



Full wwPDB X-ray Structure Validation Report ⓘ

Aug 3, 2026 – 07:42 AM EDT

PDB ID : 5J30 / pdb_00005j30
Title : Thermus thermophilus 70S termination complex containing E. coli RF1
Authors : Hoffer, E.D.; Dunham, C.M.
Deposited on : 2016-03-30
Resolution : 3.20 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

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

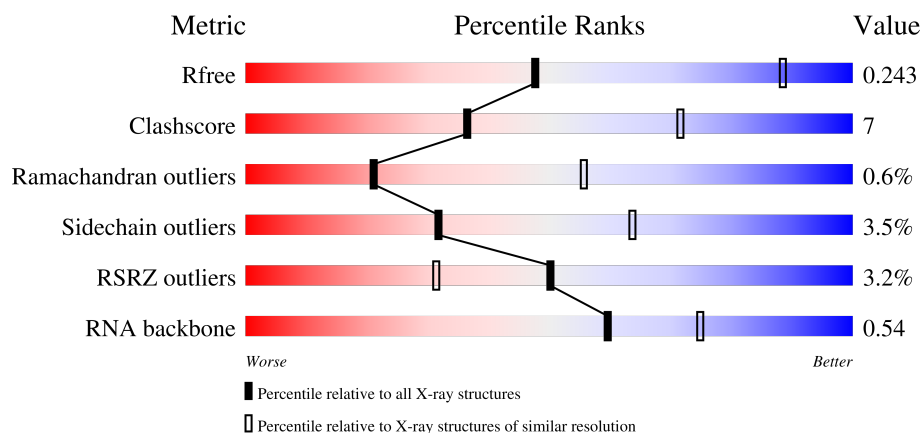
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.20 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	1466 (3.20-3.20)
Clashscore	190562	1573 (3.20-3.20)
Ramachandran outliers	187476	1548 (3.20-3.20)
Sidechain outliers	187428	1547 (3.20-3.20)
RSRZ outliers	180081	1466 (3.20-3.20)
RNA backbone	3983	1222 (3.50-2.90)

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	RA	2915	64% 28% 6% •
1	YA	2915	64% 28% 7% •
2	RB	122	81% 16% • •
2	YB	122	68% 26% • •

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Mol	Chain	Length	Quality of chain
3	RD	276	
3	YD	276	
4	RE	206	
4	YE	206	
5	RF	210	
5	YF	210	
6	RG	182	
6	YG	182	
7	RH	180	
7	YH	180	
8	RI	148	
8	YI	148	
9	RN	140	
9	YN	140	
10	RO	122	
10	YO	122	
11	RP	150	
11	YP	150	
12	RQ	141	
12	YQ	141	
13	RR	118	
13	YR	118	
14	RS	112	
14	YS	112	
15	RT	146	

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Mol	Chain	Length	Quality of chain
15	YT	146	
16	RU	118	
16	YU	118	
17	RV	101	
17	YV	101	
18	RW	113	
18	YW	113	
19	RX	96	
19	YX	96	
20	RY	110	
20	YY	110	
21	RZ	206	
21	YZ	206	
22	R0	85	
22	Y0	85	
23	R1	98	
23	Y1	98	
24	R2	72	
24	Y2	72	
25	R3	60	
25	Y3	60	
26	R4	71	
26	Y4	71	
27	R5	60	
27	Y5	60	

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Mol	Chain	Length	Quality of chain
28	R6	54	
28	Y6	54	
29	R7	49	
29	Y7	49	
30	R8	65	
30	Y8	65	
31	R9	37	
31	Y9	37	
32	QA	1521	
32	XA	1521	
33	QB	256	
33	XB	256	
34	QC	239	
34	XC	239	
35	QD	209	
35	XD	209	
36	QE	162	
36	XE	162	
37	QF	101	
37	XF	101	
38	QG	156	
38	XG	156	
39	QH	138	
39	XH	138	
40	QI	128	

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Mol	Chain	Length	Quality of chain
40	XI	128	
41	QJ	105	
41	XJ	105	
42	QK	129	
42	XK	129	
43	QL	132	
43	XL	132	
44	QM	126	
44	XM	126	
45	QN	61	
45	XN	61	
46	QO	89	
46	XO	89	
47	QP	88	
47	XP	88	
48	QQ	105	
48	XQ	105	
49	QR	88	
49	XR	88	
50	QS	93	
50	XS	93	
51	QT	106	
51	XT	106	
52	QU	27	
52	XU	27	

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Mol	Chain	Length	Quality of chain
53	QV	77	
53	XV	77	
54	QX	25	
54	XX	25	
55	QY	360	
55	XY	360	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	QA	1641	-	-	-	X
56	MG	QA	1660	-	-	-	X
56	MG	QA	1670	-	-	-	X
56	MG	QA	1716	-	-	-	X
56	MG	QA	1721	-	-	-	X
56	MG	QA	1775	-	-	-	X
56	MG	QA	1778	-	-	-	X
56	MG	QA	1820	-	-	-	X
56	MG	QA	1821	-	-	-	X
56	MG	QA	1840	-	-	-	X
56	MG	QA	1850	-	-	-	X
56	MG	R0	103	-	-	-	X
56	MG	R1	101	-	-	-	X
56	MG	RA	3018	-	-	-	X
56	MG	RA	3030	-	-	-	X
56	MG	RA	3049	-	-	-	X
56	MG	RA	3051	-	-	-	X
56	MG	RA	3053	-	-	-	X
56	MG	RA	3077	-	-	-	X
56	MG	RA	3099	-	-	-	X
56	MG	RA	3101	-	-	-	X
56	MG	RA	3109	-	-	-	X
56	MG	RA	3113	-	-	-	X
56	MG	RA	3120	-	-	-	X
56	MG	RA	3162	-	-	-	X
56	MG	RA	3172	-	-	-	X
56	MG	RA	3174	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	RA	3175	-	-	-	X
56	MG	RA	3179	-	-	-	X
56	MG	RA	3180	-	-	-	X
56	MG	RA	3184	-	-	-	X
56	MG	RA	3190	-	-	-	X
56	MG	RA	3192	-	-	-	X
56	MG	RA	3223	-	-	-	X
56	MG	RA	3227	-	-	-	X
56	MG	RA	3235	-	-	-	X
56	MG	RA	3239	-	-	-	X
56	MG	RA	3241	-	-	-	X
56	MG	RA	3247	-	-	-	X
56	MG	RA	3254	-	-	-	X
56	MG	RA	3267	-	-	-	X
56	MG	RA	3281	-	-	-	X
56	MG	RA	3298	-	-	-	X
56	MG	RA	3306	-	-	-	X
56	MG	RA	3364	-	-	-	X
56	MG	RA	3366	-	-	-	X
56	MG	RA	3370	-	-	-	X
56	MG	RA	3379	-	-	-	X
56	MG	RA	3393	-	-	-	X
56	MG	RA	3417	-	-	-	X
56	MG	RA	3423	-	-	-	X
56	MG	RA	3440	-	-	-	X
56	MG	RA	3471	-	-	-	X
56	MG	RA	3482	-	-	-	X
56	MG	RA	3512	-	-	-	X
56	MG	RA	3522	-	-	-	X
56	MG	RA	3531	-	-	-	X
56	MG	RA	3539	-	-	-	X
56	MG	RA	3552	-	-	-	X
56	MG	RA	3566	-	-	-	X
56	MG	RA	3579	-	-	-	X
56	MG	RA	3590	-	-	-	X
56	MG	RA	3594	-	-	-	X
56	MG	RA	3596	-	-	-	X
56	MG	RA	3623	-	-	-	X
56	MG	RA	3628	-	-	-	X
56	MG	RA	3636	-	-	-	X
56	MG	RA	3637	-	-	-	X
56	MG	RA	3682	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	RA	3696	-	-	-	X
56	MG	RA	3698	-	-	-	X
56	MG	RA	3699	-	-	-	X
56	MG	RA	3752	-	-	-	X
56	MG	RA	3764	-	-	-	X
56	MG	RA	3767	-	-	-	X
56	MG	RA	3772	-	-	-	X
56	MG	RA	3817	-	-	-	X
56	MG	RA	3883	-	-	-	X
56	MG	RA	3894	-	-	-	X
56	MG	RA	3899	-	-	-	X
56	MG	RA	3900	-	-	-	X
56	MG	RA	3927	-	-	-	X
56	MG	RA	3932	-	-	-	X
56	MG	RA	3943	-	-	-	X
56	MG	RA	3967	-	-	-	X
56	MG	RA	3972	-	-	-	X
56	MG	RA	3973	-	-	-	X
56	MG	RA	3974	-	-	-	X
56	MG	RA	3986	-	-	-	X
56	MG	RA	3999	-	-	-	X
56	MG	RA	4037	-	-	-	X
56	MG	RB	212	-	-	-	X
56	MG	RE	302	-	-	-	X
56	MG	RE	304	-	-	-	X
56	MG	RF	301	-	-	-	X
56	MG	RF	303	-	-	-	X
56	MG	RF	308	-	-	-	X
56	MG	RN	201	-	-	-	X
56	MG	XA	1610	-	-	-	X
56	MG	XA	1625	-	-	-	X
56	MG	XA	1684	-	-	-	X
56	MG	XA	1688	-	-	-	X
56	MG	XA	1742	-	-	-	X
56	MG	XA	1746	-	-	-	X
56	MG	XA	1764	-	-	-	X
56	MG	XA	1765	-	-	-	X
56	MG	XA	1769	-	-	-	X
56	MG	XA	1773	-	-	-	X
56	MG	XA	1775	-	-	-	X
56	MG	XA	1779	-	-	-	X
56	MG	Y7	102	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	YA	3019	-	-	-	X
56	MG	YA	3022	-	-	-	X
56	MG	YA	3024	-	-	-	X
56	MG	YA	3030	-	-	-	X
56	MG	YA	3033	-	-	-	X
56	MG	YA	3083	-	-	-	X
56	MG	YA	3105	-	-	-	X
56	MG	YA	3146	-	-	-	X
56	MG	YA	3164	-	-	-	X
56	MG	YA	3184	-	-	-	X
56	MG	YA	3223	-	-	-	X
56	MG	YA	3234	-	-	-	X
56	MG	YA	3246	-	-	-	X
56	MG	YA	3247	-	-	-	X
56	MG	YA	3250	-	-	-	X
56	MG	YA	3257	-	-	-	X
56	MG	YA	3260	-	-	-	X
56	MG	YA	3281	-	-	-	X
56	MG	YA	3300	-	-	-	X
56	MG	YA	3302	-	-	-	X
56	MG	YA	3357	-	-	-	X
56	MG	YA	3390	-	-	-	X
56	MG	YA	3400	-	-	-	X
56	MG	YA	3419	-	-	-	X
56	MG	YA	3433	-	-	-	X
56	MG	YA	3443	-	-	-	X
56	MG	YA	3452	-	-	-	X
56	MG	YA	3454	-	-	-	X
56	MG	YA	3455	-	-	-	X
56	MG	YA	3456	-	-	-	X
56	MG	YA	3476	-	-	-	X
56	MG	YA	3504	-	-	-	X
56	MG	YA	3509	-	-	-	X
56	MG	YA	3512	-	-	-	X
56	MG	YA	3534	-	-	-	X
56	MG	YA	3545	-	-	-	X
56	MG	YA	3547	-	-	-	X
56	MG	YA	3583	-	-	-	X
56	MG	YA	3587	-	-	-	X
56	MG	YA	3621	-	-	-	X
56	MG	YA	3673	-	-	-	X
56	MG	YA	3679	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	YA	3682	-	-	-	X
56	MG	YA	3698	-	-	-	X
56	MG	YA	3704	-	-	-	X
56	MG	YA	3711	-	-	-	X
56	MG	YB	206	-	-	-	X
56	MG	YD	305	-	-	-	X
56	MG	YE	301	-	-	-	X
56	MG	YE	303	-	-	-	X

2 Entry composition [i](#)

There are 58 unique types of molecules in this entry. The entry contains 294739 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 23S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	RA	2867	Total	C	N	O	P	0	0	0
			61758	27491	11552	19850	2865			
1	YA	2867	Total	C	N	O	P	0	0	0
			61758	27491	11552	19850	2865			

- Molecule 2 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	RB	120	Total	C	N	O	P	0	0	0
			2572	1145	476	832	119			
2	YB	120	Total	C	N	O	P	0	0	0
			2573	1146	476	832	119			

- Molecule 3 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	RD	275	Total	C	N	O	S	0	0	0
			2131	1346	422	360	3			
3	YD	275	Total	C	N	O	S	0	0	0
			2136	1349	423	361	3			

- Molecule 4 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	RE	204	Total	C	N	O	S	0	0	0
			1559	985	298	270	6			
4	YE	204	Total	C	N	O	S	0	0	0
			1559	985	298	270	6			

- Molecule 5 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	RF	203	Total	C	N	O	S	0	0	1
			1584	1009	298	275	2			
5	YF	203	Total	C	N	O	S	0	0	1
			1580	1007	297	274	2			

- Molecule 6 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	RG	181	Total	C	N	O	S	0	0	0
			1426	916	253	253	4			
6	YG	181	Total	C	N	O	S	0	0	0
			1424	912	259	249	4			

- Molecule 7 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	RH	174	Total	C	N	O	S	0	0	0
			1330	845	248	236	1			
7	YH	173	Total	C	N	O	S	0	0	0
			1324	842	247	234	1			

- Molecule 8 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	RI	147	Total	C	N	O	S	0	0	0
			1094	699	191	203	1			
8	YI	146	Total	C	N	O	S	0	0	0
			1076	687	186	202	1			

- Molecule 9 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	RN	140	Total	C	N	O	S	0	0	0
			1121	722	208	187	4			
9	YN	140	Total	C	N	O	S	0	0	0
			1117	719	207	187	4			

- Molecule 10 is a protein called 50S ribosomal protein L14.

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

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

- Molecule 11 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	RP	149	Total	C	N	O	S	0	0	0
			1135	706	230	196	3			
11	YP	149	Total	C	N	O	S	0	0	0
			1135	706	230	196	3			

- Molecule 12 is a protein called 50S ribosomal protein L16.

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

- Molecule 13 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	RR	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			
13	YR	118	Total	C	N	O	S	0	0	0
			968	604	203	160	1			

- Molecule 14 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
14	RS	110	Total	C	N	O	0	0	0
			877	553	175	149			
14	YS	110	Total	C	N	O	0	0	0
			870	549	173	148			

- Molecule 15 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	RT	131	Total	C	N	O	S	0	0	0
			1091	680	225	185	1			
15	YT	131	Total	C	N	O	S	0	0	0
			1083	675	224	183	1			

- Molecule 16 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	RU	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			
16	YU	116	Total	C	N	O	S	0	0	0
			959	608	201	149	1			

- Molecule 17 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	RV	101	Total	C	N	O	S	0	0	0
			775	498	141	135	1			
17	YV	101	Total	C	N	O	S	0	0	0
			771	495	140	135	1			

- Molecule 18 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	RW	112	Total	C	N	O	S	0	0	0
			886	557	174	153	2			
18	YW	112	Total	C	N	O	S	0	0	0
			886	557	174	153	2			

- Molecule 19 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	RX	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			
19	YX	95	Total	C	N	O	S	0	0	0
			750	488	135	126	1			

- Molecule 20 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	RY	107	Total	C	N	O	S	0	0	0
			810	520	153	131	6			
20	YY	107	Total	C	N	O	S	0	0	0
			810	519	153	132	6			

- Molecule 21 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	RZ	189	Total	C	N	O	S	0	0	0
			1485	946	265	272	2			
21	YZ	189	Total	C	N	O	S	0	0	0
			1469	938	259	270	2			

- Molecule 22 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	R0	77	Total	C	N	O	S	0	0	0
			608	375	129	103	1			
22	Y0	77	Total	C	N	O	S	0	0	0
			608	375	129	103	1			

- Molecule 23 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	R1	97	Total	C	N	O	S	0	0	0
			754	475	148	130	1			
23	Y1	97	Total	C	N	O	S	0	0	0
			759	478	149	131	1			

- Molecule 24 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	R2	70	Total	C	N	O	S	0	0	0
			588	365	118	103	2			
24	Y2	70	Total	C	N	O	S	0	0	0
			592	368	119	103	2			

- Molecule 25 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
25	R3	59	Total	C	N	O	0	0	0
			469	298	90	81			
25	Y3	59	Total	C	N	O	0	0	0
			464	296	90	78			

- Molecule 26 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	R4	69	Total	C	N	O	S	0	0	0
			546	346	96	99	5			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	Y4	69	Total	C	N	O	S	0	0	0
			536	342	98	91	5			

- Molecule 27 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	R5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			
27	Y5	59	Total	C	N	O	S	0	0	0
			455	285	89	76	5			

- Molecule 28 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	R6	53	Total	C	N	O	S	0	0	0
			453	281	91	77	4			
28	Y6	53	Total	C	N	O	S	0	0	0
			449	279	91	75	4			

- Molecule 29 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	R7	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			
29	Y7	48	Total	C	N	O	S	0	0	0
			418	257	104	55	2			

- Molecule 30 is a protein called 50S ribosomal protein L35.

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

- Molecule 31 is a protein called 50S ribosomal protein L36.

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

- Molecule 32 is a RNA chain called 16S rRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	QA	1500	Total	C	N	O	P	0	0	0
			32246	14358	5975	10413	1500			
32	XA	1504	Total	C	N	O	P	0	0	0
			32331	14396	5990	10441	1504			

- Molecule 33 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	QB	231	Total	C	N	O	S	0	0	0
			1842	1175	330	332	5			
33	XB	231	Total	C	N	O	S	0	0	0
			1825	1167	326	327	5			

- Molecule 34 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	QC	206	Total	C	N	O	S	0	0	0
			1558	979	305	273	1			
34	XC	206	Total	C	N	O	S	0	0	0
			1542	968	300	273	1			

- Molecule 35 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	QD	208	Total	C	N	O	S	0	0	0
			1665	1043	329	286	7			
35	XD	208	Total	C	N	O	S	0	0	0
			1668	1047	330	284	7			

- Molecule 36 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	QE	148	Total	C	N	O	S	0	0	0
			1133	716	214	199	4			
36	XE	148	Total	C	N	O	S	0	0	0
			1133	716	214	199	4			

- Molecule 37 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	QF	100	Total	C	N	O	S	0	0	0
			814	516	144	151	3			
37	XF	100	Total	C	N	O	S	0	0	0
			816	516	146	151	3			

- Molecule 38 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
38	QG	155	Total	C	N	O	S	0	0	0
			1235	769	244	216	6			
38	XG	155	Total	C	N	O	S	0	0	0
			1229	766	241	216	6			

- Molecule 39 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
39	QH	137	Total	C	N	O	S	0	0	0
			1098	694	210	192	2			
39	XH	137	Total	C	N	O	S	0	0	0
			1088	689	206	191	2			

- Molecule 40 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
40	QI	127	Total	C	N	O	0	0	0
			986	625	193	168			
40	XI	126	Total	C	N	O	0	0	0
			966	613	186	167			

- Molecule 41 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
41	QJ	97	Total	C	N	O	0	0	0
			719	446	142	131			
41	XJ	96	Total	C	N	O	0	0	0
			710	442	137	131			

- Molecule 42 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	QK	114	Total	C	N	O	S	0	0	0
			834	520	156	155	3			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	XK	114	Total	C	N	O	S	0	0	0
			833	519	156	155	3			

- Molecule 43 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	QL	122	Total	C	N	O	S	0	0	0
			932	586	185	159	2			
43	XL	122	Total	C	N	O	S	0	0	0
			932	586	185	159	2			

- Molecule 44 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
44	QM	116	Total	C	N	O	S	0	0	0
			914	564	189	159	2			
44	XM	114	Total	C	N	O	S	0	0	0
			895	550	186	157	2			

- Molecule 45 is a protein called 30S ribosomal protein S14 type Z.

