	1/1620 (0.1%)	0.69	2/2194 (0.1%)
29	YF	0.61	1/1620 (0.1%)	0.69	2/2194 (0.1%)
30	RG	0.40	0/1499	0.73	2/2016 (0.1%)
30	YG	0.40	0/1499	0.73	2/2016 (0.1%)
31	RH	0.37	0/1362	0.76	2/1841 (0.1%)
31	YH	0.36	0/1362	0.75	2/1841 (0.1%)
32	RI	0.37	0/1151	0.81	1/1558 (0.1%)
32	YI	0.37	0/1151	0.81	1/1558 (0.1%)
33	RN	0.52	1/1131 (0.1%)	0.67	0/1525
33	YN	0.52	1/1131 (0.1%)	0.67	0/1525
34	RO	0.53	0/943	0.61	0/1269
34	YO	0.53	0/943	0.61	0/1269
35	RP	0.52	0/1162	0.90	1/1544 (0.1%)
35	YP	0.53	0/1139	0.91	0/1514
36	RQ	0.46	0/1143	0.76	0/1527
36	YQ	0.46	0/1143	0.76	0/1527
37	RR	0.54	0/974	0.75	0/1302

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
37	YR	0.53	0/974	0.73	0/1302
38	RS	0.37	0/892	0.76	0/1187
38	YS	0.37	0/892	0.76	0/1187
39	RT	0.45	0/1155	0.79	2/1542 (0.1%)
39	YT	0.45	0/1155	0.79	2/1542 (0.1%)
40	RU	0.49	0/982	0.68	2/1306 (0.2%)
40	YU	0.49	0/982	0.67	0/1306
41	RV	0.43	0/790	0.75	3/1057 (0.3%)
41	YV	0.43	0/790	0.75	3/1057 (0.3%)
42	RW	0.54	0/911	0.67	0/1220
42	YW	0.54	0/911	0.67	0/1220
43	RX	0.51	0/739	0.60	0/993
43	YX	0.51	0/739	0.60	0/993
44	RY	0.45	0/831	0.59	0/1108
44	YY	0.45	0/831	0.59	0/1108
45	RZ	0.36	0/1493	0.83	4/2026 (0.2%)
45	YZ	0.36	0/1493	0.83	4/2026 (0.2%)
46	R0	0.48	0/652	0.56	0/867
46	Y0	0.45	0/607	0.54	0/809
47	R1	0.57	0/770	0.79	3/1022 (0.3%)
47	Y1	0.56	0/736	0.74	0/978
48	R2	0.42	0/583	0.61	0/771
48	Y2	0.42	0/583	0.61	0/771
49	R3	0.44	0/474	0.64	0/635
49	Y3	0.44	0/474	0.64	0/635
50	R4	0.31	0/578	0.86	0/776
50	Y4	0.31	0/578	0.86	0/776
51	R5	0.53	0/473	0.64	0/639
51	Y5	0.53	0/473	0.64	0/639
52	R6	0.29	0/460	0.53	0/613
52	Y6	0.29	0/460	0.53	0/613
53	R7	0.56	0/417	0.66	0/550
53	Y7	0.61	0/426	0.70	0/561
54	R8	0.59	0/525	0.89	0/691
54	Y8	0.59	0/525	0.89	0/691
55	R9	0.36	0/310	0.48	0/407
55	Y9	0.36	0/310	0.48	0/407
All	All	0.51	5/319989 (0.0%)	0.57	87/478685 (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	QB	0	1
4	QD	0	1
4	XD	0	1
12	QL	0	2
12	XL	0	2
13	QM	0	1
27	RD	0	4
27	YD	0	4
28	RE	0	3
28	YE	0	3
30	RG	0	1
30	YG	0	1
31	RH	0	1
31	YH	0	1
32	RI	0	3
32	YI	0	3
35	RP	0	1
35	YP	0	1
37	RR	0	1
39	RT	0	1
39	YT	0	1
40	RU	0	2
40	YU	0	2
41	RV	0	2
41	YV	0	2
45	RZ	0	4
45	YZ	0	4
50	R4	0	1
50	Y4	0	1
54	R8	0	4
54	Y8	0	4
All	All	0	63

All (5) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
29	RF	9	ILE	CA-C	-9.71	1.45	1.53
29	YF	9	ILE	CA-C	-9.69	1.45	1.53
33	RN	106	MET	C-N	-6.18	1.24	1.33
33	YN	106	MET	C-N	-6.17	1.24	1.33
23	XX	21	C	O3'-P	-5.30	1.53	1.61

All (87) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
47	R1	75	GLU	N-CA-C	-9.04	103.36	114.75
29	YF	9	ILE	CA-C-O	7.31	123.21	119.12
29	RF	9	ILE	CA-C-O	7.25	123.18	119.12
13	QM	7	VAL	N-CA-C	-7.20	106.87	113.71
13	XM	7	VAL	N-CA-C	-7.08	106.99	113.71
29	YF	9	ILE	O-C-N	-6.89	116.66	121.55
29	RF	9	ILE	O-C-N	-6.84	116.69	121.55
25	YA	271(B)	G	P-O3'-C3'	6.83	127.89	119.70
25	RA	271(B)	G	P-O3'-C3'	6.42	127.41	119.70
1	XA	812	C	P-O3'-C3'	6.31	129.67	120.20
25	RA	2712	U	P-O3'-C3'	6.09	127.01	119.70
1	XA	812	C	C2'-C3'-O3'	6.08	118.62	109.50
45	RZ	93	ASP	CA-C-N	5.75	128.17	120.58
45	RZ	93	ASP	C-N-CA	5.75	128.17	120.58
45	YZ	93	ASP	CA-C-N	5.72	128.13	120.58
45	YZ	93	ASP	C-N-CA	5.72	128.13	120.58
1	QA	410	G	P-O3'-C3'	5.71	128.77	120.20
41	YV	48	GLY	CA-C-N	5.71	128.78	120.51
41	YV	48	GLY	C-N-CA	5.71	128.78	120.51
41	RV	48	GLY	CA-C-N	5.67	128.73	120.51
41	RV	48	GLY	C-N-CA	5.67	128.73	120.51
31	RH	86	GLU	CA-C-N	5.64	132.31	121.54
31	RH	86	GLU	C-N-CA	5.64	132.31	121.54
25	RA	271(B)	G	OP2-P-O3'	5.63	117.58	105.20
31	YH	86	GLU	CA-C-N	5.62	132.27	121.54
31	YH	86	GLU	C-N-CA	5.62	132.27	121.54
41	YV	48	GLY	N-CA-C	5.52	119.65	112.25
40	RU	90	VAL	CA-C-N	5.49	132.03	121.54
40	RU	90	VAL	C-N-CA	5.49	132.03	121.54
1	QA	328	C	P-O3'-C3'	5.49	128.43	120.20
41	RV	48	GLY	N-CA-C	5.48	119.59	112.25
25	YA	2832	U	P-O3'-C3'	5.47	128.41	120.20
25	RA	227	A	C2'-C3'-O3'	5.42	117.62	109.50
39	RT	3	ARG	CA-C-N	5.41	126.08	120.03
39	RT	3	ARG	C-N-CA	5.41	126.08	120.03
39	YT	3	ARG	CA-C-N	5.37	126.05	120.03
39	YT	3	ARG	C-N-CA	5.37	126.05	120.03
25	RA	222	A	C2'-C3'-O3'	5.37	117.55	109.50
1	QA	1027	C	P-O3'-C3'	5.37	128.25	120.20
25	RA	227	A	P-O3'-C3'	5.34	128.21	120.20
35	RP	67	MET	N-CA-C	-5.34	104.66	110.91
47	R1	73	LEU	CA-C-N	-5.32	116.65	121.65
47	R1	73	LEU	C-N-CA	-5.32	116.65	121.65

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	QA	1347	G	P-O3'-C3'	5.32	128.18	120.20
2	QB	207	ALA	CA-C-N	5.30	131.51	121.97
2	QB	207	ALA	C-N-CA	5.30	131.51	121.97
1	QA	410	G	OP1-P-O3'	5.30	123.89	108.00
25	YA	1026	U	P-O3'-C3'	5.30	128.15	120.20
25	YA	404	C	P-O3'-C3'	5.28	128.12	120.20
19	QS	41	VAL	C-N-CD	-5.28	108.99	120.60
45	YZ	53	ILE	N-CA-C	5.26	120.28	109.34
45	RZ	53	ILE	N-CA-C	5.23	120.21	109.34
32	RI	123	LEU	N-CA-C	5.19	117.61	110.35
25	RA	1992	G	P-O3'-C3'	5.18	127.98	120.20
25	RA	1026	U	P-O3'-C3'	5.18	127.97	120.20
25	RA	1045	A	P-O3'-C3'	5.17	127.96	120.20
1	QA	1498	U	C2'-C3'-O3'	5.16	117.23	109.50
30	RG	115	ARG	CA-C-N	5.16	131.39	121.54
30	RG	115	ARG	C-N-CA	5.16	131.39	121.54
45	YZ	7	ALA	N-CA-C	5.15	116.94	110.91
30	YG	115	ARG	CA-C-N	5.15	131.37	121.54
30	YG	115	ARG	C-N-CA	5.15	131.37	121.54
32	YI	123	LEU	N-CA-C	5.15	117.56	110.35
45	RZ	7	ALA	N-CA-C	5.13	116.92	110.91
25	RA	1022	G	P-O3'-C3'	5.13	127.89	120.20
1	XA	687	A	P-O3'-C3'	5.13	127.89	120.20
25	YA	222	A	C2'-C3'-O3'	5.12	117.18	109.50
1	XA	328	C	P-O3'-C3'	5.12	127.87	120.20
25	YA	2681	C	P-O3'-C3'	5.10	127.85	120.20
25	RA	1558	A	P-O3'-C3'	5.09	127.84	120.20
25	RA	2701	C	O3'-P-O5'	5.08	111.61	104.00
19	XS	11	VAL	N-CA-C	5.07	111.64	106.21
1	QA	1285	A	P-O3'-C3'	5.07	127.81	120.20
25	RA	1045	A	C2'-C3'-O3'	5.07	121.30	113.70
25	RA	2832	U	P-O3'-C3'	5.06	127.80	120.20
1	QA	1528	U	P-O3'-C3'	5.06	127.79	120.20
25	YA	1558	A	P-O3'-C3'	5.06	127.79	120.20
19	QS	40	ILE	CA-C-N	5.05	131.48	122.13
19	QS	40	ILE	C-N-CA	5.05	131.48	122.13
13	QM	13	LYS	CA-C-N	5.05	131.19	121.54
13	QM	13	LYS	C-N-CA	5.05	131.19	121.54
11	XK	56	GLY	CA-C-N	5.05	127.52	120.65
11	XK	56	GLY	C-N-CA	5.05	127.52	120.65
1	XA	560	U	C2'-C3'-O3'	5.02	117.03	109.50
4	QD	30	LYS	CA-C-N	5.01	127.50	120.28

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	QD	30	LYS	C-N-CA	5.01	127.50	120.28
25	YA	846	C	P-O3'-C3'	5.01	127.72	120.20

There are no chirality outliers.

All (63) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	QB	15	VAL	Peptide
4	QD	19	LEU	Peptide
12	QL	104	VAL	Peptide
12	QL	47	LYS	Peptide
13	QM	66	LEU	Peptide
50	R4	48	ARG	Peptide
54	R8	28	GLY	Peptide
54	R8	35	GLN	Peptide
54	R8	52	LYS	Peptide
54	R8	62	LEU	Peptide
27	RD	122	ASP	Peptide
27	RD	237	GLU	Peptide
27	RD	33	LEU	Peptide
27	RD	35	LYS	Peptide
28	RE	131	ALA	Peptide
28	RE	17	ASP	Peptide
28	RE	71	GLY	Peptide
30	RG	82	LEU	Peptide
31	RH	7	LEU	Peptide
32	RI	11	ASN	Peptide
32	RI	119	PRO	Peptide
32	RI	131	LYS	Peptide
35	RP	107	LYS	Peptide
37	RR	2	ARG	Peptide
39	RT	123	GLN	Peptide
40	RU	92	ARG	Peptide
40	RU	95	LEU	Peptide
41	RV	44	LYS	Peptide
41	RV	49	THR	Peptide
45	RZ	179	ASP	Peptide
45	RZ	52	SER	Peptide
45	RZ	60	GLU	Peptide
45	RZ	62	PRO	Peptide
4	XD	19	LEU	Peptide
12	XL	104	VAL	Peptide

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Mol	Chain	Res	Type	Group
12	XL	47	LYS	Peptide
50	Y4	48	ARG	Peptide
54	Y8	28	GLY	Peptide
54	Y8	35	GLN	Peptide
54	Y8	52	LYS	Peptide
54	Y8	62	LEU	Peptide
27	YD	122	ASP	Peptide
27	YD	237	GLU	Peptide
27	YD	33	LEU	Peptide
27	YD	35	LYS	Peptide
28	YE	131	ALA	Peptide
28	YE	17	ASP	Peptide
28	YE	71	GLY	Peptide
30	YG	82	LEU	Peptide
31	YH	7	LEU	Peptide
32	YI	11	ASN	Peptide
32	YI	119	PRO	Peptide
32	YI	131	LYS	Peptide
35	YP	107	LYS	Peptide
39	YT	123	GLN	Peptide
40	YU	92	ARG	Peptide
40	YU	95	LEU	Peptide
41	YV	44	LYS	Peptide
41	YV	49	THR	Peptide
45	YZ	179	ASP	Peptide
45	YZ	52	SER	Peptide
45	YZ	60	GLU	Peptide
45	YZ	62	PRO	Peptide

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	QA	32244	0	16274	322	0
1	XA	32246	0	16277	345	2
2	QB	1907	0	1958	35	0
2	XB	1915	0	1969	26	0
3	QC	1605	0	1668	17	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	XC	1605	0	1668	15	0
4	QD	1703	0	1766	30	0
4	XD	1703	0	1767	29	0
5	QE	1155	0	1213	13	0
5	XE	1155	0	1213	12	0
6	QF	843	0	857	12	0
6	XF	843	0	857	11	0
7	QG	1257	0	1296	20	0
7	XG	1257	0	1296	26	0
8	QH	1108	0	1165	14	0
8	XH	1108	0	1165	14	0
9	QI	1010	0	1037	24	0
9	XI	998	0	1024	23	0
10	QJ	801	0	849	17	0
10	XJ	777	0	816	16	0
11	QK	885	0	904	24	0
11	XK	864	0	881	23	0
12	QL	975	0	1062	17	0
12	XL	956	0	1046	19	0
13	QM	955	0	1021	19	0
13	XM	946	0	1007	20	0
14	QN	492	0	529	8	0
14	XN	492	0	529	8	0
15	QO	734	0	771	4	0
15	XO	729	0	768	8	0
16	QP	705	0	725	11	0
16	XP	705	0	725	9	0
17	QQ	834	0	904	15	0
17	XQ	834	0	904	18	0
18	QR	574	0	644	8	0
18	XR	574	0	644	6	0
19	QS	665	0	686	12	0
19	XS	674	0	699	9	0
20	QT	763	0	860	9	0
20	XT	763	0	861	11	0
21	QU	217	0	234	7	0
21	XU	217	0	234	7	0
22	QV	1644	0	836	10	0
22	QW	1640	0	837	59	0
22	XV	1644	0	836	9	0
22	XW	1640	0	837	72	0
23	QX	167	0	86	3	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
23	XX	230	0	120	17	0
24	QY	362	0	183	3	0
24	XY	362	0	184	3	0
25	RA	62071	0	31285	469	0
25	YA	62091	0	31290	483	1
26	RB	2573	0	1306	26	0
26	YB	2573	0	1306	29	1
27	RD	2115	0	2195	46	0
27	YD	2115	0	2195	50	0
28	RE	1568	0	1634	29	0
28	YE	1568	0	1634	33	0
29	RF	1585	0	1632	25	0
29	YF	1585	0	1632	23	0
30	RG	1474	0	1535	27	0
30	YG	1474	0	1535	33	0
31	RH	1336	0	1418	18	0
31	YH	1336	0	1418	20	0
32	RI	1136	0	1223	12	2
32	YI	1136	0	1223	14	0
33	RN	1104	0	1180	11	0
33	YN	1104	0	1180	10	0
34	RO	933	0	996	21	0
34	YO	933	0	996	19	0
35	RP	1145	0	1227	26	0
35	YP	1122	0	1204	25	0
36	RQ	1122	0	1179	31	0
36	YQ	1122	0	1179	24	0
37	RR	960	0	1021	14	0
37	YR	960	0	1021	9	0
38	RS	882	0	943	18	0
38	YS	882	0	943	21	0
39	RT	1141	0	1202	23	0
39	YT	1141	0	1202	26	0
40	RU	964	0	1022	35	0
40	YU	964	0	1022	25	0
41	RV	779	0	852	10	0
41	YV	779	0	852	8	4
42	RW	900	0	964	14	1
42	YW	900	0	964	12	0
43	RX	725	0	778	7	0
43	YX	725	0	778	9	0
44	RY	818	0	909	8	4

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
44	YY	818	0	909	15	1
45	RZ	1461	0	1493	27	0
45	YZ	1461	0	1493	26	0
46	R0	643	0	667	10	0
46	Y0	599	0	617	13	0
47	R1	763	0	848	15	0
47	Y1	729	0	802	11	0
48	R2	581	0	629	9	0
48	Y2	581	0	629	11	4
49	R3	469	0	518	5	0
49	Y3	469	0	518	3	0
50	R4	565	0	557	8	0
50	Y4	565	0	557	10	0
51	R5	459	0	476	6	0
51	Y5	459	0	479	4	4
52	R6	453	0	473	8	0
52	Y6	453	0	473	6	0
53	R7	409	0	454	4	0
53	Y7	418	0	467	5	0
54	R8	517	0	582	14	0
54	Y8	517	0	582	11	0
55	R9	307	0	335	4	0
55	Y9	307	0	335	6	0
56	QA	72	0	0	0	0
56	QC	1	0	0	0	0
56	QF	1	0	0	0	0
56	QH	1	0	0	0	0
56	QV	6	0	0	0	0
56	QX	1	0	0	0	0
56	QY	1	0	0	0	0
56	R0	3	0	0	0	0
56	R8	1	0	0	0	0
56	RA	513	0	0	0	0
56	RB	11	0	0	0	0
56	RE	3	0	0	0	0
56	RN	1	0	0	0	0
56	RO	1	0	0	0	0
56	RP	2	0	0	0	0
56	RQ	2	0	0	0	0
56	RR	2	0	0	0	0
56	RT	1	0	0	0	0
56	RY	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	XA	80	0	0	0	0
56	XC	1	0	0	0	0
56	XE	1	0	0	0	0
56	XL	1	0	0	0	0
56	XM	1	0	0	0	0
56	XQ	1	0	0	0	0
56	XS	1	0	0	0	0
56	XV	8	0	0	0	0
56	XX	1	0	0	0	0
56	Y0	2	0	0	0	0
56	Y5	1	0	0	0	0
56	Y7	1	0	0	0	0
56	Y8	1	0	0	0	0
56	YA	541	0	0	0	0
56	YB	12	0	0	0	0
56	YD	1	0	0	0	0
56	YE	3	0	0	0	0
56	YO	1	0	0	0	0
56	YP	4	0	0	0	0
56	YQ	3	0	0	0	0
56	YX	2	0	0	0	0
56	YY	1	0	0	0	0
57	QD	8	0	0	0	0
57	XD	8	0	0	0	0
58	QN	1	0	0	0	0
58	R4	1	0	0	0	0
58	R5	1	0	0	0	0
58	R6	1	0	0	0	0
58	R9	1	0	0	0	0
58	RY	1	0	0	0	0
58	XN	1	0	0	0	0
58	Y4	1	0	0	0	0
58	Y5	1	0	0	0	0
58	Y6	1	0	0	0	0
58	Y9	1	0	0	0	0
58	YY	1	0	0	0	0
All	All	295646	0	199660	2804	12

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 6.