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

- Molecule 46 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	QO	88	Total	C	N	O	S	0	0	0
			728	456	144	126	2			
46	XO	88	Total	C	N	O	S	0	0	0
			728	456	144	126	2			

- Molecule 47 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	QP	82	Total	C	N	O	S	0	0	0
			681	433	134	113	1			
47	XP	82	Total	C	N	O	S	0	0	0
			677	430	133	113	1			

- Molecule 48 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
48	QQ	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			
48	XQ	99	Total	C	N	O	S	0	0	0
			823	528	151	142	2			

- Molecule 49 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	QR	68	Total	C	N	O		0	0	0
			555	355	108	92				
49	XR	68	Total	C	N	O		0	0	0
			555	355	108	92				

- Molecule 50 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	QS	83	Total	C	N	O	S	0	0	0
			648	415	120	111	2			
50	XS	83	Total	C	N	O	S	0	0	0
			645	410	118	115	2			

- Molecule 51 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	QT	96	Total	C	N	O	S	0	0	0
			732	449	157	124	2			
51	XT	98	Total	C	N	O	S	0	0	0
			733	451	154	126	2			

- Molecule 52 is a protein called 30S ribosomal protein Thx.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
52	QU	23	Total	C	N	O	0	0	0
			199	122	48	29			
52	XU	23	Total	C	N	O	0	0	0
			199	122	48	29			

- Molecule 53 is a RNA chain called P-site tRNA fMet.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	QV	77	Total	C	N	O	P	0	0	0
			1644	732	297	538	77			
53	XV	77	Total	C	N	O	P	0	0	0
			1644	732	297	538	77			

- Molecule 54 is a RNA chain called messenger RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	QX	10	Total	C	N	O	P	0	0	0
			215	97	42	66	10			
54	XX	9	Total	C	N	O	P	0	0	0
			193	87	37	60	9			

- Molecule 55 is a protein called Peptide chain release factor 1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	QY	258	Total	C	N	O	S	0	0	0
			2014	1235	382	389	8			
55	XY	259	Total	C	N	O	S	0	0	0
			2023	1240	384	391	8			

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	RA	1039	Total	Mg	0	0
			1039	1039		
56	RB	27	Total	Mg	0	0
			27	27		
56	RD	15	Total	Mg	0	0
			15	15		
56	RE	8	Total	Mg	0	0
			8	8		
56	RF	12	Total	Mg	0	0
			12	12		
56	RG	4	Total	Mg	0	0
			4	4		
56	RH	1	Total	Mg	0	0
			1	1		
56	RN	2	Total	Mg	0	0
			2	2		
56	RO	1	Total	Mg	0	0
			1	1		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	RP	1	Total Mg 1 1	0	0
56	RQ	6	Total Mg 6 6	0	0
56	RR	3	Total Mg 3 3	0	0
56	RT	2	Total Mg 2 2	0	0
56	RU	2	Total Mg 2 2	0	0
56	RV	4	Total Mg 4 4	0	0
56	RW	2	Total Mg 2 2	0	0
56	RX	1	Total Mg 1 1	0	0
56	RY	1	Total Mg 1 1	0	0
56	RZ	1	Total Mg 1 1	0	0
56	R0	4	Total Mg 4 4	0	0
56	R1	4	Total Mg 4 4	0	0
56	R3	2	Total Mg 2 2	0	0
56	R5	3	Total Mg 3 3	0	0
56	R7	2	Total Mg 2 2	0	0
56	R8	1	Total Mg 1 1	0	0
56	QA	256	Total Mg 256 256	0	0
56	QB	1	Total Mg 1 1	0	0
56	QD	3	Total Mg 3 3	0	0
56	QE	2	Total Mg 2 2	0	0
56	QF	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	QG	2	Total 2	Mg 2	0	0
56	QH	1	Total 1	Mg 1	0	0
56	QI	1	Total 1	Mg 1	0	0
56	QL	2	Total 2	Mg 2	0	0
56	QM	1	Total 1	Mg 1	0	0
56	QN	2	Total 2	Mg 2	0	0
56	QO	1	Total 1	Mg 1	0	0
56	QQ	1	Total 1	Mg 1	0	0
56	QR	1	Total 1	Mg 1	0	0
56	QT	2	Total 2	Mg 2	0	0
56	QV	6	Total 6	Mg 6	0	0
56	YA	744	Total 744	Mg 744	0	0
56	YB	18	Total 18	Mg 18	0	0
56	YD	9	Total 9	Mg 9	0	0
56	YE	5	Total 5	Mg 5	0	0
56	YF	3	Total 3	Mg 3	0	0
56	YG	2	Total 2	Mg 2	0	0
56	YI	1	Total 1	Mg 1	0	0
56	YN	1	Total 1	Mg 1	0	0
56	YO	2	Total 2	Mg 2	0	0
56	YP	1	Total 1	Mg 1	0	0

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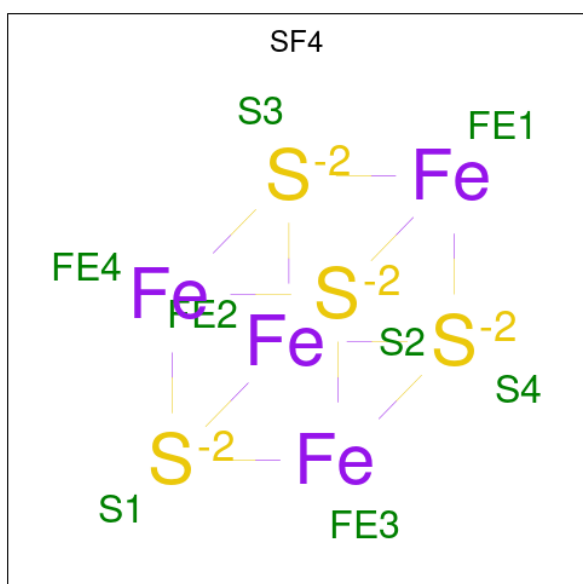
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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	YQ	2	Total 2	Mg 2	0	0
56	YR	1	Total 1	Mg 1	0	0
56	YT	4	Total 4	Mg 4	0	0
56	YV	1	Total 1	Mg 1	0	0
56	YW	2	Total 2	Mg 2	0	0
56	YX	1	Total 1	Mg 1	0	0
56	Y0	1	Total 1	Mg 1	0	0
56	Y1	1	Total 1	Mg 1	0	0
56	Y5	1	Total 1	Mg 1	0	0
56	Y7	2	Total 2	Mg 2	0	0
56	Y8	2	Total 2	Mg 2	0	0
56	XA	183	Total 183	Mg 183	0	0
56	XE	1	Total 1	Mg 1	0	0
56	XF	2	Total 2	Mg 2	0	0
56	XJ	1	Total 1	Mg 1	0	0
56	XK	1	Total 1	Mg 1	0	0
56	XL	1	Total 1	Mg 1	0	0
56	XR	1	Total 1	Mg 1	0	0
56	XT	1	Total 1	Mg 1	0	0
56	XV	4	Total 4	Mg 4	0	0
56	XX	1	Total 1	Mg 1	0	0

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
57	RY	1	Total	Zn	0	0
			1	1		
57	R4	1	Total	Zn	0	0
			1	1		
57	R5	1	Total	Zn	0	0
			1	1		
57	R6	1	Total	Zn	0	0
			1	1		
57	R9	1	Total	Zn	0	0
			1	1		
57	QN	1	Total	Zn	0	0
			1	1		
57	YY	1	Total	Zn	0	0
			1	1		
57	Y4	1	Total	Zn	0	0
			1	1		
57	Y5	1	Total	Zn	0	0
			1	1		
57	Y6	1	Total	Zn	0	0
			1	1		
57	Y9	1	Total	Zn	0	0
			1	1		
57	XN	1	Total	Zn	0	0
			1	1		

- Molecule 58 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe₄S₄).

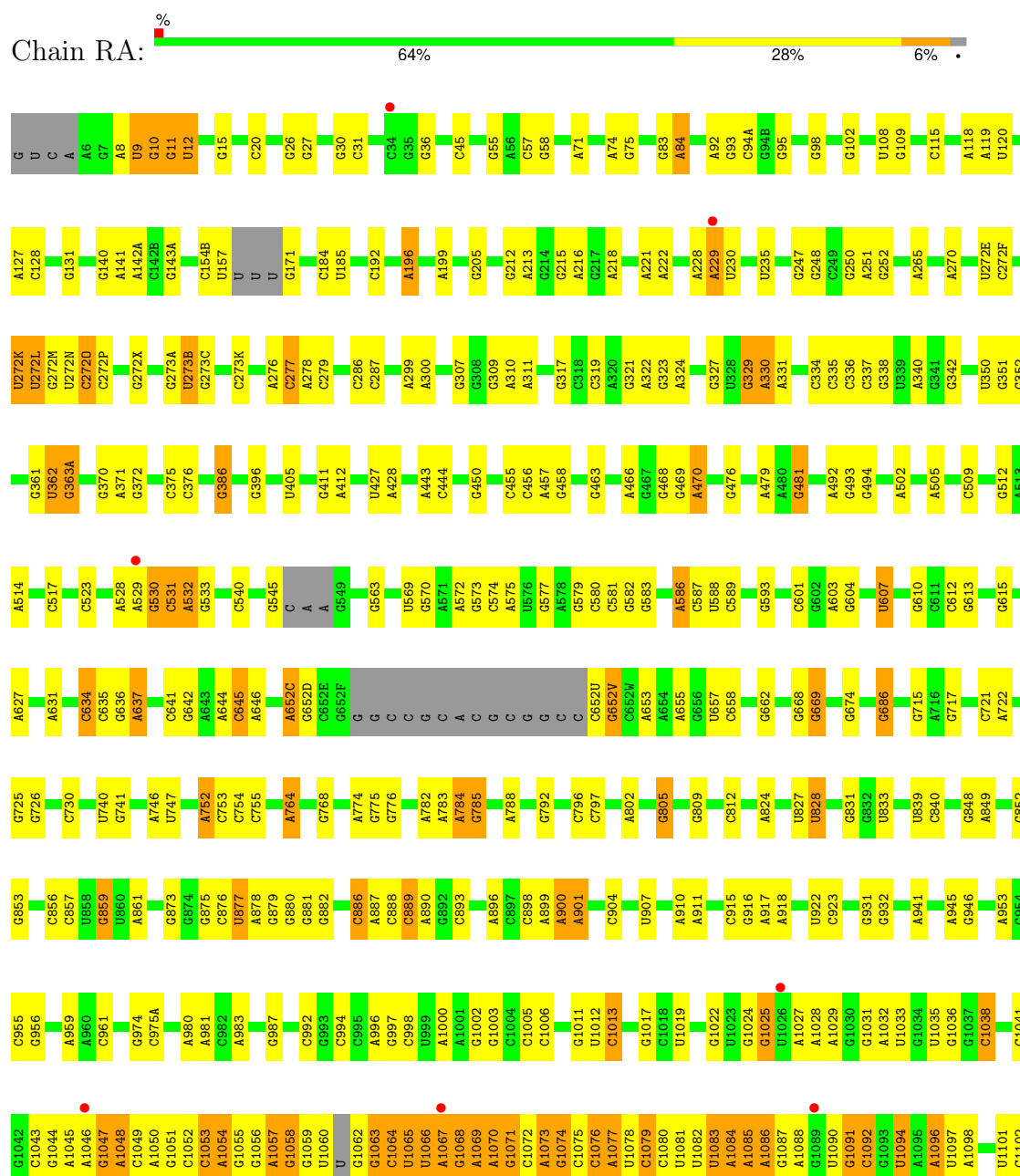


Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
58	QD	1	Total 8	Fe 4	S 4	0	0
58	XD	1	Total 8	Fe 4	S 4	0	0

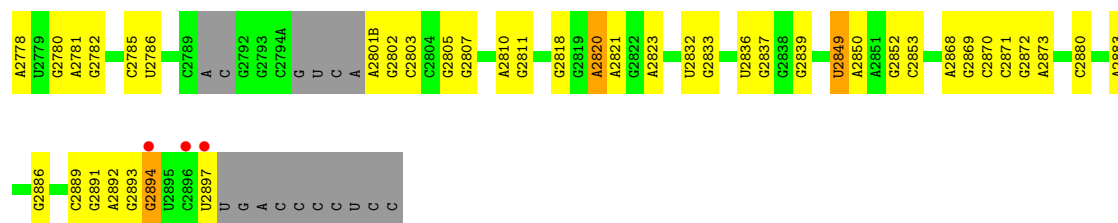
3 Residue-property plots [i](#)

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density ($RSRZ > 2$). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

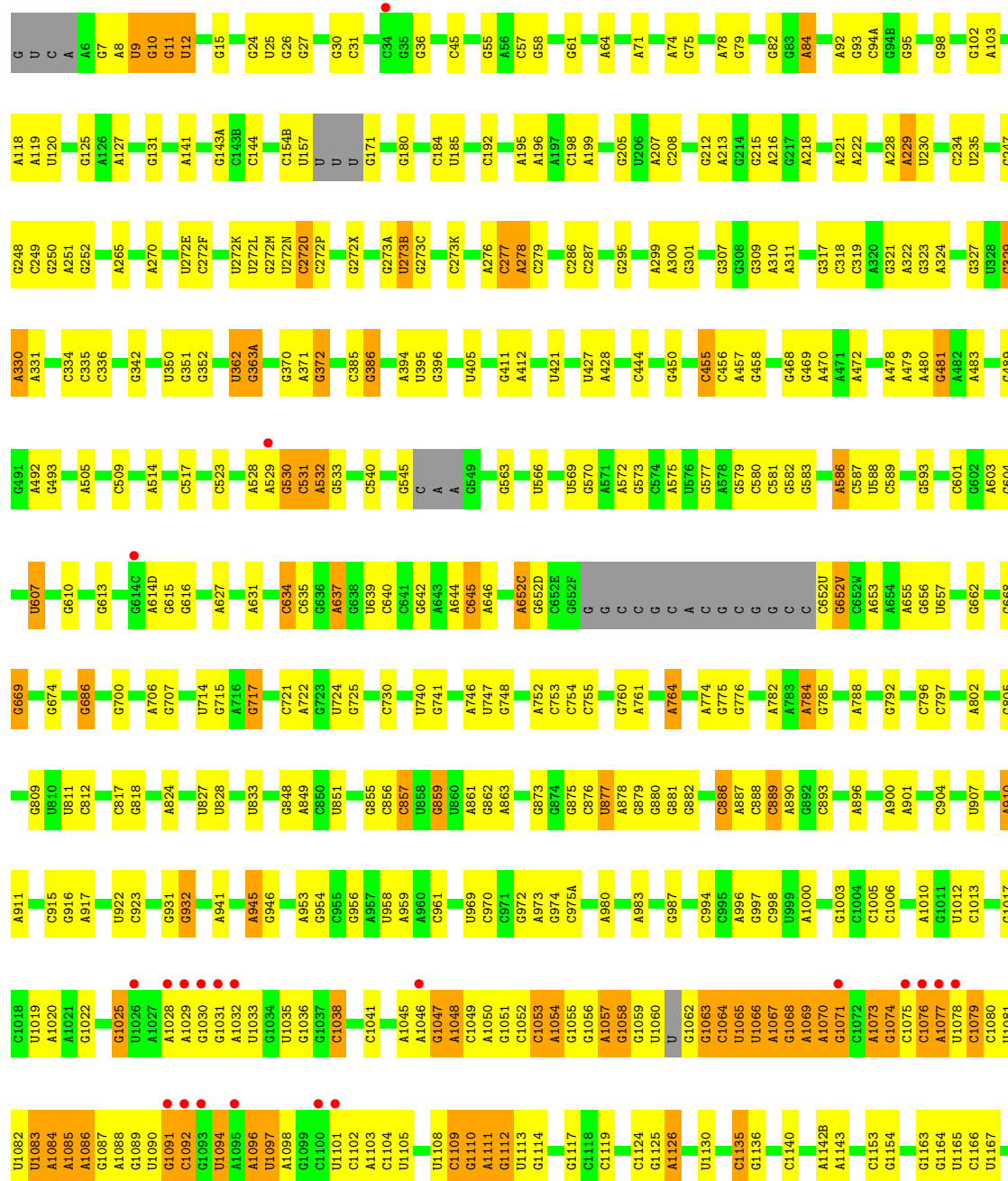
• Molecule 1: 23S rRNA



C2880	G2513	G2391	A2311	G2184	A2119	U2013	A1889	G1750	A1587	G1479	G1368	G1223	A1103
C2883	A2518	C2394	U2312	C2185	G2120	G2012	A1890	G1756	C1588	G1482	U1372	G1224	C1104
U2689	G2526	U2401	C2314	G2187	G2121	A2013	G1889	U1757	G1593	G1492	A1378	G1225	U1105
C2690	C2527	C2402	G2315	U2189	G2123	A2015	A1900	G1758	G1594	G1493	A1379	A1226	C1109
A2693	U2528	C2317	G2316	G2190	A2126	U2016	G1904	A1762	C1607	A1494	A1380	G1236	A1111
G2694	G2530	U2406	C2318	G2191	G2127	U2022	C1905	G1763	A1608	A1495	G1384	G1239	G1112
C2695	A2539	G2319	G2319	G2192	C2128	G2023	G1906	G1764	A1496	U1497	G1385	U1240	U1113
U2696	U2537	A2320	A2320	G2198	U2129	G2027	U1911	A1773	A1610	U1503	G1388	G1250	G1114
C2538	C2538	A2322	A2322	A2198	U2130	G2027	U1912	A1778	A1614	C1504	A1392	G1250	G1117
G2543	G2543	G2325	G2325	G2206	U2132	A2031	A1913	U1778	A1505	C1505	A1393	A1253	C1118
G2544	G2544	C2326	C2326	G2207	G2133	G2032	C1914	U1779	G1622	C1506	U1396	A1254	C1119
C2703	U2552	A2327	A2327	U2218	A2135	A2033	U1915	A1780	G1626	A1507	U1397	U1255	G1125
G2704	G2553	A2328	A2328	G2219	G2136	C2043	U1916	A1784	A1637	A1508	G1400	G1256	A1126
A2705	U2554	G2329	G2329	A2225	C2137	A2061	U1917	A1785	A1638	A1509A	G1401	G1266	U1130
G2709	U2555	G2330	G2330	G2228	C2138	A2061	C1920	A1786	U1639	A1509B	G1401	G1266	U1130
C2710	C2555	G2331	G2331	G2228	C2139	C2055	U1923	C1790	C1640	A1589C	C1404	C1270	C1135
A2711	A2566	G2334	G2334	G2234	G2141	G2056	A1927	A1791	A1641	G1511	U1405	G1271	G1136
U2712A	G2567	A2335	A2335	G2234	C2142	G2056	A1928	U1794	G1642	C1511	U1406	A1272	G1139
A2712B	C2568	A2336	A2336	G2238	C2143	A2060	G1929	C1795	G1648	U1514	U1274	A1273	C1140
A2713	A2572	U2438	U2438	G2239	U2144	G2061	G1930	U1796	G1653	G1515	C1407	A1275	U1141
G2714	C2573	A2439	A2439	U2243	C2145	A2062	U1931	U1797	G1657	C1530	G1410	A1422A	U142A
G2719	G2574	C2440	C2440	U2244	G2147	G2069	G1932	U1798	C1657	C1531	G1411	U1278	A1142B
U2726	U2578	G2445	G2445	G2250	G2148	U2074	G1933	C1800	C1658	G1533	G1417	U1288	G1143
C2732	A2602	C2447	C2447	G2251	U2150	U2075	A1936	A1802	G1667	U	A1418	U1288	G1144
A2733	G2603	A2448	A2448	G2259	G2152	U2086	A1937	A1803	A1668	A	A1419	C1291	C1153
G2734	U2604	G2455	G2455	U2262	G2153	G2087	U1939	C1803	A1669	G1536	U1420	U1292	G1154
G2735	U2605	C2461	C2461	U2262	G2154	U2087	U1939	C1804	A1689	G1539	U1431	C1293	U1165
C2742	U2609	C2462	C2462	A2269	G2155	U2092	C1942	A1815	G1674	A1542	C1432	C1295	C1166
C2743	C2610	C2463	C2463	G2275	G2156	G2093	U1955	A1816	U1693	C1543	A1445A	C1309	U1167
G2745	U2611	C2464	C2464	G2276	A2158	G2094	C1962	A1817	G1686	G1429	G1310	G1300	G1171
U2746	C2612	C2465	C2465	G2277	G2159	C2095	U1963	A1818	G1687	C1430	C1314	U1300	G
G2747	U2615	C2466	C2466	G2278	G2160	U2096	U1963	A1819	U1688	U1431	G1347	A1301	A
A2748	C2616	C2364	C2364	A2278	C2161	C2097	C1967	A1815	A1689	C1557	G1453	C1327	U
U2749	C2617	G2365	G2365	A2278	G2162	U2098	C1967	A1816	U1693	A1558	G1455	U188	G
A2750	A2629	G2372	G2372	G2282	G2163	U2099	C1970	G1817	U1694	G1559	U1340	C1201	A
C2751	G2630	C2373	C2373	G2283	C2164	C2103	A1970	U1818	G1695	A1566	U1341	C1201	C1178
G2752	U2647	C2374	C2374	G2284	G2165	G2104	A1971	U1819	G1696	A1567	U1341	U1205	C1179
A2753	C2496	G2375	G2375	A2286	G2166	C2105	A1972	G1824	G1697	A1567	G1352	G1206	C1180
U2756	C2497	A2376	A2376	G2287	U2168	G2106	G1975	C1827	A1698	G1568	U1352	U1352	U188
A2757	G2498	A2377	A2377	G2288	G2169	C2107	G1975	U1827	U1700	A1570	U1340	U1341	U188
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• Molecule 1: 23S rRNA



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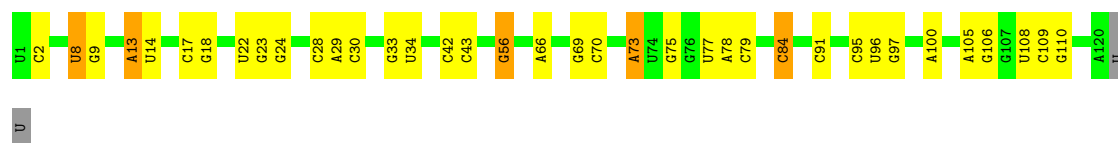
• Molecule 2: 5S rRNA

Chain RB: 81% 16% . .



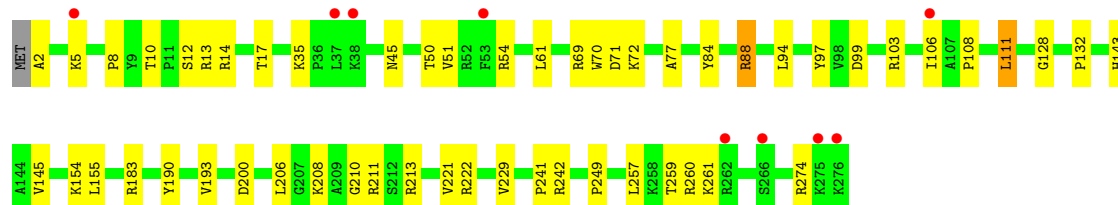
• Molecule 2: 5S rRNA

Chain YB: 68% 26% . .



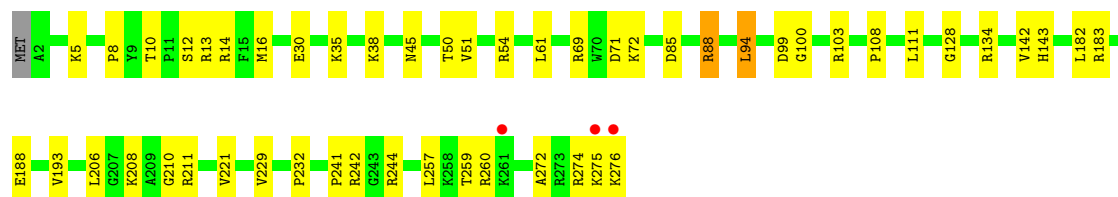
• Molecule 3: 50S ribosomal protein L2

Chain RD: 3% 80% 19% .



• Molecule 3: 50S ribosomal protein L2

Chain YD: 81% 18% .



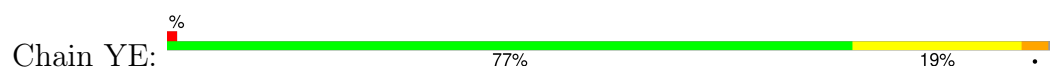
• Molecule 4: 50S ribosomal protein L3

Chain RE: 2% 80% 15% . .

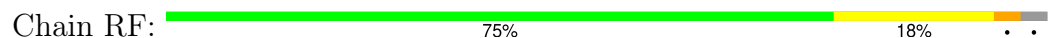




- Molecule 4: 50S ribosomal protein L3



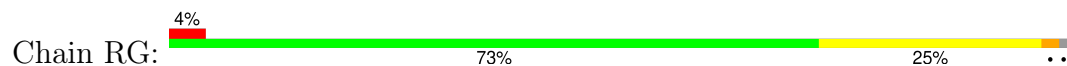
- Molecule 5: 50S ribosomal protein L4



- Molecule 5: 50S ribosomal protein L4

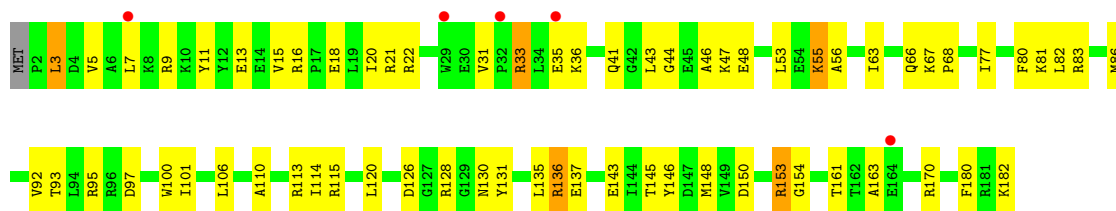


- Molecule 6: 50S ribosomal protein L5

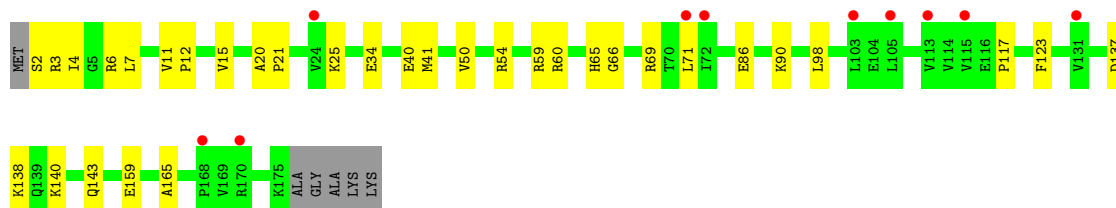
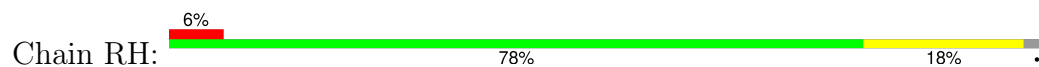


- Molecule 6: 50S ribosomal protein L5

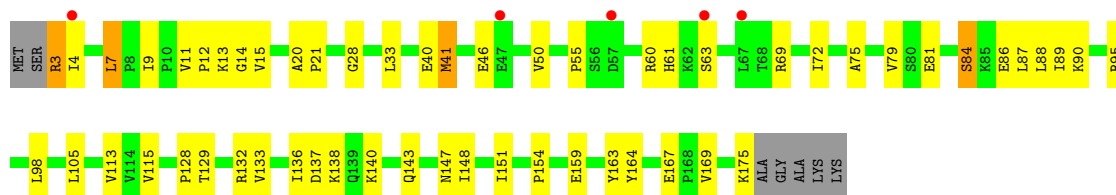




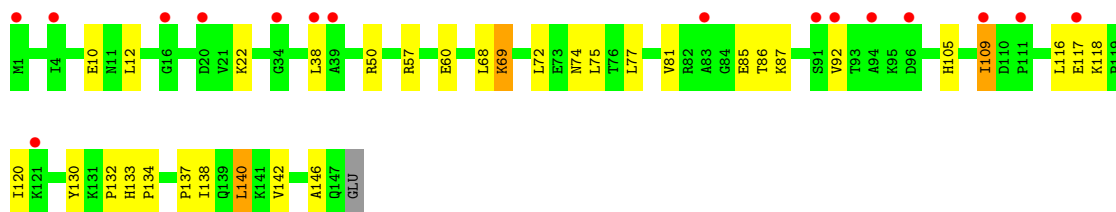
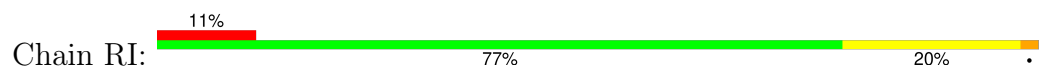
• Molecule 7: 50S ribosomal protein L6



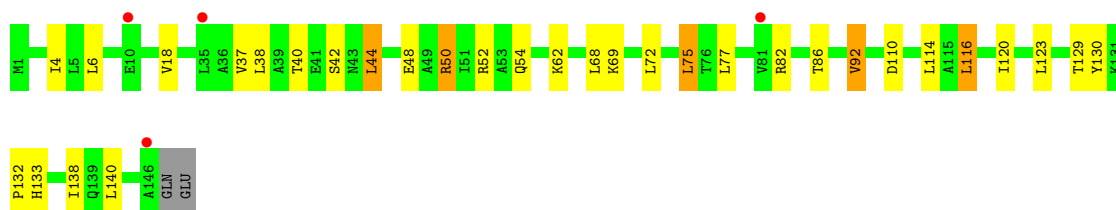
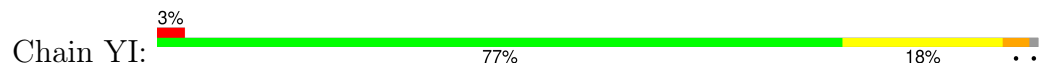
• Molecule 7: 50S ribosomal protein L6



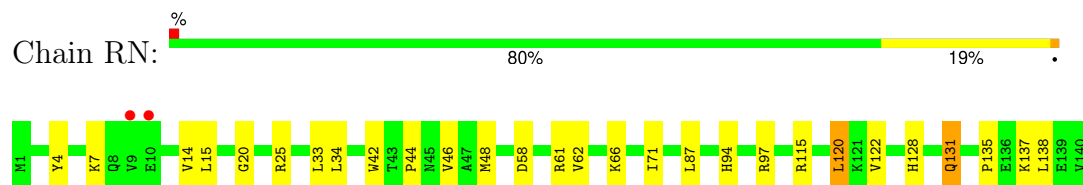
• Molecule 8: 50S ribosomal protein L9



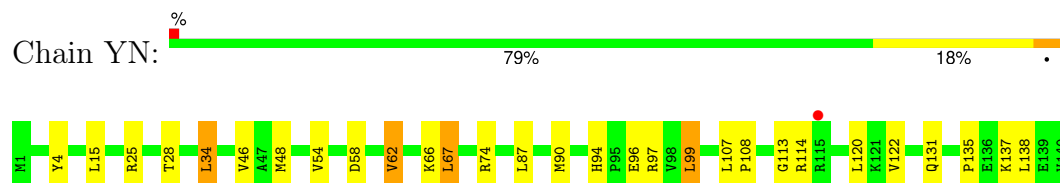
• Molecule 8: 50S ribosomal protein L9



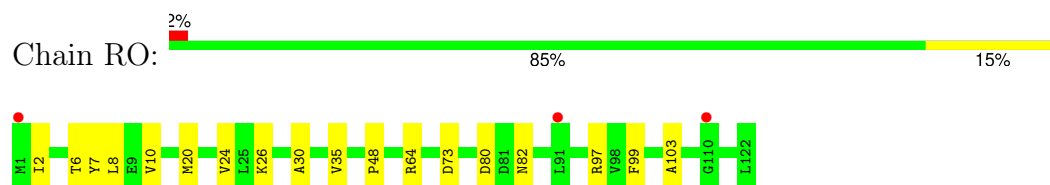
• Molecule 9: 50S ribosomal protein L13



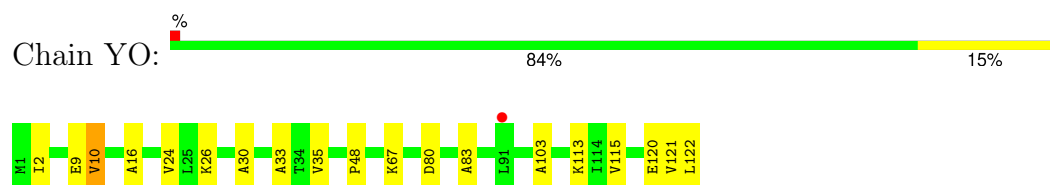
• Molecule 9: 50S ribosomal protein L13



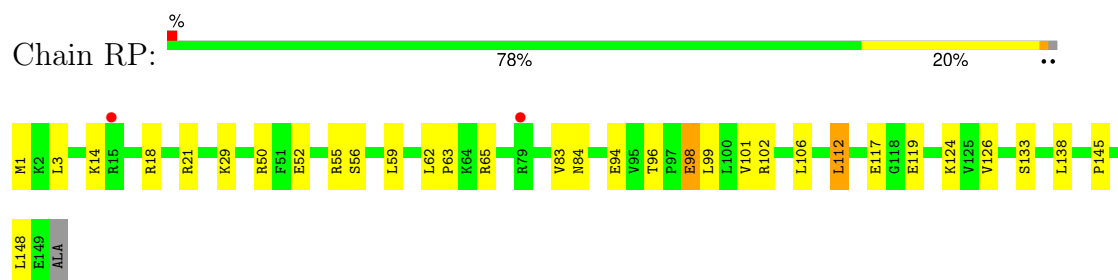
• Molecule 10: 50S ribosomal protein L14



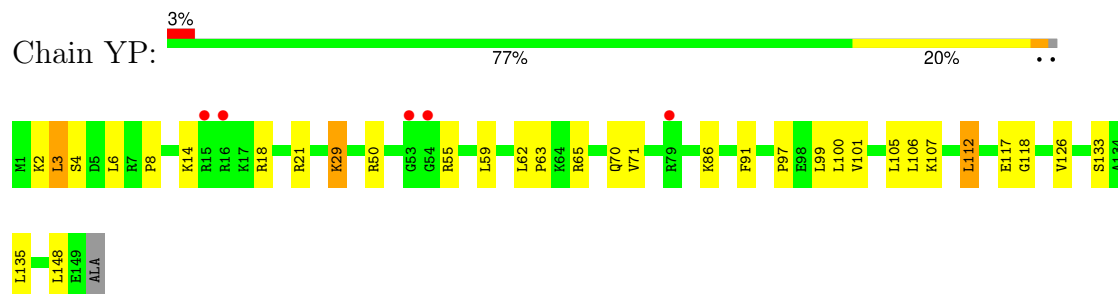
• Molecule 10: 50S ribosomal protein L14



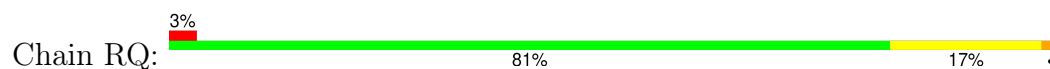
• Molecule 11: 50S ribosomal protein L15



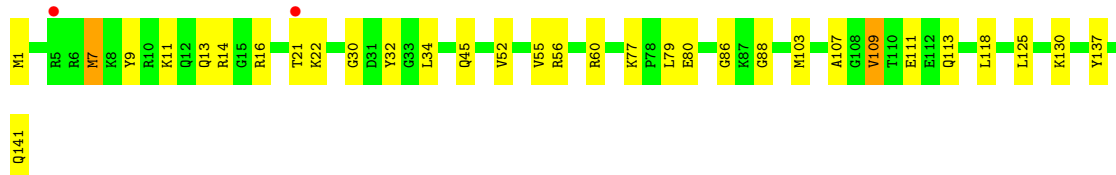
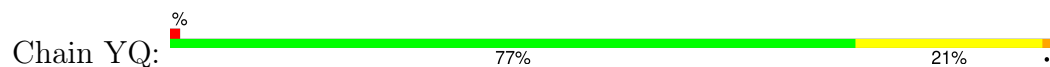
• Molecule 11: 50S ribosomal protein L15



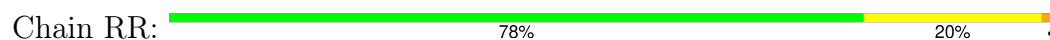
- Molecule 12: 50S ribosomal protein L16



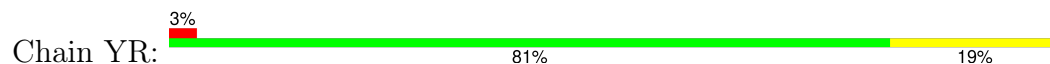
- Molecule 12: 50S ribosomal protein L16



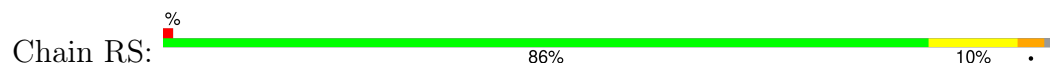
- Molecule 13: 50S ribosomal protein L17



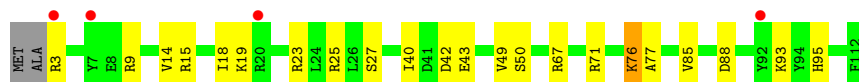
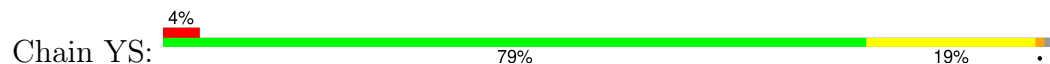
- Molecule 13: 50S ribosomal protein L17



- Molecule 14: 50S ribosomal protein L18



- Molecule 14: 50S ribosomal protein L18



- Molecule 15: 50S ribosomal protein L19





- Molecule 15: 50S ribosomal protein L19

Chain YT: 75% 14% 10%



- Molecule 16: 50S ribosomal protein L20

Chain RU: 83% 14% ..



- Molecule 16: 50S ribosomal protein L20

Chain YU: 85% 13% ..



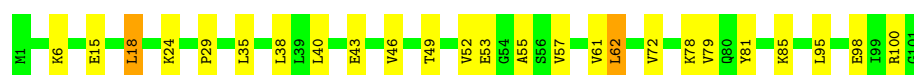
- Molecule 17: 50S ribosomal protein L21

Chain RV: 85% 14% .



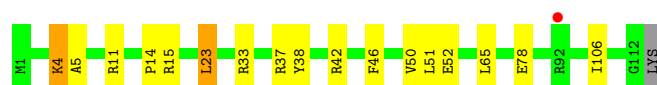
- Molecule 17: 50S ribosomal protein L21

Chain YV: 75% 23% .