All (2804) 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)
7:XG:143:ARG:CD	22:XW:42:C:O3'	1.75	1.33
7:QG:143:ARG:HD3	22:QW:42:C:O3'	1.09	1.24
7:QG:143:ARG:CD	22:QW:42:C:O3'	1.88	1.20
23:XX:22:C:H6	23:XX:22:C:H5''	1.06	1.13
11:XK:54:ARG:HH22	22:XW:40:C:H4'	1.12	1.09
11:QK:54:ARG:HH12	22:QW:40:C:H4'	1.01	1.07
7:XG:143:ARG:HD3	22:XW:42:C:O3'	0.90	1.07
25:RA:2135:A:H62	25:RA:2156:G:N2	1.53	1.06
25:RA:2135:A:N6	25:RA:2156:G:H21	1.55	1.05
23:XX:22:C:H5''	23:XX:22:C:C6	1.93	1.04
7:QG:143:ARG:HD3	22:QW:43:G:P	1.98	1.02
7:XG:143:ARG:HD3	22:XW:43:G:P	2.00	1.00
26:RB:8:U:H3	26:RB:112:G:H1	1.00	1.00
1:QA:410:G:N2	1:QA:432:A:H62	1.60	0.99
22:QW:77:A:H8	22:QW:77:A:H5'	1.27	0.97
22:QV:51:U:H3	22:QV:65:G:H1	1.10	0.97
7:XG:143:ARG:HG2	22:XW:42:C:H4'	1.45	0.96
1:XA:1238:A:N6	1:XA:1301:U:H3	1.63	0.96
25:YA:1165:U:H3	25:YA:1184:G:H1	0.99	0.96
26:YB:8:U:H3	26:YB:112:G:H1	1.00	0.96
22:QW:77:A:H5'	22:QW:77:A:C8	2.01	0.95
1:QA:410:G:H21	1:QA:432:A:N6	1.66	0.94
22:XV:51:U:H3	22:XV:65:G:H1	1.10	0.94
23:XX:22:C:H6	23:XX:22:C:C5'	1.80	0.93
25:YA:15:G:H1	25:YA:525:U:H3	0.99	0.93
11:QK:54:ARG:NH1	22:QW:40:C:H4'	1.83	0.93
26:YB:22:U:H3	26:YB:61:G:H1	0.95	0.92
1:QA:687:A:H62	1:QA:703:G:N2	1.67	0.91
25:YA:2099:U:H3	25:YA:2190:G:H1	1.14	0.91
7:XG:143:ARG:HD2	22:XW:42:C:O2'	1.71	0.90
26:RB:22:U:H3	26:RB:61:G:H1	0.95	0.90
7:XG:144:MET:HE2	22:XW:31:G:H21	1.39	0.88
22:QW:72:C:HO2'	25:RA:1851:U:HO2'	1.12	0.87
11:XK:54:ARG:HH22	22:XW:40:C:C4'	1.89	0.85
26:RB:75:G:HO2'	45:RZ:85:HIS:HE2	1.25	0.84
11:XK:54:ARG:NH2	22:XW:40:C:H4'	1.92	0.83
25:RA:1165:U:H3	25:RA:1184:G:H1	1.26	0.83
7:QG:143:ARG:HG2	22:QW:42:C:H4'	1.61	0.82
22:XW:35:C:N4	23:XX:14:A:C6	2.48	0.81
25:YA:2698:U:H3	25:YA:2709:G:H1	1.26	0.81
22:XW:35:C:N4	23:XX:14:A:N6	2.29	0.80
1:XA:1055:A:H62	1:XA:1200:C:H42	1.30	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1002:G:H1	1:QA:1038:C:H42	1.32	0.77
25:YA:2245:U:H5'	25:YA:2246:G:H5'	1.67	0.77
1:XA:606:G:H21	1:XA:632:A:H62	1.32	0.76
1:QA:410:G:H21	1:QA:432:A:H62	0.84	0.76
22:XW:77:A:C2	25:YA:2422:A:C2	2.74	0.75
22:XW:77:A:O3'	25:YA:2394:C:O2	2.05	0.74
25:RA:2135:A:H62	25:RA:2156:G:H21	0.78	0.74
1:XA:1127:G:N2	1:XA:1145:C:O2	2.21	0.74
22:XW:20:G:N1	25:YA:2112:G:N2	2.10	0.74
25:RA:883:G:H1	25:RA:893:C:H42	1.35	0.73
1:QA:189:U:O2	17:QQ:63:ARG:NH2	2.22	0.72
1:QA:1422:G:H5''	34:RO:48:PRO:HB3	1.71	0.72
1:XA:69:G:H1	1:XA:99:C:H42	1.36	0.72
47:R1:91:LYS:HE2	47:R1:92:LYS:HE2	1.71	0.71
25:YA:2068:U:H3	25:YA:2430:A:H2	1.37	0.71
1:QA:157:G:H1	1:QA:164:U:H3	1.38	0.71
2:QB:185:ILE:HG22	2:QB:199:TYR:HB2	1.73	0.71
1:QA:687:A:N6	1:QA:703:G:H21	1.88	0.71
25:RA:1055:G:H1	25:RA:1104:C:H42	1.36	0.71
25:YA:141:A:H8	25:YA:1595:G:H21	1.40	0.70
28:RE:78:LEU:HG	28:RE:79:ARG:HG2	1.73	0.70
1:QA:687:A:N6	1:QA:703:G:N2	2.40	0.70
22:QW:8:U:N3	22:QW:14:A:C8	2.58	0.70
1:XA:674:G:H2'	1:XA:675:A:H8	1.56	0.70
1:XA:927:G:H1	1:XA:1390:U:H3	1.38	0.70
28:YE:78:LEU:HG	28:YE:79:ARG:HG2	1.73	0.69
25:RA:2118:U:H3	25:RA:2148:G:H4'	1.57	0.69
1:QA:687:A:H62	1:QA:703:G:H21	1.40	0.69
25:RA:1062:G:N2	25:RA:1077:A:N6	2.41	0.69
25:YA:958:U:OP2	36:YQ:14:ARG:NH1	2.25	0.69
22:QW:77:A:O2'	25:RA:2394:C:N3	2.25	0.69
1:XA:1329:A:N7	21:XU:7:ARG:NH2	2.37	0.69
1:XA:1357:A:H61	1:XA:1365:G:H1	1.40	0.69
22:XW:8:U:N3	22:XW:14:A:C8	2.61	0.69
40:RU:50:ARG:O	40:RU:54:LYS:NZ	2.26	0.69
22:XW:35:C:C4	23:XX:14:A:N6	2.61	0.68
1:QA:1147:C:HO2'	9:QI:5:TYR:HH	1.42	0.68
5:XE:102:ALA:HB1	5:XE:106:PRO:HG2	1.75	0.68
10:XJ:61:GLU:OE1	14:YN:58:LYS:NZ	2.27	0.68
25:YA:602:G:HO2'	25:YA:604:G:HO2'	1.42	0.68
25:YA:1817:G:OP1	27:YD:88:ARG:NH2	2.27	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:QG:143:ARG:HD2	22:QW:42:C:O2'	1.92	0.68
1:XA:1316:G:H22	1:XA:1319:A:H5''	1.59	0.68
7:XG:143:ARG:HD3	22:XW:42:C:C3'	2.16	0.68
25:YA:888:C:H3'	25:YA:889:C:H4'	1.74	0.68
9:QI:112:LYS:HA	9:QI:119:ALA:HB2	1.76	0.68
5:QE:102:ALA:HB1	5:QE:106:PRO:HG2	1.75	0.67
1:XA:593:G:H1	1:XA:646:U:H3	1.42	0.67
1:XA:1095:U:OP1	1:XA:1108:G:N2	2.25	0.67
1:XA:1238:A:N7	1:XA:1301:U:O4	2.26	0.67
10:QJ:61:GLU:OE1	14:QN:58:LYS:NZ	2.27	0.67
1:XA:1325:C:OP2	21:XU:6:ARG:NH2	2.26	0.67
25:YA:2303:G:N3	30:YG:132:ASN:ND2	2.42	0.67
25:RA:1359:A:H62	25:RA:1372:U:H3	1.42	0.67
40:YU:50:ARG:O	40:YU:54:LYS:NZ	2.26	0.67
7:XG:144:MET:CE	22:XW:31:G:H21	2.07	0.67
26:YB:114:G:HO2'	38:YS:50:SER:HG	1.35	0.67
27:YD:8:PRO:HB3	27:YD:14:ARG:HB3	1.77	0.67
11:QK:18:ARG:HG2	11:QK:81:ASP:HB2	1.77	0.67
19:QS:67:VAL:HG21	50:R4:58:ARG:HB3	1.77	0.67
25:RA:2096:U:H3	25:RA:2193:G:H1	1.43	0.67
27:RD:8:PRO:HB3	27:RD:14:ARG:HB3	1.77	0.67
3:QC:172:ARG:HG2	3:QC:174:PRO:HD3	1.78	0.66
25:RA:2068:U:H3	25:RA:2430:A:H2	1.40	0.66
1:QA:339:C:OP2	34:RO:97:ARG:NH1	2.28	0.66
3:XC:172:ARG:HG2	3:XC:174:PRO:HD3	1.78	0.66
25:RA:994:C:OP1	40:RU:53:ARG:NH2	2.28	0.66
25:RA:639:U:H3	25:RA:649:G:H1	1.43	0.66
22:XW:77:A:N3	25:YA:2422:A:C2	2.64	0.66
38:YS:20:ARG:NH1	46:Y0:48:GLY:O	2.28	0.66
50:Y4:16:CYS:SG	50:Y4:17:GLY:N	2.69	0.66
1:QA:132:C:O3'	20:QT:74:LYS:NZ	2.26	0.66
25:RA:1062:G:N2	25:RA:1077:A:C6	2.64	0.66
40:YU:92:ARG:HD3	40:YU:94:ASN:HB3	1.78	0.66
12:QL:60:LEU:HD12	12:QL:62:SER:H	1.61	0.65
22:QW:34:U:H3'	22:QW:35:C:H5''	1.77	0.65
40:RU:92:ARG:HD3	40:RU:94:ASN:HB3	1.78	0.65
47:R1:83:GLU:HG2	47:R1:85:LEU:H	1.61	0.65
50:R4:16:CYS:SG	50:R4:17:GLY:N	2.69	0.65
1:QA:8:A:N6	4:QD:205:GLU:O	2.29	0.65
25:RA:2619:C:H5''	28:RE:152:LYS:HA	1.78	0.65
25:YA:2882:A:OP1	37:YR:96:ARG:NH1	2.30	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:924:C:O2'	1:QA:1502:A:N6	2.30	0.65
7:XG:143:ARG:CD	22:XW:42:C:C3'	2.74	0.65
1:QA:1130:A:O2'	9:QI:3:GLN:NE2	2.30	0.65
22:QW:59:A:O2'	22:QW:60:A:OP1	2.14	0.65
1:XA:261:U:OP2	20:XT:79:ARG:NH2	2.30	0.65
25:RA:83:G:N2	25:RA:103:A:OP2	2.29	0.65
25:RA:2293:C:OP1	38:RS:89:ARG:NH1	2.26	0.65
25:YA:2701:C:H3'	25:YA:2702:U:H5''	1.79	0.65
26:YB:43:C:O2'	30:YG:98:ARG:NH2	2.30	0.65
25:RA:2119:A:N6	25:RA:2170:A:N7	2.44	0.64
2:XB:185:ILE:HG22	2:XB:199:TYR:HB2	1.77	0.64
25:YA:1607:C:N4	25:YA:1622:G:OP2	2.29	0.64
1:QA:403:C:OP2	4:QD:74:GLN:NE2	2.31	0.64
25:RA:2882:A:OP1	37:RR:96:ARG:NH1	2.29	0.64
25:YA:2291:U:H3	25:YA:2341:G:H1	1.44	0.64
40:RU:90:VAL:HG22	41:RV:39:LEU:HD23	1.80	0.64
1:QA:954:G:H21	1:QA:1227:A:H62	1.44	0.64
25:RA:1019:U:H3	25:RA:1142(A):A:H62	1.44	0.64
25:YA:572:A:OP2	41:YV:78:LYS:NZ	2.31	0.64
25:YA:1309:G:HO2'	25:YA:1611:C:HO2'	1.43	0.64
1:XA:1298:C:OP2	7:XG:114:ARG:NH2	2.31	0.64
25:YA:1479:G:N7	25:YA:1510:A:N6	2.45	0.64
25:RA:993:G:OP1	40:RU:50:ARG:NH2	2.29	0.64
25:RA:1111:A:H5'	31:RH:3:ARG:HH21	1.62	0.64
25:RA:1065:U:H3	25:RA:1073:A:H61	1.44	0.64
25:YA:2343:C:HO2'	25:YA:2373:G:HO2'	1.44	0.64
33:YN:133:GLN:HG2	33:YN:135:PRO:HD3	1.80	0.64
7:XG:144:MET:HE2	22:XW:31:G:N2	2.13	0.63
25:RA:1542:G:O6	25:RA:1543:A:N6	2.32	0.63
25:RA:2747:G:H21	25:RA:2757:A:H62	1.46	0.63
29:RF:116:ASP:OD2	35:RP:1:MET:N	2.30	0.63
12:XL:71:PRO:O	12:XL:102:ARG:NH1	2.32	0.63
15:XO:7:GLU:OE2	15:XO:38:ARG:NH2	2.31	0.63
1:XA:1191:A:OP2	3:XC:3:ASN:ND2	2.32	0.63
3:XC:20:SER:HB2	3:XC:40:ARG:HH22	1.64	0.63
51:R5:20:ARG:HA	51:R5:23:HIS:HD2	1.63	0.63
4:XD:100:ARG:NH2	4:XD:136:PRO:O	2.32	0.63
28:YE:5:LEU:HG	28:YE:49:LEU:HD23	1.81	0.63
28:RE:5:LEU:HG	28:RE:49:LEU:HD23	1.81	0.63
1:XA:606:G:N2	1:XA:632:A:H62	1.97	0.63
1:XA:686:U:H1'	11:XK:42:TRP:HE1	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:2314:C:H2'	25:YA:2315:G:H8	1.63	0.63
1:QA:537:G:H5''	12:QL:113:ARG:HH12	1.63	0.63
36:RQ:34:LEU:HD11	36:RQ:129:THR:HB	1.81	0.63
1:XA:950:U:H3	1:XA:1231:G:H1	1.46	0.63
1:XA:1238:A:H62	1:XA:1301:U:H3	0.80	0.63
2:XB:118:LEU:HB3	2:XB:142:LEU:HD12	1.80	0.63
25:YA:297:C:OP1	44:YY:87:LYS:NZ	2.32	0.63
1:XA:708:C:H2'	1:XA:709:G:H8	1.64	0.63
10:XJ:26:ALA:O	10:XJ:84:GLN:NE2	2.32	0.63
16:XP:45:THR:HG22	16:XP:47:ASP:H	1.63	0.63
16:QP:45:THR:HG22	16:QP:47:ASP:H	1.63	0.63
25:RA:1124:C:O2	55:R9:36:GLN:NE2	2.32	0.63
1:XA:842:C:O2'	1:XA:848:C:N4	2.32	0.63
1:XA:1189:C:OP2	10:XJ:51:ARG:NH2	2.32	0.63
25:YA:884:C:H41	25:YA:886:C:H1'	1.64	0.63
4:QD:100:ARG:NH2	4:QD:136:PRO:O	2.32	0.62
25:YA:2839:G:H1	25:YA:2878:U:H3	1.46	0.62
3:QC:95:THR:HG22	3:QC:97:LYS:H	1.64	0.62
1:XA:80:G:H1	1:XA:89:U:H3	1.46	0.62
3:QC:19:GLU:HG2	3:QC:54:ARG:HE	1.64	0.62
1:XA:266:G:H5'	1:XA:268:C:H41	1.64	0.62
25:YA:1195:G:O6	35:YP:16:ARG:NH2	2.32	0.62
3:QC:20:SER:HB2	3:QC:40:ARG:HH22	1.64	0.62
10:QJ:51:ARG:O	14:QN:45:ARG:NH1	2.32	0.62
33:RN:133:GLN:HG2	33:RN:135:PRO:HD3	1.80	0.62
41:YV:61:VAL:HG12	41:YV:63:GLY:H	1.64	0.62
1:QA:673:G:O3'	6:QF:87:ARG:NH2	2.32	0.62
25:RA:27:G:N2	25:RA:513:A:OP2	2.32	0.62
1:XA:341:C:H42	1:XA:348:G:H1	1.46	0.62
36:YQ:34:LEU:HD11	36:YQ:129:THR:HB	1.81	0.62
16:QP:4:ILE:HG12	16:QP:21:VAL:HG12	1.82	0.62
41:RV:61:VAL:HG12	41:RV:63:GLY:H	1.64	0.62
1:XA:189:U:O2	17:XQ:63:ARG:NH2	2.32	0.62
1:XA:1249:C:O2'	9:XI:73:GLN:NE2	2.32	0.62
1:XA:1422:G:H5''	34:YO:48:PRO:HB3	1.82	0.62
3:XC:19:GLU:HG2	3:XC:54:ARG:HE	1.64	0.62
25:YA:1728:G:H8	25:YA:1732:A:H62	1.48	0.62
29:YF:116:ASP:OD1	29:YF:119:ARG:NH2	2.33	0.62
25:RA:2303:G:N3	30:RG:132:ASN:ND2	2.48	0.62
1:XA:1130:A:O2'	9:XI:3:GLN:NE2	2.33	0.62
25:YA:259:G:H21	25:YA:621:A:H8	1.48	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:1607:C:N4	25:RA:1622:G:OP2	2.31	0.62
1:XA:278:G:OP2	17:XQ:92:ARG:NH2	2.31	0.62
11:QK:109:VAL:HG12	18:QR:86:VAL:HA	1.81	0.62
25:RA:2378:A:N1	38:RS:17:ARG:NH1	2.47	0.62
22:XW:59:A:O2'	22:XW:60:A:OP1	2.16	0.61
47:R1:87:PRO:HA	47:R1:90:ILE:HG22	1.82	0.61
1:XA:132:C:O3'	20:XT:74:LYS:NZ	2.29	0.61
2:QB:178:ARG:NH2	2:QB:196:LEU:O	2.32	0.61
35:RP:52:GLU:OE2	54:R8:52:LYS:NZ	2.34	0.61
39:RT:51:ARG:HG2	39:RT:98:LYS:HD2	1.82	0.61
25:YA:2126:A:N6	25:YA:2163:C:O2'	2.31	0.61
1:QA:278:G:OP2	17:QQ:92:ARG:NH2	2.33	0.61
4:QD:62:GLN:HE22	4:QD:65:ARG:HH21	1.48	0.61
25:RA:2296:U:OP2	38:RS:9:ARG:NH1	2.33	0.61
2:XB:178:ARG:NH2	2:XB:196:LEU:O	2.32	0.61
18:QR:32:ARG:HA	18:QR:69:THR:HG21	1.82	0.61
30:RG:37:VAL:HG22	30:RG:159:VAL:HG12	1.83	0.61
22:QW:77:A:H8	22:QW:77:A:C5'	2.08	0.61
25:RA:2734:A:H62	25:RA:2770:G:H21	1.47	0.61
4:XD:62:GLN:HE22	4:XD:65:ARG:HH21	1.48	0.61
10:XJ:49:VAL:HG23	14:XN:41:ARG:HB2	1.82	0.61
18:XR:32:ARG:HA	18:XR:69:THR:HG21	1.82	0.61
47:Y1:83:GLU:HG2	47:Y1:85:LEU:H	1.64	0.61
1:QA:372:C:H42	1:QA:389:A:H62	1.47	0.61
1:XA:544:G:OP1	4:XD:59:ARG:NH2	2.34	0.61
16:XP:4:ILE:HG12	16:XP:21:VAL:HG12	1.82	0.61
51:Y5:20:ARG:HA	51:Y5:23:HIS:HD2	1.63	0.61
10:QJ:49:VAL:HG13	14:QN:41:ARG:HB2	1.83	0.61
25:RA:259:G:H21	25:RA:621:A:H8	1.48	0.61
1:QA:448:A:OP2	1:QA:485:G:N2	2.33	0.61
10:XJ:38:ILE:HD11	10:XJ:71:LEU:HD23	1.82	0.61
25:YA:1666:G:N3	34:YO:3:GLN:NE2	2.48	0.61
39:YT:51:ARG:HG2	39:YT:98:LYS:HD2	1.82	0.61
1:QA:806:C:H2'	1:QA:807:A:H8	1.66	0.61
29:RF:116:ASP:OD1	29:RF:119:ARG:NH2	2.33	0.61
25:YA:1055:G:H1	25:YA:1104:C:H42	1.49	0.61
31:RH:46:GLU:OE1	31:RH:51:ARG:NH1	2.34	0.60
1:XA:664:G:H22	1:XA:741:G:H1	1.49	0.60
1:XA:1125:U:OP2	1:XA:1145:C:N4	2.34	0.60
1:XA:1305:G:N2	1:XA:1332:A:OP2	2.33	0.60
3:XC:95:THR:HG22	3:XC:97:LYS:H	1.64	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:QW:20:G:O6	25:RA:2112:G:C2	2.55	0.60
25:RA:2788:C:O2'	25:RA:2809:A:N3	2.33	0.60
9:XI:21:PRO:HA	9:XI:59:PHE:HA	1.83	0.60
1:QA:34:C:H2'	1:QA:35:G:H8	1.67	0.60
1:QA:664:G:H22	1:QA:741:G:H1	1.48	0.60
1:QA:979:C:O2	14:QN:19:ARG:NE	2.34	0.60
25:RA:2292:C:OP1	38:RS:17:ARG:NH2	2.34	0.60
9:QI:28:VAL:HG22	9:QI:63:ILE:HB	1.83	0.60
22:QW:77:A:N1	54:R8:31:HIS:CE1	2.70	0.60
25:RA:1056:G:H21	25:RA:1103:A:H62	1.49	0.60
1:XA:1356:G:H2'	1:XA:1357:A:H8	1.65	0.60
10:XJ:7:LYS:HB2	10:XJ:97:GLU:HB2	1.82	0.60
25:YA:83:G:N2	25:YA:103:A:OP2	2.25	0.60
25:YA:1138:G:H21	33:YN:106:MET:HE3	1.65	0.60
28:YE:201:THR:HG22	28:YE:203:LYS:H	1.66	0.60
28:RE:201:THR:HG22	28:RE:203:LYS:H	1.66	0.60
10:QJ:3:LYS:N	10:QJ:74:ILE:O	2.35	0.60
25:RA:2784:C:O2'	28:RE:37:ARG:NH1	2.34	0.60
1:XA:1351:U:H3	1:XA:1371:G:H1	1.49	0.60
1:QA:1306:A:N6	1:QA:1331:G:O2'	2.34	0.60
22:QW:15:G:H2'	22:QW:60:A:N1	2.16	0.60
25:RA:94:G:N3	48:R2:47:ASN:ND2	2.49	0.60
25:RA:1817:G:OP1	27:RD:88:ARG:NH2	2.34	0.60
1:XA:1034:G:N2	1:XA:1035:A:N7	2.49	0.60
11:XK:83:ILE:HG12	11:XK:109:VAL:HB	1.83	0.60
31:YH:46:GLU:OE1	31:YH:51:ARG:NH1	2.34	0.60
35:YP:62:LEU:HD12	54:Y8:30:ARG:HH21	1.65	0.60
28:YE:24:THR:HG21	28:YE:188:VAL:HG11	1.84	0.60
45:YZ:7:ALA:HB2	45:YZ:59:LEU:HB3	1.83	0.60
25:RA:587:C:OP2	35:RP:21:ARG:NH1	2.34	0.60
25:YA:676:A:H8	25:YA:2069:G:H21	1.49	0.60
35:RP:58:THR:O	35:RP:61:ARG:NH2	2.35	0.60
45:RZ:163:LEU:HD13	45:RZ:167:PRO:HD3	1.84	0.60
25:YA:1365:A:O2'	47:Y1:11:ARG:NH2	2.34	0.60
45:YZ:163:LEU:HD22	45:YZ:167:PRO:HG3	1.84	0.60
25:YA:2845:G:H2'	25:YA:2846:G:H8	1.67	0.59
9:QI:128:ARG:NH2	22:QV:34:U:OP2	2.35	0.59
10:QJ:4:ILE:HG12	10:QJ:100:THR:HG22	1.84	0.59
25:RA:631:A:OP1	54:R8:46:ARG:NH2	2.36	0.59
43:RX:53:LYS:NZ	43:RX:55:ASN:OD1	2.36	0.59
1:XA:148:G:H2'	1:XA:149:A:H8	1.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:XL:60:LEU:HD12	12:XL:62:SER:H	1.67	0.59
30:YG:37:VAL:HG22	30:YG:159:VAL:HG12	1.83	0.59
1:QA:674:G:H2'	1:QA:675:A:H8	1.67	0.59
17:QQ:66:SER:O	17:QQ:70:ARG:NH1	2.35	0.59
25:YA:27:G:N2	25:YA:513:A:OP2	2.35	0.59
1:QA:544:G:OP1	4:QD:59:ARG:NH2	2.36	0.59
2:QB:47:THR:HA	2:QB:202:PRO:HG2	1.85	0.59
19:QS:40:ILE:HG13	19:QS:44:MET:HG3	1.84	0.59
25:YA:1316:U:H2'	25:YA:1317:A:H8	1.67	0.59
25:YA:1858:G:O2'	25:YA:1884:A:N6	2.35	0.59
43:YX:53:LYS:NZ	43:YX:55:ASN:OD1	2.36	0.59
1:QA:134:A:H61	16:QP:25:ARG:HH12	1.51	0.59
25:RA:1270:C:H5''	25:RA:1271:G:H5'	1.85	0.59
25:RA:2701:C:H3'	25:RA:2702:U:H5''	1.84	0.59
36:RQ:48:GLU:OE2	36:RQ:51:ARG:NH2	2.35	0.59
45:RZ:7:ALA:HB2	45:RZ:59:LEU:HB3	1.83	0.59
1:XA:924:C:O2'	1:XA:1502:A:N6	2.34	0.59
17:XQ:66:SER:O	17:XQ:70:ARG:NH1	2.35	0.59
25:YA:270(U):C:H2'	25:YA:270(V):G:H8	1.68	0.59
25:RA:2597:G:H5'	27:RD:243:GLY:HA3	1.84	0.59
25:YA:300:A:OP1	44:YY:86:ARG:NH2	2.36	0.59
46:Y0:70:GLN:OE1	46:Y0:80:HIS:NE2	2.34	0.59
25:RA:1510:A:O2'	25:RA:1511:A:N7	2.36	0.59
33:RN:58:ASP:N	33:RN:58:ASP:OD1	2.36	0.59
1:XA:1296:C:OP1	13:XM:44:ARG:NH2	2.35	0.59
8:QH:10:LEU:HD22	8:QH:83:ILE:HD11	1.84	0.59
28:RE:24:THR:HG21	28:RE:188:VAL:HG11	1.84	0.59
18:XR:86:VAL:HG12	18:XR:87:ARG:HG2	1.85	0.59
25:YA:665:C:H2'	25:YA:666:G:H8	1.67	0.59
36:YQ:48:GLU:OE2	36:YQ:51:ARG:NH2	2.35	0.59
1:QA:1073:U:O2	2:QB:104:ASN:ND2	2.35	0.59
22:QW:77:A:C2	25:RA:2421:G:C6	2.91	0.59
25:RA:630:G:N2	25:RA:633:A:OP2	2.34	0.59
25:RA:2494:G:OP1	46:R0:3:HIS:N	2.36	0.59
44:YY:47:LYS:NZ	44:YY:48:ALA:O	2.35	0.59
25:RA:557:U:H2'	25:RA:558:G:H8	1.68	0.58
30:RG:29:TRP:O	30:RG:33:ARG:NH1	2.36	0.58
40:RU:95:LEU:HD13	41:RV:4:ILE:HD12	1.85	0.58
41:RV:24:LYS:HA	41:RV:92:THR:HG23	1.85	0.58
27:YD:168:ARG:HG2	27:YD:173:VAL:HG12	1.85	0.58
45:YZ:163:LEU:HD13	45:YZ:167:PRO:HD3	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:R9:27:CYS:SG	55:R9:28:GLU:N	2.76	0.58
1:XA:673:G:H2'	1:XA:674:G:C8	2.37	0.58
1:QA:261:U:OP2	20:QT:79:ARG:NH2	2.36	0.58
1:QA:979:C:OP1	1:QA:1223:C:N4	2.36	0.58
1:QA:1245:A:OP2	21:QU:9:ARG:NH2	2.33	0.58
35:RP:62:LEU:HD12	54:R8:30:ARG:HH21	1.68	0.58
45:RZ:163:LEU:HD22	45:RZ:167:PRO:HG3	1.84	0.58
25:YA:1651:G:OP1	37:YR:40:LYS:NZ	2.34	0.58
35:YP:68:GLN:HG2	54:Y8:12:LYS:HG2	1.85	0.58
41:YV:24:LYS:HA	41:YV:92:THR:HG23	1.85	0.58
1:QA:1104:G:O2'	2:QB:111:ARG:NH1	2.36	0.58
1:QA:1305:G:N2	1:QA:1332:A:OP2	2.36	0.58
25:RA:1567:A:O2'	27:RD:63:ARG:NH2	2.37	0.58
30:RG:40:ASN:ND2	30:RG:90:LEU:O	2.36	0.58
8:XH:34:GLU:OE1	8:XH:37:ARG:NH2	2.37	0.58
25:YA:1971:A:OP2	27:YD:242:ARG:NH2	2.36	0.58
26:RB:111:U:H2'	26:RB:112:G:H8	1.68	0.58
55:R9:25:VAL:HB	55:R9:34:GLN:HB2	1.85	0.58
13:XM:3:ARG:HH12	30:YG:113:ARG:HH21	1.52	0.58
55:Y9:27:CYS:SG	55:Y9:28:GLU:N	2.76	0.58
1:QA:552:U:H2'	1:QA:553:A:H8	1.68	0.58
25:RA:26:G:H1'	25:RA:515:A:H61	1.68	0.58
25:RA:1228:G:OP2	40:RU:16:LYS:NZ	2.37	0.58
25:RA:2540:C:O2'	25:RA:2740:A:N3	2.35	0.58
27:RD:168:ARG:HG2	27:RD:173:VAL:HG12	1.85	0.58
28:RE:50:GLY:HA2	28:RE:77:ILE:HA	1.86	0.58
22:XW:5:G:H2'	22:XW:6:G:H8	1.69	0.58
25:YA:2508:G:H1	25:YA:2580:U:H3	1.49	0.58
30:YG:40:ASN:ND2	30:YG:90:LEU:O	2.36	0.58
37:YR:86:ARG:NH2	37:YR:118:GLU:OXT	2.37	0.58
18:QR:86:VAL:HG12	18:QR:87:ARG:HG2	1.85	0.58
1:XA:411:A:OP1	4:XD:30:LYS:NZ	2.37	0.58
1:XA:1347:G:N2	1:XA:1374:A:OP2	2.37	0.58
25:YA:1795:C:O2	27:YD:255:LYS:NZ	2.35	0.58
26:YB:111:U:H2'	26:YB:112:G:H8	1.68	0.58
11:QK:86:GLY:O	11:QK:91:ARG:NH1	2.37	0.58
1:XA:701:C:O2	1:XA:703:G:N1	2.37	0.58
8:XH:10:LEU:HD22	8:XH:83:ILE:HD11	1.84	0.58
23:XX:23:A:H8	23:XX:23:A:H3'	1.69	0.58
25:YA:861:A:N3	26:YB:79:C:O2'	2.37	0.58
1:QA:673:G:H2'	1:QA:674:G:C8	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:RG:108:ASN:HA	50:R4:37:SER:HB3	1.86	0.58
25:YA:631:A:OP1	54:Y8:46:ARG:NH2	2.37	0.58
25:YA:2033:A:O2'	25:YA:2035:G:OP2	2.21	0.58
27:YD:77:ALA:HB3	27:YD:117:VAL:HG13	1.86	0.58
1:QA:593:G:H1	1:QA:646:U:H3	1.51	0.58
1:QA:1104:G:H4'	2:QB:111:ARG:HD2	1.85	0.58
25:RA:662:G:OP1	35:RP:15:ARG:NH1	2.36	0.58
26:RB:22:U:O2	26:RB:61:G:N2	2.32	0.58
46:R0:27:GLU:HG3	46:R0:68:GLU:HA	1.86	0.58
23:XX:22:C:C6	23:XX:22:C:C5'	2.70	0.58
25:YA:857:C:OP2	46:Y0:77:ARG:NH2	2.37	0.58
25:YA:1212:G:O2'	25:YA:1236:G:N2	2.33	0.58
25:YA:1689:A:H62	25:YA:1698:A:H2	1.52	0.58
30:YG:29:TRP:O	30:YG:33:ARG:NH1	2.36	0.58
1:QA:689:C:H3'	1:QA:690:G:H21	1.67	0.57
41:YV:1:MET:HE2	41:YV:43:GLU:HB2	1.86	0.57
37:RR:86:ARG:NH2	37:RR:118:GLU:OXT	2.38	0.57
1:XA:545:C:OP1	4:XD:61:LYS:NZ	2.37	0.57
22:XW:8:U:H4'	22:XW:9:G:OP1	2.04	0.57
36:YQ:66:ILE:HA	36:YQ:104:PHE:HA	1.86	0.57
19:QS:50:ALA:HA	19:QS:58:VAL:O	2.04	0.57
25:RA:1309:G:HO2'	25:RA:1611:C:HO2'	1.51	0.57
25:RA:1666:G:N3	34:RO:3:GLN:NE2	2.52	0.57
41:RV:1:MET:HE2	41:RV:43:GLU:HB2	1.86	0.57
1:XA:1227:A:OP1	19:XS:80:TYR:OH	2.19	0.57
1:QA:272:C:H2'	1:QA:273:A:H8	1.68	0.57
1:QA:490:G:OP2	4:QD:132:ARG:NH2	2.37	0.57
8:QH:34:GLU:OE1	8:QH:37:ARG:NH2	2.37	0.57
25:RA:987:G:O2'	25:RA:1000:A:N3	2.33	0.57
27:RD:146:GLU:HB2	27:RD:189:CYS:HB3	1.86	0.57
36:RQ:66:ILE:HA	36:RQ:104:PHE:HA	1.86	0.57
1:XA:403:C:OP2	4:XD:74:GLN:NE2	2.37	0.57
1:XA:913:A:OP1	12:XL:46:LYS:NZ	2.36	0.57
19:XS:50:ALA:HB1	19:XS:57:HIS:HB3	1.86	0.57
25:YA:793:A:OP2	25:YA:2071:A:O2'	2.21	0.57
27:YD:143:HIS:ND1	27:YD:194:GLY:O	2.37	0.57
44:YY:102:CYS:SG	44:YY:103:GLY:N	2.77	0.57
55:Y9:25:VAL:HB	55:Y9:34:GLN:HB2	1.85	0.57
1:XA:486:U:H2'	1:XA:487:A:H8	1.69	0.57
1:XA:1286:A:H2'	1:XA:1287:A:H4'	1.87	0.57
25:YA:574:C:N3	28:YE:145:LYS:NZ	2.44	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:2030:A:H4'	25:YA:2031:A:H8	1.69	0.57
25:YA:2102:U:H3	25:YA:2187:G:H1	1.52	0.57
28:YE:50:GLY:HA2	28:YE:77:ILE:HA	1.86	0.57
1:QA:405:U:O4	4:QD:2:GLY:N	2.37	0.57
1:XA:1244:C:H42	1:XA:1293:G:H1	1.52	0.57
25:YA:918:A:N3	26:YB:80:U:O2'	2.35	0.57
25:YA:1196:C:HO2'	25:YA:1228:G:HO2'	1.48	0.57
25:YA:2822:G:OP1	28:YE:159:HIS:NE2	2.38	0.57
1:QA:1129:C:N4	1:QA:1133:G:O6	2.37	0.57
44:RY:102:CYS:SG	44:RY:103:GLY:N	2.77	0.57
49:R3:15:TYR:O	49:R3:20:LYS:NZ	2.38	0.57
1:XA:159:G:H21	1:XA:161:A:H8	1.52	0.57
1:QA:562:C:H1'	12:QL:15:ARG:HD2	1.86	0.57
1:QA:1249:C:O2'	9:QI:73:GLN:NE2	2.38	0.57
1:QA:1325:C:H4'	21:QU:17:THR:HG21	1.87	0.57
28:RE:9:VAL:HB	28:RE:25:VAL:HG23	1.87	0.57
25:YA:468:G:OP2	53:Y7:37:LYS:NZ	2.37	0.57
25:YA:768:G:O2'	25:YA:1379:A:N6	2.37	0.57
25:YA:2100:G:H1	25:YA:2189:U:H3	1.53	0.57
25:YA:2313:C:H5''	30:YG:91:ARG:HD3	1.87	0.57
27:YD:146:GLU:HB2	27:YD:189:CYS:HB3	1.86	0.57
40:YU:58:ARG:HH11	40:YU:93:LYS:HE2	1.70	0.57
25:RA:820:A:N3	25:RA:943:U:O2'	2.38	0.57
25:RA:998:C:OP2	40:RU:58:ARG:NH1	2.33	0.57
1:XA:1484:C:HO2'	25:YA:1960:A:HO2'	1.52	0.57
25:YA:521:G:H2'	25:YA:522:G:H8	1.70	0.57
45:YZ:52:SER:O	45:YZ:54:HIS:N	2.37	0.57
1:QA:1397:C:N3	23:QX:22:C:C5	2.73	0.57
25:RA:815:C:OP2	41:RV:83:ARG:NH1	2.38	0.57
1:XA:401:C:O2'	1:XA:621:A:N3	2.33	0.57
1:XA:1123:A:H4'	10:XJ:36:GLY:HA3	1.86	0.57
25:YA:2646:C:OP2	25:YA:2732:G:O2'	2.20	0.57
25:YA:2680:C:H5'	28:YE:189:PRO:HA	1.87	0.57
25:YA:2729:G:H1'	28:YE:187:ALA:HB2	1.87	0.57
28:YE:9:VAL:HB	28:YE:25:VAL:HG23	1.87	0.57
2:QB:51:LEU:HD23	2:QB:201:ILE:HD12	1.87	0.56
35:RP:68:GLN:HG2	54:R8:12:LYS:HG2	1.86	0.56
47:R1:80:LEU:HD12	47:R1:81:LYS:HG2	1.87	0.56
19:XS:40:ILE:HG13	19:XS:44:MET:HE3	1.85	0.56
25:YA:58:G:H5'	43:YX:74:PRO:HB3	1.86	0.56
25:YA:2597:G:H5'	27:YD:243:GLY:HA3	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:YQ:77:LYS:NZ	36:YQ:80:GLU:OE2	2.30	0.56
25:RA:2680:C:OP2	28:RE:111:ARG:NH2	2.36	0.56
27:RD:77:ALA:HB3	27:RD:117:VAL:HG13	1.86	0.56
1:XA:356:A:N3	1:XA:368:U:O2'	2.34	0.56
1:XA:1128:C:OP1	9:XI:66:ARG:NH2	2.38	0.56
3:XC:19:GLU:O	3:XC:40:ARG:NH2	2.38	0.56
22:XW:15:G:H2'	22:XW:60:A:N1	2.19	0.56
25:YA:2741:A:H5''	55:Y9:22:ARG:HH12	1.70	0.56
19:QS:50:ALA:HB1	19:QS:57:HIS:HB3	1.88	0.56
25:RA:332:A:O2'	25:RA:334:C:OP2	2.20	0.56
25:RA:919:G:N2	25:RA:2269:A:OP2	2.37	0.56
25:RA:1092:C:N4	25:RA:1099:G:O6	2.39	0.56
25:RA:1694:C:O2	25:RA:1695:G:N2	2.39	0.56
26:RB:37:C:O2	38:RS:95:HIS:NE2	2.38	0.56
40:RU:58:ARG:HH11	40:RU:93:LYS:HE2	1.70	0.56
47:R1:52:ARG:HH11	47:R1:57:GLU:HB2	1.71	0.56
1:XA:1352:C:OP1	21:XU:3:LYS:NZ	2.32	0.56
2:XB:77:ALA:HB2	2:XB:211:ILE:HD13	1.88	0.56
25:YA:1228:G:OP2	40:YU:16:LYS:NZ	2.38	0.56
37:YR:88:ARG:NH2	37:YR:89:ASP:OD1	2.38	0.56
50:Y4:56:VAL:HG23	50:Y4:58:ARG:HG3	1.88	0.56
1:QA:56:U:H2'	1:QA:57:G:H8	1.70	0.56
25:RA:907:U:O2'	36:RQ:101:ARG:NH2	2.37	0.56
25:RA:2851:A:O2'	37:RR:64:ARG:NH2	2.38	0.56
12:XL:114:LYS:O	12:XL:117:ARG:NH1	2.38	0.56
25:YA:996:A:OP2	40:YU:92:ARG:NH2	2.39	0.56
25:YA:1857:G:O2'	25:YA:1885:A:N6	2.38	0.56
36:YQ:81:VAL:O	36:YQ:82:ARG:NE	2.36	0.56
25:RA:288:C:H2'	25:RA:289:A:H8	1.71	0.56
26:RB:42:C:O2	30:RG:93:THR:N	2.34	0.56
1:XA:128:G:O2'	17:XQ:3:LYS:NZ	2.36	0.56
25:YA:1220:A:OP2	40:YU:19:LYS:NZ	2.34	0.56
3:QC:19:GLU:O	3:QC:40:ARG:NH2	2.38	0.56
22:QW:40:C:H2'	22:QW:41:C:H6	1.70	0.56
25:RA:2112:G:O6	25:RA:2169:A:N6	2.38	0.56
27:RD:36:PRO:HB2	27:RD:61:LEU:HD12	1.87	0.56
1:XA:1224:G:O2'	1:XA:1322:C:OP2	2.23	0.56
1:XA:1522:U:H2'	1:XA:1523:G:H8	1.71	0.56
13:XM:14:ARG:NH2	13:XM:16:ASP:OD2	2.38	0.56
22:XW:40:C:H2'	22:XW:41:C:H6	1.71	0.56
25:YA:527:C:N4	25:YA:2779:U:OP2	2.37	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:662:G:OP1	35:YP:15:ARG:NH1	2.39	0.56
35:YP:52:GLU:OE2	54:Y8:52:LYS:NZ	2.38	0.56
54:Y8:29:LYS:O	54:Y8:31:HIS:N	2.39	0.56
1:QA:606:G:H22	1:QA:631:G:H5'	1.70	0.56
36:RQ:81:VAL:O	36:RQ:82:ARG:NE	2.36	0.56
30:YG:59:GLU:OE1	30:YG:153:ARG:NH2	2.39	0.56
30:YG:65:GLY:HA2	50:Y4:7:PRO:HG2	1.88	0.56
49:Y3:15:TYR:O	49:Y3:20:LYS:NZ	2.38	0.56
1:QA:464:G:N2	1:QA:467:G:N7	2.53	0.56
25:RA:321:G:O2'	25:RA:340:A:N3	2.36	0.56
25:RA:458:G:N2	25:RA:470:A:OP2	2.39	0.56
25:RA:527:C:N4	25:RA:2779:U:OP2	2.39	0.56
37:RR:104:ARG:HG3	37:RR:107:ASP:HB3	1.87	0.56
50:R4:56:VAL:HG23	50:R4:58:ARG:HG3	1.88	0.56
7:XG:94:ARG:NH1	7:XG:98:SER:OG	2.39	0.56
25:YA:2396:G:OP1	47:Y1:25:LYS:NZ	2.39	0.56
43:YX:6:ASP:OD2	48:Y2:29:LYS:NZ	2.39	0.56
1:QA:244:U:OP2	17:QQ:100:LYS:NZ	2.38	0.56
1:QA:439:A:OP2	1:QA:493:G:N1	2.39	0.56
1:QA:707:C:OP1	11:QK:85:ARG:NH1	2.36	0.56
1:QA:827:U:O2	1:QA:874:G:N2	2.39	0.56
13:QM:14:ARG:NH2	13:QM:16:ASP:OD2	2.39	0.56
22:QW:8:U:H4'	22:QW:9:G:OP1	2.05	0.56
25:RA:1062:G:C2	25:RA:1077:A:N6	2.74	0.56
25:RA:2123:G:H2'	25:RA:2124:G:H8	1.71	0.56
25:RA:2503:A:O2'	25:RA:2505:G:OP2	2.22	0.56
25:RA:2848:G:O2'	25:RA:2867:G:N2	2.38	0.56
46:Y0:27:GLU:HG3	46:Y0:68:GLU:HA	1.87	0.56
7:QG:86:GLN:OE1	22:QW:32:G:N2	2.31	0.56
25:RA:1041:C:H2'	25:RA:1042:G:H8	1.71	0.56
25:RA:2102:U:H3	25:RA:2187:G:H1	1.54	0.56
1:XA:8:A:N6	4:XD:205:GLU:O	2.39	0.56
24:XY:37:A:O2'	25:YA:1913:A:N1	2.37	0.56
2:QB:209:ARG:HD3	2:QB:240:GLN:HE22	1.71	0.55
7:QG:94:ARG:NH1	7:QG:98:SER:OG	2.39	0.55
25:RA:955:C:OP1	36:RQ:85:LYS:NZ	2.35	0.55
25:RA:2245:U:H5''	25:RA:2246:G:H5'	1.88	0.55
1:XA:1077:G:N2	1:XA:1080:A:OP2	2.32	0.55
25:YA:1666:G:HO2'	34:YO:6:THR:HG1	1.50	0.55
25:YA:1791:A:N6	25:YA:1828:G:O2'	2.36	0.55
25:YA:2011:U:OP2	42:YW:16:LYS:NZ	2.37	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:2619:C:H5''	28:YE:152:LYS:HA	1.87	0.55
35:YP:101:VAL:HB	35:YP:106:LEU:HB2	1.88	0.55
1:QA:581:G:O3'	15:QO:64:ARG:NH2	2.39	0.55
1:QA:1261:A:H62	1:QA:1274:G:H21	1.54	0.55
25:RA:956:G:OP2	36:RQ:14:ARG:NH2	2.37	0.55
25:RA:2816:C:O2	25:RA:2883:A:O2'	2.25	0.55
27:YD:17:THR:HB	27:YD:205:VAL:H	1.72	0.55
32:YI:3:VAL:HG12	32:YI:38:LEU:HA	1.88	0.55
28:RE:36:ARG:NH1	28:RE:85:ASN:OD1	2.39	0.55
1:XA:34:C:H2'	1:XA:35:G:H8	1.71	0.55
22:XW:77:A:C4	25:YA:2422:A:C2	2.94	0.55
23:XX:22:C:C6	23:XX:22:C:C4'	2.90	0.55
25:YA:1215:G:H1	25:YA:1234:U:H3	1.55	0.55
25:YA:1667:G:O2'	25:YA:1991:U:O4	2.23	0.55
1:QA:1502:A:H2	1:QA:1505:G:H1	1.53	0.55
22:QW:8:U:C2	22:QW:14:A:N7	2.74	0.55
25:RA:2285:C:OP1	52:R6:29:ASN:ND2	2.39	0.55
25:YA:467:G:N7	53:Y7:39:ARG:NH2	2.54	0.55
6:QF:47:ARG:NH2	6:QF:57:GLN:OE1	2.39	0.55
25:YA:1065:U:H3	25:YA:1073:A:H61	1.55	0.55
25:YA:1682:G:OP2	25:YA:1699:G:N2	2.40	0.55
25:YA:1889:A:N3	25:YA:2086:U:O2'	2.38	0.55
27:YD:36:PRO:HB2	27:YD:61:LEU:HD12	1.88	0.55
2:QB:77:ALA:HB2	2:QB:211:ILE:HD13	1.88	0.55
10:QJ:6:ILE:HA	10:QJ:97:GLU:O	2.07	0.55
25:RA:1689:A:H62	25:RA:1698:A:H2	1.53	0.55
32:RI:3:VAL:HG12	32:RI:38:LEU:HA	1.88	0.55
52:R6:10:LEU:HD13	52:R6:19:ARG:HG2	1.88	0.55
1:XA:1055:A:H62	1:XA:1200:C:N4	2.04	0.55
11:XK:34:ASP:OD1	11:XK:38:ASN:N	2.39	0.55
25:YA:1827:C:OP2	27:YD:222:ARG:NH1	2.40	0.55
25:YA:1906:G:N2	25:YA:1925:C:O2	2.40	0.55
52:Y6:10:LEU:HD13	52:Y6:19:ARG:HG2	1.88	0.55
1:QA:297:G:N2	1:QA:300:A:OP2	2.33	0.55
25:RA:2576:G:O2'	25:RA:2579:C:OP2	2.25	0.55
1:XA:244:U:OP2	17:XQ:100:LYS:NZ	2.40	0.55
1:XA:811:C:O2'	1:XA:901:A:N1	2.40	0.55
1:XA:1372:U:H5''	9:XI:71:SER:HB3	1.89	0.55
25:YA:1062:G:H2'	25:YA:1063:G:H8	1.71	0.55
25:YA:1124:C:O2	55:Y9:36:GLN:NE2	2.39	0.55
30:YG:114:ILE:HB	30:YG:117:PHE:HB2	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:QE:91:LEU:HG	5:QE:120:THR:HG22	1.89	0.55
25:RA:2729:G:H1'	28:RE:187:ALA:HB2	1.88	0.55
30:RG:114:ILE:HB	30:RG:117:PHE:HB2	1.88	0.55
48:R2:23:LYS:NZ	48:R2:27:GLU:OE2	2.40	0.55
1:XA:1036:G:N7	1:XA:1037:C:N4	2.55	0.55
7:XG:147:ALA:HB2	22:XW:42:C:H5'	1.89	0.55
26:YB:11:C:OP2	46:Y0:72:ARG:NH2	2.40	0.55
35:YP:135:LEU:HG	35:YP:139:LYS:HE2	1.89	0.55
25:RA:270(T):G:H5''	47:R1:97:LEU:HD22	1.89	0.55
25:RA:2683:C:OP1	39:RT:53:ARG:NH2	2.30	0.55
22:XW:8:U:C2	22:XW:14:A:N7	2.75	0.55
36:RQ:77:LYS:NZ	36:RQ:80:GLU:OE2	2.30	0.55
1:XA:272:C:H2'	1:XA:273:A:H8	1.71	0.55
25:YA:363(A):A:H2'	25:YA:363(B):G:H8	1.72	0.55
28:YE:36:ARG:NH1	28:YE:85:ASN:OD1	2.39	0.55
1:QA:963:G:H1	1:QA:972:C:H42	1.54	0.54
1:QA:1129:C:N4	1:QA:1142:G:O6	2.30	0.54
4:QD:119:GLN:OE1	4:QD:123:HIS:ND1	2.41	0.54
38:RS:15:ARG:NE	38:RS:88:ASP:OD1	2.40	0.54
45:RZ:48:PHE:HA	45:RZ:51:ALA:HB3	1.89	0.54
19:XS:32:LYS:HA	19:XS:50:ALA:HB3	1.90	0.54
25:YA:296:C:O3'	44:YY:95:LYS:NZ	2.41	0.54
25:YA:581:C:H2'	25:YA:582:G:H8	1.72	0.54
1:QA:587:G:N2	1:QA:754:C:OP2	2.40	0.54
37:RR:103:ARG:NH1	42:RW:40:ASN:OD1	2.36	0.54
1:XA:1264:C:H2'	1:XA:1265:G:H8	1.71	0.54
1:XA:1321:C:H5''	1:XA:1322:C:H5''	1.90	0.54
1:XA:1401:G:O6	1:XA:1504:G:N2	2.40	0.54
3:XC:70:VAL:HG12	3:XC:72:LYS:H	1.72	0.54
6:XF:47:ARG:NH2	6:XF:57:GLN:OE1	2.39	0.54
19:XS:22:LEU:HD21	19:XS:29:ARG:HG2	1.89	0.54
22:XW:17:C:OP1	22:XW:61:U:O2'	2.25	0.54
25:YA:2354:G:H4'	46:Y0:35:ASN:HD22	1.71	0.54
45:YZ:48:PHE:HA	45:YZ:51:ALA:HB3	1.89	0.54
1:QA:742:G:OP2	15:QO:35:ARG:NH2	2.40	0.54
1:QA:1099:G:OP1	2:QB:96:ARG:NH2	2.40	0.54
25:RA:17:G:H4'	40:RU:25:TRP:HE1	1.72	0.54
25:RA:958:U:OP2	36:RQ:14:ARG:NH1	2.41	0.54
25:RA:1568:G:H5''	27:RD:61:LEU:HD23	1.89	0.54
29:RF:143:ALA:HB1	29:RF:148:LEU:HB2	1.89	0.54
36:RQ:28:ALA:N	36:RQ:105:GLU:OE2	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:316:G:OP2	1:XA:351:G:O2'	2.21	0.54
1:XA:689:C:OP2	11:XK:55:LYS:NZ	2.39	0.54
11:XK:86:GLY:O	11:XK:91:ARG:NH1	2.37	0.54
25:YA:675:A:OP1	29:YF:63:LYS:NZ	2.32	0.54
26:YB:116:G:H5'	38:YS:55:ALA:HA	1.88	0.54
22:QV:59:A:O2'	22:QV:61:U:OP2	2.23	0.54
25:RA:1678:G:N2	25:RA:1990:C:O2	2.39	0.54
30:RG:59:GLU:OE1	30:RG:153:ARG:NH2	2.39	0.54
25:YA:414:C:O2	25:YA:1864:U:O2'	2.24	0.54
36:YQ:28:ALA:N	36:YQ:105:GLU:OE2	2.41	0.54
40:YU:95:LEU:HD13	41:YV:4:ILE:HD12	1.88	0.54
44:YY:11:ASP:OD1	44:YY:11:ASP:N	2.40	0.54
25:RA:906:G:O3'	36:RQ:67:ARG:NH2	2.41	0.54
27:RD:35:LYS:HZ1	27:RD:63:ARG:HB3	1.73	0.54
1:XA:559:A:OP1	5:XE:126:ARG:NH2	2.41	0.54
34:YO:23:ARG:NH2	34:YO:28:SER:O	2.41	0.54
25:RA:30:G:O2'	25:RA:1214:A:N3	2.37	0.54
25:RA:1341:U:OP2	25:RA:1394:U:O2'	2.20	0.54
2:XB:69:LEU:HB3	2:XB:162:ILE:HG22	1.90	0.54
11:XK:54:ARG:NH2	22:XW:40:C:O2'	2.41	0.54
25:YA:546:C:OP1	25:YA:547:A:N6	2.40	0.54
25:YA:987:G:O2'	25:YA:1000:A:N3	2.38	0.54
3:QC:108:ASN:HD21	3:QC:144:SER:HB2	1.73	0.54
6:QF:9:VAL:HB	6:QF:87:ARG:HB2	1.90	0.54
25:RA:589:C:H2'	25:RA:590:A:H8	1.73	0.54
30:RG:55:LYS:NZ	30:RG:59:GLU:OE2	2.40	0.54
45:RZ:5:LEU:H	45:RZ:59:LEU:HA	1.72	0.54
1:XA:352:C:O2'	1:XA:354:G:OP1	2.26	0.54
1:XA:581:G:OP1	15:XO:65:ARG:NH1	2.41	0.54
1:XA:971:G:N2	1:XA:1363:A:OP2	2.35	0.54
5:XE:91:LEU:HG	5:XE:120:THR:HG22	1.89	0.54
25:YA:2788:C:O2'	25:YA:2809:A:N3	2.40	0.54
38:YS:15:ARG:NE	38:YS:88:ASP:OD1	2.40	0.54
25:RA:768:G:O2'	25:RA:1379:A:N6	2.41	0.54
32:RI:99:GLU:OE2	32:RI:103:ARG:NH2	2.40	0.54
36:RQ:31:ASP:OD1	36:RQ:134:ARG:NH1	2.41	0.54
1:XA:452:A:H62	1:XA:480:U:H3	1.56	0.54
16:XP:23:ASP:OD2	16:XP:25:ARG:NH2	2.41	0.54
25:YA:814:C:O2'	25:YA:1225:C:N3	2.40	0.54
25:YA:971:C:O2'	25:YA:983:A:N3	2.35	0.54
27:YD:122:ASP:OD1	27:YD:122:ASP:N	2.36	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:YF:31:HIS:NE2	29:YF:35:GLU:OE2	2.41	0.54
1:QA:545:C:H5'	4:QD:72:GLU:HG3	1.90	0.54
1:QA:1343:G:H4'	9:QI:122:ALA:HB3	1.89	0.54
13:QM:93:ARG:NH1	25:RA:888:C:OP1	2.41	0.54
25:RA:572:A:OP2	41:RV:78:LYS:NZ	2.36	0.54
25:RA:2133:G:H1'	25:RA:2158:A:H61	1.73	0.54
31:RH:88:LEU:HA	31:RH:130:ARG:HA	1.90	0.54
1:XA:618:C:H5''	1:XA:619:U:H5''	1.89	0.54
25:YA:1405:U:H2'	25:YA:1406:U:H6	1.73	0.54
29:YF:143:ALA:HB1	29:YF:148:LEU:HB2	1.89	0.54
36:YQ:31:ASP:OD1	36:YQ:134:ARG:NH1	2.41	0.54
1:QA:1119:C:H2'	1:QA:1120:G:H8	1.72	0.54
45:RZ:52:SER:O	45:RZ:54:HIS:N	2.37	0.54
25:YA:783:A:H8	25:YA:784:A:H4'	1.73	0.54
30:YG:55:LYS:NZ	30:YG:59:GLU:OE2	2.40	0.54
32:YI:99:GLU:OE2	32:YI:103:ARG:NH2	2.40	0.54
1:QA:1512:U:H3	1:QA:1523:G:H1	1.55	0.53
13:QM:86:CYS:SG	13:QM:87:TYR:N	2.81	0.53
25:RA:746:A:O2'	25:RA:2611:U:O2'	2.22	0.53
29:RF:198:ALA:HA	29:RF:201:VAL:HG12	1.90	0.53
37:RR:51:LEU:HD22	37:RR:66:VAL:HG13	1.91	0.53
1:XA:191:G:O2'	20:XT:101:GLY:O	2.25	0.53
3:XC:108:ASN:HD21	3:XC:144:SER:HB2	1.73	0.53
13:XM:19:LEU:HD21	13:XM:56:LEU:HD11	1.88	0.53
1:QA:421:U:O4	3:QC:127:ARG:NH1	2.42	0.53
1:QA:1359:C:OP1	14:QN:22:THR:OG1	2.22	0.53
1:QA:1522:U:H2'	1:QA:1523:G:H8	1.73	0.53
10:QJ:28:ARG:NH2	10:QJ:34:VAL:O	2.41	0.53
22:QW:4:G:H2'	22:QW:5:G:C8	2.43	0.53
25:RA:521:G:H2'	25:RA:522:G:H8	1.73	0.53
29:RF:31:HIS:NE2	29:RF:35:GLU:OE2	2.41	0.53
39:RT:124:ASP:O	39:RT:128:GLU:N	2.39	0.53
1:XA:582:U:OP2	1:XA:758:G:N1	2.40	0.53
4:XD:119:GLN:OE1	4:XD:123:HIS:ND1	2.41	0.53
25:YA:629:G:N3	25:YA:639:U:O2'	2.41	0.53
25:YA:2105:C:H2'	25:YA:2106:G:H8	1.74	0.53
29:YF:198:ALA:HA	29:YF:201:VAL:HG12	1.90	0.53
39:YT:16:ARG:HH21	39:YT:19:LEU:HD21	1.73	0.53
2:QB:74:LYS:NZ	2:QB:205:ASP:O	2.41	0.53
2:QB:118:LEU:HB3	2:QB:142:LEU:HD12	1.90	0.53
25:RA:17:G:HO2'	40:RU:25:TRP:CD1	2.27	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:270(N):G:OP1	32:RI:57:ARG:NH1	2.41	0.53
27:RD:17:THR:HB	27:RD:205:VAL:H	1.72	0.53
27:RD:182:LEU:H	27:RD:272:ALA:HB3	1.74	0.53
1:XA:28:G:O2'	1:XA:296:U:OP1	2.26	0.53
12:XL:56:ALA:HB2	12:XL:70:ILE:HD11	1.90	0.53
42:YW:22:ASP:OD1	42:YW:25:ARG:NH1	2.30	0.53
45:YZ:5:LEU:H	45:YZ:59:LEU:HA	1.72	0.53
1:QA:139:G:H2'	1:QA:140:A:H8	1.73	0.53
1:QA:1279:A:O2'	1:QA:1281:U:OP2	2.26	0.53
25:RA:2104:G:H1	25:RA:2185:C:H42	1.56	0.53
25:RA:2258:C:O2'	25:RA:2427:C:OP2	2.26	0.53
34:RO:23:ARG:NH2	34:RO:28:SER:O	2.41	0.53
1:XA:619:U:N3	4:XD:134:ASP:OD1	2.35	0.53
23:XX:22:C:C6	23:XX:22:C:C3'	2.91	0.53
26:YB:7:G:N3	38:YS:38:GLN:NE2	2.52	0.53
27:YD:151:LYS:O	27:YD:154:LYS:NZ	2.42	0.53
31:YH:88:LEU:HA	31:YH:130:ARG:HA	1.90	0.53
43:YX:72:LYS:NZ	43:YX:75:ASP:OD1	2.40	0.53
48:Y2:23:LYS:NZ	48:Y2:27:GLU:OE2	2.40	0.53
25:RA:1309:G:O2'	25:RA:1611:C:O2'	2.25	0.53
27:RD:143:HIS:ND1	27:RD:194:GLY:O	2.37	0.53
30:RG:71:THR:N	30:RG:89:GLY:O	2.41	0.53
2:XB:72:GLY:HA3	2:XB:81:VAL:HG21	1.91	0.53
2:XB:82:ARG:NH1	2:XB:92:TYR:OH	2.41	0.53
10:XJ:51:ARG:O	14:XN:45:ARG:NH1	2.42	0.53
25:YA:993:G:OP1	40:YU:50:ARG:NH2	2.33	0.53
30:YG:71:THR:N	30:YG:89:GLY:O	2.41	0.53
30:YG:97:ASP:H	30:YG:100:TRP:HD1	1.55	0.53
3:QC:70:VAL:HG12	3:QC:72:LYS:H	1.72	0.53
6:QF:5:GLU:HB3	6:QF:62:TRP:HE1	1.73	0.53
25:RA:1614:A:N1	42:RW:91:GLY:HA2	2.23	0.53
25:RA:1652:A:OP1	37:RR:8:ARG:NH1	2.41	0.53
43:RX:72:LYS:NZ	43:RX:75:ASP:OD1	2.40	0.53
1:XA:8:A:N6	4:XD:208:SER:O	2.34	0.53
1:XA:548:G:OP1	4:XD:73:ARG:NH2	2.41	0.53
1:XA:1343:G:H4'	9:XI:122:ALA:HB3	1.90	0.53
2:XB:84:GLU:OE1	2:XB:87:ARG:NH2	2.32	0.53
6:XF:9:VAL:HB	6:XF:87:ARG:HB2	1.90	0.53
10:XJ:78:ASN:O	10:XJ:81:THR:OG1	2.25	0.53
25:YA:1270:C:H5''	25:YA:1271:G:H5'	1.89	0.53
1:QA:662:G:O2'	1:QA:836:G:OP1	2.27	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:QD:127:THR:HA	4:QD:132:ARG:HA	1.90	0.53
25:RA:593:G:H4'	54:R8:61:LEU:HD13	1.91	0.53
25:RA:2638:G:OP1	28:RE:82:ARG:NH2	2.41	0.53
27:RD:151:LYS:O	27:RD:154:LYS:NZ	2.42	0.53
1:XA:21:G:H2'	1:XA:22:G:H8	1.74	0.53
1:XA:1229:A:OP2	13:XM:114:ARG:NH1	2.39	0.53
2:XB:74:LYS:NZ	2:XB:206:ASP:OD1	2.42	0.53
25:YA:249:C:O2	54:Y8:12:LYS:NZ	2.32	0.53
32:YI:79:ILE:N	32:YI:141:LYS:O	2.42	0.53
47:Y1:52:ARG:HH11	47:Y1:57:GLU:HB2	1.74	0.53
5:XE:12:LEU:HB3	5:XE:31:LEU:HB3	1.91	0.53
22:XW:4:G:H2'	22:XW:5:G:H8	1.74	0.53
23:XX:23:A:H3'	23:XX:23:A:C8	2.44	0.53
47:Y1:80:LEU:HD12	47:Y1:81:LYS:HG2	1.89	0.53
1:QA:624:C:H2'	1:QA:625:G:H8	1.74	0.53
25:RA:1262:A:OP2	42:RW:97:LYS:NZ	2.42	0.53
26:RB:8:U:O4	26:RB:112:G:O6	2.27	0.53
1:XA:993:G:O2'	1:XA:994:A:N7	2.39	0.53
25:YA:1191:G:OP1	35:YP:18:ARG:NH2	2.42	0.53
26:YB:8:U:O4	26:YB:112:G:O6	2.27	0.53
38:YS:20:ARG:NH2	46:Y0:51:VAL:O	2.39	0.53
16:QP:23:ASP:OD2	16:QP:25:ARG:NH2	2.41	0.53
25:RA:141:A:H8	25:RA:1595:G:H21	1.56	0.53
25:RA:242:G:H2'	54:R8:5:LYS:HA	1.91	0.53
25:RA:581:C:H2'	25:RA:582:G:H8	1.74	0.53
25:RA:1818:U:OP2	27:RD:157:ARG:NE	2.41	0.53
25:RA:1824:G:N3	27:RD:254:THR:OG1	2.42	0.53
38:RS:31:SER:O	38:RS:97:ARG:NH1	2.39	0.53
44:RY:47:LYS:NZ	44:RY:48:ALA:O	2.35	0.53
47:R1:51:VAL:HG11	47:R1:74:VAL:HG21	1.90	0.53
1:XA:23:C:OP2	1:XA:561:U:N3	2.39	0.53
6:XF:5:GLU:HB3	6:XF:62:TRP:HE1	1.73	0.53
25:YA:745:G:O6	25:YA:746:A:N6	2.41	0.53
31:YH:8:PRO:HG2	31:YH:69:ARG:HE	1.75	0.53
1:QA:279:A:OP2	17:QQ:95:TYR:OH	2.25	0.52
1:QA:1095:U:OP2	1:QA:1108:G:N1	2.34	0.52
1:QA:1484:C:HO2'	25:RA:1960:A:HO2'	1.56	0.52
22:QW:17:C:OP1	22:QW:61:U:O2'	2.24	0.52
25:RA:71:A:H62	25:RA:114:U:H1'	1.74	0.52
25:RA:674:G:H1'	29:RF:74:ARG:HD3	1.91	0.52
38:RS:32:LEU:O	38:RS:62:LYS:NZ	2.33	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:RU:28:ARG:NH1	40:RU:38:THR:OG1	2.41	0.52
1:QA:1356:G:H2'	1:QA:1357:A:C8	2.44	0.52
2:QB:48:MET:HA	2:QB:51:LEU:HD12	1.91	0.52
25:RA:184:C:O2'	25:RA:217:G:N3	2.37	0.52
26:RB:8:U:O2	26:RB:112:G:N2	2.37	0.52
1:XA:414:A:OP2	1:XA:428:G:N2	2.32	0.52
22:XW:28:U:H2'	22:XW:29:C:H6	1.73	0.52
25:YA:523:C:O2	25:YA:553:U:O2'	2.27	0.52
25:YA:2361:A:O5'	54:Y8:27:THR:OG1	2.27	0.52
34:YO:87:ILE:HD12	34:YO:91:LEU:HA	1.91	0.52
40:YU:28:ARG:NH1	40:YU:38:THR:OG1	2.41	0.52
1:QA:1141:C:H2'	1:QA:1142:G:H8	1.75	0.52
13:QM:58:GLU:O	13:QM:62:ASN:HB2	2.09	0.52
25:RA:523:C:O2	25:RA:553:U:O2'	2.26	0.52
25:YA:2328:A:H2'	25:YA:2329:G:C8	2.44	0.52
1:QA:1414:U:H2'	1:QA:1415:G:H8	1.75	0.52
25:RA:467:G:O2'	25:RA:796:C:O2'	2.24	0.52
1:XA:279:A:OP2	17:XQ:95:TYR:OH	2.24	0.52
12:XL:27:LEU:O	12:XL:33:ARG:NH2	2.40	0.52
25:YA:321:G:O2'	25:YA:340:A:N3	2.41	0.52
25:YA:815:C:OP2	41:YV:83:ARG:NH1	2.43	0.52
25:YA:1918:A:O2'	25:YA:1920:C:N4	2.43	0.52
25:YA:2212:A:H1'	25:YA:2215:G:C4	2.45	0.52
29:YF:32:LEU:HD11	29:YF:105:VAL:HG13	1.91	0.52
45:YZ:10:ARG:NH2	45:YZ:37:VAL:O	2.43	0.52
1:QA:1286:A:H2'	1:QA:1287:A:H4'	1.91	0.52
9:QI:63:ILE:HG21	9:QI:77:ILE:HG12	1.90	0.52
22:QW:57:C:C6	25:RA:2169:A:N7	2.78	0.52
25:RA:1165:U:O4	25:RA:1184:G:O6	2.28	0.52
25:RA:2500:U:O2'	25:RA:2504:U:OP1	2.24	0.52
8:XH:106:GLY:O	8:XH:122:ARG:NH2	2.43	0.52
25:YA:1266:G:O2'	25:YA:2012:G:O6	2.23	0.52
47:Y1:90:ILE:HD12	47:Y1:94:LEU:HD12	1.92	0.52
9:QI:42:ARG:NH1	9:QI:71:SER:OG	2.43	0.52
25:RA:693:C:O2'	25:RA:1353:A:N3	2.37	0.52
29:RF:32:LEU:HD11	29:RF:105:VAL:HG13	1.91	0.52
30:RG:97:ASP:H	30:RG:100:TRP:HD1	1.55	0.52
39:RT:16:ARG:HH21	39:RT:19:LEU:HD21	1.73	0.52
54:R8:29:LYS:O	54:R8:31:HIS:N	2.39	0.52
10:XJ:9:ARG:HB2	10:XJ:95:GLU:HB3	1.92	0.52
25:YA:2347:C:OP1	52:Y6:38:LYS:NZ	2.38	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:2784:C:O2'	28:YE:37:ARG:NH1	2.43	0.52
27:YD:62:TYR:HA	27:YD:87:ASN:HD21	1.74	0.52
31:YH:52:VAL:O	31:YH:65:HIS:NE2	2.34	0.52
36:YQ:111:GLU:OE1	36:YQ:133:ARG:NH2	2.43	0.52
1:QA:475:G:H2'	1:QA:476:G:H8	1.75	0.52
1:QA:948:C:H2'	1:QA:949:A:H8	1.75	0.52
1:QA:1227:A:OP1	19:QS:80:TYR:OH	2.22	0.52
11:QK:34:ASP:OD1	11:QK:38:ASN:N	2.43	0.52
25:RA:2199:A:OP1	47:R1:50:ARG:NH2	2.38	0.52
44:RY:11:ASP:N	44:RY:11:ASP:OD1	2.40	0.52
1:XA:1356:G:H2'	1:XA:1357:A:C8	2.45	0.52
22:XW:71:G:H21	25:YA:1851:U:H5'	1.75	0.52
1:QA:227:G:N2	16:QP:62:VAL:O	2.35	0.52
2:QB:61:LEU:HG	2:QB:66:GLY:HA3	1.90	0.52
25:RA:2845:G:H2'	25:RA:2846:G:H8	1.74	0.52
27:RD:62:TYR:HA	27:RD:87:ASN:HD21	1.74	0.52
34:RO:87:ILE:HD12	34:RO:91:LEU:HA	1.91	0.52
1:XA:573:A:N3	1:XA:883:C:O2'	2.41	0.52
4:XD:127:THR:HA	4:XD:132:ARG:HA	1.90	0.52
25:YA:1479:G:H1	25:YA:1514:U:H3	1.58	0.52
1:QA:713:G:H2'	1:QA:714:G:C8	2.45	0.52
22:QW:5:G:H2'	22:QW:6:G:C8	2.45	0.52
25:RA:900:A:H3'	25:RA:901:A:H8	1.73	0.52
25:RA:2808:U:H2'	25:RA:2809:A:H8	1.75	0.52
1:XA:405:U:O4	4:XD:2:GLY:N	2.43	0.52
25:YA:270(A):A:N3	25:YA:365:C:O2'	2.39	0.52
25:YA:630:G:N2	25:YA:633:A:OP2	2.34	0.52
25:YA:2123:G:H1	25:YA:2175:C:H42	1.56	0.52
1:QA:159:G:N2	1:QA:162:A:OP2	2.43	0.52
22:QW:57:C:C6	25:RA:2169:A:C8	2.97	0.52
25:RA:2293:C:O2'	38:RS:93:LYS:NZ	2.43	0.52
25:RA:2328:A:H2'	25:RA:2329:G:C8	2.45	0.52
1:XA:578:C:O2'	1:XA:728:A:N3	2.41	0.52
22:XW:4:G:H2'	22:XW:5:G:C8	2.44	0.52
25:YA:338:G:OP1	44:YY:4:LYS:NZ	2.42	0.52
25:YA:1062:G:H2'	25:YA:1063:G:C8	2.44	0.52
25:YA:2081:C:H2'	25:YA:2082:A:H8	1.74	0.52
34:YO:68:GLU:HG3	34:YO:78:ARG:HD3	1.92	0.52
38:YS:32:LEU:O	38:YS:62:LYS:NZ	2.33	0.52
1:QA:148:G:H2'	1:QA:149:A:H8	1.76	0.51
7:QG:86:GLN:CD	22:QW:32:G:H21	2.17	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:QW:28:U:H2'	22:QW:29:C:H6	1.75	0.51
25:RA:138:G:N2	43:RX:44:GLU:OE1	2.42	0.51
25:RA:2354:G:H4'	46:R0:35:ASN:HD22	1.74	0.51
31:RH:8:PRO:HG2	31:RH:69:ARG:HE	1.75	0.51
36:RQ:111:GLU:OE1	36:RQ:133:ARG:NH2	2.43	0.51
40:RU:88:ILE:HG23	40:RU:90:VAL:HG23	1.91	0.51
1:XA:35:G:O2'	12:XL:118:SER:O	2.23	0.51
25:YA:483:A:O2'	44:YY:49:VAL:O	2.28	0.51
25:YA:486:C:O2'	42:YW:60:ASN:ND2	2.41	0.51
31:YH:153:LYS:HB3	31:YH:161:GLY:HA2	1.91	0.51
48:Y2:22:GLU:OE2	48:Y2:68:ARG:NH2	2.43	0.51
1:QA:656:C:O2	15:QO:28:GLN:NE2	2.43	0.51
1:QA:1432:G:OP1	39:RT:108:ARG:N	2.42	0.51
7:QG:143:ARG:HD2	22:QW:42:C:O3'	2.01	0.51
25:RA:577:G:O2'	25:RA:1254:A:OP1	2.27	0.51
1:XA:1397:C:H5'	23:XX:23:A:O2'	2.10	0.51
22:XW:72:C:HO2'	25:YA:1851:U:HO2'	0.52	0.51
25:YA:1681:G:O2'	25:YA:1762:A:O2'	2.29	0.51
25:YA:1728:G:N2	25:YA:1730:U:OP2	2.43	0.51
27:YD:182:LEU:H	27:YD:272:ALA:HB3	1.74	0.51
25:RA:676:A:H8	25:RA:2069:G:H21	1.58	0.51
25:RA:1799:G:N2	25:RA:1818:U:O2'	2.43	0.51
9:XI:47:LEU:HD12	9:XI:50:LEU:HD12	1.92	0.51
22:XW:5:G:H2'	22:XW:6:G:C8	2.44	0.51
37:YR:51:LEU:HD22	37:YR:66:VAL:HG13	1.92	0.51
1:QA:972:C:H4'	10:QJ:57:LYS:HB2	1.91	0.51
9:QI:5:TYR:HE1	9:QI:16:ARG:HB2	1.75	0.51
25:RA:996:A:OP2	40:RU:92:ARG:NH2	2.43	0.51
31:RH:153:LYS:HB3	31:RH:161:GLY:HA2	1.91	0.51
1:QA:21:G:H2'	1:QA:22:G:C8	2.45	0.51
1:QA:1080:A:H5'	5:QE:14:ARG:NH2	2.25	0.51
25:RA:918:A:N3	26:RB:80:U:O2'	2.39	0.51
1:XA:631:G:H3'	1:XA:632:A:H8	1.75	0.51
1:XA:692:U:OP1	11:XK:124:LYS:NZ	2.37	0.51
1:XA:707:C:H4'	11:XK:20:TYR:HD2	1.76	0.51
1:XA:1414:U:H2'	1:XA:1415:G:H8	1.75	0.51
4:XD:14:ARG:HE	4:XD:40:PRO:HD2	1.75	0.51
25:YA:288:C:H2'	25:YA:289:A:H8	1.75	0.51
25:YA:2688:U:OP1	25:YA:2713:A:N6	2.40	0.51
34:YO:7:TYR:HE1	34:YO:44:LYS:HG3	1.76	0.51
40:YU:88:ILE:HG23	40:YU:90:VAL:HG23	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:401:C:O2'	1:QA:621:A:N3	2.41	0.51
24:QY:37:A:O2'	25:RA:1913:A:N1	2.42	0.51
25:RA:585:G:H21	25:RA:1254:A:H62	1.58	0.51
29:RF:63:LYS:HE2	29:RF:67:GLN:HB2	1.91	0.51
1:XA:392:G:HO2'	1:XA:483:C:HO2'	1.56	0.51
1:XA:1226:C:O2'	13:XM:111:LYS:NZ	2.43	0.51
29:YF:63:LYS:HE2	29:YF:67:GLN:HB2	1.92	0.51
30:YG:142:PRO:HB2	50:Y4:31:ILE:HG21	1.92	0.51
45:YZ:4:ARG:HG2	45:YZ:58:VAL:HB	1.93	0.51
10:QJ:24:VAL:HG21	10:QJ:37:PRO:HG3	1.93	0.51
25:RA:1316:U:H2'	25:RA:1317:A:H8	1.76	0.51
1:XA:490:G:OP2	4:XD:132:ARG:NH2	2.44	0.51
25:YA:500:G:N1	25:YA:503:A:OP2	2.43	0.51
25:YA:1566:A:OP1	27:YD:211:ARG:NE	2.40	0.51
39:YT:124:ASP:O	39:YT:128:GLU:N	2.39	0.51
22:QW:5:G:H2'	22:QW:6:G:H8	1.74	0.51
25:RA:665:C:H2'	25:RA:666:G:H8	1.75	0.51
1:XA:927:G:N2	1:XA:1390:U:O2	2.38	0.51
1:XA:1342:C:H4'	9:XI:125:TYR:HB3	1.92	0.51
12:XL:32:PHE:HB3	12:XL:84:LEU:HD11	1.92	0.51
13:XM:3:ARG:HA	13:XM:9:ILE:HG21	1.92	0.51
13:XM:47:ASP:OD1	13:XM:47:ASP:N	2.43	0.51
25:YA:2315:G:OP1	30:YG:36:LYS:NZ	2.43	0.51
25:RA:831:G:O2'	35:RP:38:GLN:OE1	2.27	0.51
25:RA:2844:G:H3'	25:RA:2845:G:H8	1.76	0.51
32:RI:79:ILE:N	32:RI:141:LYS:O	2.42	0.51
25:YA:878:A:N6	25:YA:899:A:O2'	2.43	0.51
25:YA:942:G:OP2	35:YP:39:LYS:NZ	2.34	0.51
25:YA:1382:G:O3'	25:YA:1573:G:N2	2.43	0.51
36:YQ:58:PHE:HD2	36:YQ:61:GLY:HA3	1.76	0.51