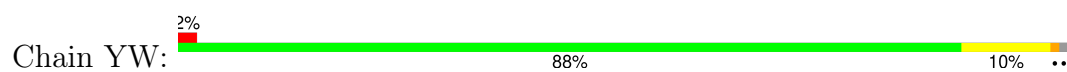


- Molecule 18: 50S ribosomal protein L22

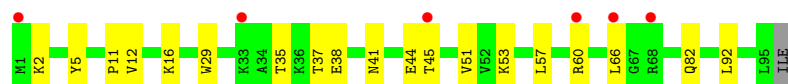
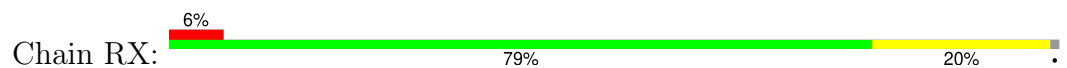
Chain RW: 84% 13% ..



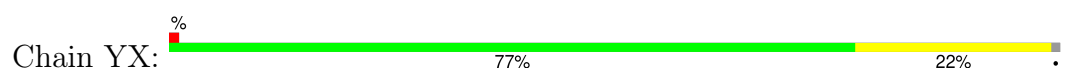
- Molecule 18: 50S ribosomal protein L22



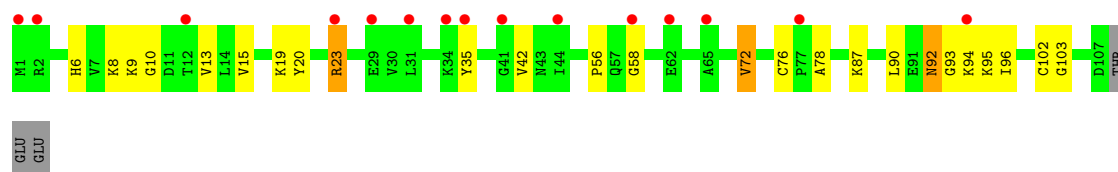
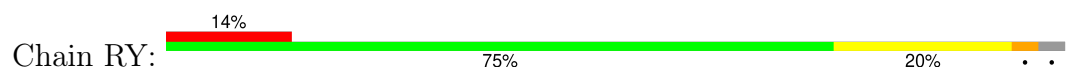
- Molecule 19: 50S ribosomal protein L23



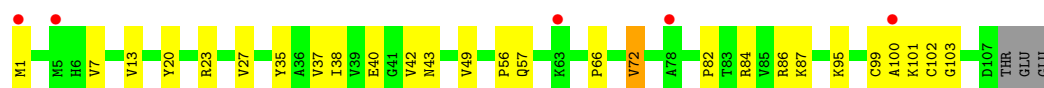
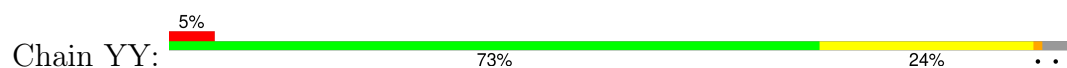
- Molecule 19: 50S ribosomal protein L23



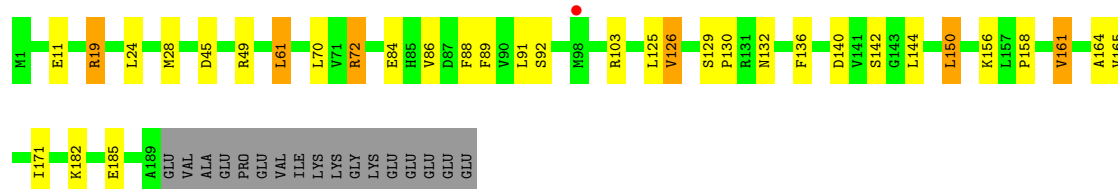
- Molecule 20: 50S ribosomal protein L24



- Molecule 20: 50S ribosomal protein L24



- Molecule 21: 50S ribosomal protein L25



- Molecule 21: 50S ribosomal protein L25

Chain YZ:  74% 16% 8%



- Molecule 22: 50S ribosomal protein L27

Chain R0:  76% 12% 9%



- Molecule 22: 50S ribosomal protein L27

Chain Y0:  73% 18% 9%



- Molecule 23: 50S ribosomal protein L28

Chain R1:  85% 12% 3%



- Molecule 23: 50S ribosomal protein L28

Chain Y1:  73% 22% 5%



- Molecule 24: 50S ribosomal protein L29

Chain R2:  86% 10% 4%

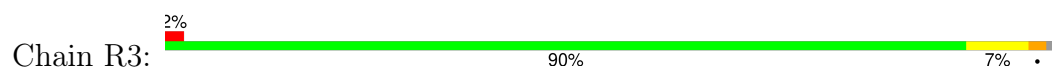


- Molecule 24: 50S ribosomal protein L29

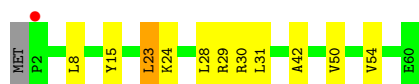
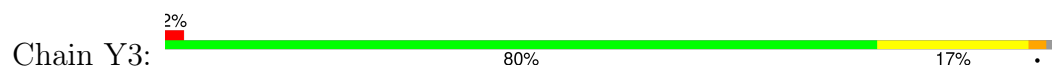
Chain Y2:  78% 17% 5%



- Molecule 25: 50S ribosomal protein L30



- Molecule 25: 50S ribosomal protein L30



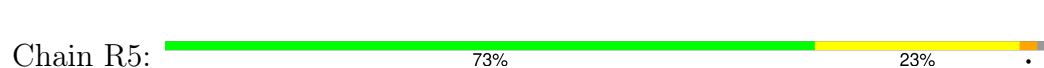
- Molecule 26: 50S ribosomal protein L31



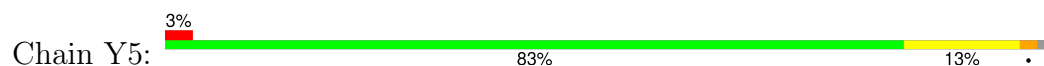
- Molecule 26: 50S ribosomal protein L31



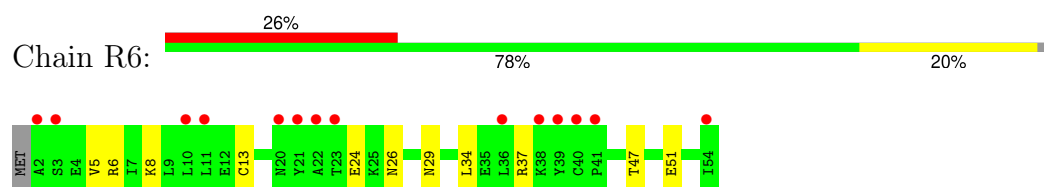
- Molecule 27: 50S ribosomal protein L32



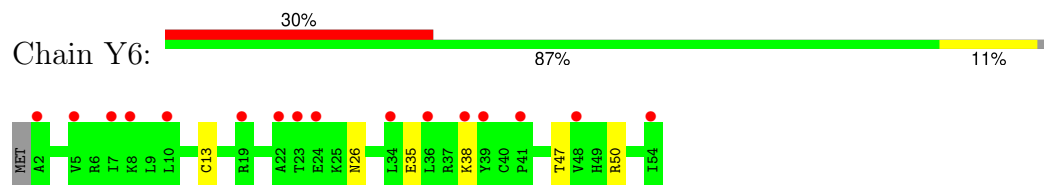
- Molecule 27: 50S ribosomal protein L32



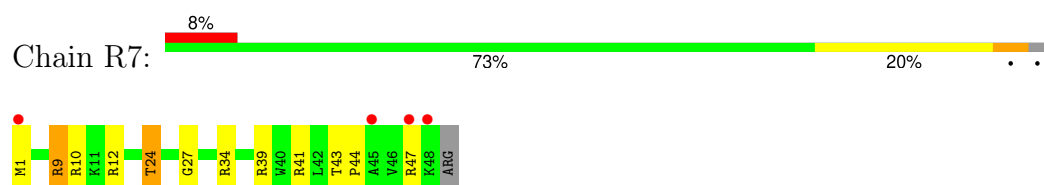
- Molecule 28: 50S ribosomal protein L33



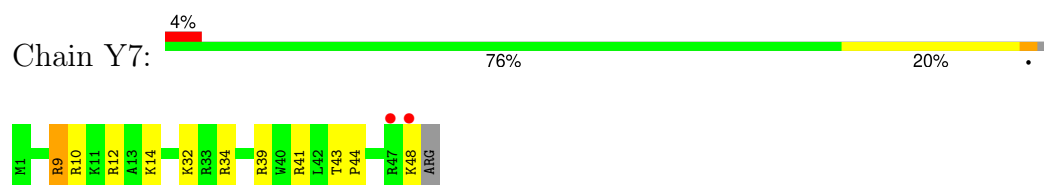
- Molecule 28: 50S ribosomal protein L33



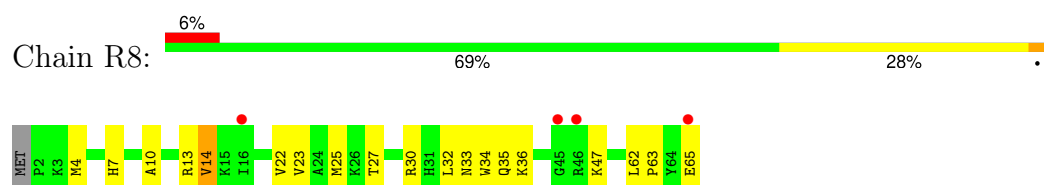
- Molecule 29: 50S ribosomal protein L34



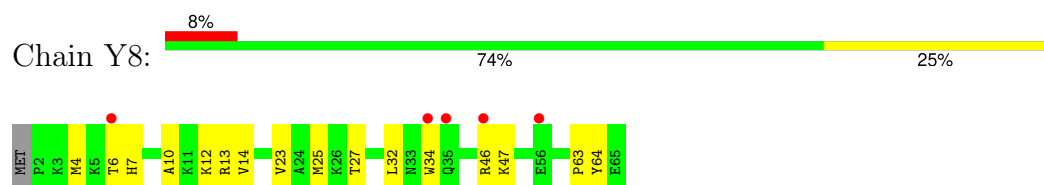
- Molecule 29: 50S ribosomal protein L34



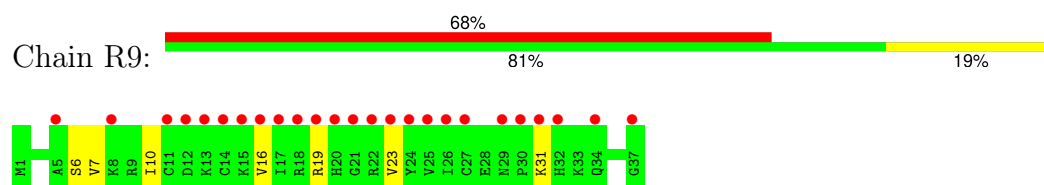
- Molecule 30: 50S ribosomal protein L35



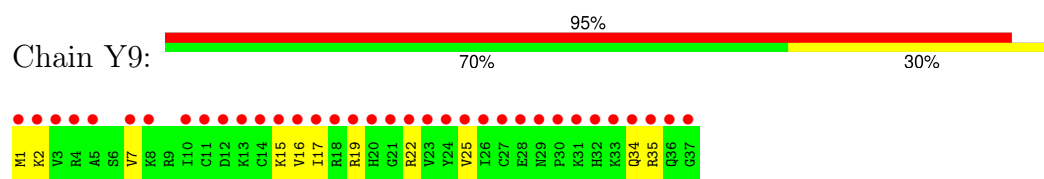
- Molecule 30: 50S ribosomal protein L35



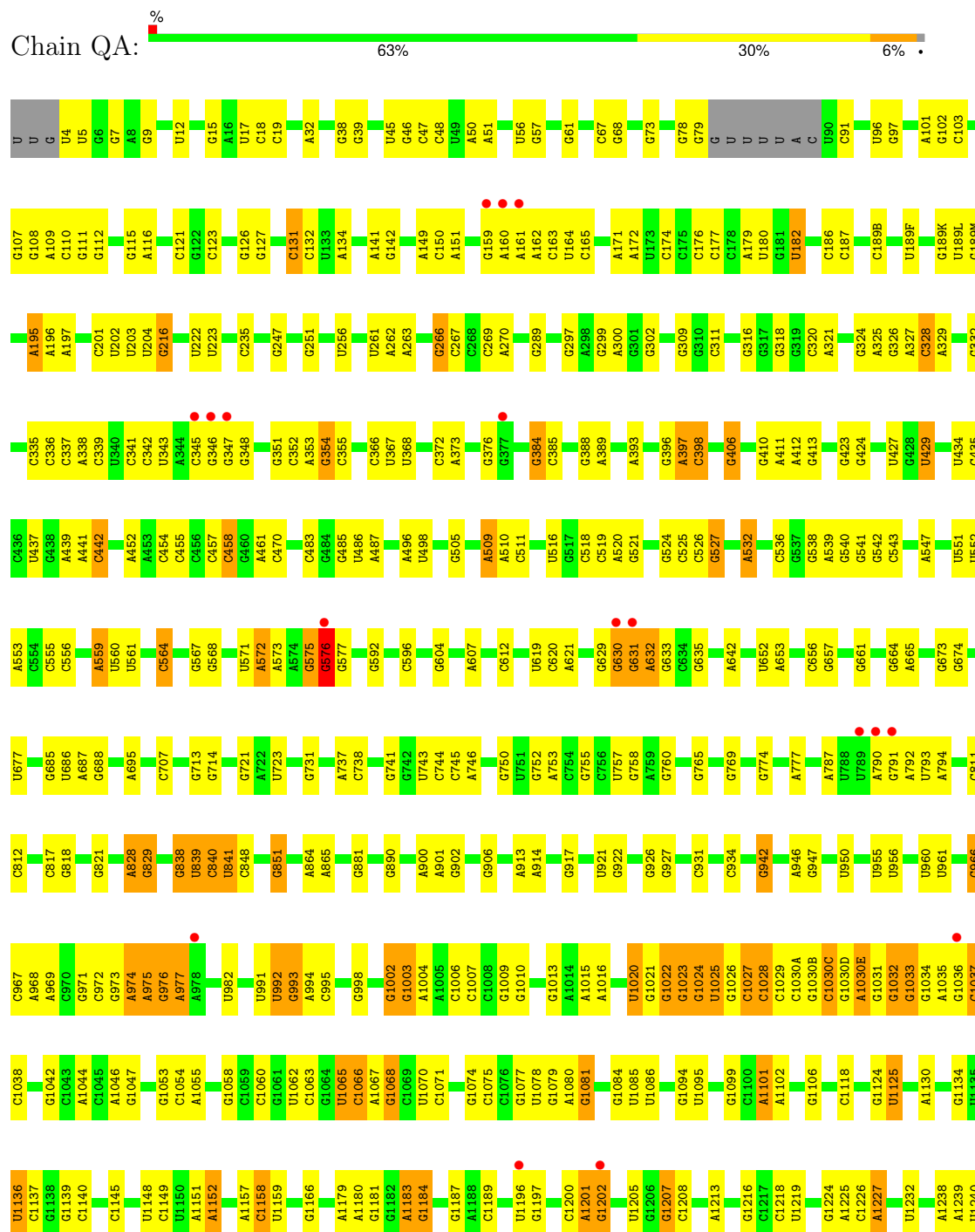
- Molecule 31: 50S ribosomal protein L36