1:QA:110:C:O2'	16:QP:25:ARG:O	2.26	0.51
1:QA:714:G:H2'	1:QA:715:A:C8	2.46	0.51
31:RH:52:VAL:O	31:RH:65:HIS:NE2	2.34	0.51
42:RW:111:HIS:CD2	42:RW:113:LYS:H	2.29	0.51
45:RZ:10:ARG:NH2	45:RZ:37:VAL:O	2.43	0.51
23:XX:23:A:C8	23:XX:23:A:C3'	2.93	0.51
25:YA:870:A:OP1	36:YQ:6:ARG:NH2	2.38	0.51
33:YN:58:ASP:OD1	33:YN:58:ASP:N	2.36	0.51
4:QD:14:ARG:HE	4:QD:40:PRO:HD2	1.75	0.50
13:QM:16:ASP:N	13:QM:16:ASP:OD1	2.42	0.50
19:QS:3:ARG:HE	19:QS:7:LYS:HE2	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:RO:68:GLU:HG3	34:RO:78:ARG:HD3	1.92	0.50
42:RW:22:ASP:OD1	42:RW:25:ARG:NH1	2.31	0.50
45:RZ:4:ARG:HG2	45:RZ:58:VAL:HB	1.93	0.50
25:YA:1316:U:H2'	25:YA:1317:A:C8	2.46	0.50
25:YA:2008:C:H2'	25:YA:2009:G:H8	1.77	0.50
25:YA:2076:U:OP2	25:YA:2238:G:N2	2.43	0.50
35:YP:65:ARG:O	35:YP:68:GLN:NE2	2.44	0.50
42:YW:111:HIS:CD2	42:YW:113:LYS:H	2.29	0.50
1:QA:1077:G:N2	1:QA:1080:A:OP2	2.36	0.50
1:QA:1142:G:H3'	1:QA:1143:G:H8	1.76	0.50
4:QD:102:ASP:OD1	4:QD:102:ASP:N	2.43	0.50
11:QK:58:PRO:HB2	11:QK:93:GLN:HG3	1.94	0.50
25:RA:1365:A:O2'	47:R1:11:ARG:NH2	2.39	0.50
45:RZ:30:ASN:OD1	45:RZ:33:LEU:N	2.44	0.50
1:XA:514:C:H2'	1:XA:515:G:H8	1.76	0.50
22:XW:34:U:H3'	22:XW:35:C:H5''	1.92	0.50
25:YA:688:U:H2'	25:YA:689:A:H8	1.76	0.50
1:QA:12:U:H3	1:QA:22:G:H1	1.60	0.50
1:QA:35:G:O2'	12:QL:118:SER:O	2.21	0.50
1:QA:156:G:H2'	1:QA:157:G:H8	1.75	0.50
1:QA:411:A:H62	1:QA:413:G:H21	1.57	0.50
2:QB:69:LEU:O	2:QB:162:ILE:HA	2.10	0.50
25:RA:39:C:O2	29:RF:46:ARG:NH2	2.45	0.50
34:RO:7:TYR:HE1	34:RO:44:LYS:HG3	1.75	0.50
50:R4:47:GLN:HG2	50:R4:49:PHE:HB3	1.93	0.50
4:XD:102:ASP:N	4:XD:102:ASP:OD1	2.43	0.50
7:XG:143:ARG:HD2	22:XW:42:C:O3'	1.96	0.50
10:XJ:34:VAL:HG22	10:XJ:74:ILE:HG22	1.93	0.50
22:XW:52:C:H2'	22:XW:53:G:C8	2.46	0.50
25:YA:67:U:H3	25:YA:74:A:H2	1.58	0.50
25:YA:1403:C:H5''	25:YA:1471:A:H1'	1.93	0.50
25:RA:819:A:OP2	25:RA:1187:G:N2	2.32	0.50
25:RA:1056:G:H5''	25:RA:1057:A:H5'	1.93	0.50
25:RA:1826:G:O2'	27:RD:242:ARG:NH2	2.44	0.50
33:RN:96:GLU:HB2	33:RN:122:VAL:HG12	1.94	0.50
48:R2:22:GLU:OE2	48:R2:68:ARG:NH2	2.43	0.50
25:YA:1341:U:OP2	25:YA:1394:U:O2'	2.23	0.50
26:YB:9:G:OP1	38:YS:15:ARG:NH1	2.38	0.50
39:YT:66:VAL:HA	39:YT:71:GLY:HA2	1.93	0.50
45:YZ:30:ASN:OD1	45:YZ:33:LEU:N	2.45	0.50
1:QA:877:C:H2'	1:QA:878:G:H8	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:144:C:H2'	25:RA:145:G:H8	1.76	0.50
25:RA:1266:G:O2'	25:RA:2012:G:O6	2.26	0.50
25:RA:2291:U:OP1	25:RA:2380:C:O2'	2.29	0.50
1:XA:676:A:H1'	11:XK:115:PRO:HB3	1.94	0.50
25:YA:1980:G:O2'	25:YA:1982:C:OP2	2.21	0.50
25:YA:2130:U:H2'	25:YA:2131:G:C8	2.47	0.50
25:YA:2676:C:O2	25:YA:2732:G:N2	2.41	0.50
1:QA:501:C:OP1	12:QL:117:ARG:NH2	2.45	0.50
1:QA:1007:C:H42	1:QA:1022:G:H1	1.58	0.50
1:QA:1304:G:N2	1:QA:1334:G:O6	2.44	0.50
12:QL:117:ARG:HB2	12:QL:122:THR:HB	1.92	0.50
36:RQ:58:PHE:HD2	36:RQ:61:GLY:HA3	1.76	0.50
1:XA:426:G:OP1	4:XD:38:TYR:OH	2.28	0.50
25:YA:458:G:N2	25:YA:470:A:OP2	2.44	0.50
1:QA:348:G:H2'	1:QA:349:A:H8	1.77	0.50
2:QB:109:SER:O	2:QB:113:HIS:ND1	2.36	0.50
5:QE:12:LEU:HB3	5:QE:31:LEU:HB3	1.91	0.50
21:QU:9:ARG:HD3	21:QU:22:ARG:HD2	1.94	0.50
22:QW:9:G:H5''	22:QW:10:G:OP2	2.12	0.50
30:RG:47:LYS:HD3	30:RG:81:LYS:HB2	1.93	0.50
39:RT:50:ILE:HD11	39:RT:100:TYR:HA	1.93	0.50
45:RZ:97:GLU:HG2	45:RZ:125:LEU:HD11	1.94	0.50
1:XA:1443:G:O2'	39:YT:122:ASP:OD2	2.26	0.50
25:YA:529:A:H4'	25:YA:530:G:H5'	1.94	0.50
25:YA:578:A:OP1	25:YA:1255:U:O2'	2.29	0.50
25:YA:2809:A:H2'	25:YA:2810:A:C8	2.47	0.50
26:YB:22:U:O2	26:YB:61:G:N2	2.32	0.50
1:QA:382:A:H2'	1:QA:383:A:C8	2.47	0.50
25:RA:2291:U:O2'	25:RA:2374:C:O2	2.28	0.50
25:RA:2508:G:HO2'	25:RA:2554:U:HO2'	1.60	0.50
21:XU:9:ARG:HD3	21:XU:22:ARG:HD2	1.94	0.50
25:YA:679:C:H2'	25:YA:680:G:H8	1.76	0.50
1:QA:1100:C:OP2	2:QB:96:ARG:NE	2.38	0.50
11:QK:20:TYR:HE1	11:QK:83:ILE:HD12	1.76	0.50
22:QW:8:U:O2	22:QW:14:A:N7	2.45	0.50
25:RA:442:G:H1'	29:RF:48:THR:HG21	1.94	0.50
25:RA:1212:G:O2'	25:RA:1236:G:N2	2.35	0.50
25:RA:1264:G:OP1	51:R5:19:ARG:NH2	2.29	0.50
26:RB:33:G:OP2	30:RG:96:ARG:NH2	2.30	0.50
1:XA:474:G:H2'	1:XA:475:G:C8	2.47	0.50
1:XA:675:A:H1'	11:XK:116:HIS:CD2	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:742:G:OP2	15:XO:35:ARG:NH2	2.43	0.50
1:XA:1178:G:OP2	9:XI:93:ARG:NH2	2.37	0.50
25:YA:2839:G:O6	25:YA:2878:U:O4	2.30	0.50
1:QA:137:C:H2'	1:QA:138:G:H8	1.76	0.49
1:QA:1281:U:H5''	1:QA:1282:C:H5	1.77	0.49
25:RA:281:G:H21	25:RA:359:A:H62	1.59	0.49
1:XA:443:C:H42	1:XA:491:G:H1	1.59	0.49
1:XA:1350:A:O2'	7:XG:33:ASP:OD1	2.27	0.49
2:XB:91:PRO:HG3	2:XB:154:LEU:HB2	1.94	0.49
25:YA:2845:G:OP1	39:YT:56:GLY:N	2.45	0.49
25:YA:2853:C:H2'	25:YA:2854:G:H8	1.77	0.49
50:Y4:47:GLN:HG2	50:Y4:49:PHE:HB3	1.93	0.49
1:QA:452:A:O2'	1:QA:453:A:O4'	2.30	0.49
1:QA:559:A:OP1	5:QE:126:ARG:NH2	2.44	0.49
1:QA:1244:C:H2'	1:QA:1245:A:H8	1.77	0.49
1:QA:1251:A:H2'	1:QA:1252:A:C8	2.47	0.49
22:QW:4:G:H2'	22:QW:5:G:H8	1.75	0.49
25:RA:793:A:OP2	25:RA:2071:A:O2'	2.25	0.49
25:RA:2384:G:OP2	46:R0:55:ARG:NH2	2.39	0.49
1:XA:489:C:H2'	1:XA:490:G:H8	1.76	0.49
1:XA:714:G:H2'	1:XA:715:A:C8	2.46	0.49
1:XA:806:C:H2'	1:XA:807:A:H8	1.77	0.49
1:XA:925:G:H1	1:XA:1391:U:H3	1.60	0.49
1:XA:1492:A:H5''	12:XL:47:LYS:HB3	1.95	0.49
22:XW:11:A:H2'	22:XW:12:G:C8	2.47	0.49
23:XX:22:C:C6	23:XX:22:C:H3'	2.47	0.49
25:YA:776:G:N7	25:YA:793:A:O2'	2.46	0.49
25:YA:819:A:OP2	25:YA:1187:G:N2	2.34	0.49
25:YA:1230:C:H2'	25:YA:1231:G:H8	1.76	0.49
1:QA:628:G:H2'	1:QA:629:G:C8	2.47	0.49
1:QA:890:G:O2'	1:QA:906:G:O6	2.29	0.49
1:QA:1510:U:H2'	1:QA:1511:G:C8	2.47	0.49
2:QB:71:VAL:HA	2:QB:93:VAL:HB	1.94	0.49
9:QI:104:ARG:NH1	9:QI:105:ASP:O	2.45	0.49
25:RA:2612:C:OP2	51:R5:2:ALA:N	2.44	0.49
1:XA:715:A:H2'	1:XA:716:A:C8	2.47	0.49
22:XW:10:G:H2'	22:XW:11:A:C8	2.47	0.49
25:YA:1296:G:OP1	25:YA:2709:G:O2'	2.28	0.49
25:YA:1454:U:O2'	25:YA:1455:G:N7	2.42	0.49
27:YD:35:LYS:HZ1	27:YD:63:ARG:HB3	1.76	0.49
1:QA:824:C:H2'	1:QA:825:G:H8	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:QE:105:VAL:HG21	5:QE:128:PRO:HB3	1.95	0.49
22:QW:77:A:N6	25:RA:2422:A:O4'	2.45	0.49
25:RA:863:A:H2'	25:RA:864:G:H8	1.77	0.49
25:RA:1315:C:O2'	25:RA:1392:A:N3	2.39	0.49
1:XA:1287:A:H2'	1:XA:1288:A:C8	2.47	0.49
23:XX:22:C:H6	23:XX:22:C:C4'	2.23	0.49
25:YA:28:A:N6	25:YA:512:G:O2'	2.45	0.49
25:YA:1263:U:H5''	51:Y5:16:ARG:HD3	1.94	0.49
25:YA:2312:U:O2'	30:YG:71:THR:OG1	2.29	0.49
25:YA:2781:A:H5''	25:YA:2782:G:H5'	1.93	0.49
32:YI:27:ARG:HD2	47:Y1:71:TYR:HE2	1.77	0.49
32:YI:78:THR:HG22	32:YI:141:LYS:HE3	1.95	0.49
35:YP:106:LEU:HD21	35:YP:112:LEU:HD13	1.94	0.49
47:Y1:65:SER:HG	47:Y1:66:HIS:HD1	1.59	0.49
1:QA:1151:A:H2'	1:QA:1152:A:H8	1.78	0.49
1:QA:1298:C:OP2	7:QG:114:ARG:NH2	2.39	0.49
1:QA:1484:C:O2'	25:RA:1960:A:O2'	2.30	0.49
2:QB:69:LEU:HB3	2:QB:162:ILE:HG22	1.93	0.49
11:QK:98:LEU:O	11:QK:101:SER:OG	2.30	0.49
13:QM:49:THR:HG22	13:QM:51:ALA:H	1.77	0.49
25:RA:2685:G:P	39:RT:51:ARG:HH22	2.36	0.49
32:RI:78:THR:HG22	32:RI:141:LYS:HE3	1.95	0.49
1:XA:749:C:H2'	1:XA:750:G:H8	1.78	0.49
1:XA:765:G:N2	1:XA:813:U:OP2	2.46	0.49
25:YA:458:G:O2'	25:YA:469:G:O6	2.31	0.49
25:YA:1657:C:H4'	28:YE:133:LYS:HB3	1.94	0.49
25:YA:2845:G:H2'	25:YA:2846:G:C8	2.47	0.49
33:YN:96:GLU:HB2	33:YN:122:VAL:HG12	1.94	0.49
1:QA:579:G:H5'	1:QA:728:A:H1'	1.93	0.49
28:RE:16:ARG:NH2	28:RE:171:GLU:OE2	2.42	0.49
4:XD:98:GLU:HA	4:XD:103:ASN:HD22	1.77	0.49
7:XG:88:PRO:HG2	7:XG:152:ALA:HB2	1.95	0.49
25:YA:184:C:O2'	25:YA:217:G:N3	2.40	0.49
25:YA:558:G:H2'	25:YA:559:G:H8	1.77	0.49
46:Y0:46:LYS:HD2	46:Y0:78:TYR:HE1	1.78	0.49
1:QA:452:A:H62	1:QA:480:U:H3	1.60	0.49
1:QA:790:A:OP1	22:QV:39:A:O2'	2.23	0.49
1:QA:953:G:N7	13:QM:104:ARG:NH2	2.61	0.49
1:QA:1074:G:O2'	2:QB:103:THR:OG1	2.27	0.49
1:QA:1261:A:H62	1:QA:1274:G:N2	2.10	0.49
1:QA:1391:U:H2'	1:QA:1392:G:H8	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:QH:106:GLY:O	8:QH:122:ARG:NH2	2.43	0.49
25:RA:709:U:H2'	25:RA:710:G:H8	1.78	0.49
25:RA:2392:A:H2	25:RA:2424:C:H42	1.61	0.49
25:RA:2676:C:O2	25:RA:2732:G:N2	2.36	0.49
34:RO:107:ARG:HG3	34:RO:112:MET:HE1	1.94	0.49
1:XA:269:C:H2'	1:XA:270:A:C8	2.47	0.49
1:XA:1251:A:H2'	1:XA:1252:A:C8	2.48	0.49
11:XK:86:GLY:N	11:XK:112:THR:OG1	2.41	0.49
25:YA:1139:G:O2'	25:YA:1143:A:N1	2.41	0.49
25:YA:2099:U:O4	25:YA:2190:G:O6	2.30	0.49
39:YT:50:ILE:HD11	39:YT:100:TYR:HA	1.93	0.49
40:YU:98:LEU:O	40:YU:102:GLU:N	2.46	0.49
1:QA:1060:C:H2'	1:QA:1061:G:H8	1.77	0.49
1:QA:1329:A:N7	21:QU:7:ARG:NH2	2.60	0.49
22:QW:77:A:C2	54:R8:31:HIS:CE1	3.01	0.49
25:RA:1184:G:P	49:R3:29:ARG:HH12	2.35	0.49
25:RA:1827:C:OP2	27:RD:222:ARG:NH1	2.44	0.49
25:RA:2618:G:H21	28:RE:150:VAL:HG21	1.78	0.49
39:RT:66:VAL:HA	39:RT:71:GLY:HA2	1.93	0.49
1:XA:1071:C:H2'	1:XA:1072:G:H8	1.78	0.49
1:XA:1414:U:O2	1:XA:1487:G:N2	2.45	0.49
25:YA:1858:G:H2'	25:YA:1883:G:H22	1.78	0.49
25:YA:2327:A:H2'	25:YA:2328:A:C8	2.47	0.49
33:YN:30:ILE:HG23	33:YN:52:VAL:HG11	1.95	0.49
8:QH:51:VAL:HG21	8:QH:60:ARG:HG3	1.95	0.49
25:RA:270(U):C:H2'	25:RA:270(V):G:H8	1.77	0.49
25:RA:2707:G:H2'	25:RA:2708:G:H8	1.77	0.49
27:RD:13:ARG:NH1	27:RD:16:MET:SD	2.86	0.49
43:RX:26:TYR:HD2	43:RX:89:ILE:HD12	1.78	0.49
1:XA:161:A:H2'	1:XA:162:A:H8	1.77	0.49
1:XA:522:C:H41	12:XL:53:ARG:NH2	2.10	0.49
2:XB:87:ARG:NH1	2:XB:220:ASP:OD1	2.45	0.49
22:XW:49:C:N3	22:XW:60:A:H1'	2.27	0.49
25:YA:546:C:H3'	25:YA:547:A:C8	2.48	0.49
25:YA:1438:U:H2'	25:YA:1439:A:H8	1.78	0.49
25:YA:2135:A:H62	25:YA:2156:G:H21	1.61	0.49
30:YG:47:LYS:HD3	30:YG:81:LYS:HB2	1.93	0.49
34:YO:107:ARG:HG3	34:YO:112:MET:HE1	1.95	0.49
45:YZ:97:GLU:HG2	45:YZ:125:LEU:HD11	1.94	0.49
1:QA:254:G:O2'	17:QQ:16:GLN:O	2.30	0.49
2:QB:132:LYS:HA	2:QB:135:GLN:HB2	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:1022:G:N2	25:RA:1023:U:O4	2.46	0.49
25:RA:1649:G:O2'	37:RR:107:ASP:OD1	2.21	0.49
25:RA:2314:C:H2'	25:RA:2315:G:H8	1.78	0.49
25:RA:2515:C:H2'	25:RA:2516:G:H8	1.77	0.49
25:RA:2579:C:H4'	28:RE:134:ILE:HG12	1.94	0.49
35:RP:37:GLY:O	35:RP:40:SER:OG	2.30	0.49
1:XA:167:G:H2'	1:XA:168:G:C8	2.48	0.49
1:XA:1328:C:OP1	21:XU:21:TYR:OH	2.24	0.49
22:XW:8:U:O2	22:XW:14:A:N7	2.46	0.49
25:YA:834:C:H2'	25:YA:835:A:H8	1.78	0.49
26:YB:8:U:O2	26:YB:112:G:N2	2.37	0.49
1:QA:736:C:O2'	6:QF:90:VAL:O	2.29	0.48
1:QA:1124:G:H3'	1:QA:1145:C:N4	2.28	0.48
35:RP:115:LEU:HA	35:RP:134:ALA:HB2	1.96	0.48
44:RY:15:VAL:HG21	44:RY:42:VAL:HG11	1.95	0.48
1:XA:1151:A:H2'	1:XA:1152:A:H8	1.78	0.48
1:XA:1259:C:H42	1:XA:1276:G:H1	1.60	0.48
7:XG:143:ARG:CG	22:XW:42:C:H4'	2.30	0.48
25:YA:2421:G:N7	54:Y8:31:HIS:NE2	2.60	0.48
1:QA:1244:C:H2'	1:QA:1245:A:C8	2.48	0.48
1:QA:1352:C:OP1	21:QU:3:LYS:NZ	2.33	0.48
7:QG:88:PRO:HG2	7:QG:152:ALA:HB2	1.94	0.48
7:QG:150:ALA:HB1	11:QK:57:THR:HG21	1.96	0.48
22:QW:2:G:H2'	22:QW:3:C:C6	2.48	0.48
25:RA:500:G:N1	25:RA:503:A:OP2	2.45	0.48
1:XA:1175:G:H2'	1:XA:1176:A:C8	2.48	0.48
5:XE:105:VAL:HG21	5:XE:128:PRO:HB3	1.95	0.48
25:YA:857:C:H42	25:YA:920:G:H1	1.61	0.48
27:YD:13:ARG:NH1	27:YD:16:MET:SD	2.86	0.48
32:YI:93:THR:HA	32:YI:119:PRO:HB3	1.96	0.48
34:YO:28:SER:OG	34:YO:29:ASN:N	2.46	0.48
1:QA:260:G:OP2	20:QT:83:ARG:NH1	2.46	0.48
1:QA:745:C:OP1	1:QA:851:G:O2'	2.27	0.48
25:RA:244:A:H4'	35:RP:74:GLU:HB2	1.95	0.48
31:RH:164:TYR:HB2	31:RH:167:GLU:HB2	1.95	0.48
32:RI:65:ALA:O	32:RI:69:LYS:N	2.46	0.48
9:XI:112:LYS:HA	9:XI:119:ALA:HB2	1.96	0.48
13:XM:23:TYR:N	13:XM:67:GLU:OE2	2.46	0.48
1:QA:426:G:OP1	4:QD:38:TYR:OH	2.28	0.48
22:QW:11:A:H2'	22:QW:12:G:C8	2.49	0.48
25:RA:679:C:H2'	25:RA:680:G:H8	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:2010:G:H5''	42:RW:42:ARG:HB2	1.95	0.48
25:RA:2134:A:H2'	25:RA:2135:A:H8	1.78	0.48
42:RW:111:HIS:HD2	42:RW:113:LYS:H	1.61	0.48
1:XA:1000:A:H2'	1:XA:1001:G:H8	1.78	0.48
1:XA:1308:U:H2'	1:XA:1309:G:H8	1.78	0.48
2:XB:80:ILE:HD11	2:XB:208:ILE:HG23	1.94	0.48
3:XC:152:ILE:HG12	3:XC:167:TRP:HD1	1.78	0.48
22:XV:51:U:O4	22:XV:65:G:O6	2.31	0.48
25:YA:955:C:OP1	36:YQ:85:LYS:NZ	2.39	0.48
25:YA:1600:C:OP1	43:YX:58:HIS:NE2	2.44	0.48
30:YG:161:THR:HG22	30:YG:163:ALA:H	1.77	0.48
1:QA:1228:C:OP2	13:QM:108:ARG:NH2	2.46	0.48
4:QD:98:GLU:HA	4:QD:103:ASN:HD22	1.77	0.48
9:QI:15:ALA:HA	9:QI:64:THR:O	2.13	0.48
22:QW:52:C:H2'	22:QW:53:G:C8	2.49	0.48
25:RA:1433:U:H3	25:RA:1560:G:H1	1.62	0.48
26:RB:22:U:O4	26:RB:61:G:O6	2.32	0.48
32:RI:13:GLY:HA3	32:RI:17:GLN:HG2	1.96	0.48
1:XA:522:C:H41	12:XL:53:ARG:HH22	1.61	0.48
1:XA:1386:G:H2'	1:XA:1387:G:H8	1.77	0.48
14:XN:45:ARG:HE	14:XN:49:HIS:CE1	2.32	0.48
25:YA:71:A:N3	25:YA:73:A:N6	2.62	0.48
25:YA:787:U:H5''	25:YA:788:A:H5'	1.95	0.48
28:YE:25:VAL:HG21	39:YT:8:LYS:HG2	1.95	0.48
31:YH:164:TYR:HB2	31:YH:167:GLU:HB2	1.95	0.48
35:YP:121:LYS:HD3	35:YP:122:PRO:HD2	1.96	0.48
42:YW:111:HIS:HD2	42:YW:113:LYS:H	1.61	0.48
27:RD:122:ASP:N	27:RD:122:ASP:OD1	2.36	0.48
31:RH:9:ILE:HD13	31:RH:49:VAL:HG12	1.96	0.48
1:XA:1101:A:N6	2:XB:176:GLU:OE2	2.46	0.48
13:XM:49:THR:HG22	13:XM:51:ALA:H	1.78	0.48
25:YA:380:U:H2'	25:YA:381:G:H8	1.77	0.48
25:YA:2285:C:OP1	52:Y6:29:ASN:ND2	2.46	0.48
37:YR:104:ARG:HG3	37:YR:107:ASP:HB3	1.95	0.48
44:YY:15:VAL:HG21	44:YY:42:VAL:HG11	1.95	0.48
1:QA:707:C:H4'	11:QK:20:TYR:CD2	2.49	0.48
9:QI:121:ARG:NH1	9:QI:122:ALA:O	2.47	0.48
12:QL:53:ARG:HH12	12:QL:92:ASP:HB2	1.78	0.48
25:RA:557:U:H2'	25:RA:558:G:C8	2.48	0.48
25:RA:1333:C:H2'	25:RA:1334:G:H8	1.79	0.48
25:RA:2195:C:H2'	25:RA:2196:C:H6	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:2361:A:O5'	54:R8:27:THR:OG1	2.32	0.48
25:RA:2611:U:C4	51:R5:3:LYS:HG3	2.49	0.48
27:RD:27:THR:HG21	27:RD:81:ALA:HB1	1.95	0.48
36:RQ:13:GLN:O	36:RQ:72:LYS:NZ	2.46	0.48
1:XA:235:C:H2'	1:XA:236:G:H8	1.77	0.48
26:YB:22:U:O4	26:YB:61:G:O6	2.32	0.48
1:QA:59:A:H3'	1:QA:331:G:H22	1.79	0.48
1:QA:689:C:OP1	11:QK:27:ASN:ND2	2.44	0.48
1:QA:1172:C:H2'	1:QA:1173:G:C8	2.49	0.48
25:RA:2033:A:O2'	25:RA:2035:G:OP2	2.29	0.48
30:RG:161:THR:HG22	30:RG:163:ALA:H	1.77	0.48
22:XW:36:A:H2'	22:XW:37:U:C6	2.49	0.48
25:YA:1299:G:H21	25:YA:1641:A:H62	1.61	0.48
28:YE:74:PRO:HG2	28:YE:77:ILE:HG22	1.96	0.48
14:QN:45:ARG:HE	14:QN:49:HIS:CE1	2.32	0.48
25:RA:1568:G:OP1	27:RD:63:ARG:NH1	2.31	0.48
25:RA:2030:A:H4'	25:RA:2031:A:H8	1.79	0.48
25:RA:2674:G:H5''	34:RO:26:LYS:HE2	1.95	0.48
1:XA:790:A:OP1	22:XV:39:A:O2'	2.26	0.48
9:XI:28:VAL:HG22	9:XI:63:ILE:HB	1.94	0.48
25:YA:589:C:H2'	25:YA:590:A:C8	2.49	0.48
25:YA:1068:G:O2'	25:YA:1096:A:N3	2.47	0.48
31:YH:9:ILE:HD13	31:YH:49:VAL:HG12	1.96	0.48
38:YS:26:LEU:HB3	38:YS:87:PHE:HA	1.96	0.48
2:QB:91:PRO:HG3	2:QB:154:LEU:HB2	1.96	0.48
12:QL:32:PHE:HE1	12:QL:86:ARG:HG3	1.78	0.48
22:QW:77:A:N1	54:R8:31:HIS:NE2	2.62	0.48
25:RA:177:G:H3'	25:RA:178:G:H8	1.79	0.48
25:RA:1184:G:OP1	49:R3:29:ARG:NH1	2.47	0.48
32:RI:93:THR:HA	32:RI:119:PRO:HB3	1.95	0.48
36:RQ:39:PRO:HB3	36:RQ:99:PRO:HD3	1.96	0.48
38:RS:25:ARG:NH1	38:RS:42:ASP:OD2	2.47	0.48
1:XA:781:A:O2'	1:XA:1522:U:O2	2.29	0.48
1:XA:1357:A:N6	1:XA:1365:G:H1	2.10	0.48
25:YA:840:C:OP2	25:YA:932:G:N2	2.40	0.48
25:YA:1131:G:C2	33:YN:75:TYR:HB2	2.48	0.48
25:YA:1231:G:H2'	25:YA:1232:G:H8	1.78	0.48
25:YA:1571:A:H2'	25:YA:1572:A:C8	2.49	0.48
27:YD:27:THR:HG21	27:YD:81:ALA:HB1	1.95	0.48
31:YH:43:VAL:HG22	31:YH:52:VAL:HG22	1.96	0.48
1:QA:1071:C:H2'	1:QA:1072:G:H8	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:1492:A:H5''	12:QL:47:LYS:HB3	1.95	0.47
3:QC:152:ILE:HG12	3:QC:167:TRP:HD1	1.78	0.47
25:RA:851:U:H2'	25:RA:852:G:H8	1.79	0.47
25:RA:996:A:H4'	40:RU:92:ARG:HG2	1.95	0.47
25:RA:2212:A:H1'	25:RA:2215:G:C5	2.49	0.47
37:RR:3:HIS:O	37:RR:5:LYS:N	2.47	0.47
47:R1:52:ARG:NH2	47:R1:55:GLY:O	2.47	0.47
1:XA:1288:A:N3	1:XA:1352:C:O2'	2.37	0.47
11:XK:54:ARG:HH22	22:XW:40:C:C3'	2.25	0.47
25:YA:694:U:O4	25:YA:768:G:O6	2.32	0.47
25:YA:831:G:O2'	35:YP:38:GLN:OE1	2.28	0.47
25:YA:1113:U:H2'	25:YA:1114:G:H8	1.78	0.47
25:YA:2211:G:H21	25:YA:2212:A:H2	1.62	0.47
1:QA:1347:G:N2	1:QA:1374:A:OP2	2.31	0.47
22:QV:51:U:O4	22:QV:65:G:O6	2.31	0.47
22:QW:32:G:H3'	22:QW:33:C:O4'	2.13	0.47
25:RA:414:C:H2'	25:RA:415:A:H8	1.79	0.47
25:RA:495:G:H21	42:RW:61:ASN:HD21	1.62	0.47
25:RA:2845:G:H2'	25:RA:2846:G:C8	2.49	0.47
35:RP:101:VAL:HB	35:RP:106:LEU:HB2	1.96	0.47
37:RR:88:ARG:NH2	37:RR:89:ASP:OD1	2.47	0.47
1:XA:321:A:N6	1:XA:329:A:OP2	2.47	0.47
1:XA:748:C:H1'	1:XA:749:C:H5	1.79	0.47
3:XC:9:GLY:HA3	14:XN:49:HIS:HA	1.95	0.47
6:XF:36:ARG:NH2	6:XF:66:GLU:OE1	2.47	0.47
9:XI:13:ALA:HB2	9:XI:68:GLY:HA3	1.95	0.47
25:YA:2339:G:H2'	25:YA:2340:G:H8	1.78	0.47
25:YA:2707:G:H2'	25:YA:2708:G:H8	1.79	0.47
28:YE:2:LYS:NZ	28:YE:100:GLU:OE2	2.37	0.47
30:YG:63:ILE:HG22	30:YG:143:GLU:HB2	1.96	0.47
37:YR:3:HIS:O	37:YR:5:LYS:N	2.47	0.47
38:YS:25:ARG:NH1	38:YS:42:ASP:OD2	2.47	0.47
43:YX:26:TYR:HD2	43:YX:89:ILE:HD12	1.78	0.47
47:Y1:87:PRO:HA	47:Y1:90:ILE:HG22	1.95	0.47
25:RA:709:U:H2'	25:RA:710:G:C8	2.50	0.47
1:XA:948:C:H2'	1:XA:949:A:H8	1.79	0.47
13:XM:99:ARG:HB2	13:XM:101:GLN:HE22	1.78	0.47
25:YA:890:A:H2'	25:YA:892:G:H8	1.79	0.47
25:YA:1262:A:OP2	42:YW:97:LYS:NZ	2.47	0.47
25:YA:1264:G:OP1	51:Y5:19:ARG:NH2	2.29	0.47
25:YA:1510:A:O2'	25:YA:1512:G:N7	2.42	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:1592:C:H2'	25:YA:1593:G:H8	1.80	0.47
25:YA:2576:G:O2'	25:YA:2579:C:OP2	2.27	0.47
30:YG:105:LYS:HD3	50:Y4:26:SER:HB2	1.95	0.47
45:YZ:5:LEU:HD11	45:YZ:44:PHE:HA	1.97	0.47
1:QA:765:G:N2	1:QA:813:U:OP2	2.43	0.47
1:QA:1191:A:OP2	3:QC:3:ASN:ND2	2.47	0.47
1:QA:1273:G:H3'	1:QA:1274:G:H8	1.79	0.47
22:QW:36:A:H2'	22:QW:37:U:C6	2.50	0.47
25:RA:10:G:N2	25:RA:2802:G:OP1	2.37	0.47
25:RA:237:C:O2	25:RA:609:A:O2'	2.32	0.47
25:RA:358:U:H2'	25:RA:359:A:H8	1.79	0.47
25:RA:1638:C:O2	25:RA:2698:U:O2'	2.31	0.47
25:RA:2150:U:H2'	25:RA:2151:G:H8	1.79	0.47
45:RZ:5:LEU:HD11	45:RZ:44:PHE:HA	1.97	0.47
1:XA:1375:A:H4'	7:XG:29:LYS:HD3	1.97	0.47
22:XW:10:G:H2'	22:XW:11:A:H8	1.79	0.47
25:YA:589:C:H2'	25:YA:590:A:H8	1.78	0.47
25:YA:782:A:O2'	27:YD:225:ALA:O	2.32	0.47
25:YA:1508:A:O2'	25:YA:1509:C:O4'	2.31	0.47
38:YS:12:PHE:O	38:YS:16:ASN:ND2	2.48	0.47
1:QA:368:U:OP1	32:YI:91:SER:OG	2.27	0.47
1:QA:985:C:H2'	1:QA:986:A:H8	1.78	0.47
1:QA:1222:G:OP1	19:QS:78:ARG:NH1	2.34	0.47
4:QD:60:GLU:HG2	4:QD:202:LEU:HB2	1.95	0.47
52:R6:10:LEU:HG	52:R6:54:ILE:HG13	1.97	0.47
1:XA:67:C:H2'	1:XA:68:G:C8	2.49	0.47
1:XA:377:G:H2'	1:XA:378:G:H8	1.79	0.47
8:XH:51:VAL:HG21	8:XH:60:ARG:HG3	1.95	0.47
11:XK:34:ASP:OD1	11:XK:37:GLY:N	2.48	0.47
22:XW:8:U:H2'	22:XW:13:C:H41	1.80	0.47
22:XW:68:C:H2'	22:XW:69:C:C6	2.49	0.47
25:YA:1535:U:H3	25:YA:1537:C:H1'	1.78	0.47
25:YA:2100:G:H2'	25:YA:2101:G:H8	1.79	0.47
32:YI:13:GLY:HA3	32:YI:17:GLN:HG2	1.95	0.47
1:QA:148:G:H2'	1:QA:149:A:C8	2.49	0.47
1:QA:1175:G:H2'	1:QA:1176:A:C8	2.49	0.47
4:QD:166:LYS:HG2	27:YD:135:PHE:HZ	1.78	0.47
25:RA:1791:A:N6	25:RA:1828:G:O2'	2.39	0.47
25:RA:2327:A:H2'	25:RA:2328:A:C8	2.49	0.47
27:RD:153:ALA:O	27:RD:157:ARG:NH1	2.48	0.47
31:RH:12:PRO:HG2	31:RH:13:LYS:HG2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:RQ:71:ASP:OD1	36:RQ:71:ASP:N	2.45	0.47
38:RS:12:PHE:O	38:RS:16:ASN:ND2	2.48	0.47
39:RT:50:ILE:HG13	39:RT:99:LEU:HD12	1.97	0.47
1:XA:1004:A:O5'	1:XA:1025:U:N3	2.43	0.47
1:XA:1235:U:H5''	21:XU:3:LYS:HD2	1.95	0.47
25:YA:2637:U:H5''	28:YE:82:ARG:NH1	2.30	0.47
34:YO:104:ARG:NH1	34:YO:121:VAL:O	2.47	0.47
1:QA:62:U:H3	1:QA:105:G:H1	1.62	0.47
1:QA:1013:G:N2	1:QA:1016:A:OP2	2.43	0.47
1:QA:1172:C:H2'	1:QA:1173:G:H8	1.78	0.47
1:QA:1309:G:OP1	13:QM:88:ARG:NH2	2.48	0.47
1:QA:1340:A:OP1	22:QW:36:A:H5'	2.15	0.47
1:QA:1354:C:H2'	1:QA:1355:G:H8	1.80	0.47
3:QC:20:SER:OG	3:QC:22:TRP:NE1	2.48	0.47
22:QW:77:A:C8	22:QW:77:A:C5'	2.85	0.47
25:RA:942:G:OP2	35:RP:39:LYS:NZ	2.37	0.47
25:RA:1582:C:H2'	25:RA:1583:A:H8	1.80	0.47
25:RA:1662:C:O2'	25:RA:2687:U:OP1	2.30	0.47
25:RA:2047:U:H2'	25:RA:2048:G:H8	1.79	0.47
27:RD:25:THR:HG22	27:RD:82:ILE:H	1.80	0.47
31:RH:43:VAL:HG22	31:RH:52:VAL:HG22	1.96	0.47
1:XA:243:A:H4'	1:XA:244:U:H3'	1.96	0.47
1:XA:477:G:H2'	1:XA:478:A:H8	1.80	0.47
1:XA:510:A:OP2	4:XD:49:ARG:NH2	2.43	0.47
2:XB:168:THR:HA	2:XB:171:ALA:HB2	1.96	0.47
4:XD:60:GLU:HG2	4:XD:202:LEU:HB2	1.95	0.47
25:YA:270(R):G:H2'	25:YA:270(S):G:C8	2.50	0.47
25:YA:301:G:OP2	44:YY:84:ARG:NH2	2.41	0.47
25:YA:863:A:H2'	25:YA:864:G:H8	1.79	0.47
25:YA:1087:G:C4	25:YA:1089:G:H1'	2.50	0.47
25:YA:2848:G:C8	39:YT:97:ALA:HB2	2.50	0.47
31:YH:106:THR:HG22	31:YH:112:PRO:HB3	1.97	0.47
36:YQ:39:PRO:HB3	36:YQ:99:PRO:HD3	1.96	0.47
1:QA:973:G:H3'	1:QA:974:A:H5''	1.97	0.47
1:QA:1386:G:H2'	1:QA:1387:G:H8	1.80	0.47
22:QW:8:U:H2'	22:QW:13:C:H41	1.80	0.47
24:QY:28:G:H1	24:QY:42:C:H42	1.63	0.47
25:RA:994:C:OP2	40:RU:54:LYS:NZ	2.39	0.47
33:RN:30:ILE:HG23	33:RN:52:VAL:HG11	1.95	0.47
2:XB:32:ILE:HD11	2:XB:40:HIS:HB3	1.97	0.47
25:YA:581:C:H2'	25:YA:582:G:C8	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:2581:G:OP2	25:YA:2581:G:N2	2.44	0.47
27:YD:25:THR:HG22	27:YD:82:ILE:H	1.80	0.47
1:QA:677:U:O2	1:QA:777:A:O2'	2.31	0.47
6:QF:36:ARG:NH2	6:QF:66:GLU:OE1	2.47	0.47
13:QM:13:LYS:HA	13:QM:44:ARG:HD2	1.97	0.47
13:QM:99:ARG:HB2	13:QM:101:GLN:HE22	1.79	0.47
25:RA:439:G:H2'	25:RA:440:G:C8	2.50	0.47
25:RA:587:C:OP1	35:RP:21:ARG:NH2	2.42	0.47
25:RA:1782:C:O2	25:RA:2608:G:O2'	2.28	0.47
17:XQ:43:LEU:HD12	17:XQ:68:ARG:HG3	1.97	0.47
25:YA:1174:A:H2'	25:YA:1175:U:H4'	1.97	0.47
27:YD:153:ALA:O	27:YD:157:ARG:NH1	2.48	0.47
1:QA:28:G:O2'	1:QA:296:U:OP1	2.30	0.47
1:QA:1342:C:H4'	9:QI:125:TYR:HB3	1.97	0.47
1:QA:1422:G:H2'	1:QA:1423:G:H8	1.80	0.47
1:QA:1454:G:H2'	1:QA:1455:G:H8	1.79	0.47
13:QM:3:ARG:HA	13:QM:9:ILE:HG21	1.97	0.47
25:RA:629:G:N3	25:RA:639:U:O2'	2.47	0.47
28:RE:13:ARG:HA	28:RE:22:PRO:HA	1.97	0.47
40:RU:52:ARG:HH11	40:RU:55:ARG:HH21	1.63	0.47
41:RV:51:VAL:HG12	41:RV:53:GLU:H	1.80	0.47
1:XA:56:U:H2'	1:XA:57:G:H8	1.79	0.47
1:XA:254:G:O2'	17:XQ:16:GLN:O	2.32	0.47
1:XA:628:G:H2'	1:XA:629:G:C8	2.50	0.47
8:XH:112:LEU:HD23	8:XH:133:LEU:HA	1.97	0.47
13:XM:89:GLY:O	13:XM:93:ARG:N	2.48	0.47
25:YA:244:A:H4'	35:YP:74:GLU:HB2	1.97	0.47
25:YA:635:C:O2'	25:YA:639:U:OP1	2.33	0.47
25:YA:1530:G:O6	25:YA:1542:G:N2	2.47	0.47
25:YA:1791:A:H3'	25:YA:1792:G:H8	1.79	0.47
1:QA:45:U:H2'	1:QA:46:G:C8	2.50	0.46
1:QA:1061:G:OP1	10:QJ:59:SER:OG	2.27	0.46
2:QB:15:VAL:H	2:QB:16:HIS:CD2	2.33	0.46
25:RA:550:G:O2'	25:RA:1220:A:N3	2.44	0.46
25:RA:581:C:H2'	25:RA:582:G:C8	2.49	0.46
25:RA:822:U:H2'	25:RA:823:G:H8	1.80	0.46
25:RA:1114:G:H2'	25:RA:1115:G:C8	2.50	0.46
25:RA:2467:C:N4	25:RA:2484:G:O6	2.48	0.46
29:RF:195:ASP:OD1	29:RF:195:ASP:N	2.46	0.46
37:RR:38:VAL:HG22	37:RR:112:ALA:HB2	1.96	0.46
38:RS:26:LEU:HB3	38:RS:87:PHE:HA	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:RU:98:LEU:O	40:RU:102:GLU:N	2.45	0.46
1:XA:178:C:H2'	1:XA:179:A:H8	1.79	0.46
1:XA:684:A:O2'	11:XK:39:PRO:O	2.33	0.46
1:XA:708:C:OP1	11:XK:85:ARG:NH2	2.43	0.46
1:XA:1250:A:N3	1:XA:1370:G:O2'	2.39	0.46
22:XV:57:C:N4	30:YG:83:ARG:HH12	2.13	0.46
1:QA:539:A:H2'	1:QA:540:G:C8	2.51	0.46
2:QB:189:ASP:N	2:QB:189:ASP:OD1	2.48	0.46
4:QD:107:ARG:NH1	6:XF:17:SER:OG	2.48	0.46
22:QW:1:C:H42	22:QW:73:A:H61	1.63	0.46
25:RA:270(G):C:H42	25:RA:270(S):G:H1	1.61	0.46
25:RA:807:U:O2'	25:RA:2060:A:N1	2.42	0.46
25:RA:1636:C:H2'	25:RA:1637:A:C8	2.50	0.46
25:RA:1753:G:N2	25:RA:1756:G:OP2	2.47	0.46
25:RA:2020:A:H5'	51:R5:12:SER:HB3	1.96	0.46
33:RN:47:ALA:O	33:RN:119:ARG:NH1	2.45	0.46
1:XA:1060:C:H2'	1:XA:1061:G:H8	1.80	0.46
13:XM:16:ASP:OD1	13:XM:16:ASP:N	2.47	0.46
25:YA:694:U:H3	25:YA:768:G:H1	1.62	0.46
26:YB:60:C:H2'	26:YB:61:G:H8	1.80	0.46
29:YF:195:ASP:OD1	29:YF:195:ASP:N	2.46	0.46
40:YU:52:ARG:HH11	40:YU:55:ARG:HH21	1.63	0.46
1:QA:501:C:H2'	1:QA:502:G:C8	2.50	0.46
1:QA:514:C:H2'	1:QA:515:G:H8	1.80	0.46
1:QA:1412:C:H2'	1:QA:1413:A:C8	2.50	0.46
21:QU:6:ARG:HE	21:QU:15:ARG:HH21	1.63	0.46
25:RA:2228:G:OP1	27:RD:261:LYS:NZ	2.36	0.46
1:XA:376:G:H5''	16:XP:5:ARG:HD2	1.97	0.46
1:XA:380:G:N2	1:XA:383:A:OP2	2.36	0.46
1:XA:601:C:H2'	1:XA:602:A:H8	1.80	0.46
1:XA:713:G:H2'	1:XA:714:G:C8	2.50	0.46
1:XA:1391:U:H2'	1:XA:1392:G:H8	1.80	0.46
22:XW:32:G:H3'	22:XW:33:C:O4'	2.15	0.46
25:YA:1799:G:N2	25:YA:1818:U:O2'	2.48	0.46
25:YA:1826:G:O2'	27:YD:242:ARG:NH2	2.48	0.46
25:YA:2071:A:H2'	25:YA:2072:G:H8	1.81	0.46
25:YA:2293:C:O2'	38:YS:93:LYS:NZ	2.47	0.46
25:YA:2377:A:O2'	38:YS:111:GLU:O	2.30	0.46
31:YH:12:PRO:HG2	31:YH:13:LYS:HG2	1.97	0.46
45:YZ:17:ALA:O	45:YZ:21:ALA:N	2.45	0.46
1:QA:369:C:OP2	1:QA:388:G:N1	2.41	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:715:A:H2'	1:QA:716:A:C8	2.49	0.46
22:QW:49:C:N3	22:QW:60:A:H1'	2.30	0.46
25:RA:782:A:O2'	27:RD:225:ALA:O	2.31	0.46
25:RA:922:U:H2'	25:RA:923:C:C6	2.51	0.46
25:RA:1363:C:O2'	25:RA:1809:A:N3	2.42	0.46
25:RA:1598:C:O3'	43:RX:35:THR:OG1	2.32	0.46
25:RA:2734:A:H62	25:RA:2770:G:N2	2.12	0.46
26:RB:33:G:H5'	30:RG:2:PRO:HG3	1.98	0.46
34:RO:28:SER:OG	34:RO:29:ASN:N	2.46	0.46
42:RW:25:ARG:NH2	42:RW:74:ALA:O	2.31	0.46
1:XA:452:A:O2'	1:XA:453:A:O4'	2.31	0.46
7:XG:73:MET:HG2	7:XG:90:GLU:HA	1.97	0.46
12:XL:45:PRO:HB3	12:XL:92:ASP:HB3	1.97	0.46
25:YA:1815:A:OP2	27:YD:54:ARG:NH1	2.46	0.46
25:YA:2816:C:O2	25:YA:2883:A:O2'	2.29	0.46
32:YI:2:LYS:HA	32:YI:20:ASP:HA	1.98	0.46
39:YT:18:ASP:N	39:YT:18:ASP:OD1	2.45	0.46
1:QA:128:G:O2'	17:QQ:3:LYS:NZ	2.43	0.46
1:QA:1367:C:OP2	9:QI:112:LYS:NZ	2.48	0.46
9:QI:29:ASN:HD21	9:QI:65:VAL:HB	1.78	0.46
10:QJ:78:ASN:HB2	10:QJ:81:THR:HG23	1.98	0.46
13:QM:40:ASN:HB3	13:QM:43:THR:HG23	1.98	0.46
28:RE:74:PRO:HG2	28:RE:77:ILE:HG22	1.96	0.46
30:RG:63:ILE:HG22	30:RG:143:GLU:HB2	1.96	0.46
1:XA:656:C:O2	15:XO:28:GLN:NE2	2.44	0.46
19:XS:27:GLU:OE2	19:XS:29:ARG:NH2	2.42	0.46
22:XW:77:A:C2	25:YA:2422:A:N1	2.82	0.46
30:YG:173:LEU:O	30:YG:178:PHE:N	2.46	0.46
37:YR:79:LEU:HD12	37:YR:83:ILE:HB	1.97	0.46
48:Y2:4:SER:OG	48:Y2:5:GLU:N	2.48	0.46
1:QA:45:U:H3	1:QA:396:G:H1	1.63	0.46
1:QA:178:C:H2'	1:QA:179:A:H8	1.80	0.46
1:QA:501:C:H2'	1:QA:502:G:H8	1.79	0.46
1:QA:985:C:H2'	1:QA:986:A:C8	2.50	0.46
19:QS:10:PHE:HE2	19:QS:16:LEU:HB2	1.80	0.46
25:RA:78:A:H2'	25:RA:79:G:H8	1.80	0.46
25:RA:890:A:H2'	25:RA:892:G:H8	1.81	0.46
25:RA:1061:U:OP2	25:RA:1070:A:O2'	2.28	0.46
25:RA:1971:A:OP2	27:RD:242:ARG:NH2	2.45	0.46
25:RA:2547:U:O2	34:RO:23:ARG:NH2	2.49	0.46
26:RB:60:C:H2'	26:RB:61:G:H8	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:RE:143:ASN:HB2	28:RE:147:PRO:HD2	1.98	0.46
34:RO:19:ILE:HG22	34:RO:43:VAL:HA	1.98	0.46
35:RP:47:ASP:OD2	35:RP:50:ARG:NH2	2.49	0.46
1:XA:503:C:OP2	12:XL:116:SER:OG	2.30	0.46
1:XA:1127:G:H21	1:XA:1147:C:H41	1.64	0.46
1:XA:1287:A:H2	1:XA:1353:G:H1'	1.80	0.46
1:XA:1317:C:O2	19:XS:37:ARG:NH1	2.49	0.46
1:XA:1427:U:H2'	1:XA:1428:A:C8	2.49	0.46
8:XH:82:HIS:N	8:XH:138:TRP:OXT	2.49	0.46
21:XU:6:ARG:HE	21:XU:15:ARG:HH21	1.64	0.46
25:YA:297:C:H5''	44:YY:87:LYS:HG3	1.97	0.46
25:YA:1085:A:H2'	25:YA:1086:A:C4	2.51	0.46
25:YA:1779:U:OP2	25:YA:1784:A:N6	2.40	0.46
25:YA:2105:C:H2'	25:YA:2106:G:C8	2.50	0.46
32:YI:79:ILE:HB	32:YI:142:VAL:HA	1.98	0.46
47:Y1:60:PHE:HB3	47:Y1:62:VAL:HG13	1.98	0.46
1:QA:642:A:N3	8:QH:113:SER:OG	2.41	0.46
1:QA:748:C:H1'	1:QA:749:C:H5	1.81	0.46
1:QA:925:G:H1	1:QA:1391:U:H3	1.62	0.46
2:QB:15:VAL:HG21	2:QB:209:ARG:HG3	1.97	0.46
8:QH:82:HIS:N	8:QH:138:TRP:OXT	2.49	0.46
25:RA:300:A:OP1	44:RY:86:ARG:NH2	2.49	0.46
25:RA:589:C:H2'	25:RA:590:A:C8	2.51	0.46
25:RA:1138:G:H21	33:RN:106:MET:HE3	1.79	0.46
38:RS:40:ILE:HA	38:RS:47:THR:HA	1.98	0.46
47:R1:65:SER:HG	47:R1:66:HIS:HD1	1.60	0.46
1:XA:156:G:H2'	1:XA:157:G:H8	1.81	0.46
1:XA:979:C:OP1	1:XA:1223:C:N4	2.48	0.46
25:YA:674:G:H1'	29:YF:74:ARG:HD3	1.96	0.46
25:YA:1176:G:O2'	25:YA:1178:C:N4	2.49	0.46
25:YA:1841:U:H2'	25:YA:1842:G:H8	1.79	0.46
25:YA:1939:U:OP1	25:YA:2604:U:O2'	2.31	0.46
28:YE:13:ARG:HA	28:YE:22:PRO:HA	1.97	0.46
49:Y3:39:ASP:OD1	49:Y3:44:ARG:NH2	2.46	0.46
1:QA:56:U:H2'	1:QA:57:G:C8	2.50	0.46
1:QA:166:G:H2'	1:QA:167:G:H8	1.81	0.46
1:QA:352:C:O2'	1:QA:354:G:OP1	2.22	0.46
1:QA:539:A:H2'	1:QA:540:G:H8	1.81	0.46
17:QQ:43:LEU:HD12	17:QQ:68:ARG:HG3	1.96	0.46
17:QQ:83:ASP:N	17:QQ:83:ASP:OD1	2.49	0.46
25:RA:579:G:O2'	25:RA:2019:A:OP1	2.34	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:2495:G:H5''	36:RQ:81:VAL:HG12	1.98	0.46
34:RO:2:ILE:HB	34:RO:33:ALA:HB3	1.98	0.46
44:RY:14:LEU:HB2	44:RY:75:ILE:HD11	1.98	0.46
45:RZ:30:ASN:HB3	45:RZ:90:VAL:HB	1.98	0.46
19:XS:41:VAL:HG22	19:XS:44:MET:HE2	1.98	0.46
25:YA:24:G:O2'	42:YW:78:GLU:O	2.32	0.46
25:YA:1111:A:OP1	31:YH:3:ARG:NH2	2.49	0.46
25:YA:1184:G:P	49:Y3:29:ARG:HH12	2.38	0.46
25:YA:1731:G:H2'	25:YA:1732:A:H8	1.81	0.46
25:YA:2737:G:H2'	25:YA:2738:A:C8	2.51	0.46
26:YB:113:C:O2'	38:YS:47:THR:N	2.49	0.46
45:YZ:30:ASN:HB3	45:YZ:90:VAL:HB	1.98	0.46
1:QA:309:G:H2'	1:QA:310:G:H8	1.80	0.46
1:QA:360:A:H2'	1:QA:361:G:C8	2.51	0.46
1:QA:864:A:H2'	1:QA:865:A:C8	2.51	0.46
2:QB:32:ILE:HD11	2:QB:40:HIS:HB3	1.96	0.46
5:QE:101:ILE:O	5:QE:120:THR:OG1	2.31	0.46
25:RA:345:A:N3	25:RA:347:A:N6	2.63	0.46
25:RA:1114:G:H2'	25:RA:1115:G:H8	1.81	0.46
25:RA:2081:C:H2'	25:RA:2082:A:H8	1.81	0.46
28:RE:105:THR:HB	28:RE:197:ILE:HG23	1.98	0.46
34:RO:104:ARG:NH1	34:RO:121:VAL:O	2.47	0.46
53:R7:13:ALA:HB2	53:R7:46:VAL:HG11	1.97	0.46
22:XW:9:G:H5''	22:XW:10:G:OP2	2.16	0.46
25:YA:1568:G:H5''	27:YD:61:LEU:HD23	1.98	0.46
25:YA:1818:U:OP2	27:YD:157:ARG:NE	2.48	0.46
25:YA:2185:C:H2'	25:YA:2186:G:H8	1.80	0.46
25:YA:2328:A:H2'	25:YA:2329:G:H8	1.80	0.46
29:YF:34:TRP:CE3	35:YP:8:PRO:HB3	2.51	0.46
38:YS:31:SER:O	38:YS:97:ARG:NH1	2.39	0.46
41:YV:51:VAL:HG12	41:YV:53:GLU:H	1.80	0.46
52:Y6:10:LEU:HG	52:Y6:54:ILE:HG13	1.97	0.46
1:QA:1443:G:N2	25:RA:2864:G:OP1	2.45	0.46
5:QE:75:THR:OG1	5:QE:76:ILE:N	2.49	0.46
8:QH:112:LEU:HD23	8:QH:133:LEU:HA	1.97	0.46
31:RH:12:PRO:HB3	31:RH:48:GLY:HA2	1.98	0.46
34:RO:104:ARG:HH11	34:RO:121:VAL:HG12	1.81	0.46
48:R2:4:SER:OG	48:R2:5:GLU:N	2.48	0.46
1:XA:911:U:OP2	12:XL:97:ARG:NH2	2.36	0.46
3:XC:20:SER:OG	3:XC:22:TRP:NE1	2.48	0.46
25:YA:1078:U:H1'	25:YA:1088:A:H2	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:2692:C:H1'	25:YA:2847:U:H1'	1.97	0.46
31:YH:54:ARG:NH2	31:YH:57:ASP:OD1	2.48	0.46
34:YO:107:ARG:NH1	39:YT:36:GLU:OE1	2.49	0.46
1:QA:1096:C:H2'	1:QA:1097:C:H6	1.81	0.45
1:QA:1287:A:H2	1:QA:1353:G:H1'	1.81	0.45
1:QA:1435:G:H2'	1:QA:1436:U:C6	2.51	0.45
7:QG:73:MET:HG2	7:QG:90:GLU:HA	1.98	0.45
25:RA:770:G:OP1	53:R7:8:ASN:ND2	2.39	0.45
25:RA:949:C:H2'	25:RA:950:G:H8	1.81	0.45
27:RD:148:GLU:HB2	27:RD:151:LYS:HD2	1.99	0.45
29:RF:28:ILE:HG22	29:RF:112:MET:HB3	1.98	0.45
51:R5:41:PRO:O	51:R5:44:THR:OG1	2.34	0.45
1:XA:662:G:H2'	1:XA:663:A:C8	2.51	0.45
1:XA:1096:C:H2'	1:XA:1097:C:H6	1.81	0.45
1:XA:1329:A:H5''	13:XM:26:GLY:H	1.81	0.45
2:XB:132:LYS:HA	2:XB:135:GLN:HB2	1.98	0.45
22:XW:35:C:C5	23:XX:14:A:N6	2.84	0.45
25:YA:792:G:N3	25:YA:2072:G:O2'	2.48	0.45
25:YA:2282:G:H21	25:YA:2390:U:H3	1.64	0.45
25:YA:2529:G:H5''	25:YA:2530:A:H5''	1.97	0.45
27:YD:148:GLU:HB2	27:YD:151:LYS:HD2	1.98	0.45
31:YH:12:PRO:HB3	31:YH:48:GLY:HA2	1.98	0.45
35:YP:122:PRO:HB3	35:YP:141:ALA:HB1	1.99	0.45
51:Y5:41:PRO:O	51:Y5:44:THR:OG1	2.34	0.45
1:QA:62:U:O2'	1:QA:379:C:O2	2.33	0.45
1:QA:376:G:O3'	16:QP:5:ARG:NH1	2.43	0.45
1:QA:677:U:H3	1:QA:713:G:H22	1.65	0.45
13:QM:47:ASP:OD1	13:QM:47:ASP:N	2.41	0.45
28:RE:92:THR:HG23	28:RE:94:GLU:H	1.82	0.45
29:RF:178:PRO:HB3	29:RF:198:ALA:HB2	1.98	0.45
37:RR:12:ARG:O	37:RR:17:ARG:NH2	2.49	0.45
20:XT:89:ARG:HH21	20:XT:104:LEU:HD21	1.82	0.45
22:XV:35:C:H2'	22:XV:36:A:H8	1.81	0.45
25:YA:657:U:H2'	25:YA:658:C:H6	1.82	0.45
25:YA:1059:G:O6	25:YA:1079:C:N4	2.47	0.45
25:YA:1204:A:H1'	25:YA:1206:G:C8	2.52	0.45
26:YB:33:G:H5'	30:YG:2:PRO:HG3	1.97	0.45
29:YF:116:ASP:OD2	35:YP:1:MET:N	2.39	0.45
39:YT:50:ILE:HG13	39:YT:99:LEU:HD12	1.97	0.45
40:YU:91:ASP:O	40:YU:95:LEU:N	2.49	0.45
25:RA:15:G:H1	25:RA:525:U:H3	1.63	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:380:U:H2'	25:RA:381:G:H8	1.82	0.45
25:RA:469:G:O6	53:R7:39:ARG:NH1	2.49	0.45
25:RA:675:A:N3	25:RA:2443:C:O2'	2.38	0.45
25:RA:1695:G:N7	27:RD:14:ARG:NH2	2.64	0.45
25:RA:1962:C:O2'	25:RA:1964:G:OP2	2.31	0.45
25:RA:2630:G:H2'	25:RA:2631:G:H8	1.80	0.45
1:XA:22:G:H2'	1:XA:23:C:C6	2.51	0.45
1:XA:971:G:H5''	1:XA:972:C:H5''	1.97	0.45
1:XA:1292:U:H2'	1:XA:1293:G:C8	2.50	0.45
1:XA:1355:G:H2'	1:XA:1356:G:H8	1.81	0.45
1:XA:1507:A:H2'	1:XA:1508:G:C8	2.52	0.45
1:XA:1510:U:H2'	1:XA:1511:G:C8	2.51	0.45
22:XW:2:G:H2'	22:XW:3:C:C6	2.51	0.45
25:YA:1031:G:O2'	55:Y9:7:VAL:O	2.32	0.45
25:YA:2329:G:H2'	25:YA:2330:G:C8	2.52	0.45
25:YA:2387:U:O2'	46:Y0:19:LYS:NZ	2.49	0.45
33:YN:47:ALA:O	33:YN:119:ARG:NH1	2.45	0.45
38:YS:40:ILE:HA	38:YS:47:THR:HA	1.98	0.45
1:QA:191:G:O2'	20:QT:101:GLY:O	2.35	0.45
1:QA:684:A:O2'	11:QK:39:PRO:O	2.32	0.45
20:QT:49:ALA:HA	20:QT:52:ALA:HB3	1.98	0.45
25:RA:583:G:H5''	40:RU:10:ARG:NH1	2.31	0.45
25:RA:1156:A:P	40:RU:55:ARG:HH11	2.40	0.45
45:RZ:120:ILE:H	45:RZ:172:ALA:HA	1.82	0.45
25:YA:249:C:OP2	25:YA:2394:C:O2'	2.30	0.45
25:YA:392:C:H5''	25:YA:409:C:H5''	1.98	0.45
25:YA:1754:C:P	39:YT:96:ARG:HH12	2.40	0.45
32:YI:65:ALA:O	32:YI:69:LYS:N	2.46	0.45
36:YQ:71:ASP:OD1	36:YQ:71:ASP:N	2.45	0.45
1:QA:34:C:H2'	1:QA:35:G:C8	2.49	0.45
1:QA:718:G:O6	18:QR:74:ARG:NH1	2.50	0.45
8:QH:49:GLU:OE2	8:QH:62:TYR:OH	2.29	0.45
25:RA:1041:C:H2'	25:RA:1042:G:C8	2.51	0.45
25:RA:1316:U:H2'	25:RA:1317:A:C8	2.51	0.45
25:RA:2683:C:H5''	39:RT:53:ARG:HH12	1.81	0.45
50:R4:28:LYS:HB2	50:R4:31:ILE:HD11	1.98	0.45
1:XA:116:A:H61	1:XA:313:A:H1'	1.81	0.45
1:XA:1169:A:H2'	1:XA:1170:A:C8	2.52	0.45
9:XI:26:VAL:HG22	9:XI:61:ALA:HB3	1.97	0.45
24:XY:28:G:H1	24:XY:42:C:H42	1.63	0.45
11:QK:22:HIS:HB3	11:QK:29:ILE:HG23	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:18:C:O2'	25:RA:553:U:OP1	2.34	0.45
25:RA:255:A:O2'	25:RA:384:U:OP1	2.27	0.45
25:RA:392:C:H5''	25:RA:409:C:H5''	1.97	0.45
25:RA:629:G:H1'	25:RA:639:U:H1'	1.98	0.45
25:RA:1657:C:H2'	25:RA:1658:C:H6	1.82	0.45
25:RA:2006:C:O2'	25:RA:2823:A:N3	2.49	0.45
30:RG:16:ARG:NH2	30:RG:28:VAL:O	2.49	0.45
31:RH:54:ARG:NH2	31:RH:57:ASP:OD1	2.48	0.45
40:RU:91:ASP:O	40:RU:95:LEU:N	2.49	0.45
1:XA:529:G:O6	12:XL:49:ASN:ND2	2.43	0.45
1:XA:1219:U:OP1	14:XN:19:ARG:NH2	2.41	0.45
3:XC:59:ARG:HH12	3:XC:97:LYS:HE3	1.82	0.45
8:XH:104:ARG:HD2	8:XH:138:TRP:CD2	2.52	0.45
25:YA:172:C:H2'	25:YA:173:G:H8	1.82	0.45
25:YA:532:A:N1	25:YA:2035:G:N2	2.64	0.45
25:YA:1338:G:N7	43:YX:62:LYS:NZ	2.65	0.45
29:YF:40:GLN:HE22	29:YF:182:ASN:HB2	1.82	0.45
34:YO:2:ILE:HB	34:YO:33:ALA:HB3	1.98	0.45
34:YO:104:ARG:HH11	34:YO:121:VAL:HG12	1.81	0.45
50:Y4:28:LYS:HB2	50:Y4:31:ILE:HD11	1.98	0.45
1:QA:977:A:O2'	1:QA:979:C:OP2	2.30	0.45
1:QA:1128:C:H1'	1:QA:1146:A:H61	1.82	0.45
1:QA:1308:U:OP2	13:QM:101:GLN:NE2	2.50	0.45
1:QA:1397:C:N3	23:QX:22:C:H5	2.15	0.45
5:QE:143:ARG:NE	8:QH:77:GLU:OE2	2.47	0.45
44:RY:29:GLU:HB3	44:RY:38:ILE:HD12	1.99	0.45
1:XA:269:C:H2'	1:XA:270:A:H8	1.82	0.45
1:XA:532:A:H2	1:XA:1206:G:H21	1.62	0.45
12:XL:28:LYS:HB2	12:XL:28:LYS:HE3	1.70	0.45
25:YA:767:U:H2'	25:YA:768:G:H8	1.81	0.45
25:YA:852:G:H2'	25:YA:853:G:H8	1.82	0.45
25:YA:1638:C:O2	25:YA:2698:U:O2'	2.31	0.45
25:YA:1761:C:H42	25:YA:1762:A:H62	1.65	0.45
30:YG:16:ARG:NH2	30:YG:28:VAL:O	2.49	0.45
30:YG:49:ASP:OD2	30:YG:51:ARG:NH2	2.49	0.45
45:YZ:102:LEU:HD23	45:YZ:137:ILE:HB	1.99	0.45
1:QA:21:G:H2'	1:QA:22:G:H8	1.81	0.45
1:QA:444:C:H2'	1:QA:445:G:H8	1.82	0.45
1:QA:923:A:O2'	1:QA:1399:C:OP2	2.28	0.45
9:QI:13:ALA:HB2	9:QI:68:GLY:HA3	1.99	0.45
25:RA:110:G:H2'	25:RA:111:A:H8	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:911:A:H2'	36:RQ:9:TYR:HE2	1.82	0.45
25:RA:1140:C:OP2	33:RN:66:LYS:NZ	2.39	0.45
25:RA:1152:C:H4'	40:RU:77:SER:HA	1.98	0.45
28:RE:51:PHE:HD2	28:RE:52:LEU:HG	1.82	0.45
31:RH:106:THR:HG22	31:RH:112:PRO:HB3	1.97	0.45
32:RI:79:ILE:HB	32:RI:142:VAL:HA	1.98	0.45
46:R0:32:ARG:N	46:R0:35:ASN:OD1	2.49	0.45
1:XA:745:C:OP1	1:XA:851:G:O2'	2.34	0.45
1:XA:1254:C:H2'	1:XA:1255:G:C8	2.52	0.45
1:XA:1264:C:H2'	1:XA:1265:G:C8	2.52	0.45
7:XG:86:GLN:OE1	22:XW:32:G:N2	2.43	0.45
8:XH:91:ARG:NE	17:XQ:32:TYR:O	2.34	0.45
13:XM:14:ARG:HG2	13:XM:44:ARG:NH1	2.32	0.45
25:YA:414:C:H2'	25:YA:415:A:C8	2.51	0.45
25:YA:463:G:N2	25:YA:466:A:OP2	2.42	0.45
25:YA:1000:A:OP2	25:YA:1154:G:N1	2.30	0.45
44:YY:17:SER:HG	44:YY:71:LYS:HZ2	1.62	0.45
48:Y2:66:GLU:HA	48:Y2:69:ARG:HH21	1.82	0.45
1:QA:359:U:H2'	1:QA:360:A:H8	1.81	0.45
1:QA:376:G:H5''	16:QP:5:ARG:HB2	1.99	0.45
1:QA:618:C:H5'	1:QA:619:U:H5''	1.99	0.45
1:QA:811:C:O2'	1:QA:901:A:N1	2.49	0.45
1:QA:835:U:H3	1:QA:851:G:H1	1.65	0.45
8:QH:104:ARG:HD2	8:QH:138:TRP:CD2	2.52	0.45
22:QW:77:A:N3	25:RA:2421:G:C6	2.85	0.45
25:RA:797:C:OP1	29:RF:60:SER:OG	2.28	0.45
5:XE:75:THR:OG1	5:XE:76:ILE:N	2.50	0.45
8:XH:17:THR:O	8:XH:78:GLN:NE2	2.50	0.45
15:XO:17:ARG:HH12	15:XO:77:ARG:NH1	2.14	0.45
16:XP:67:THR:O	16:XP:71:ARG:N	2.50	0.45
22:XV:44:A:H2'	22:XV:45:A:C8	2.52	0.45
25:YA:172:C:H2'	25:YA:173:G:C8	2.52	0.45
25:YA:1657:C:H2'	25:YA:1658:C:C6	2.52	0.45
25:YA:2314:C:H5'	30:YG:38:VAL:HG11	1.98	0.45
27:YD:52:ARG:H	27:YD:52:ARG:HG2	1.56	0.45
28:YE:143:ASN:HB2	28:YE:147:PRO:HD2	1.98	0.45
29:YF:28:ILE:HG22	29:YF:112:MET:HB3	1.98	0.45
29:YF:117:ARG:HH21	29:YF:187:VAL:HA	1.82	0.45
30:YG:166:ASP:OD1	30:YG:166:ASP:N	2.49	0.45
11:QK:21:ILE:HB	11:QK:84:VAL:HG12	1.98	0.45
25:RA:1083:U:H2'	25:RA:1085:A:H5'	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:1490:A:O2'	27:RD:99:ASP:OD1	2.35	0.45
25:RA:1588:C:H2'	25:RA:1589:C:H6	1.82	0.45
34:RO:64:ARG:HB2	34:RO:83:ALA:HB3	1.99	0.45
1:XA:636:U:H5'	17:XQ:2:PRO:HG3	1.98	0.45
1:XA:1293:G:H2'	1:XA:1294:G:C8	2.51	0.45
25:YA:629:G:H1'	25:YA:639:U:H1'	1.99	0.45
25:YA:639:U:H3	25:YA:649:G:H1	1.65	0.45
25:YA:664:C:OP1	35:YP:18:ARG:NH1	2.50	0.45
25:YA:1539:G:H2'	25:YA:1540:G:H8	1.82	0.45
28:YE:159:HIS:HE1	28:YE:162:ALA:HB3	1.82	0.45
45:YZ:120:ILE:H	45:YZ:172:ALA:HA	1.82	0.45
1:QA:67:C:H2'	1:QA:68:G:C8	2.51	0.44
1:QA:429:U:OP2	4:QD:36:ARG:NH2	2.51	0.44
1:QA:969:A:N6	9:QI:128:ARG:O	2.51	0.44
2:QB:167:PRO:HG2	2:QB:192:SER:HB3	1.98	0.44
3:QC:59:ARG:HH12	3:QC:97:LYS:HE3	1.82	0.44
20:QT:89:ARG:HH21	20:QT:104:LEU:HD21	1.82	0.44
22:QV:35:C:H2'	22:QV:36:A:H8	1.81	0.44
25:RA:873:G:O3'	36:RQ:63:LYS:NZ	2.47	0.44
25:RA:1665:A:N1	25:RA:1996:C:N4	2.65	0.44
26:RB:42:C:H5''	30:RG:69:ALA:HB2	1.99	0.44
30:RG:49:ASP:OD2	30:RG:51:ARG:NH2	2.49	0.44
39:RT:20:PRO:HD2	39:RT:86:ILE:HG23	1.99	0.44
1:XA:943:U:H1'	9:XI:124:GLN:HE22	1.82	0.44
1:XA:1004:A:P	1:XA:1025:U:H3	2.40	0.44
5:XE:101:ILE:O	5:XE:120:THR:OG1	2.31	0.44
20:XT:49:ALA:HA	20:XT:52:ALA:HB3	1.98	0.44
25:YA:995:C:O2	33:YN:3:THR:OG1	2.32	0.44
25:YA:1297:C:H2'	25:YA:1298:C:H6	1.83	0.44
25:YA:1657:C:OP1	28:YE:136:ARG:N	2.50	0.44
29:YF:178:PRO:HB3	29:YF:198:ALA:HB2	1.98	0.44
39:YT:128:GLU:O	39:YT:132:LYS:N	2.49	0.44
17:QQ:22:LEU:HD11	17:QQ:39:SER:HB2	1.99	0.44
18:QR:58:LEU:HD23	18:QR:62:GLU:HB3	1.99	0.44
25:RA:38:A:N3	29:RF:48:THR:OG1	2.45	0.44
25:RA:910:A:H62	36:RQ:12:GLN:HA	1.82	0.44
25:RA:1590:U:H2'	25:RA:1591:G:H8	1.82	0.44
25:RA:2502:G:H5''	25:RA:2503:A:H5''	1.98	0.44
25:RA:2730:C:O2'	28:RE:168:MET:O	2.34	0.44
32:RI:88:ILE:HB	32:RI:121:LYS:HG3	1.99	0.44
35:RP:65:ARG:O	35:RP:68:GLN:NE2	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:RS:3:ARG:HE	38:RS:4:LEU:HD13	1.82	0.44
39:RT:39:ARG:HH22	39:RT:41:ARG:HD3	1.82	0.44
39:RT:128:GLU:O	39:RT:132:LYS:N	2.49	0.44
49:R3:39:ASP:OD1	49:R3:44:ARG:NH2	2.46	0.44
1:XA:718:G:O6	18:XR:74:ARG:NH1	2.50	0.44
1:XA:1343:G:H1'	9:XI:121:ARG:NH1	2.32	0.44
1:XA:1367:C:OP1	9:XI:115:GLY:N	2.46	0.44
9:XI:42:ARG:NH2	9:XI:75:ASP:OD2	2.47	0.44
25:YA:385:C:O2'	25:YA:388:G:N2	2.50	0.44
25:YA:469:G:O6	53:Y7:39:ARG:NH1	2.51	0.44
25:YA:2502:G:H5''	25:YA:2503:A:H5''	1.99	0.44
25:YA:2503:A:O2'	25:YA:2505:G:OP2	2.24	0.44
44:YY:14:LEU:HB2	44:YY:75:ILE:HD11	1.98	0.44
1:QA:1443:G:C6	39:RT:118:ARG:HB2	2.52	0.44
4:QD:15:GLU:OE2	4:QD:59:ARG:NH1	2.50	0.44
4:QD:57:ARG:NH2	4:QD:205:GLU:OE2	2.49	0.44
7:QG:147:ALA:HB1	22:QW:41:C:O3'	2.17	0.44
25:RA:463:G:N2	25:RA:466:A:OP2	2.40	0.44
25:RA:517:C:HO2'	42:RW:18:ARG:HH22	1.60	0.44
25:RA:616:A:C5	29:RF:180:GLY:HA3	2.53	0.44
25:RA:859:G:O2'	25:RA:916:G:O6	2.32	0.44
25:RA:971:C:O2'	25:RA:983:A:N3	2.40	0.44
29:RF:117:ARG:HH21	29:RF:187:VAL:HA	1.82	0.44
4:XD:15:GLU:OE2	4:XD:59:ARG:NH1	2.50	0.44
25:YA:593:G:H2'	25:YA:594:U:C6	2.52	0.44
25:YA:1341:U:OP1	25:YA:1397:U:N3	2.45	0.44
25:YA:1657:C:H2'	25:YA:1658:C:H6	1.80	0.44
34:YO:19:ILE:HG22	34:YO:43:VAL:HA	1.98	0.44
1:QA:337:C:H2'	1:QA:338:A:H8	1.82	0.44
1:QA:370:C:H2'	1:QA:371:G:C8	2.52	0.44
1:QA:662:G:H2'	1:QA:663:A:C8	2.53	0.44
1:QA:946:A:H2'	1:QA:947:G:C8	2.52	0.44
2:QB:231:GLU:HA	2:QB:232:PRO:HD3	1.87	0.44
7:QG:143:ARG:CD	22:QW:42:C:C3'	2.92	0.44
22:QV:44:A:H2'	22:QV:45:A:C8	2.52	0.44
1:XA:34:C:H2'	1:XA:35:G:C8	2.51	0.44
1:XA:545:C:O2'	1:XA:549:C:OP1	2.30	0.44
11:XK:57:THR:HG22	11:XK:59:TYR:H	1.82	0.44
17:XQ:22:LEU:HD11	17:XQ:39:SER:HB2	1.99	0.44
22:XW:20:G:H3'	22:XW:21:U:C5	2.51	0.44
25:YA:657:U:H2'	25:YA:658:C:C6	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:1061:U:H4'	25:YA:1070:A:H1'	1.98	0.44
25:YA:1224:G:N2	25:YA:1227:A:OP2	2.48	0.44
25:YA:2103:C:H2'	25:YA:2104:G:C8	2.52	0.44
25:YA:2115:G:O2'	25:YA:2166:G:OP1	2.30	0.44
28:YE:105:THR:HB	28:YE:197:ILE:HG23	1.98	0.44
24:QY:28:G:H2'	24:QY:29:G:H8	1.82	0.44
25:RA:220:G:O2'	25:RA:233:A:N3	2.43	0.44
25:RA:1405:U:H2'	25:RA:1406:U:H6	1.81	0.44
25:RA:1815:A:OP2	27:RD:54:ARG:NH1	2.49	0.44
25:RA:2285:C:OP2	52:R6:6:ARG:NH1	2.50	0.44
25:RA:2329:G:H2'	25:RA:2330:G:H8	1.83	0.44
25:RA:2396:G:O2'	47:R1:29:GLY:O	2.35	0.44
32:RI:2:LYS:HA	32:RI:20:ASP:HA	1.98	0.44
1:XA:59:A:H5''	1:XA:60:A:H5''	1.98	0.44
1:XA:148:G:H2'	1:XA:149:A:C8	2.50	0.44
1:XA:1291:G:O2'	9:XI:38:GLN:OE1	2.34	0.44
1:XA:1391:U:H2'	1:XA:1392:G:C8	2.53	0.44
10:XJ:45:ARG:HB3	10:XJ:65:LEU:HB3	1.99	0.44
14:YN:29:ARG:HD3	14:YN:40:CYS:HB2	2.00	0.44
24:XY:28:G:H2'	24:XY:29:G:H8	1.82	0.44
25:YA:272:G:H2'	25:YA:273:G:H8	1.81	0.44
25:YA:1353:A:H2'	25:YA:1354:A:C8	2.52	0.44
25:YA:2246:G:H2'	25:YA:2247:A:H8	1.83	0.44
26:YB:28:C:OP2	38:YS:33:LYS:HB2	2.18	0.44