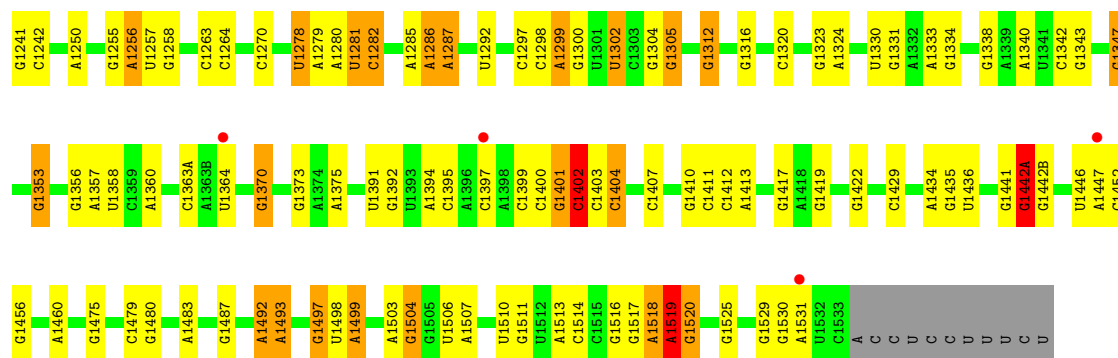


• Molecule 31: 50S ribosomal protein L36

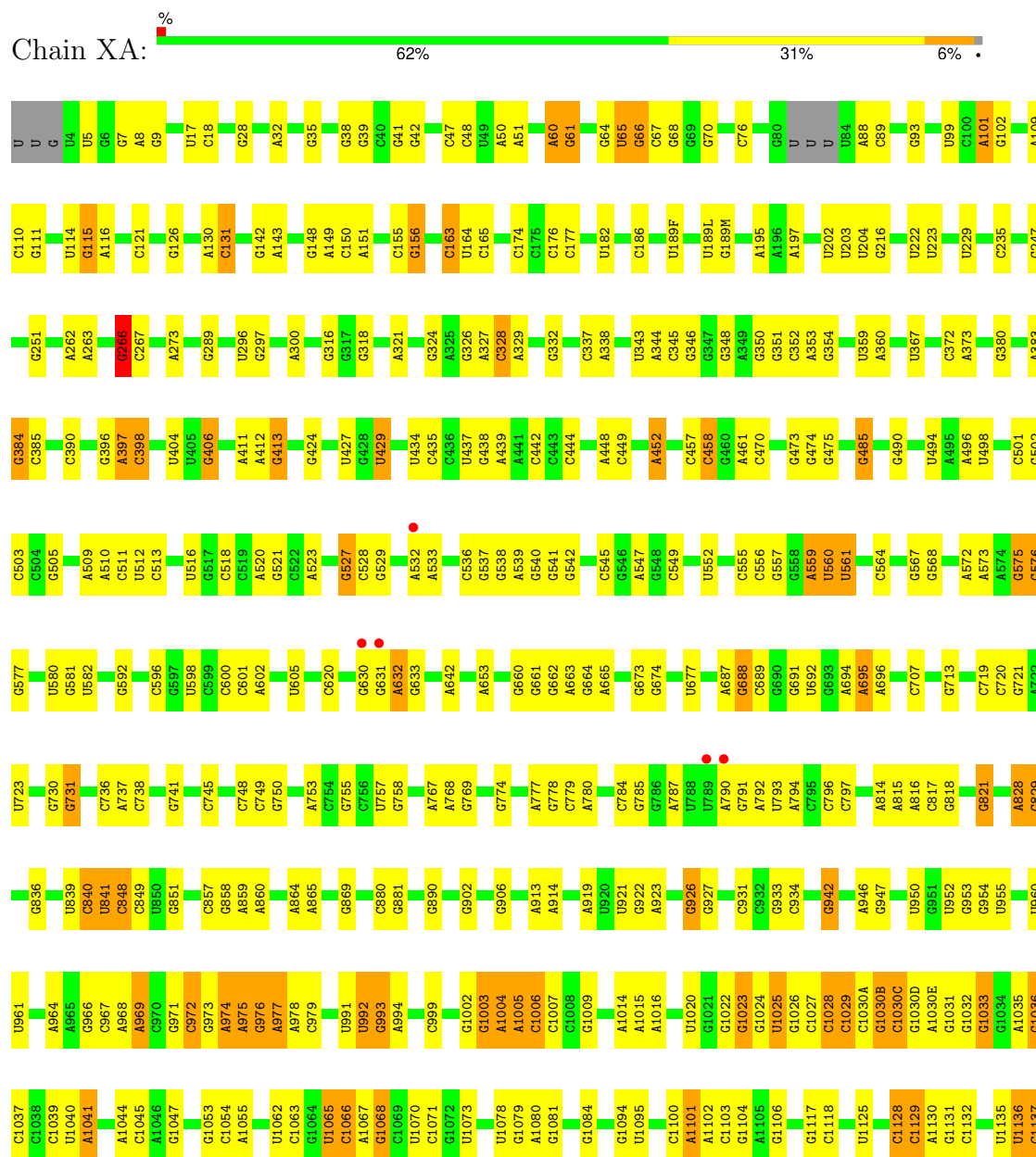


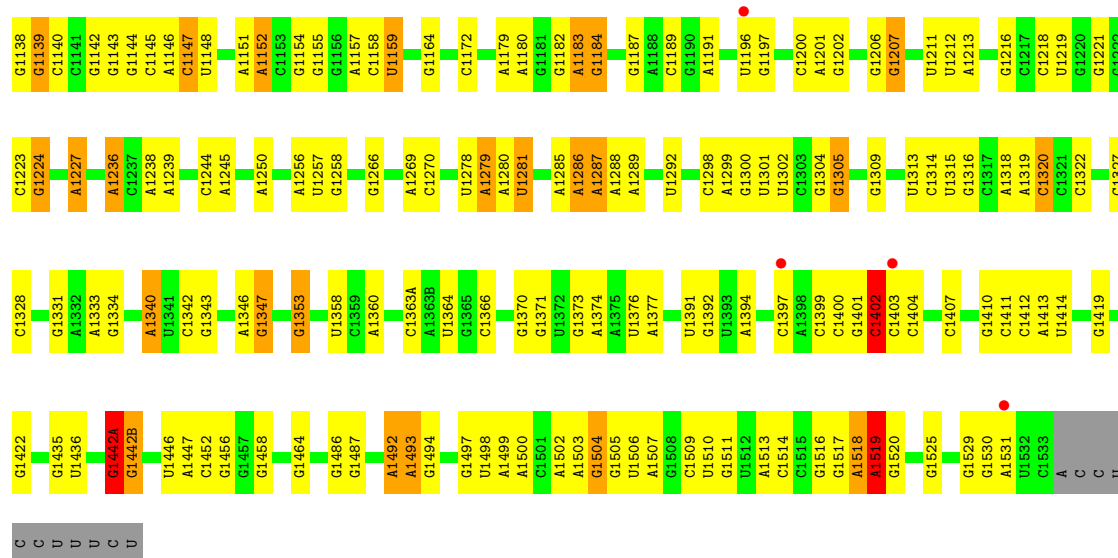
• Molecule 32: 16S rRNA



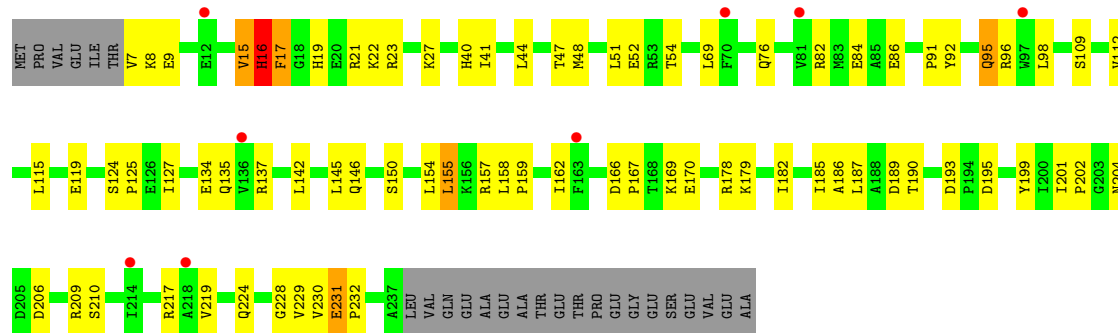


• Molecule 32: 16S rRNA

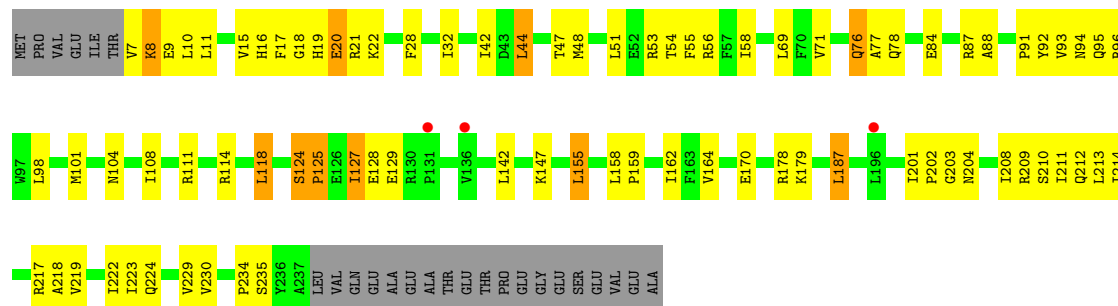




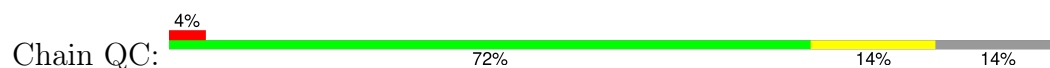
• Molecule 33: 30S ribosomal protein S2

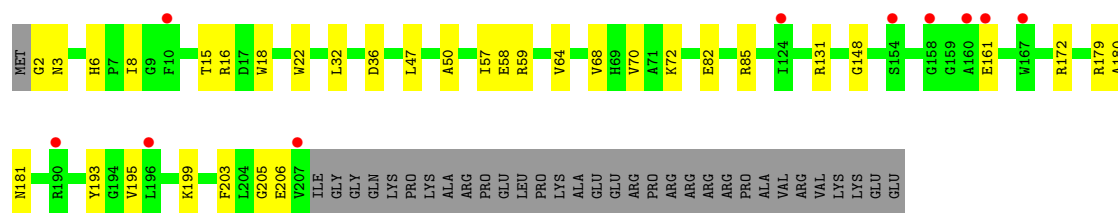


• Molecule 33: 30S ribosomal protein S2

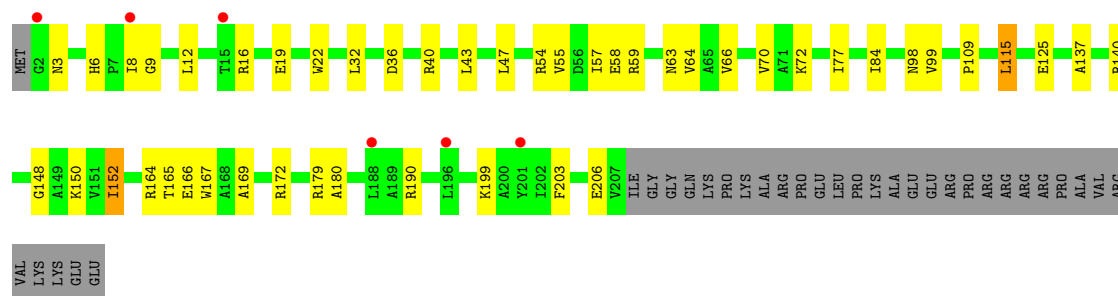


• Molecule 34: 30S ribosomal protein S3

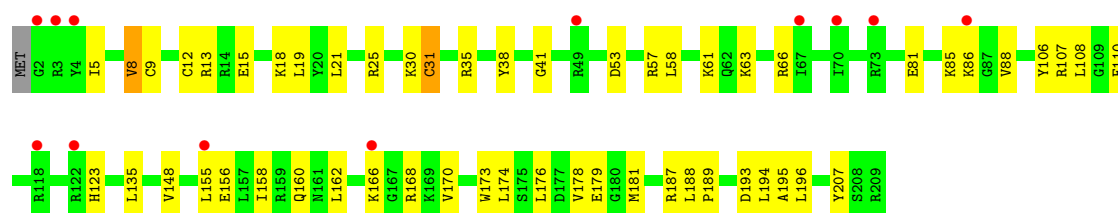
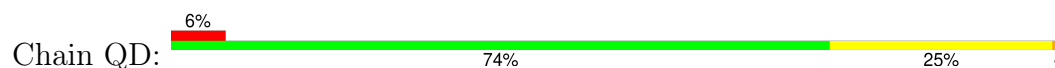




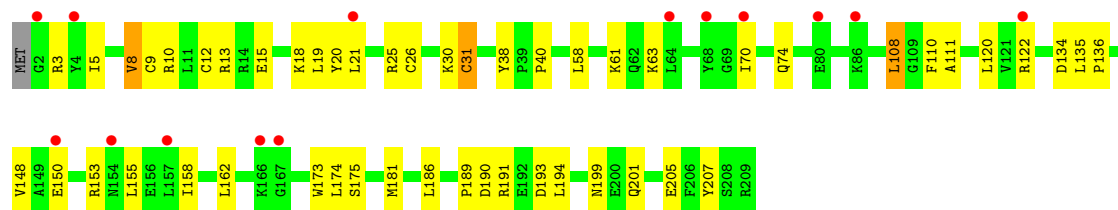
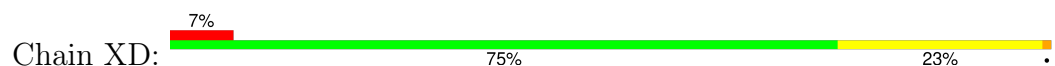
• Molecule 34: 30S ribosomal protein S3



• Molecule 35: 30S ribosomal protein S4



• Molecule 35: 30S ribosomal protein S4

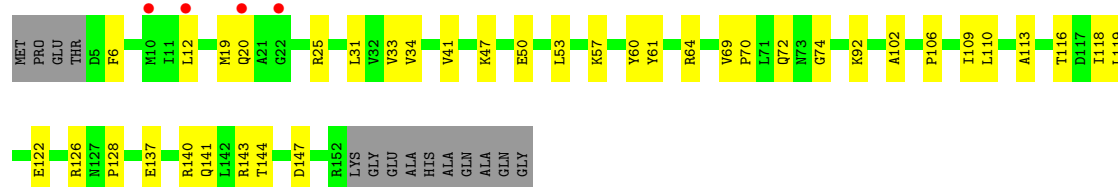


• Molecule 36: 30S ribosomal protein S5

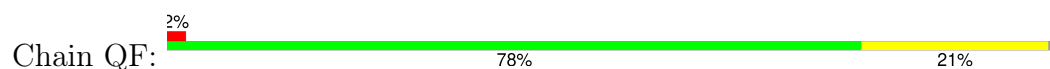




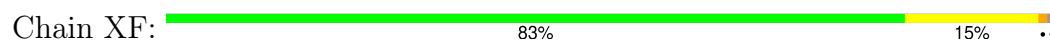
- Molecule 36: 30S ribosomal protein S5



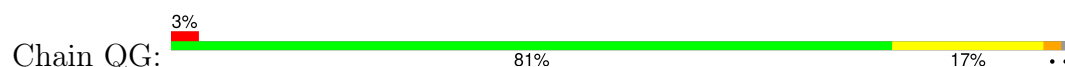
- Molecule 37: 30S ribosomal protein S6



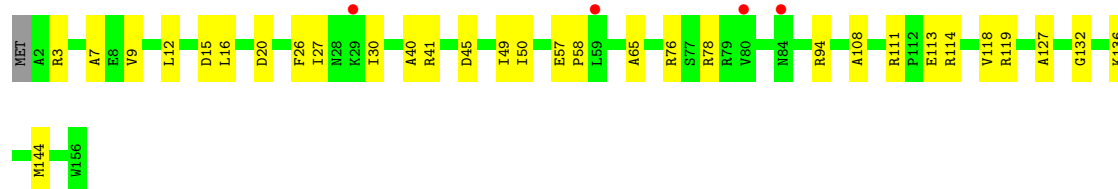
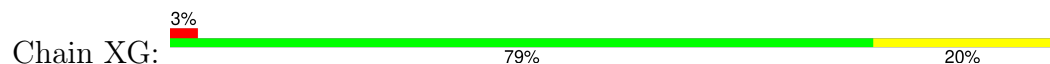
- Molecule 37: 30S ribosomal protein S6



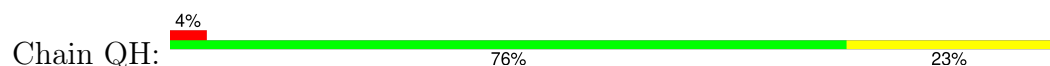
- Molecule 38: 30S ribosomal protein S7



- Molecule 38: 30S ribosomal protein S7

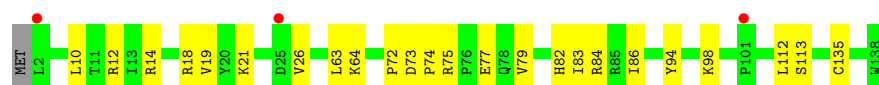
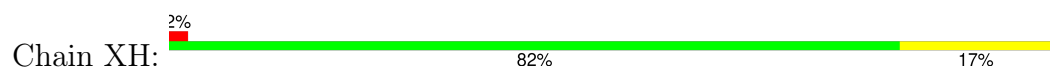


- Molecule 39: 30S ribosomal protein S8

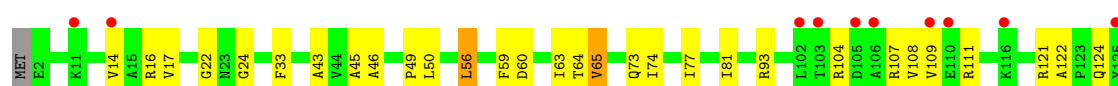
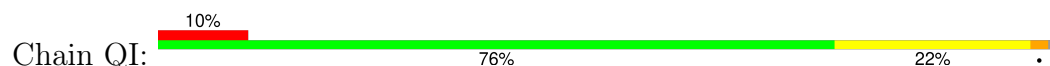




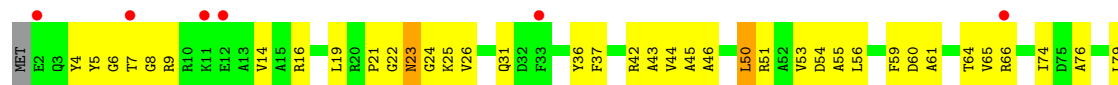
- Molecule 39: 30S ribosomal protein S8



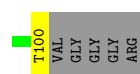
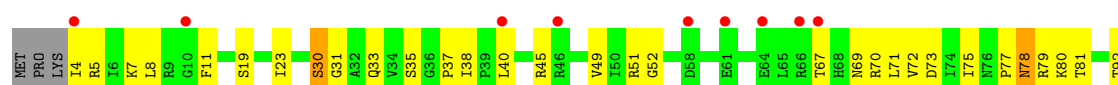
- Molecule 40: 30S ribosomal protein S9



- Molecule 40: 30S ribosomal protein S9



- Molecule 41: 30S ribosomal protein S10

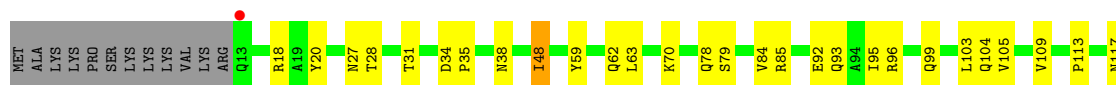


- Molecule 41: 30S ribosomal protein S10

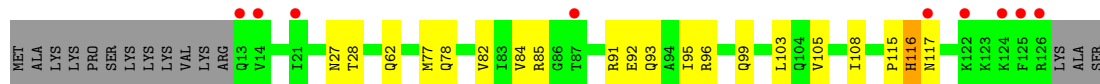
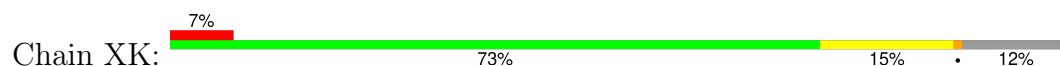




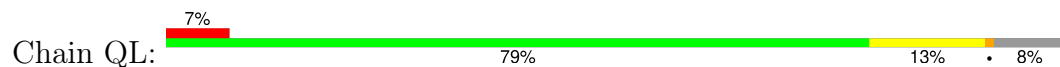
- Molecule 42: 30S ribosomal protein S11



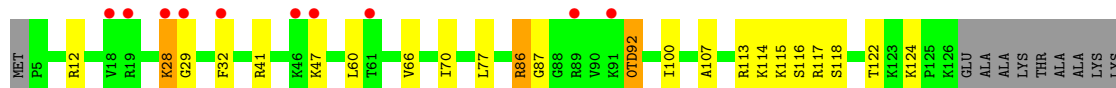
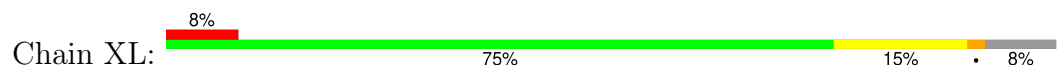
- Molecule 42: 30S ribosomal protein S11



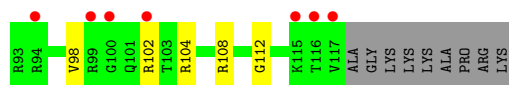
- Molecule 43: 30S ribosomal protein S12



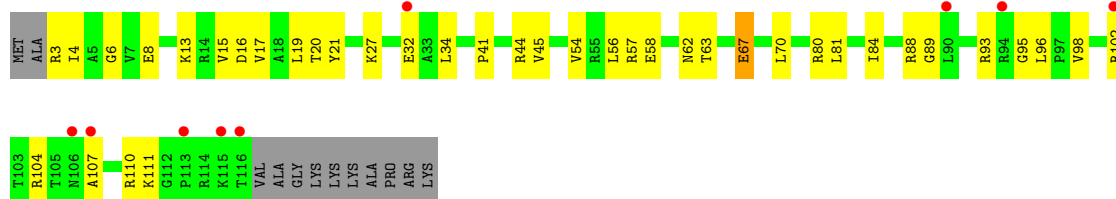
- Molecule 43: 30S ribosomal protein S12



- Molecule 44: 30S ribosomal protein S13



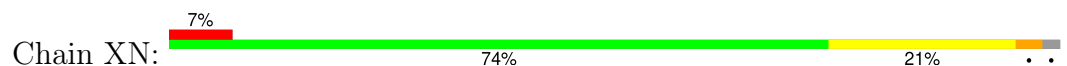
- Molecule 44: 30S ribosomal protein S13



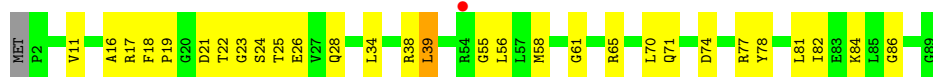
- Molecule 45: 30S ribosomal protein S14 type Z



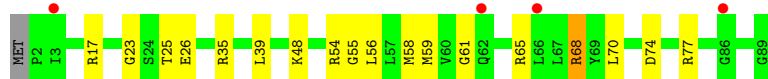
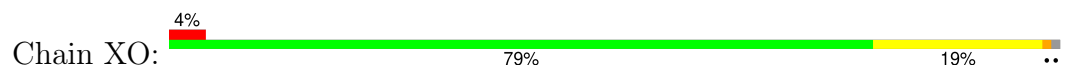
- Molecule 45: 30S ribosomal protein S14 type Z



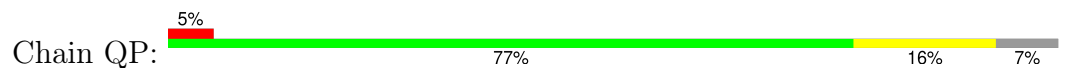
- Molecule 46: 30S ribosomal protein S15