1:QA:687:A:N6	1:QA:703:G:C2	2.85	0.44
1:QA:1397:C:O2	23:QX:22:C:C4	2.71	0.44
12:QL:67:THR:OG1	12:QL:95:GLY:O	2.34	0.44
22:QW:23:G:C2	22:QW:24:C:C5	3.06	0.44
25:RA:389:G:H1	35:RP:70:GLN:HB3	1.83	0.44
25:RA:583:G:H5''	40:RU:10:ARG:HH12	1.82	0.44
25:RA:1332:G:H8	25:RA:1332:G:H2'	1.64	0.44
25:RA:2791:C:OP1	25:RA:2893:G:N2	2.50	0.44
30:RG:67:LYS:HD2	30:RG:68:PRO:HD2	2.00	0.44
45:RZ:102:LEU:HD11	45:RZ:124:ILE:HG13	1.99	0.44
1:XA:985:C:H2'	1:XA:986:A:H8	1.83	0.44
17:XQ:83:ASP:N	17:XQ:83:ASP:OD1	2.49	0.44
25:YA:220:G:O2'	25:YA:233:A:N3	2.45	0.44
25:YA:949:C:H2'	25:YA:950:G:H8	1.83	0.44
25:YA:2096:U:H2'	25:YA:2097:C:H6	1.83	0.44
25:YA:2306:C:N4	30:YG:42:GLY:O	2.51	0.44
25:YA:2314:C:H2'	25:YA:2315:G:C8	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:YO:104:ARG:NH2	39:YT:43:GLN:OE1	2.33	0.44
1:QA:337:C:H2'	1:QA:338:A:C8	2.53	0.44
1:QA:864:A:O2'	1:QA:1078:U:O4	2.29	0.44
9:QI:16:ARG:O	9:QI:63:ILE:HA	2.17	0.44
25:RA:654(A):G:H22	25:RA:654(T):C:H42	1.65	0.44
25:RA:1789:A:P	27:RD:222:ARG:HE	2.40	0.44
25:RA:2328:A:H2'	25:RA:2329:G:H8	1.81	0.44
36:RQ:24:GLY:HA2	36:RQ:67:ARG:HH21	1.83	0.44
1:XA:21:G:H2'	1:XA:22:G:C8	2.52	0.44
1:XA:45:U:H2'	1:XA:46:G:C8	2.52	0.44
1:XA:411:A:C4	1:XA:413:G:H1'	2.53	0.44
1:XA:735:C:H2'	1:XA:736:C:H6	1.83	0.44
1:XA:1003:G:N2	1:XA:1004:A:O2'	2.50	0.44
1:XA:1062:U:H2'	1:XA:1063:C:C6	2.53	0.44
1:XA:1255:G:O2'	1:XA:1258:G:N3	2.39	0.44
1:XA:1308:U:H2'	1:XA:1309:G:C8	2.52	0.44
22:XW:25:U:H2'	22:XW:26:C:C6	2.53	0.44
25:YA:996:A:H5'	40:YU:92:ARG:NH1	2.32	0.44
25:YA:1412:A:H2'	25:YA:1413:G:C8	2.53	0.44
25:YA:1853:A:H2'	25:YA:1854:A:H8	1.83	0.44
39:YT:20:PRO:HD2	39:YT:86:ILE:HG23	1.99	0.44
39:YT:39:ARG:HH22	39:YT:41:ARG:HD3	1.82	0.44
1:QA:45:U:H2'	1:QA:46:G:H8	1.82	0.44
1:QA:1010:G:H2'	1:QA:1011:G:H8	1.83	0.44
1:QA:1022:G:H2'	1:QA:1023:G:C8	2.53	0.44
1:QA:1141:C:H2'	1:QA:1142:G:C8	2.51	0.44
1:QA:1512:U:H2'	1:QA:1513:A:C8	2.53	0.44
25:RA:270(R):G:H2'	25:RA:270(S):G:C8	2.53	0.44
25:RA:631:A:P	54:R8:46:ARG:HH22	2.40	0.44
25:RA:1230:C:H2'	25:RA:1231:G:H8	1.83	0.44
25:RA:2396:G:OP1	47:R1:25:LYS:NZ	2.35	0.44
1:XA:396:G:O2'	1:XA:398:C:OP1	2.33	0.44
1:XA:1126:U:H1'	1:XA:1280:A:C5	2.53	0.44
1:XA:1412:C:H2'	1:XA:1413:A:C8	2.52	0.44
1:XA:1484:C:O2'	25:YA:1960:A:O2'	2.25	0.44
5:XE:78:HIS:CE1	8:XH:104:ARG:HH21	2.36	0.44
25:YA:1417:C:O2'	25:YA:1587:A:N3	2.48	0.44
25:YA:1423:G:H2'	25:YA:1424:G:H8	1.82	0.44
25:YA:1693:U:O2	27:YD:14:ARG:NH1	2.50	0.44
25:YA:2146:C:H4'	25:YA:2147:G:C8	2.53	0.44
28:YE:92:THR:HG23	28:YE:94:GLU:H	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:YX:11:PRO:HD3	48:Y2:37:PHE:CD1	2.53	0.44
45:YZ:166:SER:HB2	45:YZ:168:GLU:N	2.33	0.44
1:QA:1318:A:H4'	19:QS:11:VAL:HG11	2.00	0.44
2:QB:163:PHE:HA	2:QB:185:ILE:O	2.18	0.44
25:RA:270(S):G:H2'	25:RA:270(T):G:H8	1.83	0.44
25:RA:840:C:H2'	25:RA:841:A:H8	1.82	0.44
25:RA:996:A:H5'	40:RU:92:ARG:NH1	2.32	0.44
25:RA:1473:G:H1	25:RA:1520:U:H3	1.66	0.44
25:RA:2102:U:H2'	25:RA:2103:C:H6	1.83	0.44
25:RA:2105:C:H2'	25:RA:2106:G:C8	2.53	0.44
39:RT:3:ARG:HB2	39:RT:6:LEU:HB3	2.00	0.44
1:XA:1435:G:H2'	1:XA:1436:U:C6	2.52	0.44
22:XW:52:C:O2	22:XW:65:G:N2	2.51	0.44
25:YA:336:C:O2'	44:YY:35:TYR:OH	2.36	0.44
25:YA:431:U:H2'	25:YA:432:A:H8	1.83	0.44
25:YA:1153:C:H5'	40:YU:76:TYR:HE2	1.83	0.44
25:YA:2291:U:H2'	25:YA:2292:C:C6	2.53	0.44
33:YN:39:ARG:HH11	33:YN:48:MET:HE2	1.83	0.44
25:RA:570:G:H2'	25:RA:2030:A:C5	2.53	0.43
25:RA:578:A:OP1	25:RA:1255:U:O2'	2.33	0.43
25:RA:628:G:H5''	54:R8:18:ALA:HB2	1.99	0.43
25:RA:946:G:O6	25:RA:972:G:N2	2.50	0.43
25:RA:2514:U:H3	25:RA:2570:G:H1	1.65	0.43
30:RG:173:LEU:O	30:RG:178:PHE:N	2.46	0.43
33:RN:39:ARG:HH11	33:RN:48:MET:HE2	1.83	0.43
45:RZ:102:LEU:HD23	45:RZ:137:ILE:HB	1.99	0.43
45:RZ:166:SER:HB2	45:RZ:168:GLU:N	2.33	0.43
1:XA:606:G:H21	1:XA:632:A:N6	2.08	0.43
1:XA:1299:A:H2'	1:XA:1301:U:H1'	2.00	0.43
25:YA:594:U:H3	25:YA:663:G:H1	1.66	0.43
25:YA:598:G:H5'	35:YP:11:GLY:HA3	2.00	0.43
25:YA:746:A:O2'	25:YA:2611:U:O2'	2.32	0.43
25:YA:822:U:H2'	25:YA:823:G:H8	1.83	0.43
25:YA:1019:U:H3	25:YA:1142(A):A:H62	1.65	0.43
25:YA:2126:A:H61	25:YA:2163:C:HO2'	1.62	0.43
25:YA:2515:C:H2'	25:YA:2516:G:H8	1.83	0.43
25:YA:2521:C:O2'	25:YA:2564:A:N3	2.44	0.43
40:YU:49:HIS:O	40:YU:53:ARG:N	2.50	0.43
1:QA:503:C:OP2	12:QL:116:SER:OG	2.29	0.43
1:QA:1308:U:H2'	1:QA:1309:G:H8	1.84	0.43
1:QA:1355:G:H2'	1:QA:1356:G:C8	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:QI:113:LYS:HB2	9:QI:119:ALA:HA	1.99	0.43
14:QN:29:ARG:HD3	14:QN:40:CYS:HB2	2.00	0.43
25:RA:139:G:H1'	25:RA:140:A:H2	1.84	0.43
25:RA:1113:U:H2'	25:RA:1114:G:C8	2.53	0.43
25:RA:1176:G:OP1	25:RA:1178:C:N4	2.51	0.43
25:RA:1336:A:P	43:RX:64:LYS:HZ3	2.41	0.43
25:RA:1353:A:H2'	25:RA:1354:A:C8	2.53	0.43
25:RA:1853:A:N3	25:RA:2233:U:O2'	2.43	0.43
25:RA:2146:C:H4'	25:RA:2147:G:C8	2.53	0.43
25:RA:2489:G:N2	25:RA:2491:U:O4	2.47	0.43
33:RN:6:PRO:HG3	33:RN:41:ASP:HB2	2.00	0.43
1:XA:134:A:H61	16:XP:25:ARG:HH12	1.66	0.43
1:XA:376:G:H5''	16:XP:5:ARG:HB2	1.99	0.43
1:XA:390:C:H2'	1:XA:391:G:C8	2.53	0.43
1:XA:407:G:H2'	1:XA:408:A:H8	1.83	0.43
1:XA:902:G:H2'	1:XA:903:G:H8	1.82	0.43
1:XA:1427:U:H2'	1:XA:1428:A:H8	1.84	0.43
18:XR:58:LEU:HD23	18:XR:62:GLU:HB3	1.99	0.43
20:XT:26:ASN:HB2	20:XT:71:THR:HG23	2.00	0.43
25:YA:270(H):C:H2'	25:YA:270(I):G:C8	2.53	0.43
25:YA:573:G:N1	25:YA:2031:A:OP2	2.29	0.43
25:YA:2278:A:OP2	46:Y0:12:ASN:ND2	2.47	0.43
28:YE:16:ARG:NH2	28:YE:171:GLU:OE2	2.42	0.43
28:YE:51:PHE:HD2	28:YE:52:LEU:HG	1.82	0.43
1:QA:407:G:H2'	1:QA:408:A:C8	2.53	0.43
1:QA:543:C:OP2	4:QD:10:ARG:NH1	2.52	0.43
1:QA:782:A:H62	1:QA:800:G:H21	1.66	0.43
20:QT:26:ASN:HB2	20:QT:71:THR:HG23	2.00	0.43
25:RA:65:C:H1'	25:RA:456:C:H42	1.84	0.43
25:RA:1153:C:H5'	40:RU:76:TYR:HE2	1.83	0.43
25:RA:1769:G:O2'	25:RA:1958:C:OP1	2.31	0.43
28:RE:144:ARG:HB3	28:RE:145:LYS:H	1.66	0.43
36:RQ:17:LEU:HD23	36:RQ:39:PRO:HB2	2.00	0.43
1:XA:1119:C:H2'	1:XA:1120:G:H8	1.84	0.43
2:XB:101:MET:HA	2:XB:108:ILE:HG13	1.99	0.43
7:XG:147:ALA:HB1	22:XW:41:C:O3'	2.17	0.43
11:XK:21:ILE:HG13	11:XK:30:VAL:HG12	1.99	0.43
25:YA:493:G:H4'	42:YW:8:ARG:HB2	2.01	0.43
25:YA:601:C:O2'	25:YA:605:C:OP1	2.36	0.43
25:YA:1055:G:H22	25:YA:1104:C:H42	1.66	0.43
25:YA:2131:G:N2	25:YA:2158:A:N7	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:2329:G:H2'	25:YA:2330:G:H8	1.82	0.43
29:YF:149:ASP:OD1	29:YF:149:ASP:N	2.51	0.43
42:YW:86:LEU:HD22	42:YW:96:ILE:HD11	2.00	0.43
44:YY:29:GLU:HB3	44:YY:38:ILE:HD12	1.99	0.43
45:YZ:102:LEU:HD11	45:YZ:124:ILE:HG13	1.99	0.43
1:QA:544:G:OP2	4:QD:66:ARG:NH2	2.52	0.43
1:QA:578:C:O2'	1:QA:728:A:N3	2.44	0.43
4:QD:205:GLU:HA	4:QD:208:SER:HB2	2.01	0.43
8:QH:17:THR:O	8:QH:78:GLN:NE2	2.50	0.43
9:QI:111:ARG:HH22	10:QJ:62:HIS:CE1	2.35	0.43
17:QQ:45:HIS:CD2	17:QQ:47:PRO:HG3	2.53	0.43
20:QT:29:LYS:O	20:QT:33:ILE:HG12	2.19	0.43
22:QW:15:G:N2	22:QW:60:A:N7	2.66	0.43
25:RA:270(H):C:H2'	25:RA:270(I):G:H8	1.84	0.43
25:RA:1543:A:O2'	25:RA:1545:A:OP2	2.31	0.43
25:RA:1844:C:H2'	25:RA:1845:G:H8	1.82	0.43
26:RB:23:G:H2'	26:RB:24:G:C5	2.54	0.43
27:RD:52:ARG:H	27:RD:52:ARG:HG2	1.56	0.43
48:R2:66:GLU:HA	48:R2:69:ARG:HH21	1.82	0.43
1:XA:686:U:H2'	1:XA:687:A:C8	2.54	0.43
1:XA:718:G:H5'	11:XK:117:ASN:ND2	2.33	0.43
1:XA:1129:C:OP1	9:XI:62:TYR:OH	2.33	0.43
1:XA:1342:C:H2'	1:XA:1343:G:C8	2.54	0.43
4:XD:23:GLY:N	4:XD:26:CYS:SG	2.74	0.43
25:YA:142:G:H2'	25:YA:143:C:H6	1.82	0.43
25:YA:1636:C:H2'	25:YA:1637:A:C8	2.52	0.43
25:YA:2805:G:H2'	25:YA:2807:G:C8	2.54	0.43
32:YI:88:ILE:HB	32:YI:121:LYS:HG3	1.99	0.43
34:YO:64:ARG:HB2	34:YO:83:ALA:HB3	1.99	0.43
25:RA:299:A:N3	25:RA:319:C:O2'	2.43	0.43
25:RA:1139:G:O2'	25:RA:1143:A:N1	2.48	0.43
25:RA:1664:A:H61	25:RA:1996:C:N4	2.16	0.43
25:RA:1791:A:H4'	27:RD:206:LEU:HB2	2.00	0.43
26:RB:56:G:H5'	30:RG:27:ASN:ND2	2.34	0.43
1:XA:195:A:H4'	20:XT:68:LYS:HE3	2.00	0.43
1:XA:359:U:H2'	1:XA:360:A:C8	2.54	0.43
12:XL:44:THR:HA	12:XL:45:PRO:HD3	1.78	0.43
25:YA:270(I):G:H1	25:YA:270(Q):C:H42	1.64	0.43
25:YA:694:U:OP1	27:YD:59:LYS:NZ	2.39	0.43
25:YA:863:A:H2'	25:YA:864:G:C8	2.53	0.43
32:YI:20:ASP:OD1	32:YI:20:ASP:N	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:QG:144:MET:HE2	22:QW:31:G:H21	1.82	0.43
8:QH:121:ASP:N	8:QH:121:ASP:OD1	2.51	0.43
25:RA:1061:U:H5''	25:RA:1070:A:H1'	2.00	0.43
25:RA:1423:G:H2'	25:RA:1424:G:H8	1.83	0.43
25:RA:2041:U:H2'	25:RA:2042:A:H8	1.83	0.43
25:RA:2626:C:H2'	25:RA:2627:G:H8	1.84	0.43
30:RG:166:ASP:OD1	30:RG:166:ASP:N	2.49	0.43
39:RT:16:ARG:NH2	39:RT:18:ASP:OD2	2.52	0.43
40:RU:49:HIS:O	40:RU:53:ARG:N	2.50	0.43
1:XA:1151:A:H2'	1:XA:1152:A:C8	2.53	0.43
1:XA:1408:A:O2'	25:YA:1916:A:N1	2.49	0.43
1:XA:1441:G:H21	1:XA:1460:A:H62	1.67	0.43
1:XA:1512:U:H2'	1:XA:1513:A:H8	1.84	0.43
17:XQ:45:HIS:CD2	17:XQ:47:PRO:HG3	2.53	0.43
20:XT:29:LYS:O	20:XT:33:ILE:HG12	2.19	0.43
22:XW:77:A:O2'	25:YA:2394:C:N3	2.46	0.43
25:YA:363(B):G:H2'	25:YA:363(C):G:C8	2.54	0.43
25:YA:2530:A:O2'	25:YA:2532:G:OP2	2.32	0.43
25:YA:2853:C:H2'	25:YA:2854:G:C8	2.53	0.43
27:YD:25:THR:OG1	27:YD:26:LYS:N	2.50	0.43
29:YF:70:THR:HG23	29:YF:72:ARG:H	1.83	0.43
30:YG:67:LYS:HD2	30:YG:68:PRO:HD2	2.00	0.43
33:YN:6:PRO:HG3	33:YN:41:ASP:HB2	2.00	0.43
53:Y7:5:TRP:NE1	53:Y7:7:PRO:HG3	2.34	0.43
1:QA:1427:U:H2'	1:QA:1428:A:H8	1.84	0.43
4:QD:23:GLY:N	4:QD:26:CYS:SG	2.74	0.43
9:QI:128:ARG:NH1	22:QV:36:A:OP2	2.52	0.43
25:RA:263:C:H2'	25:RA:264:C:O4'	2.18	0.43
25:RA:389:G:N1	35:RP:70:GLN:HB3	2.33	0.43
25:RA:964:C:O2'	25:RA:2273:A:N3	2.42	0.43
25:RA:1952:A:N3	25:RA:2560:C:O2'	2.42	0.43
25:RA:2074:U:H2'	25:RA:2075:U:C6	2.54	0.43
29:RF:40:GLN:HE22	29:RF:182:ASN:HB2	1.82	0.43
45:RZ:114:GLY:HA3	45:RZ:177:PRO:HG3	2.00	0.43
48:R2:14:ARG:NH1	48:R2:66:GLU:OE1	2.52	0.43
1:XA:17:U:H2'	1:XA:18:C:C6	2.54	0.43
1:XA:164:U:H2'	1:XA:165:C:C6	2.54	0.43
1:XA:552:U:H2'	1:XA:553:A:H8	1.82	0.43
1:XA:627:G:H2'	1:XA:628:G:H8	1.82	0.43
1:XA:973:G:H3'	1:XA:974:A:H5''	1.99	0.43
1:XA:1268:A:H2'	1:XA:1269:A:C8	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:1355:G:H2'	1:XA:1356:G:C8	2.53	0.43
1:XA:1469:G:H2'	1:XA:1470:G:H8	1.83	0.43
3:XC:17:ASP:O	3:XC:54:ARG:NH2	2.52	0.43
12:XL:70:ILE:HG12	12:XL:100:ILE:HD12	2.00	0.43
17:XQ:43:LEU:HD23	17:XQ:43:LEU:HA	1.86	0.43
25:YA:441:U:O2	29:YF:46:ARG:NH2	2.50	0.43
25:YA:764:A:H5'	27:YD:210:GLY:HA3	2.00	0.43
25:YA:1113:U:H2'	25:YA:1114:G:C8	2.53	0.43
25:YA:1266:G:O6	42:YW:13:SER:OG	2.26	0.43
25:YA:1652:A:OP1	37:YR:8:ARG:NH1	2.50	0.43
27:YD:85:ASP:OD2	27:YD:88:ARG:NH1	2.42	0.43
29:YF:161:GLU:OE1	29:YF:164:ARG:NH2	2.52	0.43
1:QA:396:G:O2'	1:QA:398:C:OP1	2.32	0.43
1:QA:501:C:H1'	1:QA:549:C:H1'	2.01	0.43
1:QA:806:C:H2'	1:QA:807:A:C8	2.51	0.43
1:QA:1002:G:H2'	1:QA:1003:G:H8	1.82	0.43
16:QP:67:THR:O	16:QP:71:ARG:N	2.50	0.43
25:RA:460:A:H62	25:RA:469:G:H21	1.66	0.43
25:RA:1972:A:H2'	25:RA:1973:G:H8	1.83	0.43
36:RQ:80:GLU:HB2	46:R0:7:LEU:HG	2.00	0.43
45:RZ:109:ALA:HB3	45:RZ:143:GLY:HA2	2.01	0.43
46:R0:70:GLN:OE1	46:R0:80:HIS:NE2	2.51	0.43
1:XA:376:G:H2'	1:XA:377:G:H8	1.83	0.43
1:XA:377:G:H2'	1:XA:378:G:C8	2.54	0.43
1:XA:1512:U:H2'	1:XA:1513:A:C8	2.54	0.43
13:XM:91:ARG:HB2	13:XM:98:VAL:HG22	2.00	0.43
25:YA:358:U:H2'	25:YA:359:A:H8	1.83	0.43
25:YA:1748:G:H2'	25:YA:1749:A:H8	1.84	0.43
25:YA:2351:G:O6	54:Y8:42:ARG:NH2	2.40	0.43
26:YB:23:G:H2'	26:YB:24:G:C5	2.54	0.43
31:YH:86:GLU:HB2	31:YH:165:ALA:H	1.84	0.43
40:YU:39:LEU:HD23	40:YU:39:LEU:HA	1.89	0.43
45:YZ:148:ASP:OD1	45:YZ:148:ASP:N	2.52	0.43
46:Y0:23:VAL:HG13	46:Y0:38:VAL:HG22	2.01	0.43
1:QA:370:C:H2'	1:QA:371:G:H8	1.83	0.43
1:QA:1112:C:H1'	3:QC:179:ARG:HH11	1.84	0.43
1:QA:1316:G:H4'	14:QN:18:VAL:HG11	2.01	0.43
1:QA:1327:C:OP2	21:QU:12:LYS:NZ	2.41	0.43
1:QA:1427:U:H2'	1:QA:1428:A:C8	2.53	0.43
7:QG:86:GLN:CD	22:QW:32:G:N2	2.76	0.43
13:QM:57:ARG:O	13:QM:61:GLU:HG2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:86:C:H4'	25:RA:104:U:H1'	2.01	0.43
25:RA:532:A:N1	25:RA:2035:G:N2	2.66	0.43
25:RA:2517:C:N3	25:RA:2542:A:N6	2.66	0.43
28:RE:2:LYS:NZ	28:RE:100:GLU:OE2	2.37	0.43
29:RF:70:THR:HG23	29:RF:72:ARG:H	1.83	0.43
1:XA:337:C:H2'	1:XA:338:A:H8	1.84	0.43
1:XA:707:C:H4'	11:XK:20:TYR:CD2	2.53	0.43
1:XA:1404:C:H2'	1:XA:1405:G:C8	2.54	0.43
4:XD:72:GLU:OE1	4:XD:207:TYR:OH	2.37	0.43
9:XI:46:ALA:HA	9:XI:78:LYS:HB2	2.00	0.43
18:XR:47:THR:O	18:XR:83:GLU:N	2.50	0.43
22:XV:20:G:H3'	22:XV:21:U:C2	2.54	0.43
25:YA:142:G:H2'	25:YA:143:C:C6	2.53	0.43
25:YA:226:G:H2'	25:YA:227:A:C8	2.54	0.43
25:YA:579:G:O2'	25:YA:2019:A:OP1	2.36	0.43
36:YQ:17:LEU:HD23	36:YQ:39:PRO:HB2	2.00	0.43
39:YT:3:ARG:HB2	39:YT:6:LEU:HB3	2.00	0.43
39:YT:62:THR:HG22	39:YT:75:ILE:HG12	2.00	0.43
1:QA:17:U:H2'	1:QA:18:C:C6	2.54	0.43
1:QA:51:A:N7	1:QA:114:U:O2'	2.52	0.43
1:QA:378:G:O6	1:QA:386:C:N4	2.52	0.43
1:QA:427:U:OP2	1:QA:428:G:O2'	2.37	0.43
1:QA:444:C:H2'	1:QA:445:G:C8	2.54	0.43
2:QB:67:THR:HG21	2:QB:155:LEU:HD11	2.01	0.43
25:RA:265:A:N6	25:RA:427:U:O2'	2.52	0.43
25:RA:1204:A:H1'	25:RA:1206:G:C8	2.53	0.43
25:RA:1231:G:H2'	25:RA:1232:G:H8	1.84	0.43
35:RP:9:ASN:OD1	35:RP:9:ASN:N	2.51	0.43
50:R4:51:ASP:OD1	50:R4:51:ASP:N	2.49	0.43
1:XA:376:G:H1	1:XA:387:U:H3	1.67	0.43
1:XA:579:G:O2'	15:XO:54:ARG:NE	2.43	0.43
1:XA:1186:G:H21	14:YN:61:TRP:C	2.27	0.43
22:XW:10:G:C6	22:XW:27:G:C5	3.07	0.43
22:XW:72:C:H1'	25:YA:1851:U:O2'	2.18	0.43
25:YA:1550:C:H2'	25:YA:1551:C:H6	1.84	0.43
36:YQ:21:THR:HB	36:YQ:22:LYS:H	1.54	0.43
39:YT:16:ARG:NH2	39:YT:18:ASP:OD2	2.52	0.43
1:QA:1119:C:OP2	9:QI:9:ARG:NH2	2.52	0.42
20:QT:30:LYS:HG3	20:QT:34:LYS:HE3	2.00	0.42
25:RA:582:G:OP1	40:RU:14:HIS:ND1	2.49	0.42
25:RA:1454:U:O2'	25:RA:1455:G:N7	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:2839:G:H5'	37:RR:46:GLY:HA2	2.00	0.42
1:XA:309:G:H2'	1:XA:310:G:H8	1.84	0.42
1:XA:977:A:O2'	1:XA:979:C:OP2	2.34	0.42
6:XF:15:ASP:OD1	6:XF:15:ASP:N	2.52	0.42
12:XL:53:ARG:HB3	12:XL:69:TYR:HE1	1.83	0.42
20:XT:30:LYS:HG3	20:XT:34:LYS:HE3	2.00	0.42
25:YA:78:A:H2'	25:YA:79:G:H8	1.83	0.42
25:YA:138:G:H22	43:YX:44:GLU:CD	2.27	0.42
25:YA:271:G:H2'	25:YA:272:G:H8	1.84	0.42
25:YA:1782:C:O2	25:YA:2608:G:O2'	2.28	0.42
25:YA:2246:G:H2'	25:YA:2247:A:C8	2.54	0.42
25:YA:2446:G:N2	25:YA:2449:U:O2	2.45	0.42
36:YQ:24:GLY:HA2	36:YQ:67:ARG:HH21	1.83	0.42
1:QA:186(B):C:H2'	1:QA:186(C):G:H8	1.84	0.42
1:QA:475:G:H2'	1:QA:476:G:C8	2.54	0.42
1:QA:627:G:H2'	1:QA:628:G:H8	1.84	0.42
1:QA:988:G:H2'	1:QA:989:C:O4'	2.19	0.42
3:QC:17:ASP:O	3:QC:54:ARG:NH2	2.52	0.42
15:QO:24:SER:OG	15:QO:25:THR:N	2.52	0.42
22:QW:41:C:H2'	22:QW:42:C:C6	2.54	0.42
25:RA:270(I):G:H2'	25:RA:270(J):G:C8	2.53	0.42
25:RA:1191:G:OP1	35:RP:18:ARG:NH2	2.49	0.42
25:RA:1600:C:OP1	43:RX:58:HIS:NE2	2.44	0.42
25:RA:2183:C:H2'	25:RA:2184:G:C8	2.54	0.42
25:RA:2632:A:HO2'	25:RA:2811:G:HO2'	1.47	0.42
26:RB:49:C:OP2	38:RS:30:ARG:NH1	2.51	0.42
28:RE:159:HIS:HE1	28:RE:162:ALA:HB3	1.82	0.42
36:RQ:32:TYR:CE1	36:RQ:133:ARG:HG3	2.54	0.42
4:XD:173:TRP:CD2	4:XD:189:PRO:HB3	2.54	0.42
15:XO:79:ARG:HA	15:XO:82:ILE:HG12	2.00	0.42
25:YA:823:G:H2'	25:YA:824:A:H8	1.84	0.42
25:YA:1270:C:O2'	25:YA:1648:C:OP2	2.26	0.42
25:YA:2074:U:H2'	25:YA:2075:U:C6	2.54	0.42
25:YA:2590:A:H2'	25:YA:2591:C:H6	1.84	0.42
25:YA:2632:A:HO2'	25:YA:2811:G:HO2'	1.68	0.42
25:YA:2749:A:OP2	25:YA:2750:A:O2'	2.34	0.42
36:YQ:32:TYR:CE1	36:YQ:133:ARG:HG3	2.54	0.42
1:QA:927:G:H1	1:QA:1390:U:H3	1.67	0.42
1:QA:1352:C:H2'	1:QA:1353:G:C8	2.54	0.42
2:QB:192:SER:OG	2:QB:193:ASP:N	2.52	0.42
25:RA:530:G:O2'	25:RA:532:A:N7	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:2443:C:H2'	25:RA:2444:G:H8	1.84	0.42
25:RA:2576:G:N2	25:RA:2576:G:OP2	2.52	0.42
45:RZ:17:ALA:O	45:RZ:21:ALA:N	2.45	0.42
1:XA:1218:C:H2'	1:XA:1219:U:C6	2.53	0.42
1:XA:1393:U:HO2'	1:XA:1501:C:HO2'	1.61	0.42
25:YA:17:G:H4'	40:YU:25:TRP:HE1	1.82	0.42
25:YA:238:C:O2'	25:YA:608:A:N3	2.43	0.42
25:YA:411:G:OP2	25:YA:2406:U:O2'	2.29	0.42
25:YA:672:C:OP1	25:YA:801:G:N2	2.49	0.42
25:YA:1022:G:N2	25:YA:1023:U:O4	2.48	0.42
25:YA:1789:A:P	27:YD:222:ARG:HE	2.42	0.42
25:YA:2469:A:O2'	36:YQ:56:ARG:HG2	2.19	0.42
25:YA:2618:G:H21	28:YE:150:VAL:HG21	1.84	0.42
25:YA:2751:G:C2	31:YH:3:ARG:HB3	2.54	0.42
29:YF:28:ILE:H	29:YF:28:ILE:HG13	1.70	0.42
29:YF:77:ASP:OD1	29:YF:77:ASP:N	2.42	0.42
36:YQ:74:TYR:HD2	36:YQ:91:GLU:HB3	1.84	0.42
40:YU:90:VAL:HG12	40:YU:91:ASP:H	1.84	0.42
45:YZ:70:LEU:HG	45:YZ:91:LEU:HD21	2.01	0.42
1:QA:359:U:H2'	1:QA:360:A:C8	2.54	0.42
1:QA:738:C:OP1	6:QF:4:TYR:OH	2.31	0.42
1:QA:1391:U:H2'	1:QA:1392:G:C8	2.54	0.42
1:QA:1525:G:H2'	1:QA:1526:G:H8	1.84	0.42
4:QD:72:GLU:OE1	4:QD:207:TYR:OH	2.37	0.42
4:QD:173:TRP:CD2	4:QD:189:PRO:HB3	2.54	0.42
12:QL:58:VAL:O	12:QL:65:GLU:HA	2.19	0.42
25:RA:172:C:H2'	25:RA:173:G:H8	1.84	0.42
25:RA:458:G:O2'	25:RA:469:G:O6	2.35	0.42
25:RA:639:U:H2'	25:RA:640:C:C6	2.55	0.42
25:RA:1021:A:H62	25:RA:1141:U:H3	1.67	0.42
25:RA:2836:U:H2'	25:RA:2837:G:C8	2.55	0.42
29:RF:161:GLU:OE1	29:RF:164:ARG:NH2	2.52	0.42
40:RU:90:VAL:HG12	40:RU:91:ASP:H	1.84	0.42
1:XA:131:C:H2'	1:XA:132:C:H6	1.84	0.42
1:XA:265:G:H4'	17:XQ:66:SER:HA	2.01	0.42
1:XA:382:A:H2'	1:XA:383:A:H8	1.83	0.42
1:XA:448:A:OP2	1:XA:485:G:N2	2.45	0.42
25:YA:685:A:OP1	25:YA:686:G:N2	2.51	0.42
25:YA:807:U:OP2	35:YP:41:ARG:NH1	2.52	0.42
25:YA:2795:G:H21	25:YA:2801:A:N6	2.17	0.42
35:YP:18:ARG:HE	35:YP:27:HIS:HE1	1.68	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:114:U:H2'	1:QA:115:G:C8	2.54	0.42
1:QA:559:A:H4'	1:QA:560:U:H3'	2.00	0.42
10:QJ:5:ARG:HH21	10:QJ:99:LYS:HD2	1.84	0.42
11:QK:21:ILE:HG13	11:QK:30:VAL:HG12	2.00	0.42
25:RA:210:C:H2'	25:RA:211:A:C8	2.54	0.42
25:RA:407:G:H2'	25:RA:408:G:C8	2.54	0.42
25:RA:828:U:H4'	25:RA:831:G:C6	2.55	0.42
25:RA:949:C:H2'	25:RA:950:G:C8	2.54	0.42
25:RA:1939:U:OP1	25:RA:2604:U:O2'	2.36	0.42
25:RA:2250:G:C4	36:RQ:82:ARG:HG3	2.55	0.42
36:RQ:74:TYR:HD2	36:RQ:91:GLU:HB3	1.85	0.42
41:RV:43:GLU:HG3	41:RV:44:LYS:H	1.84	0.42
52:R6:37:ARG:HA	52:R6:48:VAL:HA	2.01	0.42
1:XA:56:U:H2'	1:XA:57:G:C8	2.54	0.42
1:XA:129(A):G:H4'	1:XA:130:A:H5''	2.01	0.42
1:XA:599:C:O2'	8:XH:129:VAL:O	2.29	0.42
25:YA:151:C:H2'	25:YA:152:G:H8	1.84	0.42
25:YA:581:C:OP1	40:YU:31:SER:OG	2.31	0.42
25:YA:820:A:N3	25:YA:943:U:O2'	2.46	0.42
25:YA:1311:G:H21	25:YA:1603:A:H62	1.67	0.42
25:YA:2753:A:O2'	55:Y9:15:LYS:NZ	2.52	0.42
27:YD:254:THR:O	27:YD:254:THR:OG1	2.37	0.42
1:QA:636:U:H5'	17:QQ:2:PRO:HG3	2.01	0.42
1:QA:737:A:H2'	1:QA:738:C:C6	2.55	0.42
19:QS:10:PHE:CD1	19:QS:38:SER:HB2	2.55	0.42
25:RA:1296:G:OP1	25:RA:2709:G:O2'	2.24	0.42
25:RA:1416:G:H2'	25:RA:1417:C:C6	2.55	0.42
25:RA:1812:A:H4'	27:RD:46:GLN:HE22	1.85	0.42
25:RA:2250:G:C5	36:RQ:82:ARG:HG3	2.55	0.42
25:RA:2564:A:OP1	25:RA:2648:C:O2'	2.33	0.42
25:RA:2590:A:H2'	25:RA:2591:C:H6	1.85	0.42
32:RI:27:ARG:HB2	47:R1:71:TYR:HE2	1.84	0.42
39:RT:62:THR:HG22	39:RT:75:ILE:HG12	2.00	0.42
1:XA:884:U:H4'	1:XA:885:G:H5''	2.00	0.42
1:XA:1028(A):C:N3	1:XA:1028(B):C:N4	2.68	0.42
1:XA:1322:C:H5'	13:XM:100:GLY:HA3	2.02	0.42
25:YA:15:G:O6	25:YA:525:U:O4	2.38	0.42
25:YA:505:A:O2'	25:YA:509:C:O2'	2.35	0.42
26:YB:89:G:H2'	26:YB:89(A):A:C8	2.55	0.42
34:YO:76:ALA:HB3	39:YT:75:ILE:HD12	2.01	0.42
38:YS:3:ARG:HE	38:YS:4:LEU:HD13	1.82	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:Y2:14:ARG:NH1	48:Y2:66:GLU:OE1	2.52	0.42
1:QA:516:U:O2'	1:QA:519:C:N3	2.53	0.42
1:QA:1224:G:O2'	1:QA:1322:C:OP2	2.38	0.42
3:QC:23:TYR:CD2	10:QJ:95:GLU:HB2	2.55	0.42
4:QD:173:TRP:CD1	4:QD:174:LEU:HG	2.55	0.42
25:RA:576:U:H2'	25:RA:577:G:C8	2.54	0.42
25:RA:729:G:C5	27:RD:208:LYS:HB2	2.54	0.42
25:RA:1011:G:OP1	40:RU:66:ASN:ND2	2.53	0.42
25:RA:1795:C:O2	27:RD:255:LYS:NZ	2.41	0.42
25:RA:1969:A:O2'	25:RA:1972:A:N3	2.37	0.42
25:RA:2747:G:N2	25:RA:2757:A:H62	2.14	0.42
26:RB:44:G:H1'	26:RB:47:C:H42	1.84	0.42
30:RG:97:ASP:H	30:RG:100:TRP:CD1	2.36	0.42
45:RZ:145:GLU:HG3	45:RZ:146:ILE:HG12	2.02	0.42
1:XA:104:G:H2'	1:XA:105:G:H8	1.85	0.42
1:XA:130:A:O2'	1:XA:131:C:O5'	2.38	0.42
1:XA:255:G:OP1	17:XQ:69:LYS:NZ	2.52	0.42
25:YA:244:A:O2'	35:YP:74:GLU:N	2.45	0.42
25:YA:1824:G:N3	27:YD:254:THR:OG1	2.53	0.42
45:YZ:114:GLY:HA3	45:YZ:177:PRO:HG3	2.00	0.42
1:QA:301:G:H2'	1:QA:302:G:H8	1.83	0.42
1:QA:999:U:H2'	1:QA:1000:A:C8	2.55	0.42
1:QA:1118:C:H1'	1:QA:1179:A:C4	2.54	0.42
1:QA:1356:G:H2'	1:QA:1357:A:H8	1.85	0.42
11:QK:38:ASN:HA	11:QK:39:PRO:HD3	1.93	0.42
19:QS:10:PHE:CE2	19:QS:16:LEU:HB2	2.54	0.42
25:RA:580:C:OP2	40:RU:33:ARG:NH2	2.53	0.42
25:RA:999:U:H2'	25:RA:1000:A:H8	1.85	0.42
25:RA:1782:C:H1'	25:RA:2609:U:H5''	2.02	0.42
25:RA:2105:C:H2'	25:RA:2106:G:H8	1.84	0.42
25:RA:2387:U:O2'	46:R0:41:ARG:NH2	2.52	0.42
25:RA:2537:U:H2'	25:RA:2538:C:C6	2.54	0.42
25:RA:2809:A:H2'	25:RA:2810:A:C8	2.54	0.42
34:RO:80:ASP:OD2	39:RT:64:ARG:NH2	2.52	0.42
39:RT:62:THR:HG22	39:RT:75:ILE:HG23	2.02	0.42
46:R0:46:LYS:HD2	46:R0:78:TYR:HE1	1.85	0.42
1:XA:337:C:H2'	1:XA:338:A:C8	2.55	0.42
1:XA:403:C:H2'	1:XA:404:U:H6	1.84	0.42
1:XA:486:U:H2'	1:XA:487:A:C8	2.52	0.42
1:XA:1053:G:N7	1:XA:1199:U:H2'	2.35	0.42
2:XB:33:TYR:HB2	2:XB:43:ASP:HB2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:XB:95:GLN:HG3	2:XB:147:LYS:HG2	2.02	0.42
22:XW:19:G:H1'	22:XW:59:A:C2	2.55	0.42
22:XW:52:C:H2'	22:XW:53:G:H8	1.85	0.42
25:YA:363(B):G:H2'	25:YA:363(C):G:H8	1.85	0.42
25:YA:1567:A:OP2	27:YD:84:TYR:OH	2.31	0.42
25:YA:2712:U:H1'	25:YA:2712(A):A:C8	2.55	0.42
29:YF:63:LYS:NZ	29:YF:75:HIS:O	2.38	0.42
35:YP:6:LEU:HD23	35:YP:6:LEU:HA	1.84	0.42
45:YZ:4:ARG:HA	45:YZ:59:LEU:H	1.85	0.42
45:YZ:109:ALA:HB3	45:YZ:143:GLY:HA2	2.01	0.42
52:Y6:37:ARG:HA	52:Y6:48:VAL:HA	2.01	0.42
1:QA:1213:A:N6	1:QA:1215:G:N3	2.68	0.42
1:QA:1469:G:H2'	1:QA:1470:G:H8	1.85	0.42
12:QL:28:LYS:HB2	12:QL:28:LYS:HE3	1.68	0.42
13:QM:84:ILE:HD12	13:QM:84:ILE:HA	1.91	0.42
22:QV:15:G:H1	22:QV:49:C:H5	1.68	0.42
25:RA:2011:U:OP2	42:RW:16:LYS:NZ	2.35	0.42
25:RA:2630:G:H2'	25:RA:2631:G:C8	2.55	0.42
26:RB:86:G:H2'	26:RB:87:G:C8	2.55	0.42
33:RN:60:ILE:H	33:RN:60:ILE:HG13	1.63	0.42
1:XA:339:C:OP1	34:YO:13:ASN:ND2	2.52	0.42
1:XA:814:A:OP2	1:XA:816:A:N6	2.43	0.42
1:XA:935:A:O2'	1:XA:1383:C:N3	2.53	0.42
1:XA:962:C:H2'	1:XA:963:G:H8	1.85	0.42
1:XA:1452:C:H4'	1:XA:1453:G:H5'	2.01	0.42
19:XS:33:THR:OG1	19:XS:34:TRP:N	2.53	0.42
25:YA:640:C:H2'	25:YA:641:C:C6	2.55	0.42
25:YA:1568:G:OP1	27:YD:63:ARG:NH1	2.41	0.42
25:YA:2111:C:H2'	25:YA:2118:U:H4'	2.01	0.42
27:YD:142:VAL:HG23	27:YD:193:VAL:HA	2.02	0.42
53:Y7:10:ARG:HE	53:Y7:14:LYS:HD2	1.84	0.42
1:QA:1512:U:H2'	1:QA:1513:A:H8	1.85	0.42
3:QC:153:VAL:HG22	3:QC:198:VAL:HG22	2.02	0.42
3:QC:189:ALA:HB3	3:QC:196:LEU:HB2	2.02	0.42
7:QG:26:PHE:HD1	7:QG:101:LEU:HD22	1.85	0.42
10:QJ:45:ARG:HB3	10:QJ:65:LEU:HB3	2.01	0.42
25:RA:407:G:H2'	25:RA:408:G:H8	1.85	0.42
25:RA:635:C:O2'	25:RA:639:U:OP1	2.35	0.42
25:RA:659:C:H2'	25:RA:660:G:H8	1.84	0.42
25:RA:2086:U:H2'	25:RA:2087:G:C8	2.55	0.42
25:RA:2109:U:H2'	25:RA:2110:G:C8	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:RA:2737:G:H2'	25:RA:2738:A:C8	2.55	0.42
27:RD:142:VAL:HG23	27:RD:193:VAL:HA	2.02	0.42
27:RD:254:THR:OG1	27:RD:254:THR:O	2.37	0.42
31:RH:86:GLU:HB2	31:RH:165:ALA:H	1.84	0.42
48:R2:45:SER:O	48:R2:46:GLN:NE2	2.53	0.42
1:XA:1243:C:H42	1:XA:1294:G:H1	1.68	0.42
4:XD:205:GLU:HA	4:XD:208:SER:HB2	2.01	0.42
22:XV:15:G:H1	22:XV:49:C:H5	1.68	0.42
22:XW:1:C:H42	22:XW:73:A:H61	1.68	0.42
25:YA:94:G:N3	48:Y2:47:ASN:ND2	2.68	0.42
25:YA:270:A:OP2	25:YA:270(Y):G:N1	2.53	0.42
25:YA:592:G:N3	54:Y8:4:MET:HE2	2.34	0.42
25:YA:605:C:OP1	29:YF:104:LYS:NZ	2.53	0.42
25:YA:729:G:C5	27:YD:208:LYS:HB2	2.55	0.42
25:YA:1109:C:O2'	25:YA:1110:G:OP1	2.34	0.42
25:YA:1853:A:H2'	25:YA:1854:A:C8	2.54	0.42
25:YA:2030:A:H4'	25:YA:2031:A:C8	2.53	0.42
25:YA:2405:G:O2'	25:YA:2411:A:N6	2.50	0.42
25:YA:2467:C:O2	36:YQ:124:LYS:NZ	2.33	0.42
25:YA:2495:G:H5''	36:YQ:81:VAL:HG12	2.01	0.42
35:YP:7:ARG:HA	35:YP:8:PRO:HD2	1.90	0.42
39:YT:123:GLN:O	39:YT:125:ARG:N	2.53	0.42
45:YZ:14:LYS:HA	45:YZ:15:PRO:HD3	1.86	0.42
1:QA:1015:A:H2'	1:QA:1016:A:C8	2.55	0.41
1:QA:1366:C:O2'	10:QJ:60:ARG:NH2	2.49	0.41
12:QL:32:PHE:HA	12:QL:85:ILE:O	2.20	0.41
19:QS:18:LYS:HG2	19:QS:31:ILE:HD12	2.02	0.41
22:QW:57:C:C5	25:RA:2169:A:N7	2.88	0.41
25:RA:1592:C:H2'	25:RA:1593:G:H8	1.85	0.41
36:RQ:28:ALA:HB3	36:RQ:67:ARG:HH12	1.84	0.41
40:RU:10:ARG:HH11	40:RU:10:ARG:HD2	1.71	0.41
1:XA:60:A:N7	1:XA:108:G:O2'	2.53	0.41
1:XA:382:A:H2'	1:XA:383:A:C8	2.55	0.41
1:XA:429:U:H1'	1:XA:430:A:H5''	2.02	0.41
1:XA:611:A:H61	1:XA:629:G:H1	1.67	0.41
1:XA:762:C:H2'	1:XA:763:G:H8	1.85	0.41
15:XO:24:SER:OG	15:XO:25:THR:N	2.53	0.41
22:XW:23:G:C2	22:XW:24:C:C5	3.08	0.41
25:YA:1844:C:H2'	25:YA:1845:G:H8	1.85	0.41
26:YB:86:G:H2'	26:YB:87:G:C8	2.55	0.41
27:YD:83:GLU:OE1	27:YD:104:TYR:OH	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:YD:245:PRO:HA	27:YD:246:PRO:HD3	1.88	0.41
30:YG:37:VAL:HG23	30:YG:99:MET:HE3	2.01	0.41
41:YV:43:GLU:HG3	41:YV:44:LYS:H	1.84	0.41
45:YZ:145:GLU:HG3	45:YZ:146:ILE:HG12	2.02	0.41
1:QA:362:G:OP2	12:QL:34:ARG:NH2	2.51	0.41
11:QK:103:LEU:HD13	11:QK:103:LEU:HA	1.91	0.41
22:QV:20:G:H3'	22:QV:21:U:C2	2.54	0.41
25:RA:774:A:O2'	25:RA:777:A:N3	2.46	0.41
25:RA:1796:U:H2'	25:RA:1797:C:H6	1.86	0.41
27:RD:85:ASP:OD2	27:RD:88:ARG:NH1	2.42	0.41
28:RE:104:VAL:HG11	28:RE:188:VAL:HG23	2.02	0.41
29:RF:149:ASP:OD1	29:RF:149:ASP:N	2.52	0.41
34:RO:17:ARG:HE	34:RO:47:ILE:HD13	1.86	0.41
39:RT:123:GLN:O	39:RT:125:ARG:N	2.52	0.41
45:RZ:4:ARG:HA	45:RZ:59:LEU:H	1.85	0.41
45:RZ:70:LEU:HG	45:RZ:91:LEU:HD21	2.01	0.41
1:XA:657:G:H2'	1:XA:658:G:H8	1.85	0.41
1:XA:940:C:H2'	1:XA:941:G:C8	2.54	0.41
1:XA:1122:U:O4	1:XA:1123:A:N6	2.53	0.41
5:XE:98:THR:HB	5:XE:117:ASP:HB3	2.02	0.41
7:XG:26:PHE:HD1	7:XG:101:LEU:HD22	1.85	0.41
8:XH:121:ASP:OD1	8:XH:121:ASP:N	2.51	0.41
25:YA:814:C:H1'	25:YA:1226:G:H21	1.86	0.41
25:YA:1141:U:H1'	25:YA:1142(A):A:C6	2.55	0.41
25:YA:1486:A:H2'	25:YA:1487:G:H8	1.83	0.41
40:YU:92:ARG:C	40:YU:94:ASN:H	2.28	0.41
46:Y0:39:ARG:NH1	46:Y0:58:THR:OG1	2.53	0.41
48:Y2:45:SER:O	48:Y2:46:GLN:NE2	2.53	0.41
1:QA:958:A:H2'	1:QA:959:A:C8	2.56	0.41
2:QB:174:VAL:HG11	2:QB:196:LEU:HD13	2.02	0.41
5:QE:98:THR:HB	5:QE:117:ASP:HB3	2.02	0.41
8:QH:100:ILE:HA	8:QH:101:PRO:HD3	1.90	0.41
17:QQ:15:MET:HE1	17:QQ:43:LEU:HD22	2.02	0.41
18:QR:74:ARG:HD3	18:QR:81:PHE:HA	2.01	0.41
25:RA:2102:U:H2'	25:RA:2103:C:C6	2.54	0.41
25:RA:2635:C:H5''	28:RE:78:LEU:HA	2.02	0.41
26:RB:89:G:H2'	26:RB:89(A):A:C8	2.54	0.41
30:RG:142:PRO:HB2	50:R4:31:ILE:HG21	2.02	0.41
38:RS:6:ALA:HA	38:RS:9:ARG:HB3	2.02	0.41
42:RW:76:VAL:HG22	42:RW:103:ILE:HA	2.03	0.41
1:XA:191:G:C4	20:XT:105:SER:HB3	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:227:G:N2	16:XP:62:VAL:O	2.44	0.41
1:XA:1323:G:H2'	1:XA:1324:A:C8	2.55	0.41
1:XA:1351:U:O2	1:XA:1371:G:N2	2.42	0.41
1:XA:1393:U:O2'	1:XA:1501:C:O2'	2.35	0.41
7:XG:126:ASP:O	7:XG:131:LYS:N	2.50	0.41
22:XV:59:A:O2'	22:XV:61:U:OP2	2.23	0.41
25:YA:668:G:H2'	25:YA:670:A:H62	1.84	0.41
25:YA:864:G:H2'	25:YA:865:C:C6	2.54	0.41
25:YA:2193:G:H2'	25:YA:2194:G:H8	1.84	0.41
36:YQ:28:ALA:HB3	36:YQ:67:ARG:HH12	1.84	0.41
1:QA:255:G:P	17:QQ:69:LYS:HZ3	2.44	0.41
1:QA:373:A:H2'	1:QA:374:A:H8	1.84	0.41
11:QK:62:GLN:HG3	11:QK:97:ALA:HB2	2.03	0.41
25:RA:620:G:H4'	25:RA:621:A:H5''	2.03	0.41
25:RA:659:C:H2'	25:RA:660:G:C8	2.56	0.41
25:RA:848:G:H2'	25:RA:849:A:C8	2.55	0.41
25:RA:2197:U:H1'	25:RA:2198:A:C8	2.56	0.41
26:RB:48:A:OP2	38:RS:30:ARG:NH2	2.53	0.41
27:RD:136:ILE:O	27:RD:168:ARG:NH2	2.54	0.41
29:RF:157:VAL:HB	29:RF:194:MET:HB3	2.02	0.41
35:RP:6:LEU:HD23	35:RP:6:LEU:HA	1.84	0.41
37:RR:45:ARG:HA	37:RR:95:THR:HG21	2.02	0.41
1:XA:97:U:H2'	1:XA:99:C:C6	2.56	0.41
1:XA:1432:G:OP1	39:YT:108:ARG:N	2.48	0.41
2:XB:84:GLU:OE2	2:XB:233:SER:OG	2.37	0.41
4:XD:57:ARG:NH2	4:XD:205:GLU:OE2	2.49	0.41
13:XM:15:VAL:HG22	13:XM:45:VAL:HB	2.01	0.41
17:XQ:15:MET:HE1	17:XQ:43:LEU:HD22	2.03	0.41
18:XR:74:ARG:HD3	18:XR:81:PHE:HA	2.01	0.41
25:YA:1165:U:H2'	25:YA:1166:C:C6	2.55	0.41
25:YA:2047:U:H2'	25:YA:2048:G:H8	1.85	0.41
25:YA:2195:C:H2'	25:YA:2196:C:H6	1.86	0.41
25:YA:2199:A:OP1	47:Y1:50:ARG:NH2	2.53	0.41
30:YG:107:LEU:HD23	30:YG:111:LEU:HD12	2.02	0.41
40:YU:10:ARG:HH11	40:YU:10:ARG:HD2	1.71	0.41
45:YZ:53:ILE:HG22	45:YZ:71:VAL:HG13	2.02	0.41
1:QA:398:C:H2'	1:QA:399:G:H8	1.85	0.41
1:QA:1080:A:H5'	5:QE:14:ARG:HH21	1.85	0.41
1:QA:1348:U:H4'	9:QI:120:ARG:HD2	2.02	0.41
1:QA:1492:A:O2'	1:QA:1493:A:O4'	2.32	0.41
2:QB:58:ILE:HD11	2:QB:185:ILE:HD13	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:QW:52:C:O2	22:QW:65:G:N2	2.54	0.41
25:RA:208:C:H2'	25:RA:209:C:H6	1.85	0.41
25:RA:618:G:OP2	29:RF:106:ARG:NH1	2.47	0.41
25:RA:1525:G:H2'	25:RA:1526:G:C8	2.56	0.41
25:RA:2103:C:H2'	25:RA:2104:G:C8	2.56	0.41
36:RQ:62:GLY:HA2	45:RZ:116:VAL:HG21	2.00	0.41
42:RW:86:LEU:HD22	42:RW:96:ILE:HD11	2.00	0.41
1:XA:127:G:O2'	17:XQ:2:PRO:O	2.38	0.41
2:XB:130:ARG:HA	2:XB:131:PRO:HD3	1.87	0.41
2:XB:231:GLU:HG3	2:XB:233:SER:H	1.86	0.41
9:XI:10:ARG:HH21	9:XI:107:ARG:HE	1.68	0.41
22:XW:10:G:N2	22:XW:27:G:H1'	2.35	0.41
25:YA:52:A:OP2	25:YA:117:G:N1	2.48	0.41
25:YA:710:G:H2'	25:YA:711:G:C8	2.56	0.41
25:YA:840:C:H2'	25:YA:841:A:C8	2.55	0.41
25:YA:998:C:OP2	40:YU:58:ARG:NH1	2.53	0.41
25:YA:1678:G:N2	25:YA:1989:G:H22	2.18	0.41
25:YA:2198:A:OP1	32:YI:33:ARG:NH2	2.52	0.41
25:YA:2291:U:O2'	25:YA:2374:C:O2	2.38	0.41
25:YA:2740:A:H2'	25:YA:2741:A:C8	2.55	0.41
26:YB:3:C:H2'	26:YB:4:C:H6	1.84	0.41
1:QA:287:U:H2'	1:QA:288:A:C8	2.55	0.41
1:QA:601:C:H2'	1:QA:602:A:C8	2.55	0.41
6:QF:12:PRO:HG3	6:QF:57:GLN:HG3	2.03	0.41
6:QF:15:ASP:OD1	6:QF:15:ASP:N	2.52	0.41
6:QF:60:PHE:HE2	18:QR:78:LEU:HD21	1.85	0.41
18:QR:47:THR:O	18:QR:83:GLU:N	2.50	0.41
25:RA:1403:C:H5''	25:RA:1471:A:H1'	2.02	0.41
25:RA:2692:C:H2'	25:RA:2693:A:H8	1.86	0.41
28:RE:105:THR:HA	28:RE:166:THR:HA	2.02	0.41
30:RG:37:VAL:HG23	30:RG:99:MET:HE3	2.01	0.41
45:RZ:123:ASP:OD1	45:RZ:123:ASP:N	2.52	0.41
3:XC:153:VAL:HG22	3:XC:198:VAL:HG22	2.02	0.41
4:XD:155:LEU:HD23	4:XD:155:LEU:HA	1.86	0.41
8:XH:97:VAL:HG21	8:XH:128:GLY:HA2	2.03	0.41
9:XI:8:GLY:HA2	9:XI:79:LEU:HD12	2.03	0.41
11:XK:20:TYR:HE1	11:XK:83:ILE:HD12	1.86	0.41
25:YA:562:U:H6	25:YA:562:U:H2'	1.73	0.41
26:YB:44:G:H1'	26:YB:47:C:H42	1.84	0.41
50:Y4:51:ASP:OD1	50:Y4:51:ASP:N	2.49	0.41
1:QA:362:G:O3'	12:QL:33:ARG:NH1	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QA:688:G:H2'	1:QA:689:C:H6	1.86	0.41
1:QA:920:U:H2'	1:QA:921:U:C6	2.55	0.41
1:QA:1095:U:P	1:QA:1108:G:H1	2.41	0.41
1:QA:1355:G:H2'	1:QA:1356:G:H8	1.84	0.41
25:RA:740:U:H2'	25:RA:741:G:C8	2.56	0.41
25:RA:840:C:H2'	25:RA:841:A:C8	2.56	0.41
25:RA:1270:C:O2'	25:RA:1648:C:OP2	2.32	0.41
25:RA:1297:C:H2'	25:RA:1298:C:H6	1.86	0.41
25:RA:2291:U:H2'	25:RA:2292:C:C6	2.56	0.41
27:RD:92:ILE:HD12	27:RD:104:TYR:CD2	2.56	0.41
30:RG:107:LEU:HD23	30:RG:111:LEU:HD12	2.03	0.41
1:XA:477:G:H2'	1:XA:478:A:C8	2.56	0.41
1:XA:736:C:H2'	1:XA:737:A:C8	2.55	0.41
1:XA:908:A:H2'	1:XA:909:A:H8	1.86	0.41
7:XG:46:ALA:O	7:XG:50:ILE:HG12	2.21	0.41
13:XM:4:ILE:H	13:XM:9:ILE:HG22	1.85	0.41
25:YA:484:C:H2'	25:YA:485:C:H6	1.85	0.41
25:YA:513:A:O2'	25:YA:1217:C:OP1	2.39	0.41
25:YA:679:C:H2'	25:YA:680:G:C8	2.55	0.41
25:YA:1059:G:C6	25:YA:1060:U:H1'	2.56	0.41
26:YB:5:C:O2'	26:YB:27:C:O2	2.39	0.41
28:YE:12:THR:OG1	28:YE:13:ARG:N	2.54	0.41
28:YE:18:ASP:HB3	39:YT:82:LEU:HD11	2.02	0.41
30:YG:97:ASP:H	30:YG:100:TRP:CD1	2.36	0.41
39:YT:27:THR:HB	39:YT:90:GLN:HB3	2.03	0.41
1:QA:255:G:OP1	17:QQ:69:LYS:NZ	2.52	0.41
1:QA:692:U:OP2	11:QK:26:ASN:ND2	2.43	0.41
1:QA:881:G:P	12:QL:12:ARG:HH22	2.43	0.41
1:QA:978:A:O2'	1:QA:1322:C:N3	2.52	0.41
1:QA:1342:C:H2'	1:QA:1343:G:H8	1.86	0.41
7:QG:126:ASP:O	7:QG:131:LYS:N	2.50	0.41
25:RA:117:G:OP2	25:RA:119:A:O2'	2.28	0.41
25:RA:1149:G:H2'	25:RA:1150:C:C6	2.55	0.41
25:RA:1666:G:O2'	34:RO:6:THR:OG1	2.29	0.41
26:RB:52:A:O2'	26:RB:53:A:N7	2.53	0.41
52:R6:23:THR:OG1	52:R6:24:GLU:N	2.51	0.41
54:R8:61:LEU:HD23	54:R8:61:LEU:HA	1.90	0.41
1:XA:832:C:N4	1:XA:855:G:O6	2.54	0.41
7:XG:15:ASP:H	7:XG:20:ASP:H	1.69	0.41
25:YA:363(A):A:H2'	25:YA:363(B):G:C8	2.55	0.41
25:YA:414:C:H2'	25:YA:415:A:H8	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:1882:C:H3'	25:YA:1883:G:H8	1.86	0.41
26:YB:114:G:O2'	38:YS:50:SER:OG	2.15	0.41
27:YD:44:ASN:HB3	27:YD:49:ILE:HA	2.03	0.41
39:YT:62:THR:HG22	39:YT:75:ILE:HG23	2.02	0.41
1:QA:411:A:C5	1:QA:413:G:H1'	2.56	0.41
1:QA:430:A:P	4:QD:8:VAL:H	2.43	0.41
1:QA:711:G:H2'	1:QA:712:A:C8	2.56	0.41
1:QA:745:C:H2'	1:QA:746:A:C8	2.56	0.41
1:QA:1268:A:H2'	1:QA:1269:A:C8	2.55	0.41
6:QF:41:GLU:HB3	6:QF:62:TRP:HE3	1.86	0.41
7:QG:46:ALA:O	7:QG:50:ILE:HG12	2.21	0.41
8:QH:97:VAL:HG21	8:QH:128:GLY:HA2	2.03	0.41
11:QK:20:TYR:CD1	11:QK:83:ILE:HB	2.56	0.41
13:QM:15:VAL:HG22	13:QM:45:VAL:HB	2.02	0.41
22:QW:14:A:C4	22:QW:23:G:C2	3.09	0.41
25:RA:24:G:O2'	42:RW:78:GLU:O	2.39	0.41
25:RA:180:G:O2'	25:RA:181:A:N7	2.44	0.41
25:RA:521:G:H2'	25:RA:522:G:C8	2.56	0.41
25:RA:544:C:H3'	25:RA:545:G:H8	1.86	0.41
25:RA:807:U:OP2	35:RP:41:ARG:NH1	2.54	0.41
25:RA:1359:A:N6	25:RA:1372:U:H3	2.15	0.41
25:RA:1399:C:H2'	25:RA:1400:G:H8	1.85	0.41
25:RA:1657:C:H2'	25:RA:1658:C:C6	2.56	0.41
25:RA:1858:G:O2'	25:RA:1884:A:N6	2.54	0.41
25:RA:2246:G:H2'	25:RA:2247:A:C8	2.56	0.41
25:RA:2572:A:OP1	25:RA:2574:G:O2'	2.30	0.41
25:RA:2632:A:O2'	25:RA:2811:G:O2'	2.23	0.41
25:RA:2751:G:N7	31:RH:2:SER:HB3	2.36	0.41
26:RB:5:C:O2'	26:RB:27:C:O2	2.38	0.41
27:RD:24:ILE:HD11	27:RD:91:ARG:HD2	2.03	0.41
31:RH:102:ALA:HA	31:RH:117:PRO:HD3	2.03	0.41
35:RP:122:PRO:HB3	35:RP:141:ALA:HB1	2.02	0.41
39:RT:18:ASP:OD1	39:RT:18:ASP:N	2.44	0.41
40:RU:92:ARG:NH1	40:RU:94:ASN:HD22	2.19	0.41
40:RU:92:ARG:HD2	41:RV:11:GLN:HB2	2.03	0.41
40:RU:92:ARG:C	40:RU:94:ASN:H	2.28	0.41
45:RZ:53:ILE:HG22	45:RZ:71:VAL:HG13	2.02	0.41
1:XA:130:A:N3	1:XA:263:A:O2'	2.43	0.41
1:XA:201:C:H42	1:XA:216:G:H1	1.68	0.41
1:XA:359:U:H2'	1:XA:360:A:H8	1.85	0.41
1:XA:537:G:H2'	1:XA:538:G:H8	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XA:707:C:H2'	1:XA:708:C:C6	2.56	0.41
1:XA:736:C:O2'	6:XF:90:VAL:O	2.33	0.41
1:XA:972:C:H4'	10:XJ:57:LYS:HB2	2.02	0.41
1:XA:985:C:H2'	1:XA:986:A:C8	2.56	0.41
1:XA:1124:G:H3'	1:XA:1145:C:H41	1.86	0.41
1:XA:1241:G:H2'	1:XA:1242:C:C6	2.56	0.41
1:XA:1288:A:N1	1:XA:1371:G:H1'	2.36	0.41
1:XA:1443:G:N2	25:YA:2864:G:OP1	2.38	0.41
2:XB:48:MET:HA	2:XB:51:LEU:HD12	2.02	0.41
3:XC:135:LYS:HE2	5:XE:53:LEU:HD11	2.03	0.41
4:XD:173:TRP:CD1	4:XD:174:LEU:HG	2.55	0.41
5:XE:7:GLU:OE1	5:XE:37:ARG:NE	2.46	0.41
6:XF:41:GLU:HB3	6:XF:62:TRP:HE3	1.86	0.41
10:XJ:28:ARG:NH2	10:XJ:34:VAL:O	2.53	0.41
25:YA:247:G:H4'	25:YA:386:G:C5	2.56	0.41
25:YA:1035:U:OP1	31:YH:59:ARG:NH1	2.53	0.41
25:YA:2154:G:H2'	25:YA:2155:G:H8	1.86	0.41
25:YA:2674:G:H2'	25:YA:2675:A:C8	2.56	0.41
25:YA:2836:U:H2'	25:YA:2837:G:C8	2.55	0.41
27:YD:50:THR:OG1	27:YD:51:VAL:N	2.53	0.41
28:YE:104:VAL:HG11	28:YE:188:VAL:HG23	2.02	0.41
28:YE:105:THR:HA	28:YE:166:THR:HA	2.02	0.41
35:YP:58:THR:O	35:YP:61:ARG:NH2	2.49	0.41
38:YS:6:ALA:HA	38:YS:9:ARG:HB3	2.02	0.41
16:QP:4:ILE:HB	16:QP:66:PRO:HB3	2.03	0.41
25:RA:2707:G:H2'	25:RA:2708:G:C8	2.54	0.41
26:RB:3:C:H2'	26:RB:4:C:H6	1.84	0.41
29:RF:34:TRP:CE3	35:RP:8:PRO:HB3	2.56	0.41
31:RH:124:GLU:HB3	31:RH:132:ARG:HG3	2.03	0.41
48:R2:18:PRO:HA	48:R2:21:LEU:HD12	2.02	0.41
1:XA:22:G:H4'	1:XA:885:G:C8	2.56	0.41
1:XA:41:G:H2'	1:XA:42:G:H8	1.86	0.41
1:XA:728:A:H2'	1:XA:729:A:H8	1.86	0.41
1:XA:1513:A:H2'	1:XA:1514:C:C6	2.56	0.41
2:XB:177:ALA:HB1	2:XB:182:ILE:HB	2.03	0.41
2:XB:189:ASP:OD1	2:XB:189:ASP:N	2.54	0.41
5:XE:81:GLU:HG2	5:XE:90:VAL:HG22	2.03	0.41
22:XW:14:A:C4	22:XW:23:G:C2	3.09	0.41
25:YA:363(C):G:H2'	25:YA:363(D):G:C8	2.56	0.41
25:YA:519:U:H2'	25:YA:520:G:H8	1.86	0.41
25:YA:576:U:H2'	25:YA:577:G:C8	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:YA:675:A:N3	25:YA:2443:C:O2'	2.45	0.41
25:YA:704:G:H1'	25:YA:727:A:H61	1.85	0.41
25:YA:1130:U:N3	25:YA:2025:C:OP1	2.52	0.41
25:YA:1230:C:H2'	25:YA:1231:G:C8	2.55	0.41
25:YA:1252:G:N2	40:YU:37:GLU:OE2	2.40	0.41
25:YA:1419:A:H62	25:YA:1578:U:H3	1.69	0.41
25:YA:2086:U:H2'	25:YA:2087:G:C8	2.56	0.41
25:YA:2096:U:H2'	25:YA:2097:C:C6	2.56	0.41
25:YA:2500:U:O2'	25:YA:2504:U:OP1	2.34	0.41
25:YA:2666:C:O2	31:YH:152:ARG:NH1	2.54	0.41
34:YO:2:ILE:O	34:YO:33:ALA:N	2.54	0.41
1:QA:398:C:H2'	1:QA:399:G:C8	2.57	0.40
1:QA:1454:G:H2'	1:QA:1455:G:C8	2.55	0.40
2:QB:130:ARG:HA	2:QB:131:PRO:HD3	1.91	0.40
11:QK:18:ARG:HA	11:QK:81:ASP:H	1.86	0.40
25:RA:582:G:H2'	25:RA:583:G:H8	1.85	0.40
25:RA:823:G:H2'	25:RA:824:A:H8	1.86	0.40
25:RA:2637:U:H5''	28:RE:82:ARG:NH1	2.35	0.40
25:RA:2703:C:H2'	25:RA:2704:C:H6	1.86	0.40
25:RA:2737:G:H2'	25:RA:2738:A:H8	1.86	0.40
25:RA:2756:U:OP2	55:R9:19:ARG:NE	2.43	0.40
27:RD:44:ASN:HB3	27:RD:49:ILE:HA	2.03	0.40
33:RN:54:VAL:HB	33:RN:122:VAL:HG22	2.03	0.40
46:R0:18:ALA:O	46:R0:20:ARG:NH1	2.50	0.40
48:R2:51:ARG:HH11	48:R2:55:ARG:NH2	2.19	0.40
52:R6:38:LYS:HB2	52:R6:49:HIS:CE1	2.57	0.40
1:XA:114:U:H2'	1:XA:115:G:C8	2.55	0.40
1:XA:192:U:H2'	1:XA:193:C:C6	2.56	0.40
1:XA:1129:C:N4	1:XA:1133:G:O6	2.55	0.40
1:XA:1311:G:H5''	50:Y4:61:ARG:NH2	2.36	0.40
6:XF:6:VAL:HB	6:XF:63:TYR:HB2	2.02	0.40
20:XT:55:ILE:HD13	20:XT:55:ILE:HA	1.93	0.40
25:YA:710:G:H2'	25:YA:711:G:H8	1.84	0.40
25:YA:1400:G:H2'	25:YA:1401:G:C8	2.57	0.40
25:YA:1822:G:O3'	27:YD:54:ARG:NH2	2.54	0.40
25:YA:2572:A:H2'	28:YE:144:ARG:HD3	2.02	0.40
31:YH:55:PRO:HG2	31:YH:61:HIS:CE1	2.56	0.40
40:YU:92:ARG:NH1	40:YU:94:ASN:HD22	2.19	0.40
48:Y2:18:PRO:HA	48:Y2:21:LEU:HD12	2.02	0.40
52:Y6:38:LYS:HB2	52:Y6:49:HIS:CE1	2.57	0.40
1:QA:328:C:H4'	1:QA:329:A:H5'	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:QP:21:VAL:HG23	16:QP:34:GLU:H	1.85	0.40
25:RA:310:A:H1'	25:RA:311:A:H2'	2.03	0.40
25:RA:586:A:H5'	29:RF:89:VAL:HG21	2.03	0.40
25:RA:710:G:H2'	25:RA:711:G:H8	1.86	0.40
25:RA:1065:U:H1'	25:RA:1074:G:H22	1.86	0.40
34:RO:104:ARG:NH2	39:RT:43:GLN:OE1	2.37	0.40
35:RP:106:LEU:HD21	35:RP:112:LEU:HD13	2.03	0.40
47:R1:60:PHE:HB3	47:R1:62:VAL:HG13	2.02	0.40
52:R6:34:LEU:HD23	52:R6:34:LEU:HA	1.91	0.40
1:XA:652:U:O4	1:XA:752:G:O2'	2.26	0.40
10:XJ:42:THR:HG21	10:XJ:66:ARG:HE	1.86	0.40
22:XW:35:C:H41	23:XX:14:A:N6	2.13	0.40
25:YA:691:C:H2'	25:YA:692:C:H6	1.86	0.40
25:YA:1614:A:H62	42:YW:93:ALA:HB2	1.86	0.40
25:YA:2041:U:H2'	25:YA:2042:A:H8	1.86	0.40
25:YA:2212:A:H1'	25:YA:2215:G:C5	2.56	0.40
42:YW:71:VAL:HA	42:YW:107:LEU:HD23	2.04	0.40
45:YZ:144:LEU:HD21	45:YZ:149:SER:HA	2.04	0.40
1:QA:575:G:N2	1:QA:576:G:N7	2.63	0.40
1:QA:684:A:H1'	11:QK:39:PRO:HD2	2.04	0.40
1:QA:701:C:O2	1:QA:703:G:N1	2.54	0.40
2:QB:6:THR:OG1	2:QB:7:VAL:N	2.55	0.40
10:QJ:38:ILE:HD11	10:QJ:71:LEU:HD23	2.04	0.40
25:RA:373:U:H2'	25:RA:374:A:H8	1.86	0.40
25:RA:1771:C:H2'	25:RA:1772:G:C8	2.56	0.40
25:RA:2784:C:H2'	25:RA:2785:C:H6	1.85	0.40
36:RQ:55:VAL:HG13	45:RZ:178:GLU:HB3	2.03	0.40
49:R3:31:LEU:HD23	49:R3:31:LEU:HA	1.91	0.40
53:R7:5:TRP:NE1	53:R7:7:PRO:HG3	2.36	0.40
1:XA:430:A:P	4:XD:8:VAL:H	2.44	0.40
1:XA:440:A:H3'	1:XA:442:C:H6	1.86	0.40
1:XA:626:U:H2'	1:XA:627:G:H8	1.87	0.40
1:XA:1157:A:H62	1:XA:1178:G:N2	2.18	0.40
2:XB:144:ARG:HD3	2:XB:145:LEU:HD22	2.04	0.40
8:XH:100:ILE:HA	8:XH:101:PRO:HD3	1.90	0.40
16:XP:21:VAL:HG23	16:XP:34:GLU:H	1.85	0.40
22:XW:33:C:H5'	22:XW:34:U:OP2	2.21	0.40
25:YA:557:U:H2'	25:YA:558:G:C8	2.57	0.40
25:YA:902:C:H2'	25:YA:903:C:C6	2.57	0.40
25:YA:964:C:O2'	25:YA:2273:A:N3	2.42	0.40
26:YB:105:G:H2'	26:YB:106:G:H8	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:YD:136:ILE:O	27:YD:168:ARG:NH2	2.54	0.40
30:YG:39:ILE:HG12	30:YG:157:ILE:HG12	2.04	0.40
31:YH:137:ASP:HB3	31:YH:140:LYS:HB3	2.03	0.40
46:Y0:46:LYS:HB2	46:Y0:78:TYR:CD1	2.55	0.40
1:QA:1002:G:H2'	1:QA:1003:G:C8	2.56	0.40
1:QA:1329:A:H5''	13:QM:26:GLY:H	1.86	0.40
1:QA:1435:G:H2'	1:QA:1436:U:H6	1.86	0.40
6:QF:6:VAL:HB	6:QF:63:TYR:HB2	2.02	0.40
25:RA:483:A:O2'	44:RY:49:VAL:O	2.31	0.40
25:RA:892:G:H2'	25:RA:893:C:H6	1.87	0.40
25:RA:2123:G:H2'	25:RA:2124:G:C8	2.52	0.40
25:RA:2341:G:H2'	25:RA:2342:C:C6	2.56	0.40
25:RA:2693:A:H2'	25:RA:2694:G:H8	1.86	0.40
26:RB:105:G:H2'	26:RB:106:G:H8	1.86	0.40
34:RO:76:ALA:HB3	39:RT:75:ILE:HD12	2.03	0.40
1:XA:782:A:H62	1:XA:800:G:H21	1.69	0.40
1:XA:1061:G:OP1	10:XJ:59:SER:OG	2.39	0.40
1:XA:1342:C:H2'	1:XA:1343:G:H8	1.86	0.40
6:XF:67:MET:HE3	6:XF:67:MET:HB2	1.96	0.40
13:XM:3:ARG:NH2	50:Y4:34:GLU:OE2	2.54	0.40
25:YA:270(U):C:H2'	25:YA:270(V):G:C8	2.53	0.40
25:YA:593:G:H4'	54:Y8:61:LEU:HD13	2.03	0.40
25:YA:852:G:H2'	25:YA:853:G:C8	2.56	0.40
25:YA:2086:U:OP2	27:YD:263:ARG:NE	2.45	0.40
25:YA:2185:C:H2'	25:YA:2186:G:C8	2.55	0.40
25:YA:2450:A:H62	25:YA:2501:C:N4	2.19	0.40
26:YB:7:G:H4'	38:YS:29:PHE:CG	2.56	0.40
27:YD:92:ILE:HD12	27:YD:104:TYR:CD2	2.56	0.40
31:YH:124:GLU:HB3	31:YH:132:ARG:HG3	2.03	0.40
36:YQ:4:PRO:HG3	36:YQ:69:PHE:HE2	1.87	0.40
48:Y2:51:ARG:HH11	48:Y2:55:ARG:NH2	2.19	0.40
1:QA:407:G:OP1	4:QD:115:ARG:NH1	2.55	0.40
1:QA:1342:C:H2'	1:QA:1343:G:C8	2.56	0.40
4:QD:116:GLN:HE21	4:QD:157:LEU:HD21	1.87	0.40
5:QE:11:ILE:HD13	5:QE:105:VAL:HA	2.03	0.40
5:QE:98:THR:H	5:QE:117:ASP:CG	2.30	0.40
25:RA:1326:U:HO2'	25:RA:2010:G:HO2'	1.66	0.40
25:RA:1590:U:H2'	25:RA:1591:G:C8	2.56	0.40
25:RA:2696:U:H2'	25:RA:2697:G:C8	2.55	0.40
25:RA:2784:C:H2'	25:RA:2785:C:C6	2.55	0.40
25:RA:2812:G:H2'	25:RA:2813:A:H8	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:RD:121:PRO:HB3	27:RD:135:PHE:CE2	2.57	0.40
31:RH:55:PRO:HG2	31:RH:61:HIS:CE1	2.56	0.40
35:RP:121:LYS:HD3	35:RP:122:PRO:HD2	2.02	0.40
38:RS:18:ILE:HD13	38:RS:18:ILE:HA	1.93	0.40
40:RU:61:TRP:HB3	40:RU:93:LYS:O	2.22	0.40
1:XA:59:A:H3'	1:XA:331:G:H22	1.87	0.40
1:XA:673:G:O3'	6:XF:87:ARG:NH2	2.55	0.40
1:XA:1256:A:H4'	1:XA:1258:G:C4	2.57	0.40
7:XG:147:ALA:HB3	22:XW:41:C:O2'	2.21	0.40
9:XI:5:TYR:CE1	9:XI:16:ARG:HB2	2.56	0.40
25:YA:78:A:H2'	25:YA:79:G:C8	2.56	0.40
25:YA:1051:G:H1	25:YA:1108:U:H3	1.70	0.40
25:YA:2258:C:O2'	25:YA:2427:C:OP2	2.38	0.40
25:YA:2575:C:H5'	28:YE:144:ARG:HG3	2.03	0.40
26:YB:44:G:H1'	26:YB:47:C:N4	2.37	0.40

All (12) 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)
25:YA:1411:C:O2'	26:YB:53:A:O2'[1_655]	1.11	1.09
32:RI:87:LYS:NZ	1:XA:359:U:OP1[4_555]	1.48	0.72
41:YV:49:THR:O	51:Y5:59:GLU:OE2[4_445]	1.56	0.64
44:RY:21:LYS:NZ	48:Y2:71:ASN:CB[3_555]	1.64	0.56
44:RY:19:LYS:O	48:Y2:71:ASN:ND2[3_555]	1.71	0.49
41:YV:49:THR:OG1	51:Y5:60:VAL:O[4_445]	1.86	0.34
44:RY:19:LYS:C	48:Y2:71:ASN:ND2[3_555]	1.88	0.32
32:RI:89:TYR:O	1:XA:357:G:O2'[4_555]	1.91	0.29
44:RY:19:LYS:CA	48:Y2:71:ASN:ND2[3_555]	1.97	0.23
42:RW:63:ASP:OD1	44:YY:92:ASN:ND2[3_555]	2.03	0.17
41:YV:51:VAL:O	51:Y5:59:GLU:CD[4_445]	2.03	0.17
41:YV:51:VAL:O	51:Y5:59:GLU:CG[4_445]	2.18	0.02

5.3 Torsion angles

5.3.1 Protein backbone

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%)	207 (89%)	25 (11%)	1 (0%)	30	60
2	XB	234/256 (91%)	208 (89%)	26 (11%)	0	100	100
3	QC	203/239 (85%)	188 (93%)	15 (7%)	0	100	100
3	XC	203/239 (85%)	188 (93%)	15 (7%)	0	100	100
4	QD	206/209 (99%)	190 (92%)	16 (8%)	0	100	100
4	XD	206/209 (99%)	190 (92%)	16 (8%)	0	100	100
5	QE	149/162 (92%)	144 (97%)	4 (3%)	1 (1%)	18	50
5	XE	149/162 (92%)	144 (97%)	4 (3%)	1 (1%)	18	50
6	QF	99/101 (98%)	99 (100%)	0	0	100	100
6	XF	99/101 (98%)	99 (100%)	0	0	100	100
7	QG	153/156 (98%)	149 (97%)	4 (3%)	0	100	100
7	XG	153/156 (98%)	149 (97%)	4 (3%)	0	100	100
8	QH	135/138 (98%)	128 (95%)	7 (5%)	0	100	100
8	XH	135/138 (98%)	128 (95%)	7 (5%)	0	100	100
9	QI	125/128 (98%)	115 (92%)	10 (8%)	0	100	100
9	XI	124/128 (97%)	114 (92%)	10 (8%)	0	100	100
10	QJ	97/105 (92%)	87 (90%)	10 (10%)	0	100	100
10	XJ	94/105 (90%)	83 (88%)	11 (12%)	0	100	100
11	QK	117/129 (91%)	106 (91%)	11 (9%)	0	100	100
11	XK	114/129 (88%)	109 (96%)	5 (4%)	0	100	100
12	QL	123/132 (93%)	106 (86%)	17 (14%)	0	100	100
12	XL	120/132 (91%)	106 (88%)	13 (11%)	1 (1%)	16	47
13	QM	118/126 (94%)	99 (84%)	18 (15%)	1 (1%)	16	47
13	XM	117/126 (93%)	98 (84%)	19 (16%)	0	100	100
14	QN	58/61 (95%)	53 (91%)	4 (7%)	1 (2%)	7	34
14	XN	58/61 (95%)	53 (91%)	4 (7%)	1 (2%)	7	34
15	QO	86/89 (97%)	83 (96%)	3 (4%)	0	100	100
15	XO	85/89 (96%)	85 (100%)	0	0	100	100
16	QP	82/88 (93%)	80 (98%)	2 (2%)	0	100	100
16	XP	82/88 (93%)	80 (98%)	2 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
17	QQ	98/105 (93%)	95 (97%)	3 (3%)	0	100	100
17	XQ	98/105 (93%)	95 (97%)	3 (3%)	0	100	100
18	QR	68/88 (77%)	65 (96%)	3 (4%)	0	100	100
18	XR	68/88 (77%)	65 (96%)	3 (4%)	0	100	100
19	QS	81/93 (87%)	69 (85%)	12 (15%)	0	100	100
19	XS	82/93 (88%)	67 (82%)	15 (18%)	0	100	100
20	QT	97/106 (92%)	86 (89%)	11 (11%)	0	100	100
20	XT	97/106 (92%)	86 (89%)	11 (11%)	0	100	100
21	QU	23/27 (85%)	20 (87%)	3 (13%)	0	100	100
21	XU	23/27 (85%)	20 (87%)	3 (13%)	0	100	100
27	RD	270/276 (98%)	247 (92%)	22 (8%)	1 (0%)	30	60
27	YD	270/276 (98%)	247 (92%)	22 (8%)	1 (0%)	30	60
28	RE	203/206 (98%)	165 (81%)	36 (18%)	2 (1%)	12	43
28	YE	203/206 (98%)	165 (81%)	36 (18%)	2 (1%)	12	43
29	RF	200/210 (95%)	181 (90%)	19 (10%)	0	100	100
29	YF	200/210 (95%)	181 (90%)	19 (10%)	0	100	100
30	RG	179/182 (98%)	148 (83%)	30 (17%)	1 (1%)	21	52
30	YG	179/182 (98%)	148 (83%)	30 (17%)	1 (1%)	21	52
31	RH	172/180 (96%)	151 (88%)	17 (10%)	4 (2%)	5	30
31	YH	172/180 (96%)	151 (88%)	17 (10%)	4 (2%)	5	30
32	RI	144/148 (97%)	124 (86%)	18 (12%)	2 (1%)	9	37
32	YI	144/148 (97%)	124 (86%)	18 (12%)	2 (1%)	9	37
33	RN	136/140 (97%)	119 (88%)	16 (12%)	1 (1%)	18	50
33	YN	136/140 (97%)	119 (88%)	16 (12%)	1 (1%)	18	50
34	RO	120/122 (98%)	116 (97%)	4 (3%)	0	100	100
34	YO	120/122 (98%)	116 (97%)	4 (3%)	0	100	100
35	RP	148/150 (99%)	117 (79%)	30 (20%)	1 (1%)	18	50
35	YP	145/150 (97%)	113 (78%)	31 (21%)	1 (1%)	18	50
36	RQ	139/141 (99%)	114 (82%)	24 (17%)	1 (1%)	18	50
36	YQ	139/141 (99%)	114 (82%)	24 (17%)	1 (1%)	18	50
37	RR	115/118 (98%)	107 (93%)	7 (6%)	1 (1%)	14	45

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
37	YR	115/118 (98%)	107 (93%)	7 (6%)	1 (1%)	14	45
38	RS	109/112 (97%)	93 (85%)	16 (15%)	0	100	100
38	YS	109/112 (97%)	93 (85%)	16 (15%)	0	100	100
39	RT	135/146 (92%)	119 (88%)	14 (10%)	2 (2%)	8	36
39	YT	135/146 (92%)	119 (88%)	14 (10%)	2 (2%)	8	36
40	RU	115/118 (98%)	107 (93%)	7 (6%)	1 (1%)	14	45
40	YU	115/118 (98%)	107 (93%)	7 (6%)	1 (1%)	14	45
41	RV	99/101 (98%)	89 (90%)	10 (10%)	0	100	100
41	YV	99/101 (98%)	89 (90%)	10 (10%)	0	100	100
42	RW	111/113 (98%)	102 (92%)	9 (8%)	0	100	100
42	YW	111/113 (98%)	102 (92%)	9 (8%)	0	100	100
43	RX	90/96 (94%)	87 (97%)	3 (3%)	0	100	100
43	YX	90/96 (94%)	87 (97%)	3 (3%)	0	100	100
44	RY	105/110 (96%)	101 (96%)	4 (4%)	0	100	100
44	YY	105/110 (96%)	101 (96%)	4 (4%)	0	100	100
45	RZ	181/206 (88%)	150 (83%)	29 (16%)	2 (1%)	11	41
45	YZ	181/206 (88%)	149 (82%)	30 (17%)	2 (1%)	11	41
46	R0	79/85 (93%)	74 (94%)	5 (6%)	0	100	100
46	Y0	73/85 (86%)	67 (92%)	6 (8%)	0	100	100
47	R1	95/98 (97%)	83 (87%)	12 (13%)	0	100	100
47	Y1	91/98 (93%)	77 (85%)	14 (15%)	0	100	100
48	R2	67/72 (93%)	64 (96%)	2 (3%)	1 (2%)	8	36
48	Y2	67/72 (93%)	64 (96%)	2 (3%)	1 (2%)	8	36
49	R3	57/60 (95%)	54 (95%)	3 (5%)	0	100	100
49	Y3	57/60 (95%)	54 (95%)	3 (5%)	0	100	100
50	R4	67/71 (94%)	55 (82%)	11 (16%)	1 (2%)	8	36
50	Y4	67/71 (94%)	55 (82%)	11 (16%)	1 (2%)	8	36
51	R5	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
51	Y5	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
52	R6	51/54 (94%)	47 (92%)	4 (8%)	0	100	100
52	Y6	51/54 (94%)	47 (92%)	4 (8%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
53	R7	45/49 (92%)	45 (100%)	0	0	100	100
53	Y7	46/49 (94%)	46 (100%)	0	0	100	100
54	R8	62/65 (95%)	47 (76%)	13 (21%)	2 (3%)	3	25
54	Y8	62/65 (95%)	47 (76%)	13 (21%)	2 (3%)	3	25
55	R9	35/37 (95%)	35 (100%)	0	0	100	100
55	Y9	35/37 (95%)	35 (100%)	0	0	100	100
All	All	11452/12128 (94%)	10311 (90%)	1088 (10%)	53 (0%)	24	56

All (53) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
39	RT	124	ASP
45	RZ	53	ILE
39	YT	124	ASP
45	YZ	53	ILE
14	QN	17	LYS
32	RI	15	VAL
35	RP	108	LYS
39	RT	123	GLN
54	R8	29	LYS
12	XL	105	TYR
14	XN	17	LYS
32	YI	15	VAL
35	YP	108	LYS
39	YT	123	GLN
54	Y8	29	LYS
30	RG	81	LYS
31	RH	86	GLU
33	RN	22	THR
54	R8	30	ARG
30	YG	81	LYS
31	YH	86	GLU
33	YN	22	THR
54	Y8	30	ARG
31	RH	87	LEU
40	RU	93	LYS
31	YH	87	LEU
37	YR	4	LEU
40	YU	93	LYS
13	QM	14	ARG

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Mol	Chain	Res	Type
27	RD	243	GLY
28	RE	19	ARG
31	RH	12	PRO
36	RQ	78	PRO
37	RR	4	LEU
48	R2	70	GLN
50	R4	47	GLN
27	YD	243	GLY
28	YE	19	ARG
31	YH	12	PRO
36	YQ	78	PRO
48	Y2	70	GLN
50	Y4	47	GLN
2	QB	208	ILE
28	RE	132	HIS
31	RH	152	ARG
28	YE	132	HIS
31	YH	152	ARG
32	RI	16	GLY
32	YI	16	GLY
5	QE	74	GLY
45	RZ	166	SER
5	XE	74	GLY
45	YZ	166	SER

5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

The Analysed column shows the number of residues for which the sidechain conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	QB	203/220 (92%)	203 (100%)	0	100	100
2	XB	204/220 (93%)	203 (100%)	1 (0%)	81	80
3	QC	159/188 (85%)	158 (99%)	1 (1%)	78	79
3	XC	159/188 (85%)	158 (99%)	1 (1%)	78	79
4	QD	180/181 (99%)	180 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	XD	180/181 (99%)	180 (100%)	0	100	100
5	QE	116/123 (94%)	116 (100%)	0	100	100
5	XE	116/123 (94%)	116 (100%)	0	100	100
6	QF	90/90 (100%)	90 (100%)	0	100	100
6	XF	90/90 (100%)	90 (100%)	0	100	100
7	QG	126/127 (99%)	126 (100%)	0	100	100
7	XG	126/127 (99%)	126 (100%)	0	100	100
8	QH	118/119 (99%)	118 (100%)	0	100	100
8	XH	118/119 (99%)	118 (100%)	0	100	100
9	QI	98/99 (99%)	98 (100%)	0	100	100
9	XI	97/99 (98%)	97 (100%)	0	100	100
10	QJ	89/92 (97%)	89 (100%)	0	100	100
10	XJ	86/92 (94%)	86 (100%)	0	100	100
11	QK	90/99 (91%)	90 (100%)	0	100	100
11	XK	88/99 (89%)	88 (100%)	0	100	100
12	QL	104/109 (95%)	103 (99%)	1 (1%)	68	74
12	XL	103/109 (94%)	102 (99%)	1 (1%)	68	74
13	QM	96/101 (95%)	96 (100%)	0	100	100
13	XM	95/101 (94%)	95 (100%)	0	100	100
14	QN	49/50 (98%)	49 (100%)	0	100	100
14	XN	49/50 (98%)	49 (100%)	0	100	100
15	QO	79/80 (99%)	79 (100%)	0	100	100
15	XO	79/80 (99%)	79 (100%)	0	100	100
16	QP	72/74 (97%)	71 (99%)	1 (1%)	59	70
16	XP	72/74 (97%)	71 (99%)	1 (1%)	59	70
17	QQ	95/97 (98%)	95 (100%)	0	100	100
17	XQ	95/97 (98%)	95 (100%)	0	100	100
18	QR	61/77 (79%)	61 (100%)	0	100	100
18	XR	61/77 (79%)	61 (100%)	0	100	100
19	QS	72/80 (90%)	71 (99%)	1 (1%)	59	70
19	XS	73/80 (91%)	72 (99%)	1 (1%)	59	70

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
20	QT	76/82 (93%)	76 (100%)	0	100	100
20	XT	76/82 (93%)	76 (100%)	0	100	100
21	QU	20/22 (91%)	20 (100%)	0	100	100
21	XU	20/22 (91%)	20 (100%)	0	100	100
27	RD	214/218 (98%)	213 (100%)	1 (0%)	81	80
27	YD	214/218 (98%)	213 (100%)	1 (0%)	81	80
28	RE	165/166 (99%)	162 (98%)	3 (2%)	51	66
28	YE	165/166 (99%)	162 (98%)	3 (2%)	51	66
29	RF	161/166 (97%)	160 (99%)	1 (1%)	78	79
29	YF	161/166 (97%)	160 (99%)	1 (1%)	78	79
30	RG	155/156 (99%)	154 (99%)	1 (1%)	78	79
30	YG	155/156 (99%)	154 (99%)	1 (1%)	78	79
31	RH	145/148 (98%)	142 (98%)	3 (2%)	47	64
31	YH	145/148 (98%)	142 (98%)	3 (2%)	47	64
32	RI	122/124 (98%)	121 (99%)	1 (1%)	73	76
32	YI	122/124 (98%)	121 (99%)	1 (1%)	73	76
33	RN	117/119 (98%)	114 (97%)	3 (3%)	40	60
33	YN	117/119 (98%)	114 (97%)	3 (3%)	40	60
34	RO	100/100 (100%)	100 (100%)	0	100	100
34	YO	100/100 (100%)	100 (100%)	0	100	100
35	RP	116/116 (100%)	114 (98%)	2 (2%)	53	67
35	YP	114/116 (98%)	112 (98%)	2 (2%)	51	66
36	RQ	111/111 (100%)	109 (98%)	2 (2%)	51	66
36	YQ	111/111 (100%)	109 (98%)	2 (2%)	51	66
37	RR	100/101 (99%)	100 (100%)	0	100	100
37	YR	100/101 (99%)	100 (100%)	0	100	100
38	RS	87/88 (99%)	87 (100%)	0	100	100
38	YS	87/88 (99%)	87 (100%)	0	100	100
39	RT	120/127 (94%)	118 (98%)	2 (2%)	53	67
39	YT	120/127 (94%)	118 (98%)	2 (2%)	53	67
40	RU	93/94 (99%)	91 (98%)	2 (2%)	45	63

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
40	YU	93/94 (99%)	91 (98%)	2 (2%)	45	63
41	RV	82/82 (100%)	82 (100%)	0	100	100
41	YV	82/82 (100%)	82 (100%)	0	100	100
42	RW	92/92 (100%)	92 (100%)	0	100	100
42	YW	92/92 (100%)	92 (100%)	0	100	100
43	RX	74/78 (95%)	72 (97%)	2 (3%)	39	59
43	YX	74/78 (95%)	72 (97%)	2 (3%)	39	59
44	RY	88/91 (97%)	88 (100%)	0	100	100
44	YY	88/91 (97%)	88 (100%)	0	100	100
45	RZ	162/179 (90%)	160 (99%)	2 (1%)	63	71
45	YZ	162/179 (90%)	160 (99%)	2 (1%)	63	71
46	R0	65/67 (97%)	65 (100%)	0	100	100
46	Y0	61/67 (91%)	60 (98%)	1 (2%)	55	68
47	R1	82/83 (99%)	82 (100%)	0	100	100
47	Y1	78/83 (94%)	78 (100%)	0	100	100
48	R2	64/67 (96%)	64 (100%)	0	100	100
48	Y2	64/67 (96%)	64 (100%)	0	100	100
49	R3	51/52 (98%)	51 (100%)	0	100	100
49	Y3	51/52 (98%)	51 (100%)	0	100	100
50	R4	62/63 (98%)	61 (98%)	1 (2%)	55	68
50	Y4	62/63 (98%)	61 (98%)	1 (2%)	55	68
51	R5	51/52 (98%)	51 (100%)	0	100	100
51	Y5	51/52 (98%)	51 (100%)	0	100	100
52	R6	51/52 (98%)	51 (100%)	0	100	100
52	Y6	51/52 (98%)	51 (100%)	0	100	100
53	R7	40/42 (95%)	40 (100%)	0	100	100
53	Y7	41/42 (98%)	41 (100%)	0	100	100
54	R8	54/55 (98%)	54 (100%)	0	100	100
54	Y8	54/55 (98%)	54 (100%)	0	100	100
55	R9	34/34 (100%)	34 (100%)	0	100	100
55	Y9	34/34 (100%)	34 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
All	All	9687/10066 (96%)	9625 (99%)	62 (1%)	78	79

All (62) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	QC	165	THR
12	QL	104	VAL
16	QP	67	THR
19	QS	41	VAL
27	RD	33	LEU
28	RE	95	ILE
28	RE	134	ILE
28	RE	197	ILE
29	RF	183	VAL
30	RG	88	ILE
31	RH	7	LEU
31	RH	26	VAL
31	RH	50	VAL
32	RI	9	LEU
33	RN	60	ILE
33	RN	99	LEU
33	RN	120	LEU
35	RP	58	THR
35	RP	125	VAL
36	RQ	42	ILE
36	RQ	96	VAL
39	RT	30	VAL
39	RT	99	LEU
40	RU	88	ILE
40	RU	90	VAL
43	RX	59	VAL
43	RX	66	LEU
45	RZ	71	VAL
45	RZ	141	VAL
50	R4	56	VAL
2	XB	15	VAL
3	XC	165	THR
12	XL	83	VAL
16	XP	67	THR
19	XS	39	THR
27	YD	33	LEU
28	YE	95	ILE

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Mol	Chain	Res	Type
28	YE	134	ILE
28	YE	197	ILE
29	YF	183	VAL
30	YG	88	ILE
31	YH	7	LEU
31	YH	26	VAL
31	YH	50	VAL
32	YI	9	LEU
33	YN	60	ILE
33	YN	99	LEU
33	YN	120	LEU
35	YP	58	THR
35	YP	125	VAL
36	YQ	42	ILE
36	YQ	96	VAL
39	YT	30	VAL
39	YT	99	LEU
40	YU	88	ILE
40	YU	90	VAL
43	YX	59	VAL
43	YX	66	LEU
45	YZ	71	VAL
45	YZ	141	VAL
46	Y0	43	THR
50	Y4	56	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (88) such sidechains are listed below:

Mol	Chain	Res	Type
2	QB	16	HIS
3	QC	6	HIS
4	QD	161	ASN
5	QE	73	ASN
6	QF	7	ASN
6	QF	13	ASN
7	QG	28	ASN
7	QG	64	GLN
9	QI	3	GLN
9	QI	73	GLN
9	QI	117	HIS
10	QJ	62	HIS
11	QK	13	GLN

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Mol	Chain	Res	Type
13	QM	106	ASN
14	QN	49	HIS
15	QO	50	HIS
15	QO	62	GLN
19	QS	14	HIS
27	RD	166	GLN
28	RE	159	HIS
29	RF	40	GLN
29	RF	204	ASN
30	RG	41	GLN
31	RH	147	ASN
32	RI	104	GLN
33	RN	130	HIS
35	RP	27	HIS
36	RQ	57	HIS
37	RR	31	HIS
38	RS	68	GLN
39	RT	38	ASN
39	RT	55	ASN
39	RT	58	ASN
40	RU	94	ASN
42	RW	61	ASN
45	RZ	32	HIS
45	RZ	55	HIS
46	R0	3	HIS
48	R2	46	GLN
50	R4	40	HIS
51	R5	23	HIS
2	XB	40	HIS
3	XC	37	GLN
4	XD	161	ASN
4	XD	201	GLN
5	XE	73	ASN
6	XF	7	ASN
6	XF	13	ASN
7	XG	28	ASN
7	XG	64	GLN
7	XG	148	ASN
9	XI	29	ASN
9	XI	73	GLN
9	XI	124	GLN
11	XK	93	GLN

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Mol	Chain	Res	Type
12	XL	80	HIS
14	XN	49	HIS
15	XO	50	HIS
15	XO	62	GLN
19	XS	47	HIS
27	YD	227	ASN
29	YF	40	GLN
29	YF	204	ASN
30	YG	40	ASN
31	YH	147	ASN
32	YI	104	GLN
33	YN	130	HIS
35	YP	27	HIS
35	YP	81	GLN
36	YQ	46	GLN
36	YQ	57	HIS
36	YQ	89	ASN
36	YQ	123	HIS
37	YR	31	HIS
37	YR	71	GLN
38	YS	68	GLN
39	YT	38	ASN
40	YU	94	ASN
42	YW	61	ASN
42	YW	111	HIS
45	YZ	32	HIS
45	YZ	34	ASN
45	YZ	55	HIS
48	Y2	46	GLN
51	Y5	4	HIS
51	Y5	23	HIS
52	Y6	46	HIS
54	Y8	33	ASN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	QA	1498/1508 (99%)	298 (19%)	32 (2%)
1	XA	1498/1508 (99%)	284 (18%)	27 (1%)
22	QV	76/77 (98%)	15 (19%)	2 (2%)
22	QW	76/77 (98%)	33 (43%)	2 (2%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
22	XV	76/77 (98%)	15 (19%)	2 (2%)
22	XW	76/77 (98%)	34 (44%)	2 (2%)
23	QX	7/25 (28%)	0	0
23	XX	10/25 (40%)	2 (20%)	0
24	QY	16/17 (94%)	4 (25%)	0
24	XY	16/17 (94%)	4 (25%)	0
25	RA	2879/2915 (98%)	614 (21%)	41 (1%)
25	YA	2880/2915 (98%)	609 (21%)	41 (1%)
26	RB	119/122 (97%)	24 (20%)	0
26	YB	119/122 (97%)	24 (20%)	0
All	All	9346/9482 (98%)	1960 (20%)	149 (1%)

All (1960) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	QA	6	G
1	QA	32	A
1	QA	39	G
1	QA	41	G
1	QA	47	C
1	QA	48	C
1	QA	50	A
1	QA	51	A
1	QA	54	C
1	QA	64	G
1	QA	65	U
1	QA	66	G
1	QA	76	G
1	QA	81	G
1	QA	90	C
1	QA	91	C
1	QA	95	G
1	QA	101	A
1	QA	108	G
1	QA	116	A
1	QA	120	A
1	QA	121	C
1	QA	122	G
1	QA	129(A)	G
1	QA	131	C
1	QA	144	G
1	QA	146	G

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Mol	Chain	Res	Type
1	QA	159	G
1	QA	162	A
1	QA	163	C
1	QA	169	C
1	QA	173	U
1	QA	174	C
1	QA	182	U
1	QA	190	G
1	QA	191(A)	G
1	QA	195	A
1	QA	197	A
1	QA	208	U
1	QA	209	U
1	QA	210	U
1	QA	216	G
1	QA	244	U
1	QA	247	G
1	QA	251	G
1	QA	262	A
1	QA	263	A
1	QA	267	C
1	QA	269	C
1	QA	279	A
1	QA	281	G
1	QA	289	G
1	QA	301	G
1	QA	306	G
1	QA	321	A
1	QA	328	C
1	QA	329	A
1	QA	332	G
1	QA	343	U
1	QA	344	A
1	QA	345	C
1	QA	346	G
1	QA	347	U
1	QA	352	C
1	QA	353	A
1	QA	354	G
1	QA	356	A
1	QA	367	U
1	QA	372	C

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Mol	Chain	Res	Type
1	QA	373	A
1	QA	384	G
1	QA	390	C
1	QA	397	A
1	QA	398	C
1	QA	406	G
1	QA	410	G
1	QA	411	A
1	QA	412	A
1	QA	413	G
1	QA	421	U
1	QA	422	C
1	QA	423	G
1	QA	424	G
1	QA	429	U
1	QA	435	C
1	QA	442	C
1	QA	465	A
1	QA	466	C
1	QA	482	A
1	QA	485	G
1	QA	486	U
1	QA	496	A
1	QA	497	U
1	QA	505	G
1	QA	509	A
1	QA	510	A
1	QA	511	C
1	QA	518	C
1	QA	521	G
1	QA	527	G
1	QA	532	A
1	QA	533	A
1	QA	534	U
1	QA	539	A
1	QA	545	C
1	QA	547	A
1	QA	559	A
1	QA	565	U
1	QA	566	G
1	QA	568	G
1	QA	572	A

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Mol	Chain	Res	Type
1	QA	573	A
1	QA	576	G
1	QA	577	G
1	QA	596	C
1	QA	618	C
1	QA	630	G
1	QA	631	G
1	QA	633	G
1	QA	652	U
1	QA	653	A
1	QA	665	A
1	QA	688	G
1	QA	702	A
1	QA	703	G
1	QA	704	A
1	QA	717	C
1	QA	723	U
1	QA	731	G
1	QA	748	C
1	QA	749	C
1	QA	753	A
1	QA	754	C
1	QA	755	G
1	QA	760	G
1	QA	777	A
1	QA	781	A
1	QA	792	A
1	QA	793	U
1	QA	794	A
1	QA	813	U
1	QA	817	C
1	QA	818	G
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	870	U
1	QA	871	U
1	QA	872	A

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Mol	Chain	Res	Type
1	QA	885	G
1	QA	902	G
1	QA	914	A
1	QA	922	G
1	QA	926	G
1	QA	927	G
1	QA	934	C
1	QA	935	A
1	QA	936	C
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	981	U
1	QA	982	U
1	QA	983	A
1	QA	990	C
1	QA	991	U
1	QA	992	U
1	QA	993	G
1	QA	994	A
1	QA	995	C
1	QA	1004	A
1	QA	1006	C
1	QA	1008	C
1	QA	1009	G
1	QA	1020	U
1	QA	1021	G
1	QA	1024	G
1	QA	1025	U
1	QA	1028	C
1	QA	1028(A)	C
1	QA	1028(B)	C
1	QA	1029	G
1	QA	1030	C
1	QA	1031	G
1	QA	1032	A

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Mol	Chain	Res	Type
1	QA	1032(A)	G
1	QA	1034	G
1	QA	1040	U
1	QA	1044	A
1	QA	1046	A
1	QA	1050	G
1	QA	1053	G
1	QA	1054	C
1	QA	1055	A
1	QA	1066	C
1	QA	1078	U
1	QA	1081	G
1	QA	1086	U
1	QA	1094	G
1	QA	1095	U
1	QA	1100	C
1	QA	1101	A
1	QA	1108	G
1	QA	1124	G
1	QA	1125	U
1	QA	1126	U
1	QA	1130	A
1	QA	1131	G
1	QA	1136	U
1	QA	1137	C
1	QA	1138	G
1	QA	1139	G
1	QA	1146	A
1	QA	1157	A
1	QA	1158	C
1	QA	1159	U
1	QA	1161	C
1	QA	1171	G
1	QA	1176	A
1	QA	1178	G
1	QA	1181	G
1	QA	1183	A
1	QA	1184	G
1	QA	1187	G
1	QA	1196	U
1	QA	1197	G
1	QA	1201	A

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Mol	Chain	Res	Type
1	QA	1202	G
1	QA	1211	U
1	QA	1212	U
1	QA	1213	A
1	QA	1225	A
1	QA	1226	C
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	1270	C
1	QA	1280	A
1	QA	1281	U
1	QA	1282	C
1	QA	1285	A
1	QA	1286	A
1	QA	1287	A
1	QA	1298	C
1	QA	1299	A
1	QA	1300	G
1	QA	1301	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	1337	G
1	QA	1346	A
1	QA	1347	G
1	QA	1348	U
1	QA	1353	G
1	QA	1362(A)	C
1	QA	1363	A
1	QA	1368	G
1	QA	1370	G

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Mol	Chain	Res	Type
1	QA	1397	C
1	QA	1398	A
1	QA	1401	G
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	1492	A
1	QA	1497	G
1	QA	1499	A
1	QA	1503	A
1	QA	1506	U
1	QA	1517	G
1	QA	1519	A
1	QA	1520	G
1	QA	1529	G
1	QA	1530	G
22	QV	7	G
22	QV	8	U
22	QV	13	C
22	QV	18	U
22	QV	20	G
22	QV	21	U
22	QV	22	A
22	QV	36	A
22	QV	48	U
22	QV	49	C
22	QV	50	G
22	QV	53	G
22	QV	54	G
22	QV	55	U
22	QV	77	A
22	QW	8	U
22	QW	9	G
22	QW	13	C
22	QW	14	A
22	QW	18	U
22	QW	19	G
22	QW	20	G
22	QW	21	U

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Mol	Chain	Res	Type
22	QW	27	G
22	QW	32	G
22	QW	33	C
22	QW	34	U
22	QW	35	C
22	QW	36	A
22	QW	38	A
22	QW	39	A
22	QW	43	G
22	QW	46	G
22	QW	47	G
22	QW	48	U
22	QW	49	C
22	QW	50	G
22	QW	56	U
22	QW	57	C
22	QW	58	A
22	QW	59	A
22	QW	60	A
22	QW	61	U
22	QW	62	C
22	QW	67	C
22	QW	74	A
22	QW	75	C
22	QW	77	A
24	QY	30	G
24	QY	36	A
24	QY	37	A
24	QY	43	C
25	RA	11	G
25	RA	14	A
25	RA	15	G
25	RA	27	G
25	RA	34	C
25	RA	35	G
25	RA	46	C
25	RA	51	G
25	RA	55	G
25	RA	61	G
25	RA	64	A
25	RA	72	U
25	RA	73	A

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Mol	Chain	Res	Type
25	RA	74	A
25	RA	75	G
25	RA	95	G
25	RA	101	G
25	RA	102	G
25	RA	103	A
25	RA	118	A
25	RA	120	U
25	RA	125	G
25	RA	131	G
25	RA	161	U
25	RA	177	G
25	RA	196	A
25	RA	199	A
25	RA	201	C
25	RA	204	A
25	RA	205	G
25	RA	215	G
25	RA	216	A
25	RA	221	A
25	RA	222	A
25	RA	223	A
25	RA	228	A
25	RA	229	A
25	RA	230	U
25	RA	242	G
25	RA	243	U
25	RA	248	G
25	RA	249	C
25	RA	252	G
25	RA	264	C
25	RA	265	A
25	RA	266	G
25	RA	267	C
25	RA	269	U
25	RA	270(L)	U
25	RA	270(M)	U
25	RA	270(N)	G
25	RA	270(P)	C
25	RA	271(C)	U
25	RA	271	G
25	RA	275	G

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Mol	Chain	Res	Type
25	RA	276	A
25	RA	277	C
25	RA	278	A
25	RA	294	A
25	RA	299	A
25	RA	311	A
25	RA	323	G
25	RA	324	A
25	RA	327	G
25	RA	329	G
25	RA	330	A
25	RA	346	A
25	RA	352	G
25	RA	362	U
25	RA	364	C
25	RA	371	A
25	RA	372	G
25	RA	386	G
25	RA	387	U
25	RA	395	U
25	RA	405	U
25	RA	411	G
25	RA	412	A
25	RA	428	A
25	RA	435	C
25	RA	444	C
25	RA	448	U
25	RA	451	C
25	RA	456	C
25	RA	457	A
25	RA	458	G
25	RA	464	U
25	RA	467	G
25	RA	470	A
25	RA	481	G
25	RA	503	A
25	RA	504	U
25	RA	505	A
25	RA	508	G
25	RA	509	C
25	RA	513	A
25	RA	527	C

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Mol	Chain	Res	Type
25	RA	529	A
25	RA	530	G
25	RA	531	C
25	RA	532	A
25	RA	533	G
25	RA	537	C
25	RA	539	G
25	RA	540	G
25	RA	546	C
25	RA	547	A
25	RA	554	U
25	RA	563	G
25	RA	571	A
25	RA	573	G
25	RA	575	A
25	RA	603	A
25	RA	607	U
25	RA	614	U
25	RA	615	G
25	RA	617	G
25	RA	621	A
25	RA	622	G
25	RA	627	A
25	RA	631	A
25	RA	634	C
25	RA	637	A
25	RA	638	G
25	RA	645	C
25	RA	646	A
25	RA	651	G
25	RA	654	A
25	RA	654(A)	G
25	RA	654(B)	C
25	RA	668	G
25	RA	669	G
25	RA	670	A
25	RA	686	G
25	RA	702	G
25	RA	717	G
25	RA	722	A
25	RA	730	C
25	RA	738	G

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Mol	Chain	Res	Type
25	RA	740	U
25	RA	748	G
25	RA	765	G
25	RA	775	G
25	RA	776	G
25	RA	782	A
25	RA	784	A
25	RA	785	G
25	RA	790	C
25	RA	800	A
25	RA	805	G
25	RA	812	C
25	RA	819	A
25	RA	827	U
25	RA	828	U
25	RA	830	G
25	RA	846	C
25	RA	847	U
25	RA	856	C
25	RA	857	C
25	RA	859	G
25	RA	860	U
25	RA	881	G
25	RA	882	G
25	RA	884	C
25	RA	886	C
25	RA	888	C
25	RA	889	C
25	RA	890	A
25	RA	896	A
25	RA	897	C
25	RA	900	A
25	RA	901	A
25	RA	907	U
25	RA	910	A
25	RA	914	C
25	RA	915	C
25	RA	917	A
25	RA	919	G
25	RA	932	G
25	RA	938	G
25	RA	941	A

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Mol	Chain	Res	Type
25	RA	945	A
25	RA	946	G
25	RA	953	A
25	RA	959	A
25	RA	961	C
25	RA	973	A
25	RA	974	G
25	RA	974(A)	C
25	RA	975	G
25	RA	980	A
25	RA	983	A
25	RA	989	G
25	RA	996	A
25	RA	1003	G
25	RA	1005	C
25	RA	1010	A
25	RA	1012	U
25	RA	1013	C
25	RA	1015	G
25	RA	1017	G
25	RA	1020	A
25	RA	1022	G
25	RA	1023	U
25	RA	1025	G
25	RA	1026	U
25	RA	1027	A
25	RA	1033	U
25	RA	1044	G
25	RA	1045	A
25	RA	1046	A
25	RA	1050	A
25	RA	1054	A
25	RA	1055	G
25	RA	1060	U
25	RA	1061	U
25	RA	1066	U
25	RA	1067	A
25	RA	1068	G
25	RA	1070	A
25	RA	1071	G
25	RA	1076	C
25	RA	1077	A

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Mol	Chain	Res	Type
25	RA	1078	U
25	RA	1079	C
25	RA	1080	C
25	RA	1082	U
25	RA	1083	U
25	RA	1084	A
25	RA	1085	A
25	RA	1086	A
25	RA	1087	G
25	RA	1088	A
25	RA	1090	U
25	RA	1091	G
25	RA	1093	G
25	RA	1096	A
25	RA	1099	G
25	RA	1103	A
25	RA	1110	G
25	RA	1111	A
25	RA	1112	G
25	RA	1126	A
25	RA	1128	A
25	RA	1129	A
25	RA	1130	U
25	RA	1135	C
25	RA	1136	G
25	RA	1139	G
25	RA	1141	U
25	RA	1142	U
25	RA	1142(A)	A
25	RA	1151	G
25	RA	1155	A
25	RA	1170	G
25	RA	1173	G
25	RA	1174	A
25	RA	1175	U
25	RA	1176	G
25	RA	1178	C
25	RA	1179	C
25	RA	1195	G
25	RA	1204	A
25	RA	1205	U
25	RA	1206	G

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Mol	Chain	Res	Type
25	RA	1210	A
25	RA	1211	U
25	RA	1220	A
25	RA	1236	G
25	RA	1238	G
25	RA	1247	A
25	RA	1253	A
25	RA	1256	G
25	RA	1265	A
25	RA	1272	A
25	RA	1273	U
25	RA	1288	U
25	RA	1300	U
25	RA	1301	A
25	RA	1309	G
25	RA	1312	U
25	RA	1313	U
25	RA	1314	C
25	RA	1319	G
25	RA	1321	A
25	RA	1325	G
25	RA	1329	U
25	RA	1330	C
25	RA	1341	U
25	RA	1349	A
25	RA	1352	U
25	RA	1365	A
25	RA	1368	G
25	RA	1370	C
25	RA	1378	A
25	RA	1379	A
25	RA	1380	G
25	RA	1384	A
25	RA	1385	G
25	RA	1391	U
25	RA	1395	A
25	RA	1407	C
25	RA	1411	C
25	RA	1414	G
25	RA	1416	G
25	RA	1419	A
25	RA	1420	U

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Mol	Chain	Res	Type
25	RA	1421	G
25	RA	1428	C
25	RA	1444(A)	A
25	RA	1445	C
25	RA	1449	A
25	RA	1449(A)	G
25	RA	1455	G
25	RA	1458	C
25	RA	1460	A
25	RA	1461	G
25	RA	1471	A
25	RA	1474	C
25	RA	1479	G
25	RA	1482	U
25	RA	1483	G
25	RA	1485	G
25	RA	1487	G
25	RA	1493	C
25	RA	1494	A
25	RA	1497	U
25	RA	1505	C
25	RA	1506	C
25	RA	1507	A
25	RA	1508	A
25	RA	1510	A
25	RA	1511	A
25	RA	1514	U
25	RA	1515	C
25	RA	1528	A
25	RA	1534	G
25	RA	1535	U
25	RA	1536	A
25	RA	1537	C
25	RA	1538	G
25	RA	1543	A
25	RA	1544	C
25	RA	1545	A
25	RA	1547	C
25	RA	1554	A
25	RA	1558	A
25	RA	1559	G
25	RA	1560	G