- Molecule 46: 30S ribosomal protein S15

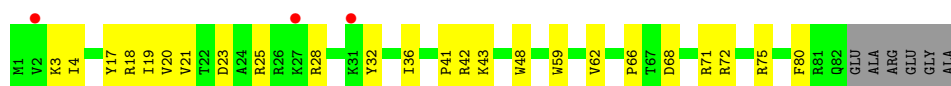


- Molecule 47: 30S ribosomal protein S16

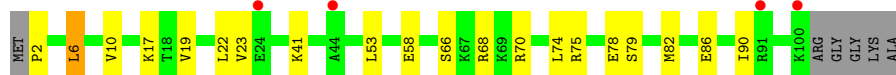
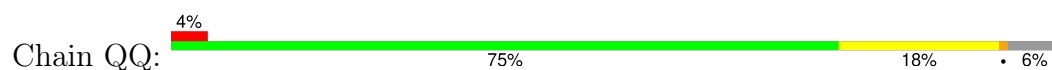


- Molecule 47: 30S ribosomal protein S16

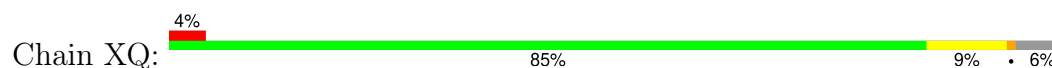




- Molecule 48: 30S ribosomal protein S17



- Molecule 48: 30S ribosomal protein S17



- Molecule 49: 30S ribosomal protein S18



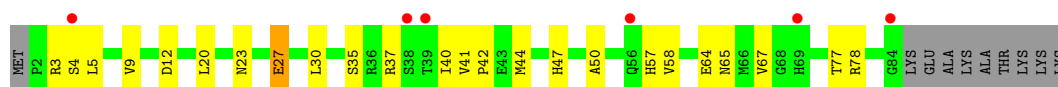
- Molecule 49: 30S ribosomal protein S18



- Molecule 50: 30S ribosomal protein S19

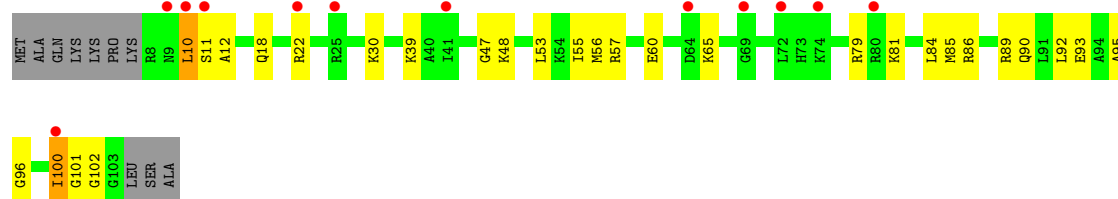


- Molecule 50: 30S ribosomal protein S19



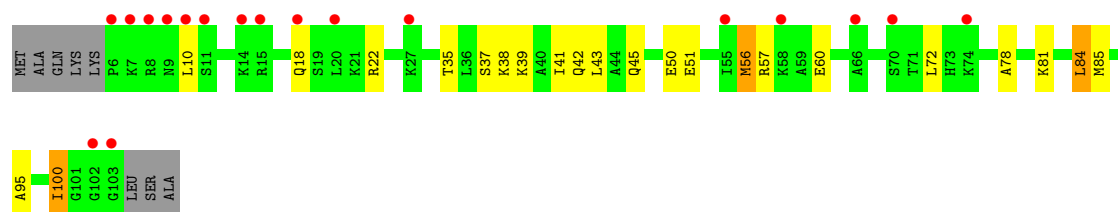
- Molecule 51: 30S ribosomal protein S20

Chain QT: 



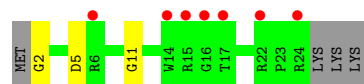
- Molecule 51: 30S ribosomal protein S20

Chain XT: 



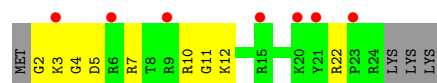
- Molecule 52: 30S ribosomal protein Thx

Chain QU: 



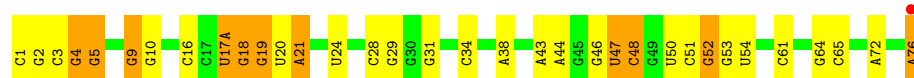
- Molecule 52: 30S ribosomal protein Thx

Chain XU: 



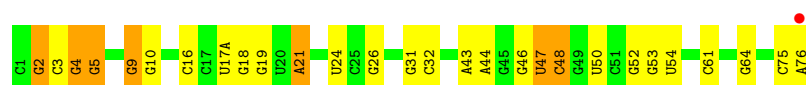
- Molecule 53: P-site tRNA fMet

Chain QV: 



- Molecule 53: P-site tRNA fMet

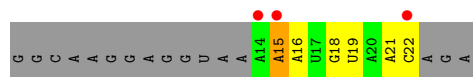
Chain XV: 



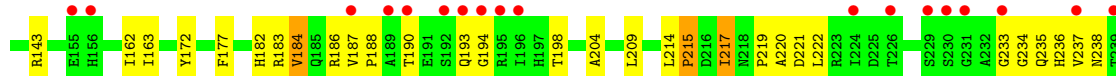
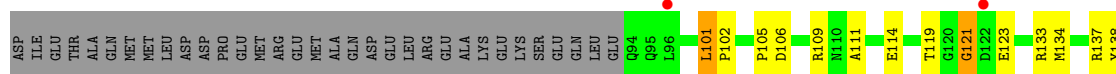
- Molecule 54: messenger RNA



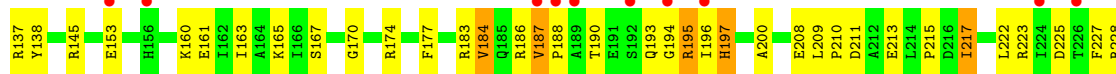
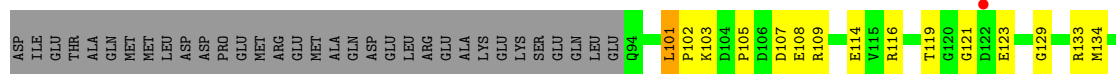
- Molecule 54: messenger RNA

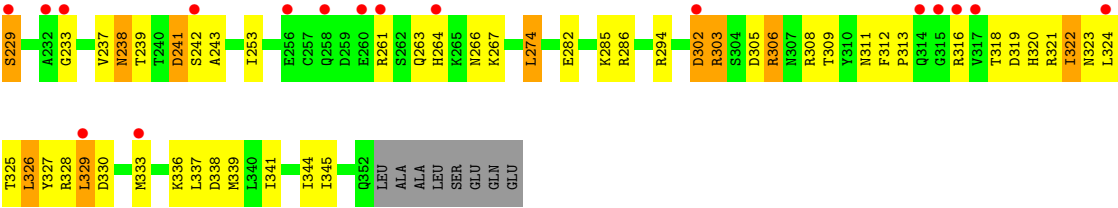


- Molecule 55: Peptide chain release factor 1



- Molecule 55: Peptide chain release factor 1





4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	210.03Å 449.71Å 620.72Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.81 – 3.20 49.81 – 3.20	Depositor EDS
% Data completeness (in resolution range)	99.9 (49.81-3.20) 99.9 (49.81-3.20)	Depositor EDS
R_{merge}	0.28	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.39 (at 3.19Å)	Xtriage
Refinement program	PHENIX 1.10.1 _2155	Depositor
R, R_{free}	0.214 , 0.244 0.213 , 0.243	Depositor DCC
R_{free} test set	44469 reflections (4.65%)	wwPDB-VP
Wilson B-factor (Å ²)	93.8	Xtriage
Anisotropy	0.251	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.29 , 80.3	EDS
L-test for twinning ²	$\langle L \rangle = 0.44$, $\langle L^2 \rangle = 0.26$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.94	EDS
Total number of atoms	294739	wwPDB-VP
Average B, all atoms (Å ²)	117.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.59% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, 7MG, 5MU, UR3, MA6, 4OC, MEQ, M2G, SF4, 2MU, OMG, 0TD, 2MG, MG, 2MA, PSU, 5MC

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	RA	0.15	0/68901	0.37	2/107544 (0.0%)
1	YA	0.16	0/68901	0.38	0/107544
2	RB	0.14	0/2876	0.34	0/4486
2	YB	0.16	0/2878	0.36	0/4490
3	RD	0.20	0/2181	0.49	0/2940
3	YD	0.20	0/2186	0.51	0/2944
4	RE	0.19	0/1592	0.46	0/2149
4	YE	0.22	0/1592	0.53	2/2149 (0.1%)
5	RF	0.17	0/1619	0.47	0/2193
5	YF	0.22	0/1615	0.52	0/2188
6	RG	0.18	0/1451	0.49	0/1961
6	YG	0.19	0/1449	0.50	0/1957
7	RH	0.18	0/1356	0.42	0/1834
7	YH	0.20	0/1350	0.50	0/1826
8	RI	0.18	0/1109	0.47	0/1512
8	YI	0.17	0/1091	0.44	0/1490
9	RN	0.18	0/1148	0.45	0/1547
9	YN	0.18	0/1144	0.45	0/1543
10	RO	0.19	0/943	0.46	0/1269
10	YO	0.19	0/943	0.48	0/1269
11	RP	0.20	0/1152	0.50	0/1533
11	YP	0.19	0/1152	0.49	0/1533
12	RQ	0.21	0/1143	0.46	0/1527
12	YQ	0.20	0/1143	0.45	0/1527
13	RR	0.19	0/982	0.48	0/1312
13	YR	0.20	0/982	0.47	0/1312
14	RS	0.17	0/887	0.48	0/1180
14	YS	0.21	0/880	0.51	0/1172
15	RT	0.20	0/1105	0.54	0/1477
15	YT	0.20	0/1097	0.48	0/1468
16	RU	0.18	0/977	0.41	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
16	YU	0.20	0/977	0.44	0/1301
17	RV	0.20	0/786	0.44	0/1053
17	YV	0.22	0/782	0.50	0/1049
18	RW	0.18	0/897	0.43	0/1205
18	YW	0.18	0/897	0.41	0/1205
19	RX	0.20	0/764	0.47	0/1025
19	YX	0.20	0/764	0.46	0/1025
20	RY	0.21	0/823	0.59	1/1099 (0.1%)
20	YY	0.25	0/823	0.51	0/1100
21	RZ	0.19	0/1517	0.45	0/2062
21	YZ	0.18	0/1501	0.46	0/2043
22	R0	0.19	0/616	0.42	0/821
22	Y0	0.18	0/616	0.48	0/821
23	R1	0.16	0/761	0.42	0/1013
23	Y1	0.18	0/766	0.46	0/1018
24	R2	0.42	2/590 (0.3%)	0.54	0/781
24	Y2	0.17	0/594	0.43	0/785
25	R3	0.18	0/474	0.46	0/635
25	Y3	0.20	0/469	0.48	0/630
26	R4	0.30	0/559	0.79	1/754 (0.1%)
26	Y4	0.27	0/549	0.76	3/741 (0.4%)
27	R5	0.23	0/473	0.44	0/639
27	Y5	0.24	0/469	0.45	0/635
28	R6	0.21	0/460	0.44	0/613
28	Y6	0.15	0/456	0.40	0/608
29	R7	0.20	0/426	0.49	0/561
29	Y7	0.20	0/426	0.46	0/561
30	R8	0.20	0/525	0.42	0/691
30	Y8	0.19	0/525	0.44	0/691
31	R9	0.17	0/310	0.40	0/407
31	Y9	0.20	0/310	0.44	0/407
32	QA	0.15	0/35795	0.38	3/55864 (0.0%)
32	XA	0.15	0/35890	0.37	2/56012 (0.0%)
33	QB	0.21	0/1876	0.56	0/2533
33	XB	0.22	0/1860	0.57	0/2518
34	QC	0.18	0/1582	0.48	0/2137
34	XC	0.20	0/1566	0.47	0/2119
35	QD	0.19	0/1695	0.47	0/2274
35	XD	0.17	0/1698	0.46	0/2277
36	QE	0.20	0/1149	0.46	0/1548
36	XE	0.19	0/1149	0.46	0/1548
37	QF	0.16	0/827	0.43	0/1120
37	XF	0.17	0/829	0.44	0/1123

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	QG	0.16	0/1254	0.41	0/1683
38	XG	0.17	0/1248	0.43	0/1676
39	QH	0.16	0/1118	0.43	0/1506
39	XH	0.17	0/1108	0.42	0/1494
40	QI	0.19	0/1005	0.53	0/1351
40	XI	0.18	0/985	0.51	0/1329
41	QJ	0.20	0/732	0.51	0/993
41	XJ	0.19	0/723	0.55	1/984 (0.1%)
42	QK	0.16	0/849	0.42	0/1150
42	XK	0.19	0/848	0.51	1/1149 (0.1%)
43	QL	0.19	0/937	0.41	0/1260
43	XL	0.22	0/937	0.56	1/1260 (0.1%)
44	QM	0.18	0/924	0.51	0/1242
44	XM	0.17	0/905	0.53	0/1217
45	QN	0.17	0/501	0.42	0/664
45	XN	0.19	0/501	0.46	0/664
46	QO	0.18	0/739	0.46	0/985
46	XO	0.17	0/739	0.45	0/985
47	QP	0.17	0/697	0.49	0/939
47	XP	0.20	0/693	0.46	0/935
48	QQ	0.16	0/836	0.45	0/1117
48	XQ	0.16	0/836	0.44	0/1117
49	QR	0.15	0/560	0.48	0/746
49	XR	0.18	0/560	0.44	0/746
50	QS	0.20	0/663	0.56	0/895
50	XS	0.20	0/660	0.49	0/893
51	QT	0.20	0/734	0.51	0/969
51	XT	0.20	0/736	0.41	0/976
52	QU	0.19	0/203	0.51	0/266
52	XU	0.21	0/203	0.54	0/266
53	QV	0.13	0/1836	0.32	0/2859
53	XV	0.14	0/1836	0.35	0/2859
54	QX	0.17	0/241	0.45	0/373
54	XX	0.17	0/216	0.50	0/334
55	QY	0.25	0/2035	0.47	0/2742
55	XY	0.22	0/2044	0.42	0/2754
All	All	0.17	2/316288 (0.0%)	0.40	17/472607 (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
14	RS	0	1
26	R4	0	1
33	QB	0	1
43	XL	0	1
All	All	0	4

All (2) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
24	R2	48	HIS	ND1-CE1	7.54	1.40	1.32
24	R2	48	HIS	CE1-NE2	-5.43	1.27	1.32

All (17) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	QA	576	G	OP1-P-O3'	-9.14	80.59	108.00
1	RA	2602	A	OP2-P-O3'	-9.13	80.60	108.00
32	QA	576	G	OP2-P-O3'	-8.56	82.31	108.00
20	RY	92	ASN	N-CA-C	7.89	120.87	111.33
41	XJ	32	ALA	N-CA-C	-6.60	100.69	110.46
1	RA	2602	A	OP1-P-O3'	-6.02	89.93	108.00
26	Y4	59	PHE	N-CA-C	5.92	117.08	107.32
4	YE	51	PHE	CA-C-N	5.75	132.05	121.70
4	YE	51	PHE	C-N-CA	5.75	132.05	121.70
26	R4	63	TYR	N-CA-C	5.54	117.13	109.54
42	XK	116	HIS	N-CA-C	5.29	119.96	111.81
32	QA	1442(A)	G	P-O3'-C3'	5.22	125.96	119.70
26	Y4	59	PHE	CA-C-N	5.17	131.01	121.70
26	Y4	59	PHE	C-N-CA	5.17	131.01	121.70
32	XA	266	G	P-O3'-C3'	5.12	127.89	120.20
32	XA	1442(A)	G	P-O3'-C3'	5.06	125.78	119.70
43	XL	28	LYS	N-CA-C	5.04	118.57	111.52

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
33	QB	231	GLU	Peptide
26	R4	67	TYR	Peptide
14	RS	58	LEU	Peptide
43	XL	86	ARG	Peptide