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Mol	Chain	Res	Type
25	RA	1566	A
25	RA	1569	A
25	RA	1578	U
25	RA	1579	A
25	RA	1585	C
25	RA	1586	A
25	RA	1598	C
25	RA	1608	A
25	RA	1610	A
25	RA	1616	A
25	RA	1617	C
25	RA	1639	U
25	RA	1640	C
25	RA	1648	C
25	RA	1651	G
25	RA	1660	C
25	RA	1674	G
25	RA	1695	G
25	RA	1703	G
25	RA	1725	G
25	RA	1728	G
25	RA	1729	A
25	RA	1730	U
25	RA	1733	G
25	RA	1742	C
25	RA	1743	G
25	RA	1756	G
25	RA	1762	A
25	RA	1763	G
25	RA	1764	G
25	RA	1773	A
25	RA	1774	C
25	RA	1776	G
25	RA	1780	A
25	RA	1781	C
25	RA	1782	C
25	RA	1784	A
25	RA	1791	A
25	RA	1800	C
25	RA	1801	G
25	RA	1802	A
25	RA	1811	G

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Mol	Chain	Res	Type
25	RA	1815	A
25	RA	1816	G
25	RA	1820	U
25	RA	1828	G
25	RA	1829	A
25	RA	1835	G
25	RA	1847	A
25	RA	1858	G
25	RA	1860	G
25	RA	1869	G
25	RA	1870	C
25	RA	1872	A
25	RA	1878	G
25	RA	1882	C
25	RA	1885	A
25	RA	1888	G
25	RA	1889	A
25	RA	1905	C
25	RA	1906	G
25	RA	1913	A
25	RA	1927	A
25	RA	1929	G
25	RA	1930	G
25	RA	1931	U
25	RA	1936	A
25	RA	1938	A
25	RA	1939	U
25	RA	1940	U
25	RA	1955	U
25	RA	1963	U
25	RA	1965	C
25	RA	1967	C
25	RA	1969	A
25	RA	1970	A
25	RA	1971	A
25	RA	1972	A
25	RA	1991	U
25	RA	1992	G
25	RA	1993	U
25	RA	1996	C
25	RA	2013	A
25	RA	2020	A

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Mol	Chain	Res	Type
25	RA	2023	G
25	RA	2030	A
25	RA	2031	A
25	RA	2032	G
25	RA	2033	A
25	RA	2034	U
25	RA	2043	C
25	RA	2052	G
25	RA	2055	C
25	RA	2056	G
25	RA	2059	A
25	RA	2060	A
25	RA	2061	G
25	RA	2062	A
25	RA	2063	C
25	RA	2069	G
25	RA	2093	G
25	RA	2107	C
25	RA	2111	C
25	RA	2112	G
25	RA	2113	U
25	RA	2114	A
25	RA	2115	G
25	RA	2116	G
25	RA	2117	A
25	RA	2126	A
25	RA	2127	G
25	RA	2128	C
25	RA	2131	G
25	RA	2132	U
25	RA	2133	G
25	RA	2135	A
25	RA	2136	C
25	RA	2146	C
25	RA	2147	G
25	RA	2148	G
25	RA	2152	G
25	RA	2166	G
25	RA	2168	G
25	RA	2170	A
25	RA	2173	A
25	RA	2190	G

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Mol	Chain	Res	Type
25	RA	2198	A
25	RA	2210	G
25	RA	2211	G
25	RA	2212	A
25	RA	2213	U
25	RA	2215	G
25	RA	2225	A
25	RA	2238	G
25	RA	2239	G
25	RA	2243	U
25	RA	2249	U
25	RA	2266	A
25	RA	2275	C
25	RA	2278	A
25	RA	2280	G
25	RA	2283	C
25	RA	2287	A
25	RA	2288	A
25	RA	2307	G
25	RA	2308	G
25	RA	2311	A
25	RA	2312	U
25	RA	2319	G
25	RA	2320	A
25	RA	2325	G
25	RA	2334	G
25	RA	2336	A
25	RA	2345	G
25	RA	2346	A
25	RA	2347	C
25	RA	2350	C
25	RA	2354	G
25	RA	2358	G
25	RA	2383	G
25	RA	2385	C
25	RA	2392	A
25	RA	2394	C
25	RA	2402	C
25	RA	2403	C
25	RA	2406	U
25	RA	2410	G
25	RA	2423	U

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Mol	Chain	Res	Type
25	RA	2425	A
25	RA	2427	C
25	RA	2429	G
25	RA	2430	A
25	RA	2435	A
25	RA	2439	A
25	RA	2440	C
25	RA	2441	C
25	RA	2445	G
25	RA	2448	A
25	RA	2469	A
25	RA	2470	G
25	RA	2474	C
25	RA	2475	C
25	RA	2480	C
25	RA	2482	G
25	RA	2494	G
25	RA	2502	G
25	RA	2503	A
25	RA	2505	G
25	RA	2519	U
25	RA	2529	G
25	RA	2542	A
25	RA	2543	G
25	RA	2553	G
25	RA	2554	U
25	RA	2562	U
25	RA	2566	A
25	RA	2567	G
25	RA	2569	G
25	RA	2572	A
25	RA	2578	G
25	RA	2582	G
25	RA	2585	U
25	RA	2586	C
25	RA	2602	A
25	RA	2609	U
25	RA	2610	C
25	RA	2611	U
25	RA	2612	C
25	RA	2615	U
25	RA	2619	C

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Mol	Chain	Res	Type
25	RA	2623	G
25	RA	2629	A
25	RA	2642	G
25	RA	2646	C
25	RA	2655	G
25	RA	2665	A
25	RA	2673	G
25	RA	2682	U
25	RA	2689	U
25	RA	2690	C
25	RA	2691	C
25	RA	2702	U
25	RA	2712	U
25	RA	2712(A)	A
25	RA	2713	A
25	RA	2714	G
25	RA	2718	G
25	RA	2726	U
25	RA	2733	A
25	RA	2739	U
25	RA	2744	G
25	RA	2748	A
25	RA	2751	G
25	RA	2752	C
25	RA	2758	A
25	RA	2761	G
25	RA	2764	A
25	RA	2765	A
25	RA	2766	G
25	RA	2777	G
25	RA	2778	A
25	RA	2779	U
25	RA	2780	G
25	RA	2789	C
25	RA	2790	A
25	RA	2791	C
25	RA	2797	U
25	RA	2802	G
25	RA	2807	G
25	RA	2818	G
25	RA	2820	A
25	RA	2821	A

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Mol	Chain	Res	Type
25	RA	2823	A
25	RA	2833	G
25	RA	2834	G
25	RA	2835	A
25	RA	2839	G
25	RA	2849	U
25	RA	2867	G
25	RA	2868	A
25	RA	2872	G
25	RA	2879	C
25	RA	2892	A
25	RA	2893	G
25	RA	2894	G
26	RB	2	C
26	RB	8	U
26	RB	13	A
26	RB	15	A
26	RB	16	G
26	RB	22	U
26	RB	25	A
26	RB	26	A
26	RB	27	C
26	RB	32	C
26	RB	35	U
26	RB	41	U
26	RB	42	C
26	RB	45	A
26	RB	66	A
26	RB	67	G
26	RB	73	A
26	RB	81	G
26	RB	87	G
26	RB	89	G
26	RB	101	A
26	RB	108	C
26	RB	109	G
26	RB	118	G
1	XA	6	G
1	XA	32	A
1	XA	39	G
1	XA	48	C
1	XA	50	A

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Mol	Chain	Res	Type
1	XA	51	A
1	XA	54	C
1	XA	61	G
1	XA	65	U
1	XA	66	G
1	XA	76	G
1	XA	77	C
1	XA	78	G
1	XA	79	G
1	XA	89	U
1	XA	90	C
1	XA	91	C
1	XA	92	G
1	XA	93	U
1	XA	95	G
1	XA	108	G
1	XA	115	G
1	XA	116	A
1	XA	121	C
1	XA	129(A)	G
1	XA	131	C
1	XA	144	G
1	XA	147	G
1	XA	159	G
1	XA	163	C
1	XA	172	A
1	XA	174	C
1	XA	182	U
1	XA	190	G
1	XA	195	A
1	XA	197	A
1	XA	201	C
1	XA	208	U
1	XA	209	U
1	XA	210	U
1	XA	216	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

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Mol	Chain	Res	Type
1	XA	270	A
1	XA	279	A
1	XA	289	G
1	XA	306	G
1	XA	321	A
1	XA	328	C
1	XA	329	A
1	XA	332	G
1	XA	343	U
1	XA	344	A
1	XA	345	C
1	XA	346	G
1	XA	347	U
1	XA	352	C
1	XA	353	A
1	XA	354	G
1	XA	356	A
1	XA	367	U
1	XA	372	C
1	XA	373	A
1	XA	384	G
1	XA	388	G
1	XA	390	C
1	XA	397	A
1	XA	398	C
1	XA	406	G
1	XA	412	A
1	XA	413	G
1	XA	414	A
1	XA	421	U
1	XA	422	C
1	XA	423	G
1	XA	424	G
1	XA	428	G
1	XA	429	U
1	XA	439	A
1	XA	442	C
1	XA	446	G
1	XA	458	C
1	XA	466	C
1	XA	485	G
1	XA	486	U

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Mol	Chain	Res	Type
1	XA	496	A
1	XA	497	U
1	XA	509	A
1	XA	510	A
1	XA	511	C
1	XA	517	G
1	XA	518	C
1	XA	521	G
1	XA	527	G
1	XA	531	U
1	XA	532	A
1	XA	533	A
1	XA	545	C
1	XA	547	A
1	XA	548	G
1	XA	559	A
1	XA	561	U
1	XA	564	C
1	XA	568	G
1	XA	572	A
1	XA	573	A
1	XA	576	G
1	XA	577	G
1	XA	618	C
1	XA	630	G
1	XA	631	G
1	XA	632	A
1	XA	653	A
1	XA	665	A
1	XA	686	U
1	XA	688	G
1	XA	702	A
1	XA	703	G
1	XA	704	A
1	XA	717	C
1	XA	718	G
1	XA	721	G
1	XA	723	U
1	XA	731	G
1	XA	748	C
1	XA	749	C
1	XA	755	G

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Mol	Chain	Res	Type
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	812	C
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	843	U
1	XA	848	C
1	XA	853	G
1	XA	859	A
1	XA	864	A
1	XA	871	U
1	XA	872	A
1	XA	876	G
1	XA	889	A
1	XA	902	G
1	XA	914	A
1	XA	916	G
1	XA	919	A
1	XA	927	G
1	XA	934	C
1	XA	935	A
1	XA	942	G
1	XA	960	U
1	XA	966	G
1	XA	968	A
1	XA	969	A
1	XA	972	C
1	XA	974	A
1	XA	975	A
1	XA	976	G
1	XA	977	A
1	XA	983	A
1	XA	991	U

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Mol	Chain	Res	Type
1	XA	992	U
1	XA	993	G
1	XA	1001	G
1	XA	1003	G
1	XA	1004	A
1	XA	1005	A
1	XA	1006	C
1	XA	1008	C
1	XA	1009	G
1	XA	1024	G
1	XA	1025	U
1	XA	1028	C
1	XA	1029	G
1	XA	1032(A)	G
1	XA	1053	G
1	XA	1054	C
1	XA	1055	A
1	XA	1056	U
1	XA	1064	G
1	XA	1066	C
1	XA	1081	G
1	XA	1094	G
1	XA	1101	A
1	XA	1108	G
1	XA	1113	C
1	XA	1124	G
1	XA	1125	U
1	XA	1126	U
1	XA	1127	G
1	XA	1130	A
1	XA	1131	G
1	XA	1132	C
1	XA	1136	U
1	XA	1137	C
1	XA	1138	G
1	XA	1139	G
1	XA	1146	A
1	XA	1157	A
1	XA	1158	C
1	XA	1159	U
1	XA	1160	G
1	XA	1171	G

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Mol	Chain	Res	Type
1	XA	1176	A
1	XA	1177	G
1	XA	1178	G
1	XA	1179	A
1	XA	1180	A
1	XA	1181	G
1	XA	1182	G
1	XA	1183	A
1	XA	1184	G
1	XA	1187	G
1	XA	1189	C
1	XA	1190	G
1	XA	1196	U
1	XA	1201	A
1	XA	1212	U
1	XA	1214	C
1	XA	1227	A
1	XA	1238	A
1	XA	1240	U
1	XA	1241	G
1	XA	1256	A
1	XA	1257	U
1	XA	1258	G
1	XA	1263	C
1	XA	1270	C
1	XA	1273	G
1	XA	1280	A
1	XA	1281	U
1	XA	1282	C
1	XA	1286	A
1	XA	1287	A
1	XA	1297	C
1	XA	1300	G
1	XA	1301	U
1	XA	1302	U
1	XA	1303	C
1	XA	1305	G
1	XA	1319	A
1	XA	1320	C
1	XA	1321	C
1	XA	1322	C
1	XA	1323	G

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Mol	Chain	Res	Type
1	XA	1331	G
1	XA	1336	C
1	XA	1337	G
1	XA	1347	G
1	XA	1353	G
1	XA	1370	G
1	XA	1379	G
1	XA	1397	C
1	XA	1419	G
1	XA	1442	G
1	XA	1443	G
1	XA	1452	C
1	XA	1453	G
1	XA	1454	G
1	XA	1487	G
1	XA	1492	A
1	XA	1497	G
1	XA	1499	A
1	XA	1502	A
1	XA	1503	A
1	XA	1504	G
1	XA	1506	U
1	XA	1517	G
1	XA	1519	A
1	XA	1520	G
1	XA	1529	G
1	XA	1530	G
22	XV	7	G
22	XV	8	U
22	XV	13	C
22	XV	18	U
22	XV	20	G
22	XV	21	U
22	XV	22	A
22	XV	36	A
22	XV	48	U
22	XV	49	C
22	XV	50	G
22	XV	53	G
22	XV	54	G
22	XV	55	U
22	XV	77	A

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Mol	Chain	Res	Type
22	XW	8	U
22	XW	9	G
22	XW	10	G
22	XW	13	C
22	XW	14	A
22	XW	18	U
22	XW	19	G
22	XW	20	G
22	XW	21	U
22	XW	23	G
22	XW	27	G
22	XW	32	G
22	XW	33	C
22	XW	34	U
22	XW	35	C
22	XW	36	A
22	XW	38	A
22	XW	39	A
22	XW	43	G
22	XW	46	G
22	XW	47	G
22	XW	48	U
22	XW	49	C
22	XW	50	G
22	XW	56	U
22	XW	57	C
22	XW	58	A
22	XW	59	A
22	XW	60	A
22	XW	61	U
22	XW	62	C
22	XW	74	A
22	XW	75	C
22	XW	77	A
23	XX	14	A
23	XX	23	A
24	XY	30	G
24	XY	36	A
24	XY	37	A
24	XY	43	C
25	YA	10	G
25	YA	12	U

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Mol	Chain	Res	Type
25	YA	34	C
25	YA	35	G
25	YA	46	C
25	YA	51	G
25	YA	55	G
25	YA	61	G
25	YA	72	U
25	YA	73	A
25	YA	74	A
25	YA	75	G
25	YA	95	G
25	YA	96	G
25	YA	101	G
25	YA	102	G
25	YA	103	A
25	YA	118	A
25	YA	120	U
25	YA	125	G
25	YA	131	G
25	YA	138	G
25	YA	149	A
25	YA	161	U
25	YA	162	U
25	YA	181	A
25	YA	196	A
25	YA	199	A
25	YA	204	A
25	YA	215	G
25	YA	216	A
25	YA	221	A
25	YA	222	A
25	YA	223	A
25	YA	226	G
25	YA	228	A
25	YA	229	A
25	YA	230	U
25	YA	232	G
25	YA	233	A
25	YA	241	A
25	YA	242	G
25	YA	243	U
25	YA	248	G

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Mol	Chain	Res	Type
25	YA	252	G
25	YA	264	C
25	YA	265	A
25	YA	266	G
25	YA	270(K)	C
25	YA	270(L)	U
25	YA	270(M)	U
25	YA	270(N)	G
25	YA	270(P)	C
25	YA	271(B)	G
25	YA	271(C)	U
25	YA	271	G
25	YA	274	G
25	YA	275	G
25	YA	276	A
25	YA	278	A
25	YA	279	C
25	YA	299	A
25	YA	300	A
25	YA	311	A
25	YA	323	G
25	YA	324	A
25	YA	329	G
25	YA	330	A
25	YA	332	A
25	YA	342	G
25	YA	352	G
25	YA	363	G
25	YA	371	A
25	YA	372	G
25	YA	386	G
25	YA	387	U
25	YA	405	U
25	YA	406	G
25	YA	407	G
25	YA	411	G
25	YA	412	A
25	YA	428	A
25	YA	443	A
25	YA	444	C
25	YA	448	U
25	YA	451	C

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Mol	Chain	Res	Type
25	YA	456	C
25	YA	457	A
25	YA	458	G
25	YA	467	G
25	YA	470	A
25	YA	473	G
25	YA	481	G
25	YA	496	G
25	YA	504	U
25	YA	505	A
25	YA	508	G
25	YA	509	C
25	YA	512	G
25	YA	530	G
25	YA	531	C
25	YA	532	A
25	YA	533	G
25	YA	537	C
25	YA	539	G
25	YA	540	G
25	YA	546	C
25	YA	547	A
25	YA	549	G
25	YA	563	G
25	YA	571	A
25	YA	573	G
25	YA	575	A
25	YA	588	U
25	YA	603	A
25	YA	607	U
25	YA	614	U
25	YA	615	G
25	YA	617	G
25	YA	621	A
25	YA	622	G
25	YA	627	A
25	YA	631	A
25	YA	634	C
25	YA	637	A
25	YA	638	G
25	YA	645	C
25	YA	646	A

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Mol	Chain	Res	Type
25	YA	651	G
25	YA	654(A)	G
25	YA	654(B)	C
25	YA	670	A
25	YA	686	G
25	YA	695	G
25	YA	704	G
25	YA	717	G
25	YA	722	A
25	YA	730	C
25	YA	734	A
25	YA	765	G
25	YA	782	A
25	YA	784	A
25	YA	785	G
25	YA	790	C
25	YA	792	G
25	YA	793	A
25	YA	800	A
25	YA	805	G
25	YA	812	C
25	YA	819	A
25	YA	827	U
25	YA	828	U
25	YA	830	G
25	YA	831	G
25	YA	847	U
25	YA	856	C
25	YA	857	C
25	YA	860	U
25	YA	865	C
25	YA	866	A
25	YA	884	C
25	YA	885	C
25	YA	886	C
25	YA	888	C
25	YA	889	C
25	YA	896	A
25	YA	897	C
25	YA	900	A
25	YA	901	A
25	YA	902	C

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Mol	Chain	Res	Type
25	YA	906	G
25	YA	907	U
25	YA	910	A
25	YA	914	C
25	YA	917	A
25	YA	918	A
25	YA	932	G
25	YA	941	A
25	YA	945	A
25	YA	946	G
25	YA	957	A
25	YA	959	A
25	YA	961	C
25	YA	973	A
25	YA	974	G
25	YA	974(A)	C
25	YA	980	A
25	YA	983	A
25	YA	989	G
25	YA	990	A
25	YA	996	A
25	YA	1003	G
25	YA	1005	C
25	YA	1008	C
25	YA	1011	G
25	YA	1012	U
25	YA	1013	C
25	YA	1015	G
25	YA	1020	A
25	YA	1022	G
25	YA	1023	U
25	YA	1025	G
25	YA	1026	U
25	YA	1027	A
25	YA	1033	U
25	YA	1046	A
25	YA	1047	G
25	YA	1050	A
25	YA	1054	A
25	YA	1059	G
25	YA	1060	U
25	YA	1061	U

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Mol	Chain	Res	Type
25	YA	1062	G
25	YA	1066	U
25	YA	1067	A
25	YA	1068	G
25	YA	1070	A
25	YA	1071	G
25	YA	1073	A
25	YA	1076	C
25	YA	1077	A
25	YA	1078	U
25	YA	1079	C
25	YA	1082	U
25	YA	1083	U
25	YA	1084	A
25	YA	1085	A
25	YA	1086	A
25	YA	1088	A
25	YA	1089	G
25	YA	1090	U
25	YA	1095	A
25	YA	1096	A
25	YA	1097	U
25	YA	1103	A
25	YA	1104	C
25	YA	1105	U
25	YA	1106	G
25	YA	1109	C
25	YA	1110	G
25	YA	1111	A
25	YA	1122	G
25	YA	1126	A
25	YA	1128	A
25	YA	1129	A
25	YA	1130	U
25	YA	1131	G
25	YA	1135	C
25	YA	1136	G
25	YA	1139	G
25	YA	1142	U
25	YA	1142(A)	A
25	YA	1151	G
25	YA	1155	A

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Mol	Chain	Res	Type
25	YA	1156	A
25	YA	1170	G
25	YA	1173	G
25	YA	1174	A
25	YA	1175	U
25	YA	1176	G
25	YA	1177	A
25	YA	1179	C
25	YA	1195	G
25	YA	1204	A
25	YA	1205	U
25	YA	1206	G
25	YA	1211	U
25	YA	1220	A
25	YA	1236	G
25	YA	1238	G
25	YA	1244	G
25	YA	1247	A
25	YA	1248	G
25	YA	1252	G
25	YA	1253	A
25	YA	1256	G
25	YA	1265	A
25	YA	1272	A
25	YA	1273	U
25	YA	1300	U
25	YA	1301	A
25	YA	1329	U
25	YA	1330	C
25	YA	1341	U
25	YA	1349	A
25	YA	1352	U
25	YA	1359	A
25	YA	1360	A
25	YA	1365	A
25	YA	1368	G
25	YA	1378	A
25	YA	1379	A
25	YA	1380	G
25	YA	1384	A
25	YA	1385	G
25	YA	1392	A

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Mol	Chain	Res	Type
25	YA	1407	C
25	YA	1411	C
25	YA	1416	G
25	YA	1419	A
25	YA	1420	U
25	YA	1428	C
25	YA	1444(A)	A
25	YA	1445	C
25	YA	1449	A
25	YA	1449(A)	G
25	YA	1455	G
25	YA	1458	C
25	YA	1460	A
25	YA	1461	G
25	YA	1467	C
25	YA	1471	A
25	YA	1478	G
25	YA	1482	U
25	YA	1483	G
25	YA	1486	A
25	YA	1493	C
25	YA	1496	A
25	YA	1497	U
25	YA	1507	A
25	YA	1508	A
25	YA	1510	A
25	YA	1511	A
25	YA	1522	G
25	YA	1533	C
25	YA	1534	G
25	YA	1535	U
25	YA	1536	A
25	YA	1537	C
25	YA	1538	G
25	YA	1540	G
25	YA	1543	A
25	YA	1544	C
25	YA	1545	A
25	YA	1554	A
25	YA	1558	A
25	YA	1559	G
25	YA	1567	A

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Mol	Chain	Res	Type
25	YA	1569	A
25	YA	1578	U
25	YA	1579	A
25	YA	1581	G
25	YA	1585	C
25	YA	1586	A
25	YA	1591	G
25	YA	1592	C
25	YA	1598	C
25	YA	1608	A
25	YA	1609	A
25	YA	1615	C
25	YA	1617	C
25	YA	1618	A
25	YA	1634	A
25	YA	1639	U
25	YA	1640	C
25	YA	1648	C
25	YA	1660	C
25	YA	1665	A
25	YA	1674	G
25	YA	1695	G
25	YA	1698	A
25	YA	1699	G
25	YA	1703	G
25	YA	1718	G
25	YA	1725	G
25	YA	1728	G
25	YA	1729	A
25	YA	1730	U
25	YA	1731	G
25	YA	1742	C
25	YA	1743	G
25	YA	1756	G
25	YA	1763	G
25	YA	1764	G
25	YA	1769	G
25	YA	1773	A
25	YA	1779	U
25	YA	1780	A
25	YA	1781	C
25	YA	1791	A

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Mol	Chain	Res	Type
25	YA	1800	C
25	YA	1801	G
25	YA	1802	A
25	YA	1811	G
25	YA	1815	A
25	YA	1816	G
25	YA	1820	U
25	YA	1828	G
25	YA	1829	A
25	YA	1835	G
25	YA	1836	C
25	YA	1847	A
25	YA	1848	A
25	YA	1858	G
25	YA	1869	G
25	YA	1872	A
25	YA	1878	G
25	YA	1882	C
25	YA	1885	A
25	YA	1888	G
25	YA	1889	A
25	YA	1900	A
25	YA	1903	G
25	YA	1906	G
25	YA	1913	A
25	YA	1919	A
25	YA	1930	G
25	YA	1936	A
25	YA	1938	A
25	YA	1939	U
25	YA	1940	U
25	YA	1955	U
25	YA	1956	U
25	YA	1960	A
25	YA	1963	U
25	YA	1966	A
25	YA	1967	C
25	YA	1969	A
25	YA	1970	A
25	YA	1971	A
25	YA	1972	A
25	YA	1982	C

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Mol	Chain	Res	Type
25	YA	1992	G
25	YA	1993	U
25	YA	2020	A
25	YA	2021	C
25	YA	2023	G
25	YA	2030	A
25	YA	2031	A
25	YA	2032	G
25	YA	2033	A
25	YA	2034	U
25	YA	2043	C
25	YA	2052	G
25	YA	2054	A
25	YA	2055	C
25	YA	2056	G
25	YA	2059	A
25	YA	2060	A
25	YA	2061	G
25	YA	2062	A
25	YA	2069	G
25	YA	2093	G
25	YA	2099	U
25	YA	2111	C
25	YA	2112	G
25	YA	2113	U
25	YA	2114	A
25	YA	2115	G
25	YA	2116	G
25	YA	2120	G
25	YA	2126	A
25	YA	2127	G
25	YA	2128	C
25	YA	2131	G
25	YA	2132	U
25	YA	2133	G
25	YA	2135	A
25	YA	2146	C
25	YA	2147	G
25	YA	2148	G
25	YA	2158	A
25	YA	2165	G
25	YA	2166	G

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Mol	Chain	Res	Type
25	YA	2167	U
25	YA	2169	A
25	YA	2173	A
25	YA	2178	C
25	YA	2190	G
25	YA	2191	G
25	YA	2193	G
25	YA	2198	A
25	YA	2199	A
25	YA	2210	G
25	YA	2211	G
25	YA	2212	A
25	YA	2215	G
25	YA	2225	A
25	YA	2238	G
25	YA	2239	G
25	YA	2243	U
25	YA	2249	U
25	YA	2266	A
25	YA	2269	A
25	YA	2275	C
25	YA	2278	A
25	YA	2280	G
25	YA	2283	C
25	YA	2287	A
25	YA	2288	A
25	YA	2299	G
25	YA	2307	G
25	YA	2308	G
25	YA	2309	A
25	YA	2311	A
25	YA	2312	U
25	YA	2319	G
25	YA	2320	A
25	YA	2325	G
25	YA	2335	A
25	YA	2336	A
25	YA	2342	C
25	YA	2345	G
25	YA	2346	A
25	YA	2347	C
25	YA	2350	C

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Mol	Chain	Res	Type
25	YA	2383	G
25	YA	2385	C
25	YA	2392	A
25	YA	2394	C
25	YA	2396	G
25	YA	2402	C
25	YA	2403	C
25	YA	2406	U
25	YA	2410	G
25	YA	2423	U
25	YA	2424	C
25	YA	2425	A
25	YA	2427	C
25	YA	2428	G
25	YA	2429	G
25	YA	2430	A
25	YA	2435	A
25	YA	2439	A
25	YA	2440	C
25	YA	2441	C
25	YA	2447	G
25	YA	2448	A
25	YA	2469	A
25	YA	2471	C
25	YA	2484	G
25	YA	2494	G
25	YA	2502	G
25	YA	2504	U
25	YA	2505	G
25	YA	2518	A
25	YA	2524	G
25	YA	2529	G
25	YA	2554	U
25	YA	2562	U
25	YA	2566	A
25	YA	2567	G
25	YA	2572	A
25	YA	2573	C
25	YA	2576	G
25	YA	2577	A
25	YA	2578	G
25	YA	2602	A

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Mol	Chain	Res	Type
25	YA	2609	U
25	YA	2611	U
25	YA	2612	C
25	YA	2619	C
25	YA	2621	A
25	YA	2629	A
25	YA	2632	A
25	YA	2642	G
25	YA	2646	C
25	YA	2655	G
25	YA	2656	U
25	YA	2665	A
25	YA	2666	C
25	YA	2673	G
25	YA	2682	U
25	YA	2689	U
25	YA	2690	C
25	YA	2691	C
25	YA	2702	U
25	YA	2712(A)	A
25	YA	2713	A
25	YA	2714	G
25	YA	2718	G
25	YA	2726	U
25	YA	2733	A
25	YA	2739	U
25	YA	2744	G
25	YA	2751	G
25	YA	2752	C
25	YA	2759	G
25	YA	2762	G
25	YA	2765	A
25	YA	2766	G
25	YA	2771	C
25	YA	2778	A
25	YA	2779	U
25	YA	2790	A
25	YA	2791	C
25	YA	2792	G
25	YA	2794	C
25	YA	2797	U
25	YA	2798	C

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Mol	Chain	Res	Type
25	YA	2801	A
25	YA	2807	G
25	YA	2808	U
25	YA	2818	G
25	YA	2820	A
25	YA	2821	A
25	YA	2823	A
25	YA	2830	G
25	YA	2833	G
25	YA	2834	G
25	YA	2835	A
25	YA	2836	U
25	YA	2872	G
25	YA	2876	G
25	YA	2879	C
25	YA	2880	C
25	YA	2891	G
25	YA	2892	A
25	YA	2893	G
26	YB	2	C
26	YB	8	U
26	YB	13	A
26	YB	15	A
26	YB	16	G
26	YB	22	U
26	YB	25	A
26	YB	26	A
26	YB	27	C
26	YB	32	C
26	YB	35	U
26	YB	41	U
26	YB	42	C
26	YB	45	A
26	YB	66	A
26	YB	67	G
26	YB	73	A
26	YB	81	G
26	YB	87	G
26	YB	89	G
26	YB	101	A
26	YB	108	C
26	YB	109	G

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Mol	Chain	Res	Type
26	YB	118	G

All (149) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	QA	31	G
1	QA	64	G
1	QA	115	G
1	QA	119	A
1	QA	181	G
1	QA	243	A
1	QA	266	G
1	QA	328	C
1	QA	410	G
1	QA	412	A
1	QA	481	G
1	QA	484	G
1	QA	485	G
1	QA	509	A
1	QA	533	A
1	QA	687	A
1	QA	701	C
1	QA	703	G
1	QA	753	A
1	QA	812	C
1	QA	913	A
1	QA	992	U
1	QA	1027	C
1	QA	1182	G
1	QA	1200	C
1	QA	1285	A
1	QA	1298	C
1	QA	1336	C
1	QA	1346	A
1	QA	1347	G
1	QA	1498	U
1	QA	1528	U
22	QV	35	C
22	QV	53	G
22	QW	8	U
22	QW	59	A
25	RA	99	U

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Mol	Chain	Res	Type
25	RA	102	G
25	RA	221	A
25	RA	222	A
25	RA	227	A
25	RA	228	A
25	RA	229	A
25	RA	242	G
25	RA	271(B)	G
25	RA	404	C
25	RA	503	A
25	RA	512	G
25	RA	637	A
25	RA	846	C
25	RA	856	C
25	RA	859	G
25	RA	974(A)	C
25	RA	1012	U
25	RA	1022	G
25	RA	1026	U
25	RA	1045	A
25	RA	1078	U
25	RA	1085	A
25	RA	1178	C
25	RA	1204	A
25	RA	1210	A
25	RA	1312	U
25	RA	1427	A
25	RA	1558	A
25	RA	1694	C
25	RA	1819	A
25	RA	1992	G
25	RA	2126	A
25	RA	2210	G
25	RA	2439	A
25	RA	2481	G
25	RA	2518	A
25	RA	2689	U
25	RA	2712	U
25	RA	2776	A
25	RA	2867	G
1	XA	31	G
1	XA	60	A

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Mol	Chain	Res	Type
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	484	G
1	XA	485	G
1	XA	509	A
1	XA	560	U
1	XA	687	A
1	XA	703	G
1	XA	812	C
1	XA	913	A
1	XA	992	U
1	XA	1027	C
1	XA	1200	C
1	XA	1285	A
1	XA	1336	C
1	XA	1346	A
1	XA	1498	U
1	XA	1503	A
22	XV	35	C
22	XV	53	G
22	XW	8	U
22	XW	59	A
25	YA	99	U
25	YA	102	G
25	YA	221	A
25	YA	222	A
25	YA	229	A
25	YA	242	G
25	YA	271(B)	G
25	YA	404	C
25	YA	587	C
25	YA	637	A
25	YA	846	C
25	YA	856	C
25	YA	859	G

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Mol	Chain	Res	Type
25	YA	1012	U
25	YA	1022	G
25	YA	1026	U
25	YA	1045	A
25	YA	1078	U
25	YA	1085	A
25	YA	1109	C
25	YA	1178	C
25	YA	1210	A
25	YA	1379	A
25	YA	1427	A
25	YA	1460	A
25	YA	1509	C
25	YA	1558	A
25	YA	1694	C
25	YA	1698	A
25	YA	1819	A
25	YA	1929	G
25	YA	1955	U
25	YA	1992	G
25	YA	2126	A
25	YA	2406	U
25	YA	2439	A
25	YA	2610	C
25	YA	2655	G
25	YA	2681	C
25	YA	2689	U
25	YA	2832	U

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 1306 ligands modelled in this entry, 1304 are monoatomic - leaving 2 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
57	SF4	QD	301	4	0,12,12	-	-	-		
57	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
57	SF4	QD	301	4	-	-	0/6/5/5
57	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.

No monomer is involved in short contacts.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 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%)	0.05	25 (1%) 69 44	65, 113, 205, 388	0
1	XA	1500/1508 (99%)	0.02	24 (1%) 70 45	59, 117, 222, 400	0
2	QB	235/256 (91%)	0.53	10 (4%) 40 26	103, 168, 244, 304	0
2	XB	236/256 (92%)	0.28	4 (1%) 69 44	93, 161, 229, 286	0
3	QC	205/239 (85%)	0.22	3 (1%) 72 47	111, 157, 211, 257	0
3	XC	205/239 (85%)	0.27	5 (2%) 59 38	91, 139, 206, 284	0
4	QD	208/209 (99%)	0.36	3 (1%) 73 48	63, 127, 183, 212	0
4	XD	208/209 (99%)	0.65	15 (7%) 21 16	73, 112, 164, 213	0
5	QE	151/162 (93%)	0.36	3 (1%) 65 42	83, 122, 165, 211	0
5	XE	151/162 (93%)	0.39	11 (7%) 21 16	69, 114, 158, 241	0
6	QF	101/101 (100%)	0.35	1 (0%) 79 55	74, 119, 160, 190	0
6	XF	101/101 (100%)	0.38	3 (2%) 52 33	82, 126, 163, 232	0
7	QG	155/156 (99%)	0.26	4 (2%) 57 36	94, 134, 191, 284	0
7	XG	155/156 (99%)	0.42	4 (2%) 57 36	108, 158, 205, 249	0
8	QH	137/138 (99%)	0.20	2 (1%) 72 47	84, 127, 162, 189	0
8	XH	137/138 (99%)	0.36	5 (3%) 46 30	90, 123, 161, 180	0
9	QI	127/128 (99%)	0.57	15 (11%) 9 10	97, 156, 212, 304	0
9	XI	126/128 (98%)	0.47	15 (11%) 9 10	113, 173, 215, 258	0
10	QJ	99/105 (94%)	0.93	16 (16%) 4 6	130, 171, 227, 269	0
10	XJ	96/105 (91%)	0.55	8 (8%) 17 14	109, 175, 232, 260	0
11	QK	119/129 (92%)	0.39	4 (3%) 48 31	79, 120, 201, 273	0
11	XK	116/129 (89%)	0.40	2 (1%) 69 44	88, 126, 195, 263	0
12	QL	125/132 (94%)	1.10	19 (15%) 5 7	80, 116, 169, 249	0
12	XL	122/132 (92%)	0.70	16 (13%) 7 9	61, 99, 141, 240	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	QM	120/126 (95%)	0.69	12 (10%) 12 13	97, 145, 199, 267	0
13	XM	119/126 (94%)	0.48	6 (5%) 34 23	101, 153, 216, 284	0
14	QN	60/61 (98%)	0.51	2 (3%) 49 31	107, 144, 190, 207	0
14	XN	60/61 (98%)	0.63	4 (6%) 24 17	102, 134, 173, 189	0
15	QO	88/89 (98%)	0.09	0 100 100	67, 111, 147, 159	0
15	XO	87/89 (97%)	0.33	5 (5%) 29 20	80, 108, 156, 178	0
16	QP	84/88 (95%)	0.33	2 (2%) 59 38	94, 114, 160, 233	0
16	XP	84/88 (95%)	0.41	1 (1%) 76 51	87, 123, 161, 256	0
17	QQ	100/105 (95%)	0.28	1 (1%) 79 55	79, 113, 152, 230	0
17	XQ	100/105 (95%)	0.64	13 (13%) 7 9	85, 119, 164, 246	0
18	QR	70/88 (79%)	0.17	2 (2%) 53 34	72, 117, 168, 230	0
18	XR	70/88 (79%)	0.40	2 (2%) 53 34	83, 123, 187, 211	0
19	QS	83/93 (89%)	0.80	13 (15%) 5 7	107, 168, 223, 268	0
19	XS	84/93 (90%)	0.67	5 (5%) 27 19	102, 150, 205, 256	0
20	QT	99/106 (93%)	0.84	12 (12%) 8 10	72, 122, 187, 203	0
20	XT	99/106 (93%)	0.73	13 (13%) 7 9	92, 140, 202, 263	0
21	QU	25/27 (92%)	0.53	1 (4%) 42 28	107, 134, 199, 206	0
21	XU	25/27 (92%)	0.20	0 100 100	123, 145, 194, 197	0
22	QV	77/77 (100%)	0.37	2 (2%) 57 36	84, 123, 169, 246	0
22	QW	77/77 (100%)	1.49	19 (24%) 2 3	139, 313, 405, 436	0
22	XV	77/77 (100%)	0.24	2 (2%) 57 36	86, 119, 171, 232	0
22	XW	77/77 (100%)	1.07	8 (10%) 11 12	135, 350, 419, 437	0
23	QX	8/25 (32%)	1.04	2 (25%) 2 3	87, 89, 104, 143	0
23	XX	11/25 (44%)	1.15	2 (18%) 3 5	80, 88, 175, 184	0
24	QY	17/17 (100%)	0.11	0 100 100	111, 139, 243, 275	0
24	XY	17/17 (100%)	0.19	0 100 100	105, 141, 239, 250	0
25	RA	2882/2915 (98%)	0.03	37 (1%) 75 50	50, 90, 246, 448	0
25	YA	2883/2915 (98%)	0.09	51 (1%) 67 43	45, 86, 245, 477	0
26	RB	120/122 (98%)	-0.03	1 (0%) 82 60	93, 129, 176, 215	0
26	YB	120/122 (98%)	0.17	1 (0%) 82 60	107, 175, 227, 258	0
27	RD	272/276 (98%)	0.92	32 (11%) 9 10	50, 83, 132, 208	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
27	YD	272/276 (98%)	0.71	21 (7%) 19 15	46, 82, 130, 294	0
28	RE	205/206 (99%)	0.50	10 (4%) 35 23	62, 102, 184, 262	0
28	YE	205/206 (99%)	0.75	20 (9%) 13 13	49, 103, 190, 326	0
29	RF	202/210 (96%)	0.70	15 (7%) 20 16	62, 103, 184, 233	0
29	YF	202/210 (96%)	0.36	7 (3%) 47 30	52, 92, 151, 220	0
30	RG	181/182 (99%)	0.33	5 (2%) 55 35	82, 137, 185, 287	0
30	YG	181/182 (99%)	0.50	3 (1%) 69 44	105, 165, 210, 256	0
31	RH	174/180 (96%)	0.39	3 (1%) 69 44	106, 176, 240, 355	0
31	YH	174/180 (96%)	0.81	12 (6%) 23 17	73, 130, 181, 270	0
32	RI	146/148 (98%)	0.72	12 (8%) 17 14	77, 144, 201, 258	0
32	YI	146/148 (98%)	0.62	13 (8%) 15 14	81, 142, 198, 251	0
33	RN	138/140 (98%)	0.71	10 (7%) 21 16	66, 108, 161, 194	0
33	YN	138/140 (98%)	0.69	11 (7%) 18 15	73, 109, 169, 195	0
34	RO	122/122 (100%)	0.40	5 (4%) 41 27	57, 99, 135, 164	0
34	YO	122/122 (100%)	0.29	3 (2%) 58 37	61, 91, 122, 142	0
35	RP	150/150 (100%)	0.77	16 (10%) 11 12	62, 112, 181, 243	0
35	YP	147/150 (98%)	0.53	8 (5%) 31 22	57, 103, 159, 195	0
36	RQ	141/141 (100%)	0.74	16 (11%) 10 11	70, 115, 185, 274	0
36	YQ	141/141 (100%)	0.77	13 (9%) 14 13	67, 113, 187, 294	0
37	RR	117/118 (99%)	0.25	5 (4%) 40 26	51, 93, 127, 246	0
37	YR	117/118 (99%)	0.56	5 (4%) 40 26	64, 94, 134, 214	0
38	RS	111/112 (99%)	0.39	3 (2%) 56 35	81, 133, 200, 253	0
38	YS	111/112 (99%)	1.04	15 (13%) 7 9	124, 175, 247, 333	0
39	RT	137/146 (93%)	0.47	5 (3%) 46 30	70, 111, 197, 271	0
39	YT	137/146 (93%)	0.59	9 (6%) 24 18	64, 109, 192, 233	0
40	RU	117/118 (99%)	0.76	7 (5%) 27 19	60, 103, 181, 251	0
40	YU	117/118 (99%)	0.81	9 (7%) 19 15	53, 93, 159, 213	0
41	RV	101/101 (100%)	0.71	6 (5%) 28 20	69, 122, 185, 288	0
41	YV	101/101 (100%)	0.61	4 (3%) 42 28	59, 113, 178, 321	0
42	RW	113/113 (100%)	0.37	6 (5%) 32 22	53, 81, 146, 249	0
42	YW	113/113 (100%)	0.41	5 (4%) 39 25	54, 81, 135, 258	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
43	RX	92/96 (95%)	0.52	4 (4%) 40 26	62, 96, 137, 202	0
43	YX	92/96 (95%)	0.25	0 100 100	50, 84, 128, 162	0
44	RY	107/110 (97%)	0.80	12 (11%) 10 11	77, 119, 185, 233	0
44	YY	107/110 (97%)	0.47	2 (1%) 66 42	62, 105, 157, 191	0
45	RZ	183/206 (88%)	0.30	0 100 100	107, 155, 233, 281	0
45	YZ	183/206 (88%)	0.28	2 (1%) 78 54	103, 168, 229, 303	0
46	R0	81/85 (95%)	0.55	7 (8%) 16 14	71, 104, 139, 233	0
46	Y0	75/85 (88%)	0.36	4 (5%) 32 22	80, 119, 149, 184	0
47	R1	97/98 (98%)	0.69	7 (7%) 21 16	61, 93, 187, 254	0
47	Y1	93/98 (94%)	0.83	8 (8%) 16 14	55, 94, 158, 196	0
48	R2	69/72 (95%)	0.70	4 (5%) 29 20	67, 120, 196, 265	0
48	Y2	69/72 (95%)	0.28	4 (5%) 29 20	60, 94, 173, 360	0
49	R3	59/60 (98%)	0.14	0 100 100	64, 106, 171, 193	0
49	Y3	59/60 (98%)	0.31	3 (5%) 33 23	79, 106, 171, 207	0
50	R4	69/71 (97%)	0.46	1 (1%) 73 48	118, 170, 258, 325	0
50	Y4	69/71 (97%)	0.44	1 (1%) 73 48	149, 197, 246, 317	0
51	R5	59/60 (98%)	0.31	1 (1%) 69 44	63, 96, 179, 245	0
51	Y5	59/60 (98%)	0.33	2 (3%) 48 31	63, 98, 192, 287	0
52	R6	53/54 (98%)	0.69	2 (3%) 44 29	136, 156, 204, 236	0
52	Y6	53/54 (98%)	0.62	0 100 100	129, 168, 237, 253	0
53	R7	47/49 (95%)	0.62	2 (4%) 40 26	48, 77, 119, 190	0
53	Y7	48/49 (97%)	0.47	3 (6%) 26 18	47, 68, 135, 168	0
54	R8	64/65 (98%)	1.05	9 (14%) 6 8	59, 98, 156, 238	0
54	Y8	64/65 (98%)	1.01	10 (15%) 5 7	67, 96, 145, 265	0
55	R9	37/37 (100%)	0.27	0 100 100	118, 151, 203, 237	0
55	Y9	37/37 (100%)	0.39	1 (2%) 56 35	118, 137, 202, 214	0
All	All	21014/21610 (97%)	0.33	839 (3%) 42 28	45, 114, 216, 477	0

All (839) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
27	RD	2	ALA	8.6
12	XL	28	LYS	7.5

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Mol	Chain	Res	Type	RSRZ
20	QT	9	ASN	7.3
27	YD	34	VAL	7.1
35	RP	13	ASN	6.9
20	XT	9	ASN	6.6
13	QM	102	ARG	6.5
46	R0	4	LYS	6.4
19	QS	83	HIS	6.2
46	R0	3	HIS	6.2
12	QL	19	ARG	5.9
27	RD	5	LYS	5.9
13	QM	120	LYS	5.8
27	YD	2	ALA	5.6
10	XJ	54	PHE	5.6
36	YQ	80	GLU	5.3
22	XW	47	G	5.1
47	Y1	27	GLU	5.1
47	Y1	26	ARG	5.1
10	QJ	58	ASP	5.0
22	QW	47	G	4.9
32	RI	20	ASP	4.9
12	XL	16	GLU	4.9
12	QL	18	VAL	4.9
36	YQ	90	VAL	4.9
22	XW	1	C	4.8
27	RD	34	VAL	4.8
10	QJ	55	LYS	4.7
13	QM	117	VAL	4.7
10	QJ	54	PHE	4.7
27	RD	33	LEU	4.7
36	RQ	90	VAL	4.6
39	YT	106	SER	4.4
27	RD	40	THR	4.4
35	RP	15	ARG	4.4
23	XX	23	A	4.4
20	XT	18	GLN	4.4
9	XI	110	GLU	4.3
48	R2	52	ASP	4.3
12	QL	16	GLU	4.3
27	RD	44	ASN	4.3
20	QT	15	ARG	4.3
42	YW	92	ARG	4.3
13	QM	106	ASN	4.2

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Mol	Chain	Res	Type	RSRZ
22	QW	1	C	4.2
44	RY	107	ASP	4.2
9	QI	125	TYR	4.2
10	XJ	55	LYS	4.2
35	RP	74	GLU	4.2
42	RW	92	ARG	4.1
27	YD	33	LEU	4.1
53	R7	1	MET	4.1
38	YS	22	GLY	4.1
13	QM	121	LYS	4.0
12	QL	27	LEU	4.0
10	QJ	46	ARG	4.0
38	YS	86	ALA	4.0
29	RF	78	ILE	4.0
19	QS	78	ARG	4.0
4	XD	24	GLU	4.0
35	YP	61	ARG	4.0
12	XL	13	LYS	4.0
9	XI	127	LYS	3.9
20	XT	23	ARG	3.9
35	RP	61	ARG	3.9
9	QI	126	SER	3.9
12	XL	27	LEU	3.9
12	XL	26	ALA	3.9
27	RD	38	LYS	3.9
41	YV	36	PRO	3.9
28	YE	127	ASP	3.9
40	YU	97	ASP	3.9
12	QL	28	LYS	3.9
25	RA	2506	U	3.8
25	YA	2506	U	3.8
25	YA	1762	A	3.8
3	XC	62	ASP	3.8
20	QT	14	LYS	3.8
42	RW	90	ARG	3.8
9	XI	126	SER	3.8
44	RY	58	GLY	3.8
23	QX	22	C	3.7
2	QB	231	GLU	3.7
27	YD	240	ALA	3.7
36	YQ	83	MET	3.7
15	XO	50	HIS	3.7

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Mol	Chain	Res	Type	RSRZ
38	YS	43	GLU	3.7
1	XA	5	U	3.7
14	XN	2	ALA	3.6
39	YT	104	ASN	3.6
25	RA	1762	A	3.6
36	RQ	80	GLU	3.6
47	Y1	91	LYS	3.6
19	QS	76	PRO	3.6
25	YA	2602	A	3.6
27	RD	25	THR	3.6
12	XL	8	ASN	3.6
33	RN	12	ARG	3.6
13	XM	120	LYS	3.6
37	RR	9	LYS	3.6
12	QL	21	LYS	3.5
21	QU	2	GLY	3.5
54	R8	3	LYS	3.5
7	XG	146	GLU	3.5
35	RP	27	HIS	3.5
11	XK	87	THR	3.5
25	YA	2142	C	3.5
33	YN	109	LYS	3.5
2	QB	215	LEU	3.5
9	XI	124	GLN	3.5
25	RA	2602	A	3.5
28	YE	114	ALA	3.5
17	XQ	96	GLU	3.5
37	YR	102	GLU	3.5
20	QT	11	SER	3.5
39	YT	69	GLY	3.5
20	QT	25	ARG	3.5
1	QA	966	G	3.4
27	RD	28	GLU	3.4
29	RF	72	ARG	3.4
25	YA	1659	U	3.4
17	XQ	30	PRO	3.4
22	QV	77	A	3.4
7	XG	5	ARG	3.4
29	RF	62	ARG	3.4
12	XL	7	ILE	3.4
19	QS	80	TYR	3.4
31	YH	18	GLU	3.4

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Mol	Chain	Res	Type	RSRZ
35	YP	65	ARG	3.4
25	RA	2062	A	3.4
5	XE	11	ILE	3.4
9	QI	128	ARG	3.4
22	XV	1	C	3.4
25	YA	1660	C	3.4
29	YF	69	HIS	3.4
32	YI	121	LYS	3.4
25	RA	1099	G	3.3
31	YH	3	ARG	3.3
35	YP	24	GLY	3.3
20	QT	20	LEU	3.3
9	QI	106	ALA	3.3
47	R1	92	LYS	3.3
8	XH	102	ARG	3.3
19	XS	74	PHE	3.3
22	QV	1	C	3.3
25	YA	1656	C	3.3
27	RD	240	ALA	3.3
51	Y5	2	ALA	3.3
27	RD	176	ARG	3.3
42	RW	78	GLU	3.3
25	YA	1678	G	3.3
41	RV	26	ASP	3.3
27	YD	203	ASN	3.3
53	Y7	1	MET	3.3
29	YF	131	GLY	3.3
9	QI	127	LYS	3.3
11	QK	127	LYS	3.2
25	RA	2142	C	3.2
29	YF	47	GLY	3.2
29	YF	56	GLU	3.2
16	XP	25	ARG	3.2
42	YW	93	ALA	3.2
17	XQ	38	ARG	3.2
32	YI	82	ARG	3.2
10	QJ	62	HIS	3.2
17	XQ	68	ARG	3.2
10	QJ	47	PHE	3.2
29	YF	70	THR	3.2
25	RA	34	C	3.2
25	RA	214	G	3.2

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Mol	Chain	Res	Type	RSRZ
28	RE	130	GLY	3.2
33	RN	133	GLN	3.2
35	YP	13	ASN	3.2
43	RX	69	TYR	3.2
38	YS	37	ALA	3.2
5	XE	18	ARG	3.1
47	Y1	22	GLY	3.1
46	R0	5	LYS	3.1
8	XH	25	ASP	3.1
27	RD	200	ASP	3.1
12	XL	15	ARG	3.1
19	QS	81	ARG	3.1
26	RB	1	U	3.1
9	XI	118	LYS	3.1
11	QK	11	LYS	3.1
13	QM	103	THR	3.1
19	XS	79	THR	3.1
27	RD	35	LYS	3.1
32	YI	1	MET	3.1
27	YD	97	TYR	3.1
29	RF	56	GLU	3.1
20	QT	29	LYS	3.1
40	RU	7	GLY	3.1
29	RF	133	ASN	3.1
12	QL	15	ARG	3.1
15	XO	48	LYS	3.1
25	YA	744	G	3.1
31	YH	150	ALA	3.1
25	RA	6	A	3.1
25	YA	2031	A	3.1
27	YD	38	LYS	3.0
39	YT	109	GLU	3.0
25	YA	1273	U	3.0
38	RS	110	LEU	3.0
20	XT	24	LEU	3.0
25	RA	2140	C	3.0
9	QI	115	GLY	3.0
48	R2	43	GLN	3.0
1	QA	1126	U	3.0
30	RG	28	VAL	3.0
39	YT	8	LYS	3.0
4	XD	31	CYS	3.0

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Mol	Chain	Res	Type	RSRZ
9	XI	121	ARG	3.0
17	XQ	101	ARG	3.0
1	QA	570	G	3.0
25	YA	745	G	3.0
37	YR	7	GLY	3.0
30	RG	97	ASP	3.0
19	QS	41	VAL	3.0
33	YN	61	ARG	3.0
36	YQ	86	GLY	3.0
36	YQ	88	GLY	3.0
27	YD	91	ARG	3.0
1	QA	1124	G	3.0
32	YI	118	LYS	3.0
9	QI	124	GLN	3.0
47	Y1	11	ARG	3.0
40	YU	91	ASP	3.0
10	QJ	56	HIS	2.9
12	QL	105	TYR	2.9
12	XL	19	ARG	2.9
41	YV	37	VAL	2.9
5	XE	21	ALA	2.9
1	QA	64	G	2.9
25	YA	270(Y)	G	2.9
25	YA	363	G	2.9
12	QL	17	LYS	2.9
20	QT	21	LYS	2.9
1	XA	334	C	2.9
22	XW	66	C	2.9
13	XM	94	ARG	2.9
32	RI	16	GLY	2.9
32	RI	84	GLY	2.9
37	RR	2	ARG	2.9
42	RW	91	GLY	2.9
2	QB	152	PHE	2.9
22	XV	77	A	2.9
25	RA	1847	A	2.9
33	YN	53	VAL	2.9
3	XC	15	THR	2.9
10	QJ	48	THR	2.9
33	YN	93	THR	2.9
22	QW	32	G	2.9
25	RA	2141	G	2.9

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Mol	Chain	Res	Type	RSRZ
25	YA	889	C	2.9
53	Y7	48	LYS	2.9
47	R1	95	LEU	2.9
3	QC	3	ASN	2.9
28	YE	25	VAL	2.9
29	RF	131	GLY	2.9
31	YH	155	SER	2.9
20	XT	14	LYS	2.9
5	QE	24	ARG	2.9
5	XE	24	ARG	2.9
20	XT	25	ARG	2.9
25	RA	1053	C	2.9
1	XA	631	G	2.9
25	RA	2611	U	2.9
28	YE	118	LYS	2.9
35	RP	38	GLN	2.9
28	RE	20	ALA	2.9
28	YE	205	ALA	2.9
51	R5	2	ALA	2.9
36	YQ	104	PHE	2.9
36	RQ	87	LYS	2.9
48	Y2	11	GLU	2.9
12	QL	14	GLY	2.8
36	RQ	83	MET	2.8
22	QW	6	G	2.8
25	YA	275	G	2.8
44	RY	33	LYS	2.8
39	YT	1	MET	2.8
27	RD	273	ARG	2.8
27	RD	22	SER	2.8
39	YT	11	GLU	2.8
41	YV	38	LEU	2.8
25	YA	2688	U	2.8
18	XR	82	THR	2.8
40	RU	97	ASP	2.8
47	R1	98	LEU	2.8
41	RV	33	VAL	2.8
4	XD	154	ASN	2.8
41	RV	28	GLU	2.8
31	YH	152	ARG	2.8
48	Y2	7	ARG	2.8
19	QS	40	ILE	2.8

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Mol	Chain	Res	Type	RSRZ
25	YA	34	C	2.8
10	QJ	61	GLU	2.8
12	QL	26	ALA	2.8
54	Y8	52	LYS	2.8
20	QT	17	ARG	2.8
25	YA	1661	G	2.8
27	YD	200	ASP	2.8
28	YE	130	GLY	2.8
36	YQ	91	GLU	2.8
28	RE	152	LYS	2.8
7	QG	32	ARG	2.7
2	QB	195	ASP	2.7
12	QL	22	SER	2.7
9	XI	123	PRO	2.7
20	XT	21	LYS	2.7
34	RO	74	GLY	2.7
1	QA	346	G	2.7
19	QS	79	THR	2.7
42	YW	90	ARG	2.7
31	YH	4	ILE	2.7
1	QA	1281	U	2.7
33	YN	134	ARG	2.7
37	YR	8	ARG	2.7
40	YU	95	LEU	2.7
43	RX	66	LEU	2.7
1	QA	811	C	2.7
22	QW	66	C	2.7
39	RT	106	SER	2.7
1	QA	965	A	2.7
1	QA	1202	G	2.7
34	RO	120	GLU	2.7
10	QJ	49	VAL	2.7
12	XL	18	VAL	2.7
1	QA	280	C	2.7
22	XW	75	C	2.7
25	RA	2146	C	2.7
33	YN	138	LEU	2.7
7	QG	2	ALA	2.7
19	QS	82	GLY	2.7
20	XT	22	ARG	2.7
53	Y7	36	GLN	2.7
34	RO	34	THR	2.7

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Mol	Chain	Res	Type	RSRZ
36	RQ	105	GLU	2.7
27	YD	35	LYS	2.7
31	YH	153	LYS	2.7
1	QA	975	A	2.7
25	YA	1677	A	2.7
20	XT	20	LEU	2.7
1	QA	82	U	2.7
28	YE	111	ARG	2.7
28	YE	186	GLY	2.7
44	RY	29	GLU	2.7
10	QJ	50	ILE	2.6
17	XQ	91	ARG	2.6
7	QG	152	ALA	2.6
36	RQ	79	LEU	2.6
32	YI	143	SER	2.6
13	QM	94	ARG	2.6
9	XI	115	GLY	2.6
9	XI	122	ALA	2.6
13	XM	87	TYR	2.6
4	XD	163	GLU	2.6
5	XE	81	GLU	2.6
46	R0	53	MET	2.6
1	XA	60	A	2.6
25	RA	1098	A	2.6
25	YA	2062	A	2.6
39	YT	112	ARG	2.6
20	QT	16	HIS	2.6
18	QR	84	LYS	2.6
25	YA	270(O)	U	2.6
26	YB	1	U	2.6
30	RG	2	PRO	2.6
33	YN	29	LYS	2.6
12	QL	64	TYR	2.6
22	QW	4	G	2.6
22	QW	12	G	2.6
32	RI	18	VAL	2.6
37	RR	73	VAL	2.6
48	Y2	72	ALA	2.6
1	XA	968	A	2.6
4	XD	150	GLU	2.6
9	QI	109	VAL	2.6
36	RQ	81	VAL	2.6

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Mol	Chain	Res	Type	RSRZ
12	QL	48	PRO	2.6
14	QN	2	ALA	2.6
28	RE	187	ALA	2.6
27	RD	238	GLY	2.6
47	Y1	9	GLY	2.6
2	QB	168	THR	2.6
4	XD	60	GLU	2.6
17	QQ	24	GLU	2.6
27	RD	26	LYS	2.6
28	YE	72	VAL	2.6
40	RU	105	VAL	2.6
32	RI	38	LEU	2.6
19	QS	10	PHE	2.6
39	RT	69	GLY	2.6
55	Y9	37	GLY	2.6
20	XT	15	ARG	2.5
47	R1	91	LYS	2.5
33	RN	1	MET	2.5
11	QK	128	ALA	2.5
25	RA	1068	G	2.5
27	RD	195	ALA	2.5
35	RP	31	ALA	2.5
44	YY	78	ALA	2.5
28	YE	132	HIS	2.5
30	RG	75	LYS	2.5
33	RN	13	TRP	2.5
54	Y8	46	ARG	2.5
33	RN	46	VAL	2.5
49	Y3	59	VAL	2.5
25	RA	1937	A	2.5
25	RA	2015	A	2.5
6	XF	53	ALA	2.5
29	YF	66	PRO	2.5
10	XJ	62	HIS	2.5
17	XQ	95	TYR	2.5
37	YR	2	ARG	2.5
27	RD	12	SER	2.5
4	QD	24	GLU	2.5
8	QH	99	GLU	2.5
20	QT	24	LEU	2.5
32	RI	12	LEU	2.5
39	YT	6	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
25	RA	101	G	2.5
22	QW	75	C	2.5
32	RI	80	PRO	2.5
29	RF	85	GLY	2.5
14	XN	29	ARG	2.5
28	YE	90	THR	2.5
36	YQ	21	THR	2.5
28	YE	113	PHE	2.5
42	RW	94	ASP	2.5
47	Y1	92	LYS	2.5
54	Y8	29	LYS	2.5
29	RF	81	PRO	2.5
32	YI	84	GLY	2.5
5	XE	152	ARG	2.5
40	YU	90	VAL	2.5
1	QA	242	C	2.5
1	XA	311	C	2.5
25	RA	2145	C	2.5
13	XM	8	GLU	2.5
27	RD	237	GLU	2.5
27	RD	4	LYS	2.5
28	YE	203	LYS	2.5
43	RX	55	ASN	2.5
27	YD	176	ARG	2.5
34	YO	81	ASP	2.5
35	RP	28	GLY	2.5
36	RQ	25	ASP	2.5
36	YQ	79	LEU	2.5
29	RF	70	THR	2.5
15	XO	60	VAL	2.5
29	RF	59	TYR	2.5
5	XE	83	GLU	2.4
54	R8	54	GLU	2.4
38	YS	82	ILE	2.4
28	YE	131	ALA	2.4
41	RV	35	LEU	2.4
40	RU	36	ARG	2.4
1	QA	63	C	2.4
1	XA	280	C	2.4
25	RA	1761	C	2.4
25	YA	2143	C	2.4
1	QA	963	G	2.4

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Mol	Chain	Res	Type	RSRZ
22	QW	9	G	2.4
22	QW	38	A	2.4
25	YA	2578	G	2.4
29	YF	89	VAL	2.4
28	YE	151	TYR	2.4
4	XD	81	GLU	2.4
9	XI	117	HIS	2.4
33	YN	68	GLU	2.4
45	YZ	181	GLU	2.4
19	XS	78	ARG	2.4
12	XL	5	PRO	2.4
54	R8	63	PRO	2.4
28	YE	153	GLY	2.4
46	R0	6	GLY	2.4
19	XS	63	THR	2.4
33	RN	14	VAL	2.4
36	RQ	65	PHE	2.4
32	YI	133	HIS	2.4
33	YN	96	GLU	2.4
1	XA	63	C	2.4
3	QC	160	ALA	2.4
4	QD	49	ARG	2.4
22	XW	2	G	2.4
25	YA	2141	G	2.4
12	XL	17	LYS	2.4
32	RI	2	LYS	2.4
2	QB	172	ILE	2.4
4	XD	156	GLU	2.4
5	XE	50	GLU	2.4
47	R1	27	GLU	2.4
9	XI	120	ARG	2.4
40	RU	96	ALA	2.4
31	YH	154	PRO	2.4
46	Y0	9	SER	2.4
41	RV	45	THR	2.4
25	RA	2789	C	2.4
28	RE	17	ASP	2.4
8	XH	99	GLU	2.4
18	QR	46	GLU	2.4
47	R1	93	GLU	2.4
48	R2	31	GLU	2.4
9	QI	38	GLN	2.4

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Mol	Chain	Res	Type	RSRZ
32	RI	1	MET	2.4
25	RA	1093	G	2.4
25	YA	2003	G	2.4
12	XL	6	THR	2.4
27	RD	259	THR	2.4
28	YE	77	ILE	2.4
29	RF	140	LEU	2.4
50	Y4	25	TYR	2.4
27	RD	23	GLU	2.4
42	YW	78	GLU	2.4
25	YA	2609	U	2.3
9	QI	123	PRO	2.3
12	QL	5	PRO	2.3
38	YS	108	GLY	2.3
40	YU	69	CYS	2.3
13	XM	90	LEU	2.3
17	XQ	90	ILE	2.3
22	QW	33	C	2.3
22	QW	40	C	2.3
23	XX	22	C	2.3
25	RA	1786	A	2.3
25	RA	2139	C	2.3
27	YD	259	THR	2.3
36	YQ	75	THR	2.3
7	XG	147	ALA	2.3
25	RA	654(S)	G	2.3
27	RD	20	ASP	2.3
17	XQ	93	GLN	2.3
35	YP	62	LEU	2.3
36	YQ	84	GLY	2.3
35	YP	71	VAL	2.3
2	XB	96	ARG	2.3
44	RY	50	ARG	2.3
27	RD	59	LYS	2.3
36	YQ	87	LYS	2.3
1	QA	1225	A	2.3
4	XD	48	ALA	2.3
25	YA	2146	C	2.3
38	YS	88	ASP	2.3
54	Y8	56	GLU	2.3
48	R2	44	LEU	2.3
13	XM	85	GLY	2.3

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Mol	Chain	Res	Type	RSRZ
2	XB	15	VAL	2.3
9	QI	118	LYS	2.3
16	QP	26	ARG	2.3
27	YD	5	LYS	2.3
37	RR	103	ARG	2.3
25	YA	2159	G	2.3
30	YG	164	GLU	2.3
34	YO	45	GLU	2.3
32	RI	134	PRO	2.3
36	RQ	33	GLY	2.3
54	Y8	63	PRO	2.3
10	QJ	68	HIS	2.3
28	RE	116	VAL	2.3
52	R6	5	VAL	2.3
1	QA	969	A	2.3
22	QW	35	C	2.3
34	YO	91	LEU	2.3
38	YS	2	ALA	2.3
5	XE	111	GLU	2.3
44	RY	64	GLU	2.3
4	XD	208	SER	2.3
44	RY	10	GLY	2.3
36	RQ	76	LYS	2.3
38	RS	59	LYS	2.3
44	RY	47	LYS	2.3
3	XC	165	THR	2.3
7	XG	4	ARG	2.3
25	RA	798	G	2.3
25	YA	274	G	2.3
25	YA	270(F)	U	2.3
5	QE	13	ILE	2.3
23	QX	15	A	2.3
25	RA	1096	A	2.3
25	YA	363(F)	A	2.3
12	XL	47	LYS	2.3
19	QS	32	LYS	2.3
6	XF	55	ASP	2.3
25	RA	1100	C	2.3
27	RD	68	LYS	2.3
36	YQ	135	ASP	2.3
46	Y0	53	MET	2.3
19	QS	53	ASN	2.2

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Mol	Chain	Res	Type	RSRZ
10	XJ	23	ILE	2.2
36	RQ	104	PHE	2.2
38	YS	18	ILE	2.2
30	YG	36	LYS	2.2
9	QI	110	GLU	2.2
40	YU	89	GLU	2.2
40	YU	108	GLU	2.2
5	XE	10	MET	2.2
1	XA	333	G	2.2
25	YA	372	G	2.2
36	RQ	10	ARG	2.2
47	Y1	36	GLY	2.2
25	YA	1272	A	2.2
1	QA	163	C	2.2
1	XA	110	C	2.2
25	YA	1657	C	2.2
36	RQ	130	LYS	2.2
38	YS	44	LYS	2.2
10	XJ	24	VAL	2.2
12	QL	104	VAL	2.2
18	XR	46	GLU	2.2
20	XT	17	ARG	2.2
27	RD	268	ARG	2.2
31	YH	51	ARG	2.2
37	RR	102	GLU	2.2
45	YZ	169	GLU	2.2
10	QJ	85	LEU	2.2
41	RV	36	PRO	2.2
8	QH	52	ASP	2.2
44	YY	107	ASP	2.2
6	XF	54	LYS	2.2
13	QM	2	ALA	2.2
28	YE	133	LYS	2.2
34	RO	1	MET	2.2
1	XA	630	G	2.2
22	XW	32	G	2.2
25	YA	2686	G	2.2
19	QS	9	VAL	2.2
35	RP	62	LEU	2.2
38	YS	9	ARG	2.2
38	YS	46	VAL	2.2
4	XD	130	GLY	2.2

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Mol	Chain	Res	Type	RSRZ
1	XA	313	A	2.2
1	XA	815	A	2.2
22	QW	73	A	2.2
54	R8	53	PRO	2.2
17	XQ	36	ILE	2.2
33	RN	50	ASP	2.2
35	YP	64	LYS	2.2
31	RH	150	ALA	2.2
20	XT	11	SER	2.2
12	QL	98	TYR	2.2
39	RT	112	ARG	2.2
54	R8	23	VAL	2.2
40	RU	108	GLU	2.2
54	R8	45	GLY	2.2
54	Y8	45	GLY	2.2
54	Y8	53	PRO	2.2
36	RQ	89	ASN	2.2
2	QB	218	ALA	2.2
35	RP	35	HIS	2.2
1	QA	162	A	2.2
1	QA	1197	G	2.2
22	QW	64	G	2.2
25	YA	1998	G	2.2
40	RU	98	LEU	2.2
1	XA	248	C	2.2
1	XA	269	C	2.2
1	XA	1054	C	2.2
25	YA	2145	C	2.2
32	YI	119	PRO	2.2
54	Y8	54	GLU	2.2
27	YD	25	THR	2.2
33	RN	137	LYS	2.2
2	XB	138	LEU	2.2
1	QA	347	U	2.1
14	QN	41	ARG	2.1
27	YD	260	ARG	2.1
27	YD	273	ARG	2.1
34	RO	37	ASP	2.1
46	Y0	11	ARG	2.1
49	Y3	9	VAL	2.1
54	Y8	64	TYR	2.1
2	QB	86	GLU	2.1

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Mol	Chain	Res	Type	RSRZ
5	QE	50	GLU	2.1
12	QL	13	LYS	2.1
13	QM	10	PRO	2.1
29	RF	71	GLY	2.1
28	YE	163	GLU	2.1
38	YS	111	GLU	2.1
13	QM	116	THR	2.1
1	XA	1227	A	2.1
25	RA	1095	A	2.1
25	YA	1654	A	2.1
25	YA	1655	A	2.1
25	RA	508	G	2.1
32	YI	98	ALA	2.1
4	XD	209	ARG	2.1
27	YD	262	ARG	2.1
30	RG	91	ARG	2.1
35	RP	18	ARG	2.1
13	QM	92	HIS	2.1
16	QP	76	GLN	2.1
22	QW	3	C	2.1
22	QW	16	C	2.1
25	RA	884	C	2.1
25	YA	1658	C	2.1
29	RF	69	HIS	2.1
33	RN	8	GLN	2.1
42	YW	22	ASP	2.1
44	RY	46	LYS	2.1
32	RI	10	GLU	2.1
32	YI	80	PRO	2.1
32	YI	134	PRO	2.1
36	RQ	88	GLY	2.1
54	R8	40	GLU	2.1
27	YD	40	THR	2.1
43	RX	3	THR	2.1
3	XC	32	LEU	2.1
3	QC	190	ARG	2.1
20	QT	22	ARG	2.1
28	YE	79	ARG	2.1
31	YH	132	ARG	2.1
48	Y2	69	ARG	2.1
27	YD	12	SER	2.1
2	XB	214	ILE	2.1

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Mol	Chain	Res	Type	RSRZ
53	R7	36	GLN	2.1
54	Y8	35	GLN	2.1
12	QL	39	VAL	2.1
19	XS	11	VAL	2.1
35	RP	14	LYS	2.1
33	YN	75	TYR	2.1
8	XH	101	PRO	2.1
9	QI	96	LEU	2.1
10	QJ	71	LEU	2.1
1	QA	886	G	2.1
1	XA	108	G	2.1
1	XA	1029	G	2.1
22	QW	7	G	2.1
22	QW	65	G	2.1
22	XW	3	C	2.1
25	RA	2179	C	2.1
4	XD	73	ARG	2.1
8	XH	91	ARG	2.1
15	XO	68	ARG	2.1
27	YD	13	ARG	2.1
28	RE	76	ARG	2.1
35	YP	15	ARG	2.1
47	R1	11	ARG	2.1
9	XI	119	ALA	2.1
3	XC	28	GLN	2.1
28	RE	54	GLN	2.1
6	QF	83	ASP	2.1
10	XJ	58	ASP	2.1
39	RT	124	ASP	2.1
4	XD	167	GLY	2.1
10	XJ	53	PRO	2.1
51	Y5	5	PRO	2.1
4	QD	150	GLU	2.1
5	XE	149	GLU	2.1
27	RD	27	THR	2.1
33	YN	88	GLU	2.1
9	QI	121	ARG	2.1
15	XO	64	ARG	2.1
17	XQ	92	ARG	2.1
27	YD	242	ARG	2.1
35	RP	16	ARG	2.1
1	QA	1531	A	2.1

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Mol	Chain	Res	Type	RSRZ
1	XA	1531	A	2.1
25	YA	2577	A	2.1
14	XN	17	LYS	2.1
35	RP	12	ALA	2.1
40	YU	75	ASN	2.1
29	RF	183	VAL	2.1
1	QA	562	C	2.1
9	QI	117	HIS	2.1
25	YA	270(P)	C	2.1
1	XA	310	G	2.1
12	XL	92	ASP	2.1
25	YA	743	G	2.1
27	RD	104	TYR	2.1
29	RF	79	GLY	2.1
31	RH	168	PRO	2.1
11	QK	92	GLU	2.1
10	XJ	60	ARG	2.1
35	RP	65	ARG	2.1
40	YU	92	ARG	2.1
46	R0	11	ARG	2.1
9	XI	113	LYS	2.1
31	YH	27	LYS	2.1
44	RY	54	LYS	2.1
12	XL	9	GLN	2.1
4	XD	194	LEU	2.1
13	QM	119	GLY	2.0
50	R4	25	TYR	2.0
27	RD	29	PRO	2.0
27	RD	36	PRO	2.0
10	QJ	45	ARG	2.0
52	R6	30	THR	2.0
2	QB	222	ILE	2.0
11	XK	122	LYS	2.0
14	XN	50	LYS	2.0
32	YI	120	ILE	2.0
37	YR	15	SER	2.0
1	XA	1397	C	2.0
54	R8	62	LEU	2.0
2	QB	164	VAL	2.0
9	XI	109	VAL	2.0
17	XQ	35	VAL	2.0
38	YS	85	VAL	2.0