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	RA	61758	0	31145	577	0
1	YA	61758	0	31148	608	1
2	RB	2572	0	1305	9	0
2	YB	2573	0	1306	23	0
3	RD	2131	0	2207	47	0
3	YD	2136	0	2218	40	0
4	RE	1559	0	1618	27	0
4	YE	1559	0	1618	29	0
5	RF	1584	0	1625	34	0
5	YF	1580	0	1619	44	0
6	RG	1426	0	1445	36	0
6	YG	1424	0	1441	46	0
7	RH	1330	0	1407	26	0
7	YH	1324	0	1402	37	0
8	RI	1094	0	1127	23	0
8	YI	1076	0	1094	21	0
9	RN	1121	0	1195	14	0
9	YN	1117	0	1184	22	0
10	RO	933	0	996	11	0
10	YO	933	0	996	10	0
11	RP	1135	0	1212	26	0
11	YP	1135	0	1212	32	0
12	RQ	1122	0	1179	22	0
12	YQ	1122	0	1179	22	0
13	RR	968	0	1033	17	0
13	YR	968	0	1033	12	0
14	RS	877	0	938	9	0
14	YS	870	0	923	15	0
15	RT	1091	0	1151	22	0
15	YT	1083	0	1136	19	0
16	RU	959	0	1019	13	0
16	YU	959	0	1019	13	0
17	RV	775	0	841	10	0
17	YV	771	0	830	15	0
18	RW	886	0	940	12	0
18	YW	886	0	940	9	0
19	RX	750	0	814	17	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
19	YX	750	0	814	12	0
20	RY	810	0	892	16	0
20	YY	810	0	888	18	0
21	RZ	1485	0	1493	20	0
21	YZ	1469	0	1467	26	0
22	R0	608	0	622	10	0
22	Y0	608	0	622	14	0
23	R1	754	0	823	10	0
23	Y1	759	0	837	21	0
24	R2	588	0	643	5	1
24	Y2	592	0	654	8	0
25	R3	469	0	518	4	0
25	Y3	464	0	514	8	0
26	R4	546	0	522	28	0
26	Y4	536	0	514	33	0
27	R5	459	0	476	11	0
27	Y5	455	0	465	7	0
28	R6	453	0	473	15	0
28	Y6	449	0	469	4	0
29	R7	418	0	467	12	0
29	Y7	418	0	467	8	0
30	R8	517	0	582	22	0
30	Y8	517	0	582	19	0
31	R9	307	0	335	9	0
31	Y9	307	0	335	15	0
32	QA	32246	0	16294	318	0
32	XA	32331	0	16338	348	0
33	QB	1842	0	1862	55	0
33	XB	1825	0	1828	59	0
34	QC	1558	0	1557	30	0
34	XC	1542	0	1517	38	0
35	QD	1665	0	1688	45	0
35	XD	1668	0	1704	39	0
36	QE	1133	0	1191	33	0
36	XE	1133	0	1191	24	0
37	QF	814	0	808	16	0
37	XF	816	0	808	12	0
38	QG	1235	0	1249	22	0
38	XG	1229	0	1238	16	0
39	QH	1098	0	1143	27	0
39	XH	1088	0	1126	14	0
40	QI	986	0	990	28	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
40	XI	966	0	953	37	0
41	QJ	719	0	672	22	0
41	XJ	710	0	661	30	0
42	QK	834	0	838	16	0
42	XK	833	0	836	13	0
43	QL	932	0	980	14	0
43	XL	932	0	981	20	0
44	QM	914	0	954	30	0
44	XM	895	0	920	25	0
45	QN	492	0	529	19	0
45	XN	492	0	529	19	0
46	QO	728	0	760	19	0
46	XO	728	0	760	12	0
47	QP	681	0	697	11	0
47	XP	677	0	686	19	0
48	QQ	823	0	891	13	0
48	XQ	823	0	891	7	0
49	QR	555	0	618	11	0
49	XR	555	0	618	14	0
50	QS	648	0	658	16	0
50	XS	645	0	635	27	0
51	QT	732	0	809	18	0
51	XT	733	0	795	17	0
52	QU	199	0	208	2	0
52	XU	199	0	208	7	0
53	QV	1644	0	835	23	0
53	XV	1644	0	836	15	0
54	QX	215	0	109	1	0
54	XX	193	0	97	4	0
55	QY	2014	0	1981	64	0
55	XY	2023	0	1988	79	0
56	QA	256	0	0	0	0
56	QB	1	0	0	0	0
56	QD	3	0	0	0	0
56	QE	2	0	0	0	0
56	QF	1	0	0	0	0
56	QG	2	0	0	0	0
56	QH	1	0	0	0	0
56	QI	1	0	0	0	0
56	QL	2	0	0	0	0
56	QM	1	0	0	0	0
56	QN	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	QO	1	0	0	0	0
56	QQ	1	0	0	0	0
56	QR	1	0	0	0	0
56	QT	2	0	0	0	0
56	QV	6	0	0	0	0
56	R0	4	0	0	0	0
56	R1	4	0	0	0	0
56	R3	2	0	0	0	0
56	R5	3	0	0	0	0
56	R7	2	0	0	0	0
56	R8	1	0	0	0	0
56	RA	1039	0	0	0	0
56	RB	27	0	0	0	0
56	RD	15	0	0	0	0
56	RE	8	0	0	0	0
56	RF	12	0	0	0	0
56	RG	4	0	0	0	0
56	RH	1	0	0	0	0
56	RN	2	0	0	0	0
56	RO	1	0	0	0	0
56	RP	1	0	0	0	0
56	RQ	6	0	0	0	0
56	RR	3	0	0	0	0
56	RT	2	0	0	0	0
56	RU	2	0	0	0	0
56	RV	4	0	0	0	0
56	RW	2	0	0	0	0
56	RX	1	0	0	0	0
56	RY	1	0	0	0	0
56	RZ	1	0	0	0	0
56	XA	183	0	0	0	0
56	XE	1	0	0	0	0
56	XF	2	0	0	0	0
56	XJ	1	0	0	0	0
56	XK	1	0	0	0	0
56	XL	1	0	0	0	0
56	XR	1	0	0	0	0
56	XT	1	0	0	0	0
56	XV	4	0	0	0	0
56	XX	1	0	0	0	0
56	Y0	1	0	0	0	0
56	Y1	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	Y5	1	0	0	0	0
56	Y7	2	0	0	0	0
56	Y8	2	0	0	0	0
56	YA	744	0	0	0	0
56	YB	18	0	0	0	0
56	YD	9	0	0	0	0
56	YE	5	0	0	0	0
56	YF	3	0	0	0	0
56	YG	2	0	0	0	0
56	YI	1	0	0	0	0
56	YN	1	0	0	0	0
56	YO	2	0	0	0	0
56	YP	1	0	0	0	0
56	YQ	2	0	0	0	0
56	YR	1	0	0	0	0
56	YT	4	0	0	0	0
56	YV	1	0	0	0	0
56	YW	2	0	0	0	0
56	YX	1	0	0	0	0
57	QN	1	0	0	0	0
57	R4	1	0	0	0	0
57	R5	1	0	0	0	0
57	R6	1	0	0	0	0
57	R9	1	0	0	0	0
57	RY	1	0	0	0	0
57	XN	1	0	0	0	0
57	Y4	1	0	0	0	0
57	Y5	1	0	0	0	0
57	Y6	1	0	0	0	0
57	Y9	1	0	0	0	0
57	YY	1	0	0	0	0
58	QD	8	0	0	0	0
58	XD	8	0	0	0	0
All	All	294739	0	198434	3449	1

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 7.