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Mol	Chain	Res	Type	RSRZ
22	XW	4	G	2.0
25	YA	270(E)	G	2.0
25	YA	2004	G	2.0
25	YA	2689	U	2.0
7	QG	81	GLY	2.0
31	YH	174	GLY	2.0
35	RP	43	GLY	2.0
20	XT	8	ARG	2.0
30	YG	63	ILE	2.0
49	Y3	10	LYS	2.0
27	RD	122	ASP	2.0
32	YI	122	GLU	2.0
39	RT	11	GLU	2.0
41	YV	53	GLU	2.0
9	XI	106	ALA	2.0
46	Y0	45	PHE	2.0
25	RA	265	A	2.0
25	RA	1177	A	2.0
25	RA	1971	A	2.0
25	YA	196	A	2.0
44	RY	57	GLN	2.0
32	RI	11	ASN	2.0
38	RS	61	ASN	2.0
28	RE	19	ARG	2.0
28	RE	144	ARG	2.0
44	RY	94	LYS	2.0
1	XA	328	C	2.0
10	QJ	40	LEU	2.0
17	XQ	24	GLU	2.0
25	YA	1663	C	2.0
25	YA	2402	C	2.0
33	RN	10	GLU	2.0
38	YS	41	ASP	2.0
46	R0	7	LEU	2.0
54	R8	50	LEU	2.0
1	XA	1196	U	2.0
25	YA	2167	U	2.0
31	RH	155	SER	2.0
42	RW	93	ALA	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($\text{\AA}^2$)	Q<0.9
56	MG	YA	3392	1/1	0.01	0.19	124,124,124,124	0
56	MG	YA	3357	1/1	0.16	0.15	204,204,204,204	0
56	MG	XS	101	1/1	0.20	0.11	125,125,125,125	0
56	MG	YA	3294	1/1	0.23	0.27	99,99,99,99	0
56	MG	YA	3173	1/1	0.29	0.23	78,78,78,78	0
56	MG	XV	108	1/1	0.29	0.13	130,130,130,130	0
56	MG	RA	3430	1/1	0.38	0.13	171,171,171,171	0
56	MG	RA	3337	1/1	0.39	0.24	85,85,85,85	0
56	MG	RA	3212	1/1	0.39	0.25	81,81,81,81	0
56	MG	RA	3002	1/1	0.41	0.25	70,70,70,70	0
56	MG	RA	3318	1/1	0.42	0.12	53,53,53,53	0
56	MG	RA	3467	1/1	0.42	0.12	99,99,99,99	0
56	MG	RA	3213	1/1	0.44	0.45	39,39,39,39	0
56	MG	RA	3308	1/1	0.45	0.15	70,70,70,70	0
56	MG	YX	102	1/1	0.45	0.34	63,63,63,63	0
56	MG	YA	3074	1/1	0.46	0.26	75,75,75,75	0
56	MG	QA	1668	1/1	0.46	0.24	84,84,84,84	0
56	MG	XA	1665	1/1	0.47	0.07	118,118,118,118	0
56	MG	QA	1624	1/1	0.48	0.17	72,72,72,72	0
56	MG	YA	3449	1/1	0.48	0.09	89,89,89,89	0
56	MG	YA	3184	1/1	0.48	0.18	66,66,66,66	0
56	MG	YA	3451	1/1	0.49	0.15	100,100,100,100	0
56	MG	YB	207	1/1	0.49	0.13	113,113,113,113	0
56	MG	YA	3358	1/1	0.49	0.12	91,91,91,91	0
56	MG	YA	3309	1/1	0.50	0.10	99,99,99,99	0
56	MG	YA	3471	1/1	0.51	0.14	78,78,78,78	0
56	MG	YA	3266	1/1	0.51	0.17	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3202	1/1	0.51	0.21	52,52,52,52	0
56	MG	RA	3453	1/1	0.52	0.10	268,268,268,268	0
56	MG	RA	3472	1/1	0.53	0.10	84,84,84,84	0
56	MG	YA	3319	1/1	0.53	0.20	108,108,108,108	0
56	MG	YA	3425	1/1	0.54	0.24	64,64,64,64	0
56	MG	RA	3304	1/1	0.54	0.26	71,71,71,71	0
56	MG	YA	3456	1/1	0.55	0.28	84,84,84,84	0
56	MG	XM	201	1/1	0.56	0.11	110,110,110,110	0
56	MG	RA	3108	1/1	0.56	0.21	52,52,52,52	0
56	MG	RA	3442	1/1	0.56	0.15	70,70,70,70	0
56	MG	RA	3209	1/1	0.56	0.24	80,80,80,80	0
56	MG	RA	3357	1/1	0.57	0.17	80,80,80,80	0
56	MG	YA	3485	1/1	0.57	0.07	94,94,94,94	0
56	MG	RA	3283	1/1	0.57	0.21	69,69,69,69	0
56	MG	RA	3485	1/1	0.57	0.21	73,73,73,73	0
56	MG	YA	3212	1/1	0.58	0.22	72,72,72,72	0
56	MG	XA	1662	1/1	0.58	0.13	107,107,107,107	0
56	MG	QA	1650	1/1	0.59	0.32	76,76,76,76	0
56	MG	XA	1661	1/1	0.59	0.13	78,78,78,78	0
56	MG	YA	3361	1/1	0.59	0.10	83,83,83,83	0
56	MG	RA	3098	1/1	0.59	0.20	44,44,44,44	0
58	ZN	R5	501	1/1	0.59	0.25	247,247,247,247	0
56	MG	RA	3125	1/1	0.60	0.15	80,80,80,80	0
56	MG	RA	3272	1/1	0.60	0.19	50,50,50,50	0
56	MG	YA	3397	1/1	0.60	0.10	75,75,75,75	0
56	MG	RA	3363	1/1	0.60	0.19	70,70,70,70	0
56	MG	YD	301	1/1	0.60	0.29	52,52,52,52	0
56	MG	YA	3228	1/1	0.60	0.26	77,77,77,77	0
56	MG	QA	1638	1/1	0.60	0.33	62,62,62,62	0
56	MG	YA	3085	1/1	0.61	0.25	28,28,28,28	0
56	MG	XA	1637	1/1	0.61	0.25	145,145,145,145	0
56	MG	RA	3355	1/1	0.61	0.09	103,103,103,103	0
56	MG	RA	3452	1/1	0.61	0.14	67,67,67,67	0
56	MG	YA	3331	1/1	0.61	0.20	62,62,62,62	0
56	MG	YQ	203	1/1	0.61	0.12	82,82,82,82	0
56	MG	YA	3345	1/1	0.61	0.12	104,104,104,104	0
56	MG	RB	206	1/1	0.61	0.17	87,87,87,87	0
56	MG	RA	3460	1/1	0.62	0.10	65,65,65,65	0
56	MG	RB	205	1/1	0.62	0.22	85,85,85,85	0
56	MG	RA	3287	1/1	0.62	0.25	102,102,102,102	0
56	MG	YB	209	1/1	0.62	0.10	75,75,75,75	0
56	MG	YA	3444	1/1	0.62	0.20	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3292	1/1	0.62	0.14	57,57,57,57	0
56	MG	RB	207	1/1	0.62	0.12	94,94,94,94	0
56	MG	RA	3366	1/1	0.62	0.15	95,95,95,95	0
56	MG	QC	301	1/1	0.63	0.16	159,159,159,159	0
56	MG	QA	1664	1/1	0.63	0.31	84,84,84,84	0
56	MG	RA	3374	1/1	0.63	0.14	73,73,73,73	0
56	MG	YA	3534	1/1	0.63	0.14	89,89,89,89	0
56	MG	YA	3254	1/1	0.63	0.24	51,51,51,51	0
56	MG	YA	3194	1/1	0.64	0.20	28,28,28,28	0
56	MG	YA	3179	1/1	0.64	0.14	96,96,96,96	0
56	MG	XA	1663	1/1	0.64	0.14	64,64,64,64	0
56	MG	YA	3346	1/1	0.65	0.09	82,82,82,82	0
56	MG	RA	3342	1/1	0.65	0.08	100,100,100,100	0
56	MG	YA	3195	1/1	0.65	0.28	71,71,71,71	0
56	MG	YA	3291	1/1	0.65	0.23	37,37,37,37	0
58	ZN	YY	202	1/1	0.65	0.28	234,234,234,234	0
56	MG	YB	201	1/1	0.66	0.10	69,69,69,69	0
56	MG	RA	3512	1/1	0.66	0.24	64,64,64,64	0
56	MG	YA	3149	1/1	0.66	0.27	88,88,88,88	0
56	MG	YA	3299	1/1	0.66	0.22	104,104,104,104	0
56	MG	YA	3262	1/1	0.66	0.19	77,77,77,77	0
56	MG	RA	3505	1/1	0.66	0.31	67,67,67,67	0
56	MG	YA	3288	1/1	0.66	0.24	81,81,81,81	0
56	MG	XA	1633	1/1	0.66	0.16	70,70,70,70	0
56	MG	YA	3077	1/1	0.67	0.14	52,52,52,52	0
56	MG	RB	201	1/1	0.67	0.13	68,68,68,68	0
56	MG	YA	3409	1/1	0.67	0.29	43,43,43,43	0
56	MG	YA	3414	1/1	0.67	0.16	67,67,67,67	0
56	MG	YA	3419	1/1	0.67	0.16	79,79,79,79	0
56	MG	QA	1661	1/1	0.67	0.14	50,50,50,50	0
56	MG	YA	3155	1/1	0.67	0.16	60,60,60,60	0
56	MG	RA	3478	1/1	0.67	0.09	94,94,94,94	0
56	MG	RA	3282	1/1	0.67	0.14	100,100,100,100	0
56	MG	XA	1678	1/1	0.67	0.24	71,71,71,71	0
56	MG	XA	1627	1/1	0.67	0.15	43,43,43,43	0
56	MG	YA	3322	1/1	0.67	0.10	94,94,94,94	0
56	MG	XA	1628	1/1	0.67	0.18	61,61,61,61	0
56	MG	YA	3336	1/1	0.67	0.20	45,45,45,45	0
56	MG	XV	101	1/1	0.67	0.17	50,50,50,50	0
56	MG	YA	3219	1/1	0.67	0.14	30,30,30,30	0
56	MG	YA	3350	1/1	0.67	0.18	76,76,76,76	0
56	MG	RA	3465	1/1	0.67	0.16	89,89,89,89	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3002	1/1	0.67	0.21	85,85,85,85	0
56	MG	RA	3418	1/1	0.67	0.18	65,65,65,65	0
56	MG	YA	3386	1/1	0.67	0.13	68,68,68,68	0
56	MG	RA	3251	1/1	0.68	0.21	43,43,43,43	0
56	MG	YA	3463	1/1	0.68	0.12	110,110,110,110	0
56	MG	YA	3165	1/1	0.68	0.10	68,68,68,68	0
56	MG	YA	3131	1/1	0.68	0.13	86,86,86,86	0
56	MG	YA	3512	1/1	0.68	0.22	82,82,82,82	0
56	MG	YA	3344	1/1	0.68	0.24	73,73,73,73	0
56	MG	RA	3353	1/1	0.68	0.11	74,74,74,74	0
56	MG	YA	3320	1/1	0.69	0.17	85,85,85,85	0
56	MG	YA	3375	1/1	0.69	0.21	81,81,81,81	0
56	MG	YA	3470	1/1	0.69	0.14	106,106,106,106	0
56	MG	YB	210	1/1	0.69	0.10	83,83,83,83	0
56	MG	RA	3006	1/1	0.69	0.14	54,54,54,54	0
56	MG	RA	3208	1/1	0.69	0.16	43,43,43,43	0
56	MG	QX	101	1/1	0.69	0.11	53,53,53,53	0
56	MG	YA	3520	1/1	0.69	0.43	48,48,48,48	0
56	MG	RA	3409	1/1	0.69	0.64	81,81,81,81	0
56	MG	YA	3353	1/1	0.70	0.24	78,78,78,78	0
56	MG	RA	3499	1/1	0.70	0.18	70,70,70,70	0
56	MG	YA	3118	1/1	0.70	0.14	46,46,46,46	0
56	MG	YA	3203	1/1	0.70	0.12	100,100,100,100	0
56	MG	YA	3362	1/1	0.70	0.14	70,70,70,70	0
56	MG	YA	3508	1/1	0.70	0.13	69,69,69,69	0
56	MG	RA	3007	1/1	0.70	0.15	84,84,84,84	0
56	MG	RA	3138	1/1	0.70	0.19	40,40,40,40	0
56	MG	RA	3147	1/1	0.70	0.13	85,85,85,85	0
56	MG	YA	3330	1/1	0.70	0.12	68,68,68,68	0
56	MG	RA	3473	1/1	0.70	0.10	82,82,82,82	0
56	MG	YA	3169	1/1	0.70	0.24	74,74,74,74	0
56	MG	RA	3458	1/1	0.70	0.10	64,64,64,64	0
56	MG	RA	3316	1/1	0.70	0.24	59,59,59,59	0
56	MG	YA	3182	1/1	0.70	0.11	85,85,85,85	0
56	MG	YA	3348	1/1	0.70	0.12	61,61,61,61	0
56	MG	Y8	101	1/1	0.70	0.21	74,74,74,74	0
56	MG	YA	3450	1/1	0.70	0.14	90,90,90,90	0
56	MG	RT	201	1/1	0.70	0.12	64,64,64,64	0
56	MG	YA	3130	1/1	0.71	0.26	68,68,68,68	0
56	MG	YA	3312	1/1	0.71	0.33	76,76,76,76	0
56	MG	YA	3035	1/1	0.71	0.18	35,35,35,35	0
56	MG	RA	3275	1/1	0.71	0.24	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3179	1/1	0.71	0.21	84,84,84,84	0
56	MG	YA	3284	1/1	0.71	0.18	51,51,51,51	0
56	MG	RA	3348	1/1	0.71	0.16	87,87,87,87	0
56	MG	YA	3364	1/1	0.71	0.21	68,68,68,68	0
56	MG	YA	3116	1/1	0.71	0.28	41,41,41,41	0
56	MG	YA	3172	1/1	0.71	0.16	54,54,54,54	0
56	MG	YA	3213	1/1	0.71	0.11	70,70,70,70	0
56	MG	YA	3394	1/1	0.71	0.22	80,80,80,80	0
58	ZN	R4	500	1/1	0.71	0.21	241,241,241,241	0
56	MG	RA	3406	1/1	0.71	0.16	56,56,56,56	0
56	MG	YA	3501	1/1	0.71	0.07	85,85,85,85	0
56	MG	YA	3360	1/1	0.72	0.17	81,81,81,81	0
56	MG	RA	3438	1/1	0.72	0.19	74,74,74,74	0
56	MG	RA	3159	1/1	0.72	0.12	46,46,46,46	0
56	MG	RA	3450	1/1	0.72	0.12	79,79,79,79	0
56	MG	YA	3006	1/1	0.72	0.25	49,49,49,49	0
56	MG	YA	3229	1/1	0.72	0.14	75,75,75,75	0
56	MG	YA	3390	1/1	0.72	0.19	63,63,63,63	0
56	MG	YA	3183	1/1	0.72	0.17	44,44,44,44	0
56	MG	RA	3085	1/1	0.72	0.21	26,26,26,26	0
56	MG	RA	3421	1/1	0.72	0.06	98,98,98,98	0
56	MG	YA	3399	1/1	0.72	0.08	88,88,88,88	0
56	MG	YA	3489	1/1	0.72	0.23	102,102,102,102	0
56	MG	RB	202	1/1	0.72	0.10	76,76,76,76	0
56	MG	RA	3341	1/1	0.72	0.15	85,85,85,85	0
56	MG	RA	3156	1/1	0.73	0.11	44,44,44,44	0
56	MG	YA	3495	1/1	0.73	0.15	74,74,74,74	0
56	MG	RA	3365	1/1	0.73	0.19	70,70,70,70	0
56	MG	YA	3201	1/1	0.73	0.11	62,62,62,62	0
56	MG	YA	3324	1/1	0.73	0.21	59,59,59,59	0
56	MG	QA	1670	1/1	0.73	0.11	86,86,86,86	0
56	MG	RA	3215	1/1	0.73	0.22	65,65,65,65	0
56	MG	YA	3334	1/1	0.73	0.07	67,67,67,67	0
56	MG	YA	3174	1/1	0.73	0.09	76,76,76,76	0
56	MG	YA	3369	1/1	0.73	0.14	45,45,45,45	0
56	MG	YA	3370	1/1	0.73	0.18	55,55,55,55	0
56	MG	YA	3373	1/1	0.73	0.20	62,62,62,62	0
56	MG	RA	3216	1/1	0.73	0.28	88,88,88,88	0
56	MG	YA	3376	1/1	0.73	0.10	141,141,141,141	0
56	MG	RA	3322	1/1	0.73	0.18	74,74,74,74	0
56	MG	RA	3356	1/1	0.73	0.08	45,45,45,45	0
56	MG	YA	3481	1/1	0.73	0.23	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3082	1/1	0.73	0.21	28,28,28,28	0
56	MG	YA	3264	1/1	0.74	0.35	82,82,82,82	0
56	MG	YA	3301	1/1	0.74	0.17	60,60,60,60	0
56	MG	RA	3321	1/1	0.74	0.16	73,73,73,73	0
56	MG	YA	3384	1/1	0.74	0.26	68,68,68,68	0
56	MG	RA	3470	1/1	0.74	0.24	92,92,92,92	0
56	MG	YA	3491	1/1	0.74	0.15	76,76,76,76	0
56	MG	RA	3443	1/1	0.74	0.11	87,87,87,87	0
56	MG	YA	3497	1/1	0.74	0.21	93,93,93,93	0
56	MG	XX	101	1/1	0.74	0.17	81,81,81,81	0
56	MG	RA	3117	1/1	0.74	0.13	39,39,39,39	0
56	MG	RA	3324	1/1	0.74	0.16	91,91,91,91	0
56	MG	YA	3326	1/1	0.74	0.13	52,52,52,52	0
56	MG	XA	1666	1/1	0.75	0.12	45,45,45,45	0
56	MG	RA	3488	1/1	0.75	0.16	66,66,66,66	0
56	MG	RA	3471	1/1	0.75	0.18	65,65,65,65	0
56	MG	RA	3320	1/1	0.75	0.14	74,74,74,74	0
56	MG	YA	3461	1/1	0.75	0.15	76,76,76,76	0
56	MG	RA	3186	1/1	0.75	0.15	84,84,84,84	0
56	MG	YA	3158	1/1	0.75	0.20	60,60,60,60	0
58	ZN	RY	202	1/1	0.75	0.25	226,226,226,226	0
56	MG	YA	3342	1/1	0.75	0.17	49,49,49,49	0
56	MG	RA	3134	1/1	0.75	0.16	30,30,30,30	0
56	MG	RA	3121	1/1	0.75	0.18	37,37,37,37	0
58	ZN	Y5	501	1/1	0.75	0.28	124,124,124,124	0
56	MG	YA	3443	1/1	0.76	0.12	69,69,69,69	0
56	MG	YA	3156	1/1	0.76	0.14	60,60,60,60	0
56	MG	YA	3446	1/1	0.76	0.18	70,70,70,70	0
56	MG	RA	3211	1/1	0.76	0.16	69,69,69,69	0
56	MG	RA	3255	1/1	0.76	0.18	72,72,72,72	0
56	MG	QA	1616	1/1	0.76	0.14	72,72,72,72	0
56	MG	YA	3217	1/1	0.76	0.13	61,61,61,61	0
56	MG	XA	1675	1/1	0.76	0.12	82,82,82,82	0
56	MG	RA	3325	1/1	0.76	0.12	66,66,66,66	0
56	MG	YA	3098	1/1	0.76	0.30	34,34,34,34	0
56	MG	YE	303	1/1	0.76	0.11	61,61,61,61	0
56	MG	YP	204	1/1	0.76	0.20	55,55,55,55	0
56	MG	RA	3314	1/1	0.76	0.17	56,56,56,56	0
56	MG	YA	3477	1/1	0.76	0.17	58,58,58,58	0
56	MG	RA	3047	1/1	0.76	0.12	71,71,71,71	0
56	MG	XA	1635	1/1	0.76	0.22	66,66,66,66	0
56	MG	RA	3175	1/1	0.76	0.10	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3283	1/1	0.76	0.18	80,80,80,80	0
56	MG	RA	3344	1/1	0.76	0.15	58,58,58,58	0
56	MG	QA	1653	1/1	0.76	0.11	130,130,130,130	0
56	MG	YA	3303	1/1	0.77	0.23	50,50,50,50	0
56	MG	YA	3306	1/1	0.77	0.22	102,102,102,102	0
56	MG	RA	3201	1/1	0.77	0.16	89,89,89,89	0
56	MG	RA	3279	1/1	0.77	0.27	69,69,69,69	0
56	MG	RA	3280	1/1	0.77	0.30	73,73,73,73	0
56	MG	XA	1668	1/1	0.77	0.21	95,95,95,95	0
56	MG	RA	3222	1/1	0.77	0.12	73,73,73,73	0
56	MG	YA	3382	1/1	0.77	0.24	98,98,98,98	0
56	MG	RA	3227	1/1	0.77	0.12	50,50,50,50	0
56	MG	RA	3233	1/1	0.77	0.27	44,44,44,44	0
56	MG	RA	3334	1/1	0.77	0.09	58,58,58,58	0
56	MG	RA	3377	1/1	0.77	0.15	81,81,81,81	0
56	MG	RA	3292	1/1	0.77	0.17	56,56,56,56	0
56	MG	YA	3170	1/1	0.77	0.21	43,43,43,43	0
56	MG	RA	3087	1/1	0.77	0.24	64,64,64,64	0
56	MG	YA	3404	1/1	0.77	0.14	73,73,73,73	0
56	MG	YA	3407	1/1	0.77	0.18	72,72,72,72	0
56	MG	YB	205	1/1	0.77	0.15	76,76,76,76	0
56	MG	YA	3269	1/1	0.77	0.13	46,46,46,46	0
56	MG	RA	3089	1/1	0.77	0.24	28,28,28,28	0
56	MG	YA	3418	1/1	0.77	0.20	73,73,73,73	0
56	MG	RA	3260	1/1	0.77	0.22	45,45,45,45	0
56	MG	YA	3422	1/1	0.77	0.23	61,61,61,61	0
56	MG	YA	3286	1/1	0.77	0.09	55,55,55,55	0
56	MG	YA	3026	1/1	0.77	0.26	55,55,55,55	0
56	MG	YA	3352	1/1	0.77	0.08	106,106,106,106	0
56	MG	Y7	101	1/1	0.77	0.17	82,82,82,82	0
56	MG	RA	3345	1/1	0.77	0.18	90,90,90,90	0
56	MG	RA	3008	1/1	0.77	0.24	86,86,86,86	0
56	MG	XA	1640	1/1	0.77	0.11	48,48,48,48	0
56	MG	RA	3317	1/1	0.77	0.24	65,65,65,65	0
56	MG	YA	3453	1/1	0.77	0.17	80,80,80,80	0
56	MG	RA	3495	1/1	0.77	0.25	15,15,15,15	0
56	MG	YA	3135	1/1	0.78	0.17	43,43,43,43	0
56	MG	YA	3249	1/1	0.78	0.26	64,64,64,64	0
56	MG	RA	3391	1/1	0.78	0.30	84,84,84,84	0
56	MG	RA	3394	1/1	0.78	0.09	53,53,53,53	0
56	MG	YA	3305	1/1	0.78	0.15	41,41,41,41	0
56	MG	YA	3047	1/1	0.78	0.24	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	XA	1680	1/1	0.78	0.16	44,44,44,44	0
56	MG	YA	3311	1/1	0.78	0.17	48,48,48,48	0
56	MG	YQ	201	1/1	0.78	0.12	72,72,72,72	0
56	MG	YA	3383	1/1	0.78	0.12	59,59,59,59	0
56	MG	XA	1648	1/1	0.78	0.09	68,68,68,68	0
56	MG	Y0	102	1/1	0.78	0.09	51,51,51,51	0
56	MG	RA	3400	1/1	0.78	0.10	85,85,85,85	0
56	MG	RA	3405	1/1	0.78	0.20	55,55,55,55	0
56	MG	QV	106	1/1	0.78	0.31	95,95,95,95	0
56	MG	RA	3065	1/1	0.78	0.12	36,36,36,36	0
56	MG	RA	3153	1/1	0.78	0.10	38,38,38,38	0
56	MG	RA	3326	1/1	0.78	0.12	75,75,75,75	0
56	MG	YA	3537	1/1	0.78	0.18	63,63,63,63	0
56	MG	R0	102	1/1	0.79	0.11	54,54,54,54	0
56	MG	RA	3420	1/1	0.79	0.10	52,52,52,52	0
56	MG	RA	3361	1/1	0.79	0.09	72,72,72,72	0
56	MG	YA	3338	1/1	0.79	0.24	84,84,84,84	0
56	MG	YA	3398	1/1	0.79	0.25	78,78,78,78	0
56	MG	RA	3266	1/1	0.79	0.16	52,52,52,52	0
56	MG	YA	3402	1/1	0.79	0.11	69,69,69,69	0
56	MG	QA	1671	1/1	0.79	0.19	55,55,55,55	0
56	MG	QA	1649	1/1	0.79	0.07	62,62,62,62	0
56	MG	YA	3020	1/1	0.79	0.12	30,30,30,30	0
56	MG	RA	3080	1/1	0.79	0.14	43,43,43,43	0
56	MG	YA	3028	1/1	0.79	0.29	23,23,23,23	0
56	MG	YA	3033	1/1	0.79	0.19	41,41,41,41	0
56	MG	YA	3293	1/1	0.79	0.21	65,65,65,65	0
56	MG	RA	3237	1/1	0.79	0.27	62,62,62,62	0
56	MG	RA	3241	1/1	0.79	0.38	64,64,64,64	0
56	MG	RA	3246	1/1	0.79	0.24	57,57,57,57	0
56	MG	RA	3457	1/1	0.79	0.10	97,97,97,97	0
56	MG	RA	3352	1/1	0.79	0.16	75,75,75,75	0
56	MG	RA	3177	1/1	0.79	0.12	74,74,74,74	0
56	MG	RA	3463	1/1	0.79	0.07	72,72,72,72	0
56	MG	RA	3009	1/1	0.79	0.19	38,38,38,38	0
56	MG	Y0	101	1/1	0.79	0.19	54,54,54,54	0
56	MG	RA	3294	1/1	0.79	0.28	63,63,63,63	0
56	MG	XA	1679	1/1	0.79	0.14	86,86,86,86	0
56	MG	YA	3224	1/1	0.79	0.13	52,52,52,52	0
56	MG	YA	3132	1/1	0.79	0.12	55,55,55,55	0
56	MG	RE	303	1/1	0.79	0.08	87,87,87,87	0
56	MG	XE	201	1/1	0.79	0.14	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3480	1/1	0.79	0.11	81,81,81,81	0
56	MG	RA	3218	1/1	0.79	0.14	67,67,67,67	0
56	MG	RA	3029	1/1	0.80	0.21	26,26,26,26	0
56	MG	QA	1602	1/1	0.80	0.19	36,36,36,36	0
56	MG	QV	101	1/1	0.80	0.22	45,45,45,45	0
56	MG	QA	1647	1/1	0.80	0.14	45,45,45,45	0
56	MG	RP	202	1/1	0.80	0.27	56,56,56,56	0
56	MG	YA	3271	1/1	0.80	0.38	83,83,83,83	0
56	MG	YA	3403	1/1	0.80	0.10	64,64,64,64	0
56	MG	RA	3412	1/1	0.80	0.11	69,69,69,69	0
56	MG	RY	201	1/1	0.80	0.22	67,67,67,67	0
56	MG	YA	3205	1/1	0.80	0.16	48,48,48,48	0
56	MG	YA	3161	1/1	0.80	0.17	56,56,56,56	0
56	MG	YA	3486	1/1	0.80	0.12	58,58,58,58	0
56	MG	XV	106	1/1	0.80	0.28	70,70,70,70	0
56	MG	RA	3451	1/1	0.80	0.17	56,56,56,56	0
56	MG	RA	3351	1/1	0.80	0.19	63,63,63,63	0
56	MG	YA	3111	1/1	0.80	0.12	39,39,39,39	0
56	MG	YA	3227	1/1	0.80	0.20	49,49,49,49	0
56	MG	RA	3393	1/1	0.80	0.14	69,69,69,69	0
56	MG	YA	3302	1/1	0.80	0.18	109,109,109,109	0
56	MG	YA	3005	1/1	0.80	0.11	55,55,55,55	0
56	MG	RA	3300	1/1	0.80	0.17	68,68,68,68	0
56	MG	RA	3242	1/1	0.81	0.23	71,71,71,71	0
56	MG	RA	3329	1/1	0.81	0.08	76,76,76,76	0
56	MG	YA	3178	1/1	0.81	0.18	39,39,39,39	0
56	MG	RA	3313	1/1	0.81	0.16	63,63,63,63	0
56	MG	RA	3507	1/1	0.81	0.14	63,63,63,63	0
56	MG	RA	3133	1/1	0.81	0.14	92,92,92,92	0
56	MG	RA	3338	1/1	0.81	0.23	57,57,57,57	0
56	MG	YA	3514	1/1	0.81	0.12	47,47,47,47	0
56	MG	RA	3058	1/1	0.81	0.24	72,72,72,72	0
56	MG	YA	3523	1/1	0.81	0.17	21,21,21,21	0
56	MG	RA	3187	1/1	0.81	0.13	77,77,77,77	0
56	MG	RA	3231	1/1	0.81	0.15	31,31,31,31	0
56	MG	YA	3538	1/1	0.81	0.20	45,45,45,45	0
56	MG	YA	3421	1/1	0.81	0.12	56,56,56,56	0
56	MG	QA	1648	1/1	0.81	0.12	55,55,55,55	0
56	MG	YA	3143	1/1	0.81	0.12	77,77,77,77	0
56	MG	YA	3146	1/1	0.81	0.11	67,67,67,67	0
56	MG	RA	3378	1/1	0.81	0.09	58,58,58,58	0
56	MG	YB	212	1/1	0.81	0.07	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3216	1/1	0.81	0.10	49,49,49,49	0
56	MG	RN	201	1/1	0.81	0.36	80,80,80,80	0
56	MG	RO	201	1/1	0.81	0.28	79,79,79,79	0
56	MG	YA	3222	1/1	0.81	0.08	42,42,42,42	0
56	MG	RA	3293	1/1	0.81	0.16	70,70,70,70	0
56	MG	RA	3270	1/1	0.81	0.12	86,86,86,86	0
56	MG	QA	1657	1/1	0.81	0.12	67,67,67,67	0
56	MG	YA	3166	1/1	0.81	0.37	64,64,64,64	0
56	MG	YA	3232	1/1	0.81	0.17	56,56,56,56	0
56	MG	YA	3054	1/1	0.81	0.13	49,49,49,49	0
56	MG	YA	3059	1/1	0.81	0.23	40,40,40,40	0
56	MG	YA	3328	1/1	0.81	0.09	72,72,72,72	0
56	MG	YA	3259	1/1	0.81	0.14	56,56,56,56	0
56	MG	YA	3171	1/1	0.81	0.25	44,44,44,44	0
56	MG	RA	3149	1/1	0.81	0.21	62,62,62,62	0
56	MG	RA	3455	1/1	0.82	0.09	55,55,55,55	0
56	MG	YA	3499	1/1	0.82	0.10	64,64,64,64	0
56	MG	R8	101	1/1	0.82	0.23	61,61,61,61	0
56	MG	RA	3413	1/1	0.82	0.12	41,41,41,41	0
56	MG	RA	3500	1/1	0.82	0.12	35,35,35,35	0
56	MG	YA	3368	1/1	0.82	0.14	53,53,53,53	0
56	MG	RA	3379	1/1	0.82	0.14	84,84,84,84	0
56	MG	YA	3439	1/1	0.82	0.09	70,70,70,70	0
56	MG	YA	3527	1/1	0.82	0.16	24,24,24,24	0
56	MG	YA	3114	1/1	0.82	0.19	66,66,66,66	0
56	MG	RA	3389	1/1	0.82	0.17	104,104,104,104	0
56	MG	RA	3305	1/1	0.82	0.20	66,66,66,66	0
56	MG	RA	3425	1/1	0.82	0.08	61,61,61,61	0
56	MG	RA	3229	1/1	0.82	0.27	52,52,52,52	0
56	MG	YA	3004	1/1	0.82	0.13	56,56,56,56	0
56	MG	XA	1650	1/1	0.82	0.18	114,114,114,114	0
56	MG	YA	3455	1/1	0.82	0.14	66,66,66,66	0
56	MG	YA	3137	1/1	0.82	0.12	73,73,73,73	0
56	MG	YA	3140	1/1	0.82	0.20	83,83,83,83	0
56	MG	QA	1626	1/1	0.82	0.13	51,51,51,51	0
56	MG	YA	3464	1/1	0.82	0.16	56,56,56,56	0
56	MG	RA	3024	1/1	0.82	0.29	15,15,15,15	0
56	MG	YA	3396	1/1	0.82	0.29	74,74,74,74	0
56	MG	YA	3475	1/1	0.82	0.21	66,66,66,66	0
56	MG	RA	3373	1/1	0.82	0.10	63,63,63,63	0
56	MG	QY	101	1/1	0.82	0.15	60,60,60,60	0
56	MG	RA	3474	1/1	0.82	0.12	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3407	1/1	0.82	0.10	54,54,54,54	0
56	MG	YA	3040	1/1	0.82	0.12	61,61,61,61	0
56	MG	RA	3482	1/1	0.82	0.19	65,65,65,65	0
56	MG	QA	1603	1/1	0.82	0.21	34,34,34,34	0
56	MG	YA	3494	1/1	0.82	0.10	102,102,102,102	0
56	MG	RA	3214	1/1	0.82	0.26	72,72,72,72	0
56	MG	YA	3214	1/1	0.83	0.27	60,60,60,60	0
56	MG	RA	3479	1/1	0.83	0.09	56,56,56,56	0
56	MG	RA	3145	1/1	0.83	0.10	40,40,40,40	0
56	MG	YA	3426	1/1	0.83	0.28	78,78,78,78	0
56	MG	RA	3172	1/1	0.83	0.20	59,59,59,59	0
56	MG	RA	3486	1/1	0.83	0.14	74,74,74,74	0
56	MG	RA	3306	1/1	0.83	0.16	31,31,31,31	0
56	MG	RA	3261	1/1	0.83	0.13	63,63,63,63	0
56	MG	YA	3093	1/1	0.83	0.17	47,47,47,47	0
56	MG	RA	3375	1/1	0.83	0.14	52,52,52,52	0
56	MG	YA	3230	1/1	0.83	0.15	70,70,70,70	0
56	MG	RA	3132	1/1	0.83	0.17	50,50,50,50	0
56	MG	YA	3113	1/1	0.83	0.12	33,33,33,33	0
56	MG	RA	3328	1/1	0.83	0.19	65,65,65,65	0
56	MG	YA	3177	1/1	0.83	0.21	63,63,63,63	0
56	MG	RA	3291	1/1	0.83	0.13	75,75,75,75	0
56	MG	RA	3381	1/1	0.83	0.24	77,77,77,77	0
56	MG	RA	3513	1/1	0.83	0.23	58,58,58,58	0
56	MG	RA	3092	1/1	0.83	0.14	22,22,22,22	0
56	MG	YA	3270	1/1	0.83	0.23	39,39,39,39	0
56	MG	RA	3336	1/1	0.83	0.21	71,71,71,71	0
56	MG	YA	3186	1/1	0.83	0.11	53,53,53,53	0
56	MG	RA	3433	1/1	0.83	0.14	66,66,66,66	0
56	MG	QA	1611	1/1	0.83	0.19	35,35,35,35	0
56	MG	RA	3059	1/1	0.83	0.15	95,95,95,95	0
56	MG	YA	3347	1/1	0.83	0.18	47,47,47,47	0
56	MG	RA	3158	1/1	0.83	0.29	51,51,51,51	0
56	MG	RA	3445	1/1	0.83	0.09	47,47,47,47	0
56	MG	RA	3448	1/1	0.83	0.16	71,71,71,71	0
56	MG	YA	3045	1/1	0.83	0.11	59,59,59,59	0
56	MG	YA	3296	1/1	0.83	0.18	49,49,49,49	0
56	MG	YA	3013	1/1	0.84	0.22	29,29,29,29	0
56	MG	YA	3018	1/1	0.84	0.27	14,14,14,14	0
56	MG	YA	3377	1/1	0.84	0.11	57,57,57,57	0
56	MG	YA	3141	1/1	0.84	0.21	60,60,60,60	0
56	MG	XA	1654	1/1	0.84	0.12	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3191	1/1	0.84	0.11	54,54,54,54	0
56	MG	RA	3439	1/1	0.84	0.17	84,84,84,84	0
56	MG	YA	3315	1/1	0.84	0.13	77,77,77,77	0
56	MG	YA	3318	1/1	0.84	0.14	43,43,43,43	0
56	MG	RA	3265	1/1	0.84	0.15	47,47,47,47	0
56	MG	YA	3226	1/1	0.84	0.09	44,44,44,44	0
56	MG	RA	3223	1/1	0.84	0.16	52,52,52,52	0
56	MG	YA	3157	1/1	0.84	0.11	71,71,71,71	0
56	MG	RA	3267	1/1	0.84	0.25	55,55,55,55	0
56	MG	RA	3076	1/1	0.84	0.27	35,35,35,35	0
56	MG	XA	1671	1/1	0.84	0.17	39,39,39,39	0
56	MG	YA	3243	1/1	0.84	0.20	51,51,51,51	0
56	MG	YA	3332	1/1	0.84	0.14	47,47,47,47	0
56	MG	RA	3093	1/1	0.84	0.22	19,19,19,19	0
56	MG	RA	3041	1/1	0.84	0.14	37,37,37,37	0
56	MG	RA	3164	1/1	0.84	0.12	60,60,60,60	0
56	MG	RA	3367	1/1	0.84	0.35	119,119,119,119	0
56	MG	QA	1654	1/1	0.84	0.07	62,62,62,62	0
56	MG	YB	204	1/1	0.84	0.07	118,118,118,118	0
56	MG	QV	105	1/1	0.84	0.21	65,65,65,65	0
56	MG	QA	1631	1/1	0.84	0.09	123,123,123,123	0
56	MG	YB	208	1/1	0.84	0.10	122,122,122,122	0
56	MG	YA	3100	1/1	0.84	0.17	44,44,44,44	0
56	MG	YA	3427	1/1	0.84	0.17	53,53,53,53	0
56	MG	YA	3104	1/1	0.84	0.24	42,42,42,42	0
56	MG	YA	3276	1/1	0.84	0.17	75,75,75,75	0
56	MG	RA	3039	1/1	0.84	0.14	27,27,27,27	0
56	MG	YP	203	1/1	0.84	0.22	70,70,70,70	0
56	MG	YA	3180	1/1	0.84	0.10	45,45,45,45	0
56	MG	XA	1634	1/1	0.84	0.22	59,59,59,59	0
56	MG	RA	3461	1/1	0.84	0.10	67,67,67,67	0
56	MG	YA	3115	1/1	0.84	0.14	43,43,43,43	0
56	MG	RA	3180	1/1	0.84	0.08	68,68,68,68	0
56	MG	XA	1639	1/1	0.84	0.20	38,38,38,38	0
56	MG	YA	3121	1/1	0.84	0.15	30,30,30,30	0
56	MG	RA	3127	1/1	0.84	0.16	56,56,56,56	0
56	MG	RA	3154	1/1	0.84	0.19	38,38,38,38	0
56	MG	RA	3382	1/1	0.84	0.19	61,61,61,61	0
56	MG	YA	3468	1/1	0.84	0.23	50,50,50,50	0
56	MG	YA	3372	1/1	0.84	0.14	74,74,74,74	0
56	MG	YA	3008	1/1	0.84	0.27	18,18,18,18	0
56	MG	YA	3482	1/1	0.85	0.12	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3061	1/1	0.85	0.41	26,26,26,26	0
56	MG	RA	3312	1/1	0.85	0.14	60,60,60,60	0
56	MG	YA	3487	1/1	0.85	0.12	58,58,58,58	0
56	MG	YA	3263	1/1	0.85	0.16	43,43,43,43	0
56	MG	RA	3131	1/1	0.85	0.14	25,25,25,25	0
56	MG	RA	3484	1/1	0.85	0.09	84,84,84,84	0
56	MG	YA	3335	1/1	0.85	0.20	46,46,46,46	0
56	MG	RA	3414	1/1	0.85	0.14	67,67,67,67	0
56	MG	YA	3029	1/1	0.85	0.17	27,27,27,27	0
56	MG	YA	3340	1/1	0.85	0.14	78,78,78,78	0
56	MG	RA	3332	1/1	0.85	0.11	58,58,58,58	0
56	MG	RA	3168	1/1	0.85	0.13	63,63,63,63	0
56	MG	YA	3199	1/1	0.85	0.10	39,39,39,39	0
56	MG	R0	103	1/1	0.85	0.15	58,58,58,58	0
56	MG	XA	1676	1/1	0.85	0.11	99,99,99,99	0
56	MG	QA	1632	1/1	0.85	0.23	27,27,27,27	0
56	MG	YA	3051	1/1	0.85	0.18	31,31,31,31	0
56	MG	XA	1606	1/1	0.85	0.27	41,41,41,41	0
56	MG	XA	1620	1/1	0.85	0.17	29,29,29,29	0
56	MG	RA	3173	1/1	0.85	0.11	51,51,51,51	0
56	MG	RA	3049	1/1	0.85	0.18	20,20,20,20	0
56	MG	YA	3218	1/1	0.85	0.09	62,62,62,62	0
56	MG	XA	1630	1/1	0.85	0.08	41,41,41,41	0
56	MG	RA	3299	1/1	0.85	0.17	76,76,76,76	0
56	MG	YA	3363	1/1	0.85	0.09	85,85,85,85	0
56	MG	RA	3249	1/1	0.85	0.12	76,76,76,76	0
56	MG	YA	3225	1/1	0.85	0.12	35,35,35,35	0
56	MG	YA	3168	1/1	0.85	0.10	68,68,68,68	0
56	MG	YA	3308	1/1	0.85	0.20	77,77,77,77	0
56	MG	RA	3398	1/1	0.85	0.10	50,50,50,50	0
56	MG	YA	3460	1/1	0.85	0.05	84,84,84,84	0
56	MG	RA	3469	1/1	0.85	0.21	85,85,85,85	0
56	MG	YA	3374	1/1	0.85	0.08	48,48,48,48	0
56	MG	RA	3441	1/1	0.85	0.19	87,87,87,87	0
56	MG	QA	1615	1/1	0.85	0.09	43,43,43,43	0
56	MG	YA	3469	1/1	0.85	0.16	90,90,90,90	0
56	MG	RA	3372	1/1	0.85	0.17	68,68,68,68	0
56	MG	YA	3238	1/1	0.85	0.15	77,77,77,77	0
56	MG	YA	3472	1/1	0.85	0.10	74,74,74,74	0
56	MG	QA	1644	1/1	0.85	0.09	58,58,58,58	0
56	MG	YA	3247	1/1	0.85	0.14	24,24,24,24	0
56	MG	RA	3140	1/1	0.85	0.14	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3117	1/1	0.85	0.15	37,37,37,37	0
56	MG	RA	3020	1/1	0.86	0.34	29,29,29,29	0
56	MG	YA	3488	1/1	0.86	0.18	87,87,87,87	0
56	MG	XA	1608	1/1	0.86	0.07	78,78,78,78	0
56	MG	XA	1612	1/1	0.86	0.15	41,41,41,41	0
56	MG	RA	3364	1/1	0.86	0.09	93,93,93,93	0
56	MG	YA	3413	1/1	0.86	0.10	53,53,53,53	0
56	MG	XA	1623	1/1	0.86	0.11	77,77,77,77	0
56	MG	RA	3339	1/1	0.86	0.22	34,34,34,34	0
56	MG	YA	3351	1/1	0.86	0.27	62,62,62,62	0
56	MG	RA	3068	1/1	0.86	0.15	33,33,33,33	0
56	MG	YA	3510	1/1	0.86	0.13	71,71,71,71	0
56	MG	YA	3221	1/1	0.86	0.12	51,51,51,51	0
56	MG	RA	3050	1/1	0.86	0.25	20,20,20,20	0
56	MG	RA	3370	1/1	0.86	0.10	56,56,56,56	0
56	MG	RB	204	1/1	0.86	0.08	73,73,73,73	0
56	MG	YA	3525	1/1	0.86	0.25	15,15,15,15	0
56	MG	YA	3436	1/1	0.86	0.12	60,60,60,60	0
56	MG	RA	3051	1/1	0.86	0.12	38,38,38,38	0
56	MG	XA	1636	1/1	0.86	0.09	93,93,93,93	0
56	MG	YA	3101	1/1	0.86	0.08	63,63,63,63	0
56	MG	RA	3040	1/1	0.86	0.16	25,25,25,25	0
56	MG	QV	104	1/1	0.86	0.15	116,116,116,116	0
56	MG	RB	211	1/1	0.86	0.09	83,83,83,83	0
56	MG	YB	206	1/1	0.86	0.10	49,49,49,49	0
56	MG	XA	1645	1/1	0.86	0.09	57,57,57,57	0
56	MG	YA	3241	1/1	0.86	0.19	31,31,31,31	0
56	MG	XA	1647	1/1	0.86	0.10	66,66,66,66	0
56	MG	YA	3007	1/1	0.86	0.17	39,39,39,39	0
56	MG	RA	3289	1/1	0.86	0.13	70,70,70,70	0
56	MG	RA	3376	1/1	0.86	0.09	79,79,79,79	0
56	MG	YA	3256	1/1	0.86	0.22	34,34,34,34	0
56	MG	YA	3380	1/1	0.86	0.15	65,65,65,65	0
56	MG	YA	3257	1/1	0.86	0.21	38,38,38,38	0
56	MG	YA	3016	1/1	0.86	0.22	24,24,24,24	0
56	MG	YA	3017	1/1	0.86	0.24	16,16,16,16	0
56	MG	QA	1620	1/1	0.86	0.08	85,85,85,85	0
56	MG	YA	3187	1/1	0.86	0.09	39,39,39,39	0
56	MG	RA	3331	1/1	0.86	0.13	65,65,65,65	0
56	MG	RA	3161	1/1	0.86	0.15	88,88,88,88	0
56	MG	RA	3141	1/1	0.86	0.17	55,55,55,55	0
56	MG	RA	3422	1/1	0.86	0.07	55,55,55,55	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3088	1/1	0.86	0.19	22,22,22,22	0
56	MG	YA	3483	1/1	0.86	0.14	66,66,66,66	0
56	MG	YA	3341	1/1	0.86	0.17	92,92,92,92	0
56	MG	RA	3298	1/1	0.86	0.22	53,53,53,53	0
58	ZN	Y6	101	1/1	0.86	0.16	233,233,233,233	0
56	MG	YA	3210	1/1	0.87	0.40	60,60,60,60	0
56	MG	YA	3211	1/1	0.87	0.08	45,45,45,45	0
56	MG	YA	3278	1/1	0.87	0.12	105,105,105,105	0
56	MG	YA	3343	1/1	0.87	0.09	44,44,44,44	0
56	MG	RA	3126	1/1	0.87	0.17	32,32,32,32	0
56	MG	XA	1644	1/1	0.87	0.13	64,64,64,64	0
56	MG	RA	3195	1/1	0.87	0.09	36,36,36,36	0
56	MG	YA	3001	1/1	0.87	0.20	52,52,52,52	0
56	MG	YA	3290	1/1	0.87	0.17	57,57,57,57	0
56	MG	RA	3296	1/1	0.87	0.18	66,66,66,66	0
56	MG	RA	3385	1/1	0.87	0.06	61,61,61,61	0
56	MG	RA	3490	1/1	0.87	0.13	33,33,33,33	0
56	MG	XA	1653	1/1	0.87	0.23	51,51,51,51	0
56	MG	YA	3355	1/1	0.87	0.17	51,51,51,51	0
56	MG	YA	3435	1/1	0.87	0.13	37,37,37,37	0
56	MG	RA	3197	1/1	0.87	0.20	44,44,44,44	0
56	MG	YA	3298	1/1	0.87	0.25	57,57,57,57	0
56	MG	RA	3426	1/1	0.87	0.13	49,49,49,49	0
56	MG	RA	3340	1/1	0.87	0.08	53,53,53,53	0
56	MG	RA	3504	1/1	0.87	0.14	123,123,123,123	0
56	MG	RA	3198	1/1	0.87	0.14	66,66,66,66	0
56	MG	RA	3466	1/1	0.87	0.09	57,57,57,57	0
56	MG	RA	3144	1/1	0.87	0.07	53,53,53,53	0
56	MG	YA	3452	1/1	0.87	0.11	78,78,78,78	0
56	MG	RA	3368	1/1	0.87	0.10	27,27,27,27	0
56	MG	RA	3303	1/1	0.87	0.15	62,62,62,62	0
56	MG	YA	3237	1/1	0.87	0.20	47,47,47,47	0
56	MG	YA	3128	1/1	0.87	0.14	64,64,64,64	0
56	MG	RA	3178	1/1	0.87	0.11	63,63,63,63	0
56	MG	YA	3317	1/1	0.87	0.11	49,49,49,49	0
56	MG	YO	201	1/1	0.87	0.28	52,52,52,52	0
56	MG	YP	201	1/1	0.87	0.46	68,68,68,68	0
56	MG	YA	3030	1/1	0.87	0.37	28,28,28,28	0
56	MG	RA	3203	1/1	0.87	0.14	63,63,63,63	0
56	MG	YA	3185	1/1	0.87	0.09	49,49,49,49	0
56	MG	RA	3259	1/1	0.87	0.17	69,69,69,69	0
56	MG	YA	3038	1/1	0.87	0.16	25,25,25,25	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3070	1/1	0.87	0.10	27,27,27,27	0
56	MG	RA	3170	1/1	0.87	0.08	43,43,43,43	0
56	MG	YA	3261	1/1	0.87	0.24	56,56,56,56	0
56	MG	YA	3196	1/1	0.87	0.08	48,48,48,48	0
56	MG	YA	3198	1/1	0.87	0.11	70,70,70,70	0
56	MG	RB	208	1/1	0.87	0.12	65,65,65,65	0
56	MG	RA	3026	1/1	0.87	0.20	24,24,24,24	0
56	MG	YA	3148	1/1	0.87	0.19	51,51,51,51	0
56	MG	QA	1601	1/1	0.87	0.21	47,47,47,47	0
56	MG	YA	3401	1/1	0.87	0.14	62,62,62,62	0
56	MG	YA	3506	1/1	0.88	0.15	70,70,70,70	0
56	MG	YA	3440	1/1	0.88	0.12	56,56,56,56	0
56	MG	YA	3025	1/1	0.88	0.09	38,38,38,38	0
56	MG	YA	3511	1/1	0.88	0.15	67,67,67,67	0
56	MG	YA	3329	1/1	0.88	0.15	54,54,54,54	0
56	MG	YA	3445	1/1	0.88	0.12	71,71,71,71	0
56	MG	YA	3516	1/1	0.88	0.10	30,30,30,30	0
56	MG	RA	3165	1/1	0.88	0.18	42,42,42,42	0
56	MG	RA	3167	1/1	0.88	0.12	81,81,81,81	0
56	MG	RA	3042	1/1	0.88	0.10	54,54,54,54	0
56	MG	YA	3333	1/1	0.88	0.26	36,36,36,36	0
56	MG	YA	3528	1/1	0.88	0.10	54,54,54,54	0
56	MG	YA	3532	1/1	0.88	0.16	50,50,50,50	0
56	MG	YA	3220	1/1	0.88	0.11	41,41,41,41	0
56	MG	RA	3053	1/1	0.88	0.16	32,32,32,32	0
56	MG	XA	1607	1/1	0.88	0.16	64,64,64,64	0
56	MG	YA	3541	1/1	0.88	0.14	35,35,35,35	0
56	MG	XA	1649	1/1	0.88	0.11	67,67,67,67	0
56	MG	RA	3347	1/1	0.88	0.20	33,33,33,33	0
56	MG	XA	1611	1/1	0.88	0.14	34,34,34,34	0
56	MG	YA	3393	1/1	0.88	0.09	46,46,46,46	0
56	MG	YA	3129	1/1	0.88	0.09	51,51,51,51	0
56	MG	QA	1663	1/1	0.88	0.19	58,58,58,58	0
56	MG	RA	3396	1/1	0.88	0.12	50,50,50,50	0
56	MG	YA	3003	1/1	0.88	0.27	17,17,17,17	0
56	MG	YB	211	1/1	0.88	0.09	71,71,71,71	0
56	MG	RA	3349	1/1	0.88	0.14	70,70,70,70	0
56	MG	RA	3189	1/1	0.88	0.36	75,75,75,75	0
56	MG	YA	3070	1/1	0.88	0.14	47,47,47,47	0
56	MG	YA	3239	1/1	0.88	0.30	48,48,48,48	0
56	MG	RA	3271	1/1	0.88	0.14	77,77,77,77	0
56	MG	YA	3075	1/1	0.88	0.15	12,12,12,12	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3137	1/1	0.88	0.14	84,84,84,84	0
56	MG	YA	3079	1/1	0.88	0.24	23,23,23,23	0
56	MG	RA	3297	1/1	0.88	0.15	50,50,50,50	0
56	MG	YA	3255	1/1	0.88	0.15	46,46,46,46	0
56	MG	YY	201	1/1	0.88	0.29	66,66,66,66	0
56	MG	YA	3086	1/1	0.88	0.20	28,28,28,28	0
56	MG	YA	3202	1/1	0.88	0.10	73,73,73,73	0
56	MG	QA	1635	1/1	0.88	0.10	64,64,64,64	0
56	MG	RA	3256	1/1	0.88	0.23	61,61,61,61	0
56	MG	RR	202	1/1	0.88	0.15	80,80,80,80	0
56	MG	RA	3258	1/1	0.88	0.18	106,106,106,106	0
56	MG	YA	3103	1/1	0.88	0.17	40,40,40,40	0
56	MG	QA	1655	1/1	0.88	0.12	51,51,51,51	0
56	MG	YA	3105	1/1	0.88	0.07	60,60,60,60	0
56	MG	YA	3504	1/1	0.88	0.17	53,53,53,53	0
56	MG	QV	103	1/1	0.89	0.08	49,49,49,49	0
56	MG	R0	101	1/1	0.89	0.41	70,70,70,70	0
56	MG	RA	3247	1/1	0.89	0.16	55,55,55,55	0
56	MG	YA	3313	1/1	0.89	0.24	60,60,60,60	0
56	MG	YA	3251	1/1	0.89	0.37	56,56,56,56	0
56	MG	RA	3192	1/1	0.89	0.14	49,49,49,49	0
56	MG	RA	3111	1/1	0.89	0.23	26,26,26,26	0
56	MG	XA	1604	1/1	0.89	0.14	64,64,64,64	0
56	MG	YA	3152	1/1	0.89	0.18	60,60,60,60	0
56	MG	YA	3447	1/1	0.89	0.15	64,64,64,64	0
56	MG	YA	3448	1/1	0.89	0.28	67,67,67,67	0
56	MG	RA	3281	1/1	0.89	0.27	57,57,57,57	0
56	MG	YA	3204	1/1	0.89	0.23	61,61,61,61	0
56	MG	RA	3128	1/1	0.89	0.07	58,58,58,58	0
56	MG	RA	3113	1/1	0.89	0.14	87,87,87,87	0
56	MG	YA	3378	1/1	0.89	0.13	67,67,67,67	0
56	MG	YA	3099	1/1	0.89	0.19	16,16,16,16	0
56	MG	YA	3381	1/1	0.89	0.12	55,55,55,55	0
56	MG	RA	3309	1/1	0.89	0.29	63,63,63,63	0
56	MG	RA	3432	1/1	0.89	0.07	57,57,57,57	0
56	MG	RA	3392	1/1	0.89	0.18	32,32,32,32	0
56	MG	YA	3215	1/1	0.89	0.12	69,69,69,69	0
56	MG	YA	3387	1/1	0.89	0.14	58,58,58,58	0
56	MG	YA	3167	1/1	0.89	0.07	66,66,66,66	0
56	MG	YA	3022	1/1	0.89	0.17	20,20,20,20	0
56	MG	RA	3199	1/1	0.89	0.10	44,44,44,44	0
56	MG	XA	1624	1/1	0.89	0.19	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3116	1/1	0.89	0.08	71,71,71,71	0
56	MG	RA	3012	1/1	0.89	0.17	24,24,24,24	0
56	MG	RA	3181	1/1	0.89	0.10	47,47,47,47	0
56	MG	RA	3205	1/1	0.89	0.12	49,49,49,49	0
56	MG	YA	3400	1/1	0.89	0.11	67,67,67,67	0
56	MG	YA	3176	1/1	0.89	0.11	65,65,65,65	0
56	MG	YA	3034	1/1	0.89	0.23	35,35,35,35	0
56	MG	RA	3183	1/1	0.89	0.09	43,43,43,43	0
56	MG	YA	3295	1/1	0.89	0.08	67,67,67,67	0
56	MG	RA	3319	1/1	0.89	0.11	44,44,44,44	0
56	MG	RA	3480	1/1	0.89	0.09	44,44,44,44	0
56	MG	RA	3295	1/1	0.89	0.17	53,53,53,53	0
56	MG	RA	3119	1/1	0.89	0.12	41,41,41,41	0
56	MG	QA	1646	1/1	0.89	0.11	60,60,60,60	0
56	MG	RA	3054	1/1	0.89	0.09	42,42,42,42	0
56	MG	YA	3356	1/1	0.89	0.26	53,53,53,53	0
56	MG	YA	3058	1/1	0.89	0.12	49,49,49,49	0
56	MG	RA	3454	1/1	0.89	0.08	47,47,47,47	0
56	MG	YA	3242	1/1	0.89	0.08	50,50,50,50	0
56	MG	XA	1622	1/1	0.90	0.07	53,53,53,53	0
56	MG	XQ	201	1/1	0.90	0.07	108,108,108,108	0
56	MG	RA	3101	1/1	0.90	0.10	37,37,37,37	0
56	MG	RA	3508	1/1	0.90	0.16	33,33,33,33	0
56	MG	RA	3148	1/1	0.90	0.20	36,36,36,36	0
56	MG	RA	3384	1/1	0.90	0.11	43,43,43,43	0
56	MG	RA	3423	1/1	0.90	0.12	57,57,57,57	0
56	MG	YA	3089	1/1	0.90	0.15	42,42,42,42	0
56	MG	YA	3429	1/1	0.90	0.24	58,58,58,58	0
56	MG	YA	3359	1/1	0.90	0.18	56,56,56,56	0
56	MG	RA	3359	1/1	0.90	0.27	37,37,37,37	0
56	MG	YA	3094	1/1	0.90	0.11	43,43,43,43	0
56	MG	YA	3522	1/1	0.90	0.20	27,27,27,27	0
56	MG	RA	3174	1/1	0.90	0.06	40,40,40,40	0
56	MG	RA	3427	1/1	0.90	0.22	58,58,58,58	0
56	MG	QA	1636	1/1	0.90	0.10	39,39,39,39	0
56	MG	RA	3244	1/1	0.90	0.09	33,33,33,33	0
56	MG	YA	3102	1/1	0.90	0.14	18,18,18,18	0
56	MG	RA	3204	1/1	0.90	0.14	50,50,50,50	0
56	MG	RA	3436	1/1	0.90	0.13	41,41,41,41	0
56	MG	RE	302	1/1	0.90	0.09	84,84,84,84	0
56	MG	YA	3240	1/1	0.90	0.13	36,36,36,36	0
56	MG	RA	3220	1/1	0.90	0.09	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3395	1/1	0.90	0.10	55,55,55,55	0
56	MG	RA	3274	1/1	0.90	0.06	74,74,74,74	0
56	MG	RP	201	1/1	0.90	0.07	46,46,46,46	0
56	MG	YA	3379	1/1	0.90	0.19	45,45,45,45	0
56	MG	RA	3221	1/1	0.90	0.06	58,58,58,58	0
56	MG	RA	3031	1/1	0.90	0.22	30,30,30,30	0
56	MG	RA	3444	1/1	0.90	0.18	73,73,73,73	0
56	MG	XA	1659	1/1	0.90	0.20	71,71,71,71	0
56	MG	YA	3465	1/1	0.90	0.14	88,88,88,88	0
56	MG	YA	3124	1/1	0.90	0.13	48,48,48,48	0
56	MG	YE	302	1/1	0.90	0.24	83,83,83,83	0
56	MG	RA	3402	1/1	0.90	0.19	64,64,64,64	0
56	MG	RA	3447	1/1	0.90	0.13	49,49,49,49	0
56	MG	YA	3260	1/1	0.90	0.21	51,51,51,51	0
56	MG	RA	3124	1/1	0.90	0.09	36,36,36,36	0
56	MG	RA	3323	1/1	0.90	0.15	57,57,57,57	0
56	MG	QA	1623	1/1	0.90	0.11	37,37,37,37	0
56	MG	YA	3479	1/1	0.90	0.19	84,84,84,84	0
56	MG	RA	3494	1/1	0.90	0.14	45,45,45,45	0
56	MG	RA	3169	1/1	0.90	0.11	21,21,21,21	0
56	MG	YA	3139	1/1	0.90	0.11	36,36,36,36	0
56	MG	RA	3230	1/1	0.90	0.13	44,44,44,44	0
56	MG	YA	3206	1/1	0.90	0.05	41,41,41,41	0
56	MG	YA	3274	1/1	0.90	0.29	65,65,65,65	0
56	MG	RA	3016	1/1	0.90	0.14	24,24,24,24	0
56	MG	XA	1677	1/1	0.90	0.09	62,62,62,62	0
56	MG	RA	3501	1/1	0.90	0.08	58,58,58,58	0
56	MG	RA	3307	1/1	0.90	0.06	83,83,83,83	0
58	ZN	Y4	500	1/1	0.90	0.15	242,242,242,242	0
56	MG	XA	1618	1/1	0.90	0.10	45,45,45,45	0
56	MG	RA	3288	1/1	0.90	0.11	59,59,59,59	0
56	MG	RA	3045	1/1	0.91	0.19	24,24,24,24	0
56	MG	RA	3434	1/1	0.91	0.13	38,38,38,38	0
56	MG	RA	3435	1/1	0.91	0.07	61,61,61,61	0
56	MG	XL	201	1/1	0.91	0.17	74,74,74,74	0
56	MG	QA	1667	1/1	0.91	0.19	52,52,52,52	0
56	MG	RA	3437	1/1	0.91	0.20	64,64,64,64	0
56	MG	RA	3290	1/1	0.91	0.14	60,60,60,60	0
56	MG	YA	3188	1/1	0.91	0.15	42,42,42,42	0
56	MG	YA	3280	1/1	0.91	0.14	72,72,72,72	0
56	MG	YA	3367	1/1	0.91	0.11	51,51,51,51	0
56	MG	RA	3018	1/1	0.91	0.19	14,14,14,14	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3478	1/1	0.91	0.19	74,74,74,74	0
56	MG	XA	1615	1/1	0.91	0.11	25,25,25,25	0
56	MG	XA	1617	1/1	0.91	0.17	22,22,22,22	0
56	MG	YA	3371	1/1	0.91	0.22	59,59,59,59	0
56	MG	YA	3287	1/1	0.91	0.17	59,59,59,59	0
56	MG	RA	3491	1/1	0.91	0.09	39,39,39,39	0
56	MG	QA	1618	1/1	0.91	0.24	67,67,67,67	0
56	MG	RA	3182	1/1	0.91	0.14	69,69,69,69	0
56	MG	RA	3022	1/1	0.91	0.11	27,27,27,27	0
56	MG	QA	1610	1/1	0.91	0.15	19,19,19,19	0
56	MG	RA	3001	1/1	0.91	0.17	28,28,28,28	0
56	MG	RA	3502	1/1	0.91	0.07	43,43,43,43	0
56	MG	YA	3492	1/1	0.91	0.12	76,76,76,76	0
56	MG	XA	1629	1/1	0.91	0.06	51,51,51,51	0
56	MG	YA	3297	1/1	0.91	0.15	51,51,51,51	0
56	MG	YA	3208	1/1	0.91	0.10	67,67,67,67	0
56	MG	YA	3123	1/1	0.91	0.15	75,75,75,75	0
56	MG	YA	3300	1/1	0.91	0.15	91,91,91,91	0
56	MG	YA	3503	1/1	0.91	0.28	52,52,52,52	0
56	MG	RA	3401	1/1	0.91	0.09	41,41,41,41	0
56	MG	YA	3126	1/1	0.91	0.09	43,43,43,43	0
56	MG	YA	3507	1/1	0.91	0.09	61,61,61,61	0
56	MG	YA	3388	1/1	0.91	0.10	46,46,46,46	0
56	MG	YA	3389	1/1	0.91	0.10	57,57,57,57	0
56	MG	RA	3163	1/1	0.91	0.07	38,38,38,38	0
56	MG	YA	3391	1/1	0.91	0.09	46,46,46,46	0
56	MG	YA	3304	1/1	0.91	0.09	57,57,57,57	0
56	MG	RA	3263	1/1	0.91	0.16	43,43,43,43	0
56	MG	YA	3519	1/1	0.91	0.11	34,34,34,34	0
56	MG	RA	3096	1/1	0.91	0.14	60,60,60,60	0
56	MG	YA	3395	1/1	0.91	0.28	54,54,54,54	0
56	MG	QA	1627	1/1	0.91	0.13	35,35,35,35	0
56	MG	RA	3135	1/1	0.91	0.23	52,52,52,52	0
56	MG	YA	3134	1/1	0.91	0.09	60,60,60,60	0
56	MG	RA	3410	1/1	0.91	0.11	49,49,49,49	0
56	MG	RA	3030	1/1	0.91	0.27	8,8,8,8	0
56	MG	YA	3314	1/1	0.91	0.10	53,53,53,53	0
56	MG	YA	3535	1/1	0.91	0.19	52,52,52,52	0
56	MG	XA	1643	1/1	0.91	0.07	73,73,73,73	0
56	MG	RA	3060	1/1	0.91	0.27	16,16,16,16	0
56	MG	YA	3539	1/1	0.91	0.16	53,53,53,53	0
56	MG	QA	1659	1/1	0.91	0.11	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3142	1/1	0.91	0.14	32,32,32,32	0
56	MG	RA	3459	1/1	0.91	0.11	53,53,53,53	0
56	MG	RA	3417	1/1	0.91	0.12	63,63,63,63	0
56	MG	YA	3323	1/1	0.91	0.12	48,48,48,48	0
56	MG	RA	3033	1/1	0.91	0.15	20,20,20,20	0
56	MG	RB	209	1/1	0.91	0.08	87,87,87,87	0
56	MG	RB	210	1/1	0.91	0.10	78,78,78,78	0
56	MG	RA	3419	1/1	0.91	0.06	65,65,65,65	0
56	MG	YA	3236	1/1	0.91	0.16	60,60,60,60	0
56	MG	YA	3043	1/1	0.91	0.17	42,42,42,42	0
56	MG	QA	1621	1/1	0.91	0.08	47,47,47,47	0
56	MG	YA	3046	1/1	0.91	0.19	20,20,20,20	0
56	MG	YA	3432	1/1	0.91	0.08	44,44,44,44	0
56	MG	RA	3276	1/1	0.91	0.07	60,60,60,60	0
56	MG	YA	3164	1/1	0.91	0.13	46,46,46,46	0
56	MG	YP	202	1/1	0.91	0.13	76,76,76,76	0
56	MG	RA	3235	1/1	0.91	0.14	44,44,44,44	0
56	MG	QA	1662	1/1	0.91	0.20	41,41,41,41	0
56	MG	YA	3244	1/1	0.91	0.18	45,45,45,45	0
56	MG	YQ	202	1/1	0.91	0.17	108,108,108,108	0
56	MG	RA	3424	1/1	0.91	0.18	58,58,58,58	0
56	MG	RA	3380	1/1	0.91	0.17	57,57,57,57	0
56	MG	YA	3061	1/1	0.91	0.15	22,22,22,22	0
56	MG	YA	3253	1/1	0.91	0.21	67,67,67,67	0
56	MG	QA	1652	1/1	0.91	0.05	45,45,45,45	0
56	MG	YA	3072	1/1	0.91	0.16	3,3,3,3	0
56	MG	XA	1670	1/1	0.91	0.07	36,36,36,36	0
56	MG	RA	3176	1/1	0.91	0.14	51,51,51,51	0
56	MG	XA	1674	1/1	0.91	0.07	93,93,93,93	0
56	MG	RA	3429	1/1	0.91	0.13	80,80,80,80	0
58	ZN	R6	101	1/1	0.91	0.13	213,213,213,213	0
56	MG	RA	3476	1/1	0.91	0.14	73,73,73,73	0
56	MG	RA	3207	1/1	0.91	0.08	47,47,47,47	0
56	MG	YA	3458	1/1	0.91	0.09	54,54,54,54	0
56	MG	QA	1605	1/1	0.91	0.30	35,35,35,35	0
56	MG	YA	3502	1/1	0.92	0.12	54,54,54,54	0
56	MG	RA	3239	1/1	0.92	0.24	50,50,50,50	0
56	MG	YA	3081	1/1	0.92	0.08	42,42,42,42	0
56	MG	RA	3262	1/1	0.92	0.09	61,61,61,61	0
56	MG	RA	3354	1/1	0.92	0.09	54,54,54,54	0
56	MG	RA	3285	1/1	0.92	0.13	60,60,60,60	0
56	MG	YA	3509	1/1	0.92	0.09	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3415	1/1	0.92	0.13	50,50,50,50	0
56	MG	YA	3431	1/1	0.92	0.11	55,55,55,55	0
56	MG	RA	3286	1/1	0.92	0.27	54,54,54,54	0
56	MG	YA	3097	1/1	0.92	0.23	21,21,21,21	0
56	MG	XA	1652	1/1	0.92	0.07	68,68,68,68	0
56	MG	YA	3437	1/1	0.92	0.04	60,60,60,60	0
56	MG	XA	1605	1/1	0.92	0.15	34,34,34,34	0
56	MG	YA	3366	1/1	0.92	0.17	49,49,49,49	0
56	MG	RA	3240	1/1	0.92	0.10	47,47,47,47	0
56	MG	XA	1657	1/1	0.92	0.11	55,55,55,55	0
56	MG	YA	3526	1/1	0.92	0.19	13,13,13,13	0
56	MG	RA	3264	1/1	0.92	0.18	41,41,41,41	0
56	MG	XA	1660	1/1	0.92	0.13	55,55,55,55	0
56	MG	YA	3307	1/1	0.92	0.24	55,55,55,55	0
56	MG	RA	3056	1/1	0.92	0.13	62,62,62,62	0
56	MG	RB	203	1/1	0.92	0.07	64,64,64,64	0
56	MG	YA	3023	1/1	0.92	0.20	24,24,24,24	0
56	MG	RA	3091	1/1	0.92	0.20	18,18,18,18	0
56	MG	RA	3074	1/1	0.92	0.07	56,56,56,56	0
56	MG	QA	1606	1/1	0.92	0.09	49,49,49,49	0
56	MG	XA	1667	1/1	0.92	0.20	48,48,48,48	0
56	MG	RA	3315	1/1	0.92	0.18	40,40,40,40	0
56	MG	QA	1641	1/1	0.92	0.11	37,37,37,37	0
56	MG	YA	3459	1/1	0.92	0.13	48,48,48,48	0
56	MG	RA	3122	1/1	0.92	0.14	34,34,34,34	0
56	MG	YA	3122	1/1	0.92	0.11	26,26,26,26	0
56	MG	RA	3013	1/1	0.92	0.14	25,25,25,25	0
56	MG	YA	3190	1/1	0.92	0.20	54,54,54,54	0
56	MG	YA	3193	1/1	0.92	0.27	42,42,42,42	0
56	MG	YA	3036	1/1	0.92	0.20	16,16,16,16	0
56	MG	RA	3456	1/1	0.92	0.10	51,51,51,51	0
56	MG	RE	301	1/1	0.92	0.08	28,28,28,28	0
56	MG	RA	3371	1/1	0.92	0.13	82,82,82,82	0
56	MG	RA	3052	1/1	0.92	0.08	41,41,41,41	0
56	MG	RA	3014	1/1	0.92	0.12	17,17,17,17	0
56	MG	XA	1631	1/1	0.92	0.14	38,38,38,38	0
56	MG	YA	3268	1/1	0.92	0.05	44,44,44,44	0
56	MG	RA	3200	1/1	0.92	0.12	43,43,43,43	0
56	MG	RA	3496	1/1	0.92	0.12	26,26,26,26	0
56	MG	YA	3056	1/1	0.92	0.23	28,28,28,28	0
56	MG	RA	3003	1/1	0.92	0.18	39,39,39,39	0
56	MG	RQ	201	1/1	0.92	0.23	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3277	1/1	0.92	0.12	38,38,38,38	0
56	MG	RQ	202	1/1	0.92	0.07	74,74,74,74	0
56	MG	YA	3068	1/1	0.92	0.12	29,29,29,29	0
56	MG	RR	201	1/1	0.92	0.08	58,58,58,58	0
56	MG	XV	102	1/1	0.92	0.07	53,53,53,53	0
56	MG	YA	3073	1/1	0.92	0.09	39,39,39,39	0
56	MG	RA	3184	1/1	0.92	0.13	51,51,51,51	0
56	MG	XA	1642	1/1	0.92	0.13	71,71,71,71	0
56	MG	YA	3153	1/1	0.92	0.25	59,59,59,59	0
56	MG	YA	3076	1/1	0.92	0.09	20,20,20,20	0
56	MG	YA	3498	1/1	0.92	0.17	52,52,52,52	0
56	MG	RA	3302	1/1	0.92	0.09	46,46,46,46	0
56	MG	YA	3420	1/1	0.92	0.15	55,55,55,55	0
56	MG	RA	3498	1/1	0.93	0.08	29,29,29,29	0
56	MG	RA	3028	1/1	0.93	0.07	20,20,20,20	0
56	MG	YA	3365	1/1	0.93	0.07	53,53,53,53	0
56	MG	QA	1642	1/1	0.93	0.16	40,40,40,40	0
56	MG	YA	3050	1/1	0.93	0.18	23,23,23,23	0
56	MG	RA	3066	1/1	0.93	0.21	29,29,29,29	0
56	MG	YA	3513	1/1	0.93	0.08	95,95,95,95	0
56	MG	QA	1633	1/1	0.93	0.06	63,63,63,63	0
56	MG	RA	3150	1/1	0.93	0.07	31,31,31,31	0
56	MG	XV	104	1/1	0.93	0.05	65,65,65,65	0
56	MG	XA	1646	1/1	0.93	0.11	29,29,29,29	0
56	MG	QA	1604	1/1	0.93	0.11	20,20,20,20	0
56	MG	YA	3062	1/1	0.93	0.12	23,23,23,23	0
56	MG	YA	3524	1/1	0.93	0.23	7,7,7,7	0
56	MG	YA	3063	1/1	0.93	0.09	34,34,34,34	0
56	MG	YA	3316	1/1	0.93	0.14	52,52,52,52	0
56	MG	RA	3071	1/1	0.93	0.07	37,37,37,37	0
56	MG	RA	3273	1/1	0.93	0.24	51,51,51,51	0
56	MG	YA	3258	1/1	0.93	0.13	30,30,30,30	0
56	MG	RA	3511	1/1	0.93	0.08	80,80,80,80	0
56	MG	YA	3321	1/1	0.93	0.10	51,51,51,51	0
56	MG	QA	1665	1/1	0.93	0.05	42,42,42,42	0
56	MG	RA	3130	1/1	0.93	0.18	47,47,47,47	0
56	MG	RA	3105	1/1	0.93	0.11	48,48,48,48	0
56	MG	YA	3385	1/1	0.93	0.11	46,46,46,46	0
56	MG	XA	1656	1/1	0.93	0.06	45,45,45,45	0
56	MG	YB	203	1/1	0.93	0.06	75,75,75,75	0
56	MG	RA	3277	1/1	0.93	0.19	39,39,39,39	0
56	MG	RA	3107	1/1	0.93	0.12	26,26,26,26	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3467	1/1	0.93	0.08	92,92,92,92	0
56	MG	XA	1614	1/1	0.93	0.13	26,26,26,26	0
56	MG	YA	3082	1/1	0.93	0.13	31,31,31,31	0
56	MG	RA	3038	1/1	0.93	0.14	22,22,22,22	0
56	MG	QA	1609	1/1	0.93	0.10	24,24,24,24	0
56	MG	YA	3272	1/1	0.93	0.15	33,33,33,33	0
56	MG	QA	1637	1/1	0.93	0.15	55,55,55,55	0
56	MG	YA	3019	1/1	0.93	0.28	34,34,34,34	0
56	MG	YA	3337	1/1	0.93	0.07	45,45,45,45	0
56	MG	RA	3023	1/1	0.93	0.09	30,30,30,30	0
56	MG	RA	3284	1/1	0.93	0.11	53,53,53,53	0
56	MG	YA	3163	1/1	0.93	0.05	60,60,60,60	0
56	MG	YA	3281	1/1	0.93	0.14	35,35,35,35	0
56	MG	RA	3217	1/1	0.93	0.09	87,87,87,87	0
56	MG	RA	3483	1/1	0.93	0.09	70,70,70,70	0
56	MG	RA	3416	1/1	0.93	0.08	38,38,38,38	0
56	MG	QA	1617	1/1	0.93	0.08	42,42,42,42	0
56	MG	RA	3219	1/1	0.93	0.07	49,49,49,49	0
56	MG	RA	3487	1/1	0.93	0.13	48,48,48,48	0
56	MG	RA	3139	1/1	0.93	0.15	23,23,23,23	0
56	MG	RA	3350	1/1	0.93	0.15	61,61,61,61	0
56	MG	YA	3106	1/1	0.93	0.18	31,31,31,31	0
56	MG	Y5	502	1/1	0.93	0.07	40,40,40,40	0
56	MG	RA	3196	1/1	0.93	0.07	44,44,44,44	0
56	MG	RA	3118	1/1	0.93	0.17	33,33,33,33	0
56	MG	YA	3175	1/1	0.93	0.08	33,33,33,33	0
56	MG	YA	3231	1/1	0.93	0.14	40,40,40,40	0
56	MG	YA	3500	1/1	0.93	0.10	103,103,103,103	0
56	MG	YA	3037	1/1	0.93	0.19	20,20,20,20	0
56	MG	YA	3235	1/1	0.93	0.13	57,57,57,57	0
56	MG	QA	1613	1/1	0.93	0.06	45,45,45,45	0
56	MG	XC	301	1/1	0.93	0.11	112,112,112,112	0
56	MG	RA	3120	1/1	0.93	0.09	55,55,55,55	0
58	ZN	Y9	101	1/1	0.93	0.19	197,197,197,197	0
56	MG	RA	3094	1/1	0.94	0.21	21,21,21,21	0
56	MG	RA	3449	1/1	0.94	0.07	59,59,59,59	0
56	MG	YA	3039	1/1	0.94	0.17	16,16,16,16	0
56	MG	RA	3160	1/1	0.94	0.10	45,45,45,45	0
56	MG	RA	3243	1/1	0.94	0.21	54,54,54,54	0
56	MG	YA	3438	1/1	0.94	0.13	56,56,56,56	0
56	MG	QA	1629	1/1	0.94	0.05	60,60,60,60	0
56	MG	RA	3245	1/1	0.94	0.17	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3517	1/1	0.94	0.10	53,53,53,53	0
56	MG	RA	3097	1/1	0.94	0.14	36,36,36,36	0
56	MG	YA	3049	1/1	0.94	0.19	21,21,21,21	0
56	MG	XA	1641	1/1	0.94	0.06	54,54,54,54	0
56	MG	RA	3492	1/1	0.94	0.10	21,21,21,21	0
56	MG	RA	3067	1/1	0.94	0.12	28,28,28,28	0
56	MG	YA	3055	1/1	0.94	0.10	26,26,26,26	0
56	MG	RA	3248	1/1	0.94	0.09	87,87,87,87	0
56	MG	RA	3084	1/1	0.94	0.07	51,51,51,51	0
56	MG	RA	3327	1/1	0.94	0.15	84,84,84,84	0
56	MG	YA	3529	1/1	0.94	0.10	46,46,46,46	0
56	MG	YA	3531	1/1	0.94	0.05	23,23,23,23	0
56	MG	RA	3278	1/1	0.94	0.22	41,41,41,41	0
56	MG	QA	1672	1/1	0.94	0.06	75,75,75,75	0
56	MG	RA	3428	1/1	0.94	0.19	46,46,46,46	0
56	MG	YA	3064	1/1	0.94	0.08	41,41,41,41	0
56	MG	YA	3197	1/1	0.94	0.05	119,119,119,119	0
56	MG	YA	3067	1/1	0.94	0.20	31,31,31,31	0
56	MG	YA	3540	1/1	0.94	0.11	29,29,29,29	0
56	MG	RA	3330	1/1	0.94	0.12	54,54,54,54	0
56	MG	YA	3069	1/1	0.94	0.15	68,68,68,68	0
56	MG	YB	202	1/1	0.94	0.07	50,50,50,50	0
56	MG	XA	1651	1/1	0.94	0.07	52,52,52,52	0
56	MG	YA	3071	1/1	0.94	0.11	92,92,92,92	0
56	MG	RA	3503	1/1	0.94	0.06	56,56,56,56	0
56	MG	YA	3466	1/1	0.94	0.07	36,36,36,36	0
56	MG	RA	3253	1/1	0.94	0.16	58,58,58,58	0
56	MG	RA	3086	1/1	0.94	0.13	28,28,28,28	0
56	MG	RA	3506	1/1	0.94	0.14	46,46,46,46	0
56	MG	RA	3399	1/1	0.94	0.07	60,60,60,60	0
56	MG	RA	3468	1/1	0.94	0.23	54,54,54,54	0
56	MG	YA	3150	1/1	0.94	0.07	51,51,51,51	0
56	MG	YA	3151	1/1	0.94	0.07	37,37,37,37	0
56	MG	RA	3509	1/1	0.94	0.21	7,7,7,7	0
56	MG	RA	3228	1/1	0.94	0.17	32,32,32,32	0
56	MG	YA	3282	1/1	0.94	0.24	33,33,33,33	0
56	MG	YA	3154	1/1	0.94	0.17	40,40,40,40	0
56	MG	RA	3335	1/1	0.94	0.06	51,51,51,51	0
56	MG	YA	3285	1/1	0.94	0.14	30,30,30,30	0
56	MG	QA	1608	1/1	0.94	0.09	35,35,35,35	0
56	MG	RA	3109	1/1	0.94	0.11	50,50,50,50	0
56	MG	YA	3087	1/1	0.94	0.10	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3159	1/1	0.94	0.13	39,39,39,39	0
56	MG	YA	3410	1/1	0.94	0.11	76,76,76,76	0
56	MG	YA	3411	1/1	0.94	0.06	57,57,57,57	0
56	MG	RA	3004	1/1	0.94	0.15	28,28,28,28	0
56	MG	YA	3092	1/1	0.94	0.20	21,21,21,21	0
56	MG	RA	3232	1/1	0.94	0.11	30,30,30,30	0
56	MG	RA	3475	1/1	0.94	0.13	44,44,44,44	0
56	MG	RA	3112	1/1	0.94	0.08	28,28,28,28	0
56	MG	RA	3073	1/1	0.94	0.13	30,30,30,30	0
56	MG	QA	1669	1/1	0.94	0.06	56,56,56,56	0
56	MG	YA	3423	1/1	0.94	0.08	91,91,91,91	0
56	MG	YA	3424	1/1	0.94	0.13	49,49,49,49	0
58	ZN	R9	101	1/1	0.94	0.28	122,122,122,122	0
56	MG	RA	3343	1/1	0.94	0.14	36,36,36,36	0
56	MG	RA	3481	1/1	0.94	0.11	58,58,58,58	0
56	MG	RA	3075	1/1	0.94	0.09	39,39,39,39	0
56	MG	YA	3428	1/1	0.94	0.10	32,32,32,32	0
56	MG	QA	1622	1/1	0.94	0.13	51,51,51,51	0
56	MG	YA	3189	1/1	0.95	0.05	42,42,42,42	0
56	MG	YA	3412	1/1	0.95	0.26	55,55,55,55	0
56	MG	RA	3383	1/1	0.95	0.15	32,32,32,32	0
56	MG	YA	3191	1/1	0.95	0.09	93,93,93,93	0
56	MG	YA	3415	1/1	0.95	0.09	43,43,43,43	0
56	MG	XA	1625	1/1	0.95	0.06	55,55,55,55	0
56	MG	RA	3100	1/1	0.95	0.09	23,23,23,23	0
56	MG	RA	3346	1/1	0.95	0.06	46,46,46,46	0
56	MG	RA	3386	1/1	0.95	0.06	43,43,43,43	0
56	MG	RA	3037	1/1	0.95	0.07	9,9,9,9	0
56	MG	YA	3273	1/1	0.95	0.14	28,28,28,28	0
56	MG	RA	3155	1/1	0.95	0.08	48,48,48,48	0
56	MG	XA	1632	1/1	0.95	0.09	51,51,51,51	0
56	MG	YA	3200	1/1	0.95	0.08	55,55,55,55	0
56	MG	RA	3021	1/1	0.95	0.07	29,29,29,29	0
56	MG	YA	3279	1/1	0.95	0.24	56,56,56,56	0
56	MG	RA	3129	1/1	0.95	0.10	46,46,46,46	0
56	MG	RA	3185	1/1	0.95	0.09	60,60,60,60	0
56	MG	RA	3106	1/1	0.95	0.19	31,31,31,31	0
56	MG	RA	3250	1/1	0.95	0.15	47,47,47,47	0
56	MG	QA	1639	1/1	0.95	0.05	46,46,46,46	0
56	MG	YA	3065	1/1	0.95	0.21	21,21,21,21	0
56	MG	YA	3066	1/1	0.95	0.10	22,22,22,22	0
56	MG	XV	105	1/1	0.95	0.10	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	QA	1630	1/1	0.95	0.07	42,42,42,42	0
56	MG	YA	3442	1/1	0.95	0.05	68,68,68,68	0
56	MG	RA	3254	1/1	0.95	0.18	27,27,27,27	0
56	MG	YA	3144	1/1	0.95	0.17	41,41,41,41	0
56	MG	YA	3145	1/1	0.95	0.07	32,32,32,32	0
56	MG	YA	3533	1/1	0.95	0.27	73,73,73,73	0
56	MG	QF	201	1/1	0.95	0.07	55,55,55,55	0
56	MG	RA	3110	1/1	0.95	0.10	42,42,42,42	0
56	MG	QA	1625	1/1	0.95	0.07	43,43,43,43	0
56	MG	RA	3489	1/1	0.95	0.18	70,70,70,70	0
56	MG	RA	3362	1/1	0.95	0.09	37,37,37,37	0
56	MG	QA	1643	1/1	0.95	0.09	58,58,58,58	0
56	MG	RA	3408	1/1	0.95	0.08	61,61,61,61	0
56	MG	RA	3224	1/1	0.95	0.05	40,40,40,40	0
56	MG	RA	3225	1/1	0.95	0.12	17,17,17,17	0
56	MG	YA	3080	1/1	0.95	0.18	21,21,21,21	0
56	MG	YA	3009	1/1	0.95	0.07	37,37,37,37	0
56	MG	QA	1651	1/1	0.95	0.08	45,45,45,45	0
56	MG	YA	3084	1/1	0.95	0.09	22,22,22,22	0
56	MG	RA	3497	1/1	0.95	0.25	21,21,21,21	0
56	MG	YA	3462	1/1	0.95	0.08	78,78,78,78	0
56	MG	RA	3090	1/1	0.95	0.08	31,31,31,31	0
56	MG	RA	3048	1/1	0.95	0.06	24,24,24,24	0
56	MG	YA	3233	1/1	0.95	0.13	64,64,64,64	0
56	MG	YA	3310	1/1	0.95	0.14	31,31,31,31	0
56	MG	XA	1603	1/1	0.95	0.13	16,16,16,16	0
56	MG	RA	3171	1/1	0.95	0.12	39,39,39,39	0
56	MG	XA	1658	1/1	0.95	0.06	58,58,58,58	0
56	MG	RA	3333	1/1	0.95	0.17	37,37,37,37	0
56	MG	YA	3024	1/1	0.95	0.16	14,14,14,14	0
56	MG	QA	1628	1/1	0.95	0.10	44,44,44,44	0
56	MG	YA	3474	1/1	0.95	0.10	41,41,41,41	0
56	MG	RA	3019	1/1	0.95	0.09	29,29,29,29	0
56	MG	RA	3032	1/1	0.95	0.18	30,30,30,30	0
56	MG	RA	3146	1/1	0.95	0.19	40,40,40,40	0
56	MG	XA	1664	1/1	0.95	0.14	31,31,31,31	0
56	MG	RA	3462	1/1	0.95	0.07	40,40,40,40	0
56	MG	RA	3236	1/1	0.95	0.22	23,23,23,23	0
56	MG	QA	1614	1/1	0.95	0.06	63,63,63,63	0
56	MG	RA	3034	1/1	0.95	0.18	23,23,23,23	0
56	MG	YA	3484	1/1	0.95	0.06	40,40,40,40	0
56	MG	YA	3325	1/1	0.95	0.06	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3107	1/1	0.95	0.10	55,55,55,55	0
56	MG	YA	3327	1/1	0.95	0.06	20,20,20,20	0
56	MG	YA	3109	1/1	0.95	0.16	45,45,45,45	0
56	MG	XA	1669	1/1	0.95	0.12	63,63,63,63	0
56	MG	YA	3112	1/1	0.95	0.14	18,18,18,18	0
56	MG	RA	3035	1/1	0.95	0.12	27,27,27,27	0
56	MG	YA	3493	1/1	0.95	0.06	102,102,102,102	0
56	MG	RA	3099	1/1	0.95	0.10	30,30,30,30	0
56	MG	XA	1673	1/1	0.95	0.05	36,36,36,36	0
56	MG	RA	3210	1/1	0.95	0.15	55,55,55,55	0
56	MG	RA	3311	1/1	0.95	0.14	63,63,63,63	0
56	MG	RA	3510	1/1	0.96	0.06	21,21,21,21	0
56	MG	YA	3095	1/1	0.96	0.09	24,24,24,24	0
56	MG	YA	3207	1/1	0.96	0.20	54,54,54,54	0
56	MG	RA	3193	1/1	0.96	0.07	54,54,54,54	0
56	MG	YA	3518	1/1	0.96	0.15	32,32,32,32	0
56	MG	YA	3209	1/1	0.96	0.06	48,48,48,48	0
56	MG	RA	3194	1/1	0.96	0.23	59,59,59,59	0
56	MG	YA	3521	1/1	0.96	0.15	13,13,13,13	0
56	MG	YA	3041	1/1	0.96	0.08	21,21,21,21	0
56	MG	RA	3446	1/1	0.96	0.37	55,55,55,55	0
56	MG	YA	3275	1/1	0.96	0.23	33,33,33,33	0
56	MG	RA	3238	1/1	0.96	0.10	57,57,57,57	0
56	MG	RA	3157	1/1	0.96	0.08	26,26,26,26	0
56	MG	RA	3358	1/1	0.96	0.05	38,38,38,38	0
56	MG	RA	3310	1/1	0.96	0.07	38,38,38,38	0
56	MG	XA	1655	1/1	0.96	0.09	31,31,31,31	0
56	MG	RA	3057	1/1	0.96	0.12	14,14,14,14	0
56	MG	YA	3052	1/1	0.96	0.10	30,30,30,30	0
56	MG	QA	1612	1/1	0.96	0.04	34,34,34,34	0
56	MG	QA	1645	1/1	0.96	0.09	51,51,51,51	0
56	MG	XA	1621	1/1	0.96	0.09	48,48,48,48	0
56	MG	RA	3005	1/1	0.96	0.21	27,27,27,27	0
56	MG	RA	3017	1/1	0.96	0.13	20,20,20,20	0
56	MG	RA	3268	1/1	0.96	0.16	48,48,48,48	0
56	MG	YA	3289	1/1	0.96	0.07	50,50,50,50	0
56	MG	RA	3269	1/1	0.96	0.15	65,65,65,65	0
56	MG	XA	1626	1/1	0.96	0.07	30,30,30,30	0
56	MG	YA	3473	1/1	0.96	0.10	65,65,65,65	0
56	MG	YA	3406	1/1	0.96	0.06	29,29,29,29	0
56	MG	YA	3011	1/1	0.96	0.06	25,25,25,25	0
56	MG	YA	3349	1/1	0.96	0.16	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3119	1/1	0.96	0.19	44,44,44,44	0
56	MG	YA	3012	1/1	0.96	0.12	22,22,22,22	0
56	MG	RA	3078	1/1	0.96	0.12	42,42,42,42	0
56	MG	RA	3369	1/1	0.96	0.14	40,40,40,40	0
56	MG	YA	3354	1/1	0.96	0.23	43,43,43,43	0
56	MG	RA	3493	1/1	0.96	0.16	70,70,70,70	0
56	MG	YA	3125	1/1	0.96	0.18	23,23,23,23	0
56	MG	RA	3062	1/1	0.96	0.05	36,36,36,36	0
56	MG	YE	301	1/1	0.96	0.10	37,37,37,37	0
56	MG	RA	3095	1/1	0.96	0.08	42,42,42,42	0
56	MG	RA	3431	1/1	0.96	0.04	38,38,38,38	0
56	MG	YA	3021	1/1	0.96	0.12	20,20,20,20	0
56	MG	RA	3081	1/1	0.96	0.09	16,16,16,16	0
56	MG	YA	3490	1/1	0.96	0.10	52,52,52,52	0
56	MG	RA	3464	1/1	0.96	0.09	72,72,72,72	0
56	MG	YA	3133	1/1	0.96	0.10	27,27,27,27	0
56	MG	RA	3404	1/1	0.96	0.06	50,50,50,50	0
56	MG	RA	3115	1/1	0.96	0.07	45,45,45,45	0
56	MG	RA	3010	1/1	0.96	0.06	29,29,29,29	0
56	MG	YA	3496	1/1	0.96	0.11	59,59,59,59	0
56	MG	YA	3192	1/1	0.96	0.07	56,56,56,56	0
56	MG	YA	3430	1/1	0.96	0.07	65,65,65,65	0
56	MG	YA	3138	1/1	0.96	0.08	56,56,56,56	0
56	MG	YA	3027	1/1	0.96	0.07	28,28,28,28	0
56	MG	RA	3044	1/1	0.96	0.22	18,18,18,18	0
56	MG	RA	3188	1/1	0.96	0.08	45,45,45,45	0
56	MG	RA	3011	1/1	0.96	0.08	42,42,42,42	0
56	MG	YA	3031	1/1	0.96	0.07	24,24,24,24	0
56	MG	YA	3505	1/1	0.96	0.08	105,105,105,105	0
56	MG	YA	3032	1/1	0.96	0.13	24,24,24,24	0
56	MG	RA	3190	1/1	0.96	0.03	47,47,47,47	0
56	MG	YA	3441	1/1	0.96	0.05	77,77,77,77	0
56	MG	RA	3440	1/1	0.96	0.06	64,64,64,64	0
56	MG	RA	3411	1/1	0.96	0.05	42,42,42,42	0
56	MG	RA	3055	1/1	0.96	0.05	46,46,46,46	0
56	MG	QA	1634	1/1	0.96	0.08	57,57,57,57	0
56	MG	YA	3252	1/1	0.97	0.24	22,22,22,22	0
56	MG	RA	3301	1/1	0.97	0.18	49,49,49,49	0
56	MG	YA	3136	1/1	0.97	0.07	53,53,53,53	0
56	MG	RA	3036	1/1	0.97	0.06	24,24,24,24	0
56	MG	RA	3226	1/1	0.97	0.12	10,10,10,10	0
56	MG	QA	1656	1/1	0.97	0.05	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	XA	1616	1/1	0.97	0.05	35,35,35,35	0
56	MG	RA	3162	1/1	0.97	0.11	49,49,49,49	0
56	MG	QA	1619	1/1	0.97	0.07	53,53,53,53	0
56	MG	RA	3136	1/1	0.97	0.09	54,54,54,54	0
56	MG	RA	3104	1/1	0.97	0.10	62,62,62,62	0
56	MG	RA	3166	1/1	0.97	0.04	39,39,39,39	0
56	MG	RA	3151	1/1	0.97	0.05	31,31,31,31	0
56	MG	YA	3265	1/1	0.97	0.09	26,26,26,26	0
56	MG	RA	3234	1/1	0.97	0.10	32,32,32,32	0
56	MG	YA	3267	1/1	0.97	0.12	23,23,23,23	0
56	MG	YA	3223	1/1	0.97	0.09	43,43,43,43	0
56	MG	RA	3397	1/1	0.97	0.07	57,57,57,57	0
56	MG	RA	3152	1/1	0.97	0.21	38,38,38,38	0
56	MG	YA	3454	1/1	0.97	0.13	49,49,49,49	0
56	MG	YA	3014	1/1	0.97	0.16	27,27,27,27	0
56	MG	YA	3078	1/1	0.97	0.05	41,41,41,41	0
56	MG	YA	3457	1/1	0.97	0.06	104,104,104,104	0
56	MG	RA	3015	1/1	0.97	0.06	20,20,20,20	0
56	MG	RA	3063	1/1	0.97	0.07	25,25,25,25	0
56	MG	YA	3048	1/1	0.97	0.05	19,19,19,19	0
56	MG	YA	3120	1/1	0.97	0.06	35,35,35,35	0
56	MG	RA	3257	1/1	0.97	0.09	39,39,39,39	0
56	MG	RA	3027	1/1	0.97	0.11	20,20,20,20	0
56	MG	YA	3234	1/1	0.97	0.07	63,63,63,63	0
56	MG	RA	3403	1/1	0.97	0.09	41,41,41,41	0
56	MG	YA	3160	1/1	0.97	0.05	73,73,73,73	0
56	MG	YX	101	1/1	0.97	0.16	118,118,118,118	0
56	MG	QA	1658	1/1	0.97	0.09	80,80,80,80	0
56	MG	RA	3142	1/1	0.97	0.14	38,38,38,38	0
56	MG	YA	3088	1/1	0.97	0.06	38,38,38,38	0
56	MG	YA	3127	1/1	0.97	0.16	38,38,38,38	0
56	MG	RA	3077	1/1	0.97	0.09	23,23,23,23	0
56	MG	RA	3360	1/1	0.97	0.18	45,45,45,45	0
56	MG	YA	3057	1/1	0.97	0.12	20,20,20,20	0
57	SF4	QD	301	8/8	0.97	0.08	78,114,135,135	0
56	MG	XV	103	1/1	0.97	0.07	51,51,51,51	0
56	MG	YA	3245	1/1	0.97	0.23	8,8,8,8	0
56	MG	YA	3476	1/1	0.97	0.12	49,49,49,49	0
56	MG	QA	1607	1/1	0.97	0.07	37,37,37,37	0
56	MG	YA	3248	1/1	0.97	0.12	20,20,20,20	0
56	MG	XA	1609	1/1	0.97	0.08	82,82,82,82	0
56	MG	YA	3250	1/1	0.97	0.17	16,16,16,16	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3530	1/1	0.97	0.04	52,52,52,52	0
56	MG	XA	1638	1/1	0.97	0.03	69,69,69,69	0
56	MG	YA	3433	1/1	0.97	0.14	50,50,50,50	0
56	MG	RA	3072	1/1	0.98	0.09	23,23,23,23	0
56	MG	RA	3388	1/1	0.98	0.06	26,26,26,26	0
56	MG	RA	3079	1/1	0.98	0.07	24,24,24,24	0
56	MG	YA	3515	1/1	0.98	0.06	48,48,48,48	0
56	MG	RA	3102	1/1	0.98	0.08	18,18,18,18	0
56	MG	YA	3053	1/1	0.98	0.13	9,9,9,9	0
56	MG	RA	3143	1/1	0.98	0.08	56,56,56,56	0
56	MG	YA	3108	1/1	0.98	0.05	27,27,27,27	0
56	MG	RA	3103	1/1	0.98	0.05	45,45,45,45	0
56	MG	XA	1610	1/1	0.98	0.06	40,40,40,40	0
56	MG	YA	3416	1/1	0.98	0.05	70,70,70,70	0
56	MG	YA	3417	1/1	0.98	0.06	63,63,63,63	0
56	MG	YA	3010	1/1	0.98	0.09	24,24,24,24	0
56	MG	YA	3083	1/1	0.98	0.07	29,29,29,29	0
56	MG	QA	1666	1/1	0.98	0.05	48,48,48,48	0
56	MG	RA	3114	1/1	0.98	0.06	42,42,42,42	0
56	MG	QH	201	1/1	0.98	0.16	64,64,64,64	0
56	MG	RA	3025	1/1	0.98	0.07	22,22,22,22	0
56	MG	YA	3015	1/1	0.98	0.08	18,18,18,18	0
56	MG	YA	3147	1/1	0.98	0.04	51,51,51,51	0
56	MG	RA	3252	1/1	0.98	0.18	19,19,19,19	0
56	MG	YA	3091	1/1	0.98	0.05	34,34,34,34	0
56	MG	QA	1660	1/1	0.98	0.04	80,80,80,80	0
56	MG	YA	3181	1/1	0.98	0.07	24,24,24,24	0
56	MG	XA	1672	1/1	0.98	0.04	44,44,44,44	0
56	MG	QV	102	1/1	0.98	0.06	63,63,63,63	0
57	SF4	XD	301	8/8	0.98	0.09	64,81,107,108	0
56	MG	XV	107	1/1	0.98	0.04	23,23,23,23	0
56	MG	YA	3096	1/1	0.98	0.03	39,39,39,39	0
56	MG	YA	3434	1/1	0.98	0.04	64,64,64,64	0
56	MG	YA	3044	1/1	0.98	0.14	28,28,28,28	0
56	MG	XA	1619	1/1	0.98	0.10	48,48,48,48	0
56	MG	YA	3339	1/1	0.98	0.11	20,20,20,20	0
56	MG	XA	1601	1/1	0.98	0.17	28,28,28,28	0
56	MG	XA	1602	1/1	0.98	0.04	56,56,56,56	0
56	MG	RA	3206	1/1	0.98	0.04	39,39,39,39	0
56	MG	YA	3405	1/1	0.98	0.07	27,27,27,27	0
56	MG	YA	3042	1/1	0.99	0.09	38,38,38,38	0
56	MG	RA	3064	1/1	0.99	0.08	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3110	1/1	0.99	0.04	30,30,30,30	0
56	MG	RA	3477	1/1	0.99	0.14	74,74,74,74	0
56	MG	RA	3387	1/1	0.99	0.03	38,38,38,38	0
56	MG	YA	3408	1/1	0.99	0.05	27,27,27,27	0
56	MG	RA	3069	1/1	0.99	0.06	28,28,28,28	0
56	MG	YA	3536	1/1	0.99	0.09	52,52,52,52	0
56	MG	RA	3046	1/1	0.99	0.05	13,13,13,13	0
58	ZN	QN	101	1/1	0.99	0.05	104,104,104,104	0
56	MG	YA	3060	1/1	0.99	0.04	22,22,22,22	0
56	MG	RA	3390	1/1	0.99	0.03	28,28,28,28	0
56	MG	YA	3162	1/1	0.99	0.04	32,32,32,32	0
56	MG	RA	3123	1/1	0.99	0.04	25,25,25,25	0
56	MG	QA	1640	1/1	0.99	0.05	33,33,33,33	0
58	ZN	XN	101	1/1	0.99	0.04	111,111,111,111	0
56	MG	YA	3090	1/1	0.99	0.03	40,40,40,40	0
56	MG	YA	3246	1/1	0.99	0.07	24,24,24,24	0
56	MG	XA	1613	1/1	0.99	0.06	40,40,40,40	0
56	MG	RA	3043	1/1	0.99	0.08	15,15,15,15	0
56	MG	RA	3083	1/1	0.99	0.11	42,42,42,42	0

6.5 Other polymers [i](#)

There are no such residues in this entry.