All (3449) 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)
1:YA:2552:2MU:C4	1:YA:2552:2MU:C5	1.80	1.59
1:RA:2552:2MU:C5	1:RA:2552:2MU:C4	1.80	1.58
32:XA:1003:G:H2'	32:XA:1004:A:H4'	1.32	1.08
1:YA:1029:A:N6	1:YA:1125:G:O2'	1.87	1.06
26:Y4:59:PHE:HA	26:Y4:61:ARG:N	1.76	1.00
26:Y4:59:PHE:HA	26:Y4:61:ARG:H	1.28	0.99
1:YA:2131:G:H5''	1:YA:2132:U:H5'	1.45	0.98
10:RO:48:PRO:HB3	32:QA:1422:G:H5''	1.46	0.97
1:RA:2131:G:H5''	1:RA:2132:U:H5'	1.45	0.97
1:RA:2285:C:OP2	28:R6:29:ASN:ND2	1.99	0.94
15:RT:55:ASN:H	15:RT:59:THR:HG22	1.31	0.92
14:RS:59:LYS:HD2	14:RS:60:GLY:H	1.30	0.92
1:YA:2128:C:H42	1:YA:2160:G:H1	1.17	0.91
40:QI:17:VAL:HG21	40:QI:81:ILE:HG22	1.53	0.90
1:RA:2128:C:H42	1:RA:2160:G:H1	1.15	0.90
10:YO:48:PRO:HB3	32:XA:1422:G:H5''	1.52	0.90
1:RA:2573:C:N4	55:QY:241:ASP:OD1	2.05	0.89
1:YA:1041:C:H42	1:YA:1114:G:H1	1.19	0.89
6:RG:179:PRO:HB2	26:R4:42:PHE:HE2	1.37	0.89
1:RA:250:G:OP2	30:R8:13:ARG:NH2	2.06	0.89
33:XB:15:VAL:HB	33:XB:209:ARG:HB3	1.53	0.88
32:QA:78:G:H1	32:QA:91:C:H42	1.22	0.87
32:XA:1493:A:H4'	55:XY:121:GLY:H	1.39	0.87
32:QA:975:A:H4'	32:QA:976:G:H5''	1.58	0.86
1:RA:1041:C:H42	1:RA:1114:G:H1	1.24	0.85
50:XS:50:ALA:HB1	50:XS:57:HIS:HB3	1.57	0.85
8:YI:92:VAL:HG23	8:YI:120:ILE:HB	1.58	0.85
37:QF:1:MET:HE3	37:QF:66:GLU:HG2	1.60	0.83
32:XA:390:C:O3'	47:XP:28:ARG:NH2	2.11	0.83
5:YF:178:PRO:HB2	5:YF:201:VAL:HG21	1.60	0.83
35:XD:18:LYS:NZ	35:XD:31:CYS:SG	2.51	0.83
1:YA:250:G:OP2	30:Y8:13:ARG:NH2	2.11	0.83
55:XY:200:ALA:HB3	55:XY:302:ASP:HB3	1.60	0.83
4:RE:47:VAL:HG21	4:RE:86:PRO:HD2	1.60	0.82
44:XM:107:ALA:HB3	44:XM:111:LYS:HD2	1.61	0.82
6:YG:136:ARG:HG2	6:YG:137:GLU:HG3	1.60	0.82
1:YA:2452:C:H4'	55:XY:239:THR:HG21	1.61	0.82
4:YE:47:VAL:HG11	4:YE:86:PRO:HD2	1.60	0.82
1:RA:2552:2MU:C4	1:RA:2552:2MU:C6	2.54	0.81
29:R7:34:ARG:NH1	29:R7:41:ARG:O	2.13	0.81
1:YA:2753:A:N3	31:Y9:15:LYS:NZ	2.28	0.81
10:RO:35:VAL:HG11	10:RO:103:ALA:HB3	1.62	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:975:A:H4'	32:XA:976:G:H5''	1.60	0.81
41:XJ:49:VAL:HG23	45:XN:41:ARG:HB2	1.62	0.81
40:XI:53:VAL:O	40:XI:55:ALA:N	2.13	0.81
1:YA:833:U:O2	11:YP:55:ARG:NH2	2.14	0.81
1:YA:1038:C:H42	1:YA:1117:G:H1	1.28	0.81
1:YA:1028:A:O2'	1:YA:2486:G:O2'	1.98	0.80
1:RA:1798:U:H5'	3:RD:259:THR:HG22	1.63	0.80
15:YT:16:ARG:NH2	15:YT:83:ILE:O	2.14	0.80
32:QA:664:G:H22	32:QA:741:G:H1	1.30	0.80
32:QA:538:G:H5''	43:QL:114:LYS:HB2	1.64	0.79
27:Y5:16:ARG:NH1	27:Y5:17:ASP:OD1	2.16	0.79
1:YA:2748:A:H5'	7:YH:4:ILE:HD12	1.63	0.79
4:YE:12:THR:HG23	15:YT:58:ASN:HD21	1.48	0.79
1:RA:956:G:OP2	12:RQ:14:ARG:NH2	2.16	0.79
1:RA:83:G:OP1	20:RY:95:LYS:NZ	2.15	0.78
32:QA:1189:C:OP1	41:QJ:51:ARG:NH2	2.15	0.78
32:QA:532:A:H61	34:QC:193:TYR:HA	1.49	0.78
42:QK:48:ILE:HD12	42:QK:63:LEU:HB2	1.65	0.78
1:YA:1798:U:OP2	3:YD:274:ARG:NH2	2.16	0.78
1:YA:2756:U:H5''	31:Y9:19:ARG:HA	1.65	0.78
10:YO:35:VAL:HG11	10:YO:103:ALA:HB3	1.66	0.78
50:XS:20:LEU:HD23	50:XS:23:ASN:HD22	1.47	0.78
1:RA:272(K):U:H1'	8:RI:50:ARG:HH21	1.46	0.78
33:QB:21:ARG:HH22	33:QB:23:ARG:HH21	1.32	0.78
33:XB:88:ALA:HB1	33:XB:222:ILE:HD11	1.65	0.77
1:YA:530:G:N1	1:YA:2023:G:OP1	2.16	0.77
48:XQ:66:SER:O	48:XQ:70:ARG:NH1	2.18	0.77
1:RA:1250:G:N7	11:RP:18:ARG:NH2	2.32	0.77
14:YS:50:SER:O	14:YS:76:LYS:NZ	2.14	0.77
32:XA:1314:C:OP2	50:XS:4:SER:OG	2.03	0.76
18:RW:14:PRO:HG2	18:RW:78:GLU:HG2	1.67	0.76
32:QA:1183:A:O2'	32:QA:1184:G:OP1	2.03	0.76
21:YZ:45:ASP:OD1	21:YZ:49:ARG:NH1	2.18	0.76
1:RA:1036:G:OP2	7:RH:59:ARG:NH1	2.19	0.76
1:RA:2140:C:H2'	1:RA:2141:G:H8	1.51	0.76
40:QI:50:LEU:HD13	40:QI:56:LEU:HA	1.66	0.75
32:QA:189(B):C:H42	32:QA:189(K):G:H1	1.33	0.75
6:RG:161:THR:HG22	6:RG:163:ALA:H	1.51	0.75
41:QJ:49:VAL:HG23	45:QN:41:ARG:HB2	1.67	0.75
55:QY:242:SER:HA	55:QY:263:GLN:HB3	1.68	0.75
32:QA:38:G:H22	32:QA:397:A:H5'	1.52	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:XJ:17:ASP:OD1	41:XJ:70:ARG:NH1	2.19	0.75
1:YA:1051:G:H4'	1:YA:2752:C:H4'	1.68	0.75
27:R5:40:LYS:NZ	27:R5:44:THR:O	2.18	0.75
51:QT:86:ARG:O	51:QT:90:GLN:NE2	2.20	0.74
1:YA:958:U:OP2	12:YQ:14:ARG:NH1	2.19	0.74
53:XV:75:C:OP2	55:XY:261:ARG:NH2	2.18	0.74
26:R4:59:PHE:HZ	50:QS:45:VAL:HG21	1.50	0.74
1:YA:1815:A:OP2	3:YD:54:ARG:NH2	2.20	0.74
19:YX:88:LYS:HE2	19:YX:93:GLU:HG3	1.69	0.74
55:QY:217:ILE:HD11	55:QY:222:LEU:HD21	1.69	0.74
1:RA:631:A:OP1	11:RP:65:ARG:NH1	2.19	0.74
32:QA:159:G:N2	32:QA:162:A:OP2	2.15	0.74
1:YA:1062:G:H5'	1:YA:1070:A:H5''	1.67	0.74
1:RA:1049:C:N4	1:RA:2751:G:O6	2.19	0.74
28:R6:24:GLU:OE2	30:R8:34:TRP:NE1	2.19	0.74
55:QY:315:GLY:HA2	55:QY:329:LEU:HD12	1.70	0.74
32:XA:642:A:N3	39:XH:113:SER:OG	2.20	0.73
35:QD:18:LYS:NZ	35:QD:31:CYS:SG	2.61	0.73
44:XM:58:GLU:O	44:XM:62:ASN:ND2	2.21	0.73
55:XY:183:ARG:HB3	55:XY:309:THR:HG22	1.68	0.73
20:RY:92:ASN:HB2	20:RY:94:LYS:H	1.51	0.73
1:RA:1038:C:H42	1:RA:1117:G:H1	1.35	0.73
6:YG:161:THR:HG22	6:YG:163:ALA:H	1.53	0.73
32:XA:1047:G:H5''	45:XN:4:LYS:HD3	1.68	0.73
22:R0:10:THR:HG22	22:R0:12:ASN:H	1.53	0.73
32:QA:201:C:H42	32:QA:216:G:H1	1.35	0.73
32:QA:1279:A:O2'	32:QA:1281:U:OP2	2.07	0.73
55:QY:328:ARG:HH22	55:QY:339:MET:C	1.96	0.73
3:RD:69:ARG:NH2	3:RD:128:GLY:O	2.22	0.73
15:RT:35:LYS:HG2	15:RT:40:THR:HG22	1.71	0.73
34:XC:109:PRO:HB3	34:XC:115:LEU:HD23	1.71	0.73
1:YA:2140:C:H2'	1:YA:2141:G:H8	1.52	0.72
1:RA:1062:G:H5'	1:RA:1070:A:H5''	1.70	0.72
1:YA:1071:G:N2	1:YA:1089:G:O6	2.15	0.72
1:RA:2384:G:OP2	22:R0:55:ARG:NH1	2.22	0.72
44:XM:98:VAL:HG23	44:XM:110:ARG:HH12	1.55	0.72
1:RA:1971:A:OP2	3:RD:242:ARG:NH2	2.20	0.72
55:QY:177:PHE:O	55:QY:321:ARG:NH1	2.20	0.72
1:RA:994:C:OP1	16:RU:53:ARG:NH2	2.23	0.72
22:Y0:11:ARG:O	22:Y0:14:ARG:NH2	2.22	0.72
32:XA:1189:C:OP1	41:XJ:51:ARG:NH2	2.22	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:YB:105:A:OP1	21:YZ:72:ARG:NH1	2.21	0.72
32:XA:955:U:OP1	55:XY:137:ARG:NH1	2.22	0.72
21:RZ:72:ARG:HG2	21:RZ:89:PHE:HB2	1.72	0.71
22:R0:11:ARG:O	22:R0:14:ARG:NH2	2.19	0.71
35:QD:148:VAL:HG11	35:QD:158:ILE:HD12	1.70	0.71
41:QJ:35:SER:HB3	41:QJ:73:ASP:HB2	1.70	0.71
47:QP:53:VAL:HG13	47:QP:79:VAL:HG12	1.72	0.71
55:QY:248:HIS:HB2	55:QY:274:LEU:HD11	1.70	0.71
3:RD:71:ASP:HB3	3:RD:103:ARG:HH22	1.55	0.71
15:RT:16:ARG:NH2	15:RT:83:ILE:O	2.23	0.71
1:YA:2134:A:N6	1:YA:2156:G:O2'	2.23	0.71
11:YP:59:LEU:HD11	30:Y8:10:ALA:HB2	1.69	0.71
55:XY:208:GLU:HG2	55:XY:210:PRO:HD3	1.72	0.71
7:YH:7:LEU:O	7:YH:69:ARG:NH1	2.23	0.71
17:YV:6:LYS:HB2	17:YV:38:LEU:HD21	1.69	0.71
10:RO:97:ARG:NH1	32:QA:339:C:OP2	2.23	0.71
32:QA:316:G:OP2	32:QA:351:G:O2'	2.09	0.71
50:QS:41:VAL:HG12	50:QS:44:MET:HG3	1.72	0.71
6:RG:41:GLN:HB3	6:RG:43:LEU:HD13	1.72	0.71
1:YA:2573:C:N4	55:XY:239:THR:HA	2.04	0.71
34:XC:58:GLU:HB3	41:XJ:92:THR:HG21	1.72	0.71
1:YA:1530:C:O2'	1:YA:1531:C:O5'	2.07	0.71
1:YA:272(P):C:O2'	8:YI:42:SER:OG	2.07	0.71
1:YA:1028:A:N6	1:YA:1126:A:OP1	2.19	0.71
32:XA:538:G:H5''	43:XL:114:LYS:HB2	1.73	0.71
33:QB:82:ARG:NH1	33:QB:86:GLU:OE2	2.23	0.71
5:YF:24:LEU:HD23	5:YF:115:ALA:HA	1.73	0.71
32:XA:1292:U:OP2	38:XG:41:ARG:NH2	2.23	0.71
6:YG:136:ARG:H	6:YG:136:ARG:HD3	1.56	0.70
4:RE:77:ILE:HD13	4:RE:195:LEU:HD13	1.72	0.70
42:XK:99:GLN:HG2	42:XK:105:VAL:HG21	1.72	0.70
1:RA:1073:A:H2'	1:RA:1074:G:H8	1.57	0.70
32:XA:992:U:H4'	32:XA:993:G:O5'	1.91	0.70
32:XA:1031:G:H2'	32:XA:1032:G:C8	2.26	0.70
26:R4:59:PHE:CZ	50:QS:45:VAL:HG21	2.27	0.70
6:YG:63:ILE:HA	6:YG:143:GLU:HG3	1.74	0.70
1:RA:1141:U:OP1	9:RN:25:ARG:NH1	2.25	0.70
21:RZ:144:LEU:HD21	21:RZ:150:LEU:HD13	1.73	0.70
15:RT:56:GLY:O	15:RT:59:THR:HG23	1.92	0.70
11:RP:59:LEU:HD11	30:R8:10:ALA:HB2	1.72	0.69
1:YA:309:G:N3	1:YA:329:G:O2'	2.24	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:XY:217:ILE:HD11	55:XY:222:LEU:HD21	1.73	0.69
1:RA:1087:G:H1	1:RA:1102:C:H42	1.38	0.69
32:QA:1003:G:N2	32:QA:1004:A:N3	2.40	0.69
1:YA:1971:A:OP2	3:YD:242:ARG:NH2	2.24	0.69
1:RA:2128:C:N4	1:RA:2160:G:H1	1.89	0.69
33:XB:78:GLN:O	33:XB:94:ASN:ND2	2.25	0.69
1:RA:20:C:OP1	16:RU:22:LYS:NZ	2.25	0.69
1:RA:530:G:N1	1:RA:2023:G:OP1	2.24	0.69
1:YA:1419:A:N6	1:YA:1578:U:O2	2.20	0.69
22:Y0:10:THR:HG22	22:Y0:12:ASN:H	1.58	0.69
32:QA:1492:A:HO2'	54:QX:20:A:HO2'	1.35	0.69
1:YA:2640:G:O3'	9:YN:74:ARG:NH2	2.16	0.69
1:YA:2304:G:H22	1:YA:2312:U:H3	1.41	0.69
1:RA:1094:U:OP1	1:RA:1096:A:N6	2.26	0.69
32:XA:664:G:H22	32:XA:741:G:H1	1.40	0.69
1:RA:143(A):G:H4'	19:RX:35:THR:HG21	1.74	0.69
1:RA:1073:A:H2'	1:RA:1074:G:C8	2.26	0.69
32:QA:1297:C:O2'	38:QG:114:ARG:NH2	2.26	0.69
55:QY:255:VAL:HG12	55:QY:274:LEU:HD23	1.75	0.69
32:XA:582:U:OP1	46:XO:68:ARG:NH2	2.22	0.69
1:YA:1057:A:N7	1:YA:1086:A:H2'	2.08	0.69
26:Y4:59:PHE:CZ	50:XS:64:GLU:HB2	2.28	0.69
40:XI:16:ARG:HB2	40:XI:64:THR:HG22	1.75	0.69
33:XB:47:THR:HA	33:XB:202:PRO:HG2	1.73	0.69
1:RA:1815:A:OP2	3:RD:54:ARG:NH2	2.27	0.68
5:YF:185:ASP:HA	5:YF:188:ARG:HD3	1.75	0.68
32:XA:677:U:H3	32:XA:713:G:H22	1.38	0.68
6:RG:63:ILE:HA	6:RG:143:GLU:HG3	1.74	0.68
41:XJ:52:GLY:O	45:XN:41:ARG:NH2	2.26	0.68
1:RA:587:C:OP2	11:RP:21:ARG:NH2	2.25	0.68
1:YA:270:A:OP2	1:YA:272(X):G:N1	2.18	0.68
1:RA:1024:G:O2'	1:RA:1144:G:O2'	2.11	0.68
1:YA:2646:C:OP2	1:YA:2732:G:O2'	2.10	0.68
9:YN:94:HIS:HB3	9:YN:97:ARG:HD3	1.74	0.68
32:XA:1005:A:OP2	32:XA:1024:G:N2	2.27	0.68
55:XY:145:ARG:HB3	55:XY:167:SER:HB2	1.75	0.68
26:R4:50:VAL:HG11	44:QM:65:LYS:HA	1.75	0.68
1:YA:855:G:O2'	22:Y0:27:GLU:OE2	2.09	0.68
27:Y5:40:LYS:NZ	27:Y5:44:THR:O	2.25	0.68
32:QA:1492:A:O4'	43:QL:47:LYS:NZ	2.26	0.68
1:YA:1073:A:H2'	1:YA:1074:G:H8	1.59	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Y4:59:PHE:CE1	50:XS:64:GLU:HB2	2.28	0.68
32:XA:64:G:H4'	32:XA:65:U:H3'	1.76	0.68
1:RA:2749:A:H5'	7:RH:3:ARG:HH21	1.58	0.68
6:RG:179:PRO:HB2	26:R4:42:PHE:CE2	2.25	0.68
1:YA:1028:A:N6	1:YA:1125:G:H2'	2.09	0.68
1:YA:2785:C:OP1	4:YE:41:LYS:NZ	2.25	0.68
1:YA:1073:A:H2'	1:YA:1074:G:C8	2.28	0.68
32:XA:1285:A:H4'	32:XA:1286:A:H5'	1.76	0.68
41:XJ:35:SER:HB3	41:XJ:73:ASP:H	1.59	0.68
55:XY:134:MET:HB2	55:XY:333:MET:HA	1.76	0.67
32:QA:559:A:OP1	36:QE:126:ARG:NH2	2.26	0.67
1:YA:1798:U:H5'	3:YD:259:THR:HG22	1.76	0.67
8:YI:50:ARG:O	8:YI:54:GLN:NE2	2.27	0.67
44:XM:3:ARG:HG3	44:XM:8:GLU:HG3	1.76	0.67
21:RZ:45:ASP:OD1	21:RZ:49:ARG:NH1	2.27	0.67
33:QB:19:HIS:NE2	33:QB:189:ASP:OD2	2.27	0.67
1:YA:1087:G:H1	1:YA:1102:C:H42	1.41	0.67
51:XT:56:MET:HE1	51:XT:85:MET:HA	1.75	0.67
37:QF:97:PHE:HB2	49:QR:32:ARG:HH11	1.60	0.67
1:YA:1094:U:OP1	1:YA:1096:A:N6	2.26	0.67
6:YG:41:GLN:HB3	6:YG:43:LEU:HD13	1.77	0.67
32:XA:474:G:H2'	32:XA:475:G:H8	1.59	0.67
32:XA:1183:A:O2'	32:XA:1184:G:OP1	2.09	0.67
1:RA:1530:C:O2'	1:RA:1531:C:O5'	2.07	0.67
19:RX:2:LYS:NZ	19:RX:38:GLU:OE2	2.23	0.67
1:YA:1031:G:O2'	31:Y9:7:VAL:O	2.12	0.67
32:XA:316:G:OP2	32:XA:351:G:O2'	2.13	0.67
55:XY:328:ARG:HH22	55:XY:339:MET:C	2.02	0.67
1:RA:1310:G:OP2	29:R7:9:ARG:NH1	2.28	0.67
35:QD:173:TRP:CD1	35:QD:173:TRP:H	2.12	0.67
8:RI:109:ILE:HG13	8:RI:130:TYR:CZ	2.30	0.67
6:YG:44:GLY:O	6:YG:47:LYS:HD2	1.95	0.67
32:XA:427:U:OP1	35:XD:13:ARG:NH2	2.28	0.67
36:XE:69:VAL:HG11	36:XE:113:ALA:HB1	1.74	0.67
51:QT:57:ARG:HH12	51:QT:100:ILE:HD12	1.60	0.67
11:YP:59:LEU:HD21	30:Y8:10:ALA:HA	1.77	0.67
1:YA:1266:G:O5'	18:YW:15:ARG:NH2	2.28	0.66
20:YY:23:ARG:HG2	20:YY:42:VAL:HG22	1.77	0.66
32:XA:1302:U:OP1	44:XM:13:LYS:NZ	2.28	0.66
33:XB:91:PRO:HG3	33:XB:155:LEU:HD23	1.77	0.66
1:RA:2343:C:O2'	1:RA:2373:G:O2'	2.10	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:RG:139:LEU:HD21	6:RG:149:VAL:HG11	1.75	0.66
1:YA:307:G:N1	1:YA:310:A:OP2	2.28	0.66
1:YA:1049:C:H2'	1:YA:1050:A:H8	1.60	0.66
11:YP:2:LYS:NZ	11:YP:4:SER:OG	2.27	0.66
55:XY:119:THR:N	55:XY:302:ASP:OD2	2.28	0.66
5:RF:165:ARG:HA	5:RF:168:ARG:HD2	1.77	0.66
32:QA:78:G:H1	32:QA:91:C:N4	1.92	0.66
32:XA:976:G:H5'	32:XA:1358:U:O2'	1.95	0.66
32:XA:1164:G:H1	32:XA:1172:C:H42	1.43	0.66
34:XC:6:HIS:HD2	34:XC:9:GLY:H	1.41	0.66
55:XY:186:ARG:HB3	55:XY:312:PHE:HD2	1.60	0.66
11:RP:52:GLU:OE1	11:RP:55:ARG:NH1	2.28	0.66
36:QE:79:GLU:HG3	36:QE:93:PRO:HD2	1.77	0.66
1:YA:2445:G:OP1	5:YF:74:ARG:NH2	2.22	0.66
1:RA:2751:G:C8	7:RH:2:SER:HA	2.31	0.66
50:XS:41:VAL:HG12	50:XS:44:MET:HG3	1.76	0.66
32:QA:922:G:H4'	36:QE:20:GLN:HA	1.78	0.66
1:YA:987:G:O2'	1:YA:1000:A:N3	2.29	0.66
1:YA:1064:C:H3'	1:YA:1065:U:H5'	1.77	0.66
4:YE:52:LEU:HB3	4:YE:53:PRO:HD2	1.76	0.66
43:XL:70:ILE:HG12	43:XL:100:ILE:HD12	1.78	0.66
1:RA:1064:C:H3'	1:RA:1065:U:C5'	2.26	0.66
1:RA:1923:U:OP1	53:QV:24:U:O2'	2.14	0.66
32:XA:1318:A:H5''	50:XS:3:ARG:HH22	1.61	0.66
1:YA:637:A:H8	11:YP:117:GLU:HG3	1.60	0.66
21:YZ:10:ARG:NH2	21:YZ:26:GLY:O	2.28	0.66
27:R5:16:ARG:NH1	27:R5:17:ASP:OD1	2.29	0.65
32:QA:78:G:N2	32:QA:91:C:N3	2.44	0.65
48:QQ:66:SER:O	48:QQ:70:ARG:NH1	2.29	0.65
1:RA:2218:U:O2	23:R1:52:ARG:NH2	2.29	0.65
1:YA:2206:G:H5''	1:YA:2207:G:C8	2.30	0.65
4:YE:11:MET:HG2	4:YE:24:THR:HG22	1.77	0.65
32:XA:1136:U:OP2	32:XA:1137:C:N4	2.29	0.65
46:XO:35:ARG:HH21	46:XO:59:MET:HE2	1.58	0.65
1:RA:2785:C:OP1	4:RE:41:LYS:NZ	2.30	0.65
12:RQ:21:THR:HG21	12:RQ:101:ARG:HB2	1.79	0.65
35:QD:53:ASP:HB3	35:QD:57:ARG:HH12	1.60	0.65
1:RA:2134:A:N6	1:RA:2156:G:O2'	2.30	0.65
35:QD:173:TRP:CD2	35:QD:189:PRO:HG3	2.31	0.65
1:YA:857:C:OP2	22:Y0:77:ARG:NH2	2.30	0.65
23:Y1:75:GLU:HA	23:Y1:78:LYS:HE2	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:1064:C:H3'	1:YA:1065:U:C5'	2.25	0.65
4:RE:111:ARG:HG3	4:RE:160:TYR:CD2	2.32	0.65
15:RT:55:ASN:N	15:RT:59:THR:HG22	2.08	0.65
51:QT:89:ARG:O	51:QT:93:GLU:HG2	1.96	0.65
35:XD:175:SER:HB3	35:XD:186:LEU:HD11	1.78	0.65
1:YA:1693:U:O2'	3:YD:14:ARG:NH2	2.30	0.65
42:XK:62:GLN:HB2	42:XK:93:GLN:HG3	1.79	0.65
32:QA:1030(D):G:N7	32:QA:1031:G:N2	2.44	0.65
1:YA:1028:A:H61	1:YA:1126:A:P	2.19	0.65
1:YA:2128:C:N4	1:YA:2160:G:H1	1.90	0.65
12:YQ:34:LEU:HB2	12:YQ:118:LEU:HD22	1.77	0.65
32:XA:559:A:OP1	36:XE:126:ARG:NH2	2.29	0.65
51:XT:56:MET:HE3	51:XT:84:LEU:HD22	1.78	0.65
35:QD:12:CYS:SG	35:QD:19:LEU:HB2	2.37	0.65
1:YA:2334:G:H5'	14:YS:9:ARG:HG2	1.79	0.65
32:XA:692:U:O2'	32:XA:694:A:N7	2.27	0.65
35:XD:122:ARG:NH1	35:XD:134:ASP:O	2.29	0.65
18:YW:14:PRO:HG2	18:YW:78:GLU:HG2	1.78	0.64
38:XG:113:GLU:HG2	38:XG:119:ARG:HG2	1.78	0.64
44:QM:3:ARG:HG3	44:QM:4:ILE:H	1.63	0.64
32:XA:673:G:H2'	32:XA:674:G:C8	2.32	0.64
1:RA:1064:C:H3'	1:RA:1065:U:H5'	1.78	0.64
1:YA:1049:C:H2'	1:YA:1050:A:C8	2.33	0.64
1:YA:1786:A:H1'	1:YA:1938:A:N6	2.12	0.64
36:XE:50:GLU:HB2	36:XE:53:LEU:HD13	1.80	0.64
32:QA:1086:U:H3	32:QA:1099:G:H22	1.45	0.64
1:YA:1029:A:C2	1:YA:2465:C:H2'	2.32	0.64
1:YA:1385:G:O2'	1:YA:1396:U:O2	2.15	0.64
1:YA:2128:C:N3	1:YA:2160:G:N2	2.45	0.64
40:XI:46:ALA:HB2	40:XI:74:ILE:HG23	1.79	0.64
1:RA:861:A:N3	2:RB:79:C:O2'	2.30	0.64
21:YZ:19:ARG:NH1	21:YZ:84:GLU:O	2.31	0.64
23:Y1:76:ARG:HH22	23:Y1:97:LEU:HB3	1.62	0.64
26:Y4:58:ARG:NH1	50:XS:65:ASN:O	2.30	0.64
21:RZ:158:PRO:HG2	21:RZ:161:VAL:HG11	1.80	0.64
30:Y8:6:THR:HG22	30:Y8:63:PRO:HD2	1.78	0.64
32:XA:102:G:O2'	32:XA:151:A:N3	2.30	0.64
1:RA:637:A:H8	11:RP:117:GLU:HG3	1.62	0.64
5:RF:157:VAL:HB	5:RF:194:MET:HG2	1.79	0.64
32:QA:974:A:OP2	45:QN:29:ARG:NH2	2.30	0.64
1:YA:1065:U:H4'	1:YA:1066:U:H5'	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:2156:G:N7	1:YA:2157:G:N2	2.46	0.64
8:YI:86:THR:HA	8:YI:123:LEU:HD23	1.79	0.64
20:YY:102:CYS:SG	20:YY:103:GLY:N	2.71	0.64
32:XA:1004:A:H5'	32:XA:1025:U:H5	1.63	0.64
1:RA:307:G:N1	1:RA:310:A:OP2	2.31	0.64
1:RA:1053:C:H2'	1:RA:1054:A:H8	1.62	0.64
1:YA:2742:C:OP1	31:Y9:35:ARG:HD3	1.98	0.64
1:RA:309:G:N3	1:RA:329:G:O2'	2.30	0.64
1:RA:1266:G:O5'	18:RW:15:ARG:NH2	2.31	0.64
1:YA:143(A):G:H4'	19:YX:35:THR:HG21	1.80	0.64
1:RA:987:G:O2'	1:RA:1000:A:N3	2.26	0.63
55:QY:183:ARG:HB3	55:QY:309:THR:HG22	1.80	0.63
21:YZ:72:ARG:HG2	21:YZ:89:PHE:HB2	1.79	0.63
1:RA:11:G:H2'	1:RA:12:U:H5'	1.79	0.63
1:RA:2156:G:N7	1:RA:2157:G:N2	2.46	0.63
32:QA:269:C:H2'	32:QA:270:A:C8	2.34	0.63
33:QB:96:ARG:HD2	33:QB:98:LEU:HD23	1.80	0.63
1:YA:2464:C:H2'	1:YA:2465:C:O4'	1.98	0.63
6:YG:21:ARG:HE	6:YG:22:ARG:HG2	1.63	0.63
32:XA:1221:G:OP1	32:XA:1320:C:N4	2.28	0.63
1:RA:1028:A:N6	1:RA:1125:G:H2'	2.13	0.63
1:YA:631:A:OP1	11:YP:65:ARG:NH1	2.30	0.63
1:RA:652(C):A:H61	1:RA:655:A:H1'	1.64	0.63
1:RA:2327:A:H2'	1:RA:2328:A:C8	2.34	0.63
2:YB:24:G:N7	2:YB:56:G:H2'	2.13	0.63
26:Y4:48:ARG:HG3	26:Y4:52:THR:HG23	1.81	0.63
40:XI:50:LEU:HD23	40:XI:85:LEU:HD11	1.80	0.63
1:RA:1076:C:H4'	1:RA:1077:A:OP1	1.97	0.63
10:RO:80:ASP:OD1	15:RT:64:ARG:NH2	2.32	0.63
1:YA:2206:G:H3'	1:YA:2207:G:H8	1.63	0.63
32:XA:1288:A:O3'	52:XU:10:ARG:NH2	2.32	0.63
37:QF:25:ILE:HG13	37:QF:82:ARG:NH1	2.14	0.63
11:YP:126:VAL:HG12	11:YP:148:LEU:HD22	1.79	0.63
26:Y4:18:CYS:SG	26:Y4:39:CYS:HB3	2.39	0.63
1:RA:2206:G:H3'	1:RA:2207:G:C8	2.34	0.63
44:QM:15:VAL:HG11	44:QM:48:LEU:HD21	1.81	0.63
32:XA:581:G:OP1	46:XO:65:ARG:NH2	2.31	0.63
32:XA:1343:G:H4'	40:XI:122:ALA:HB3	1.81	0.63
54:XX:19:U:N3	55:XY:121:GLY:O	2.31	0.63
1:RA:1057:A:N7	1:RA:1086:A:H2'	2.14	0.63
32:QA:73:G:H1	32:QA:96:U:H3	1.46	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:XG:15:ASP:OD1	38:XG:20:ASP:N	2.31	0.63
1:YA:2126:A:H4'	1:YA:2127:G:O5'	1.98	0.62
32:QA:1519:MA6:H8	32:QA:1519:MA6:O5'	1.99	0.62
38:QG:113:GLU:HG2	38:QG:119:ARG:HG2	1.80	0.62
1:RA:2744:G:N2	7:RH:143:GLN:OE1	2.30	0.62
1:RA:997:G:H5''	16:RU:92:ARG:HH21	1.63	0.62
32:QA:142:G:O2'	32:QA:196:A:N1	2.33	0.62
1:YA:2552:2MU:C4	1:YA:2552:2MU:C6	2.55	0.62
14:YS:15:ARG:O	14:YS:19:LYS:HG2	1.98	0.62
32:QA:396:G:O2'	32:QA:398:C:OP1	2.15	0.62
32:QA:1075:C:OP1	33:QB:179:LYS:NZ	2.31	0.62
1:YA:2206:G:H3'	1:YA:2207:G:C8	2.33	0.62
32:XA:1187:G:OP1	40:XI:113:LYS:NZ	2.32	0.62
1:RA:1063:G:N2	1:RA:1075:C:N3	2.48	0.62
1:RA:2646:C:OP2	1:RA:2732:G:O2'	2.17	0.62
23:R1:50:ARG:HG2	23:R1:59:THR:HG22	1.81	0.62
36:QE:143:ARG:NH1	39:QH:77:GLU:OE2	2.32	0.62
32:XA:1128:C:H1'	32:XA:1147:C:H42	1.65	0.62
35:QD:108:LEU:HD22	35:QD:174:LEU:HD13	1.82	0.62
55:QY:219:PRO:O	55:QY:222:LEU:N	2.30	0.62
32:QA:1395:C:O2'	32:QA:1401:G:O2'	2.15	0.62
36:QE:8:GLU:OE2	36:QE:63:ARG:NH2	2.32	0.62
1:YA:1379:A:H4'	1:YA:1380:G:OP2	2.00	0.62
41:QJ:52:GLY:O	45:QN:41:ARG:NH2	2.33	0.62
51:QT:60:GLU:HG3	51:QT:81:LYS:HD2	1.81	0.62
33:XB:77:ALA:HB2	33:XB:211:ILE:HD13	1.82	0.62
36:XE:102:ALA:HB1	36:XE:106:PRO:HG2	1.81	0.62
3:YD:108:PRO:HB3	3:YD:143:HIS:CE1	2.35	0.62
17:YV:62:LEU:HD21	17:YV:95:LEU:HB2	1.81	0.62
11:RP:63:PRO:HG2	30:R8:25:MET:HB2	1.80	0.61
32:QA:976:G:H5'	32:QA:1358:U:O2'	2.00	0.61
32:XA:1494:G:O3'	55:XY:160:LYS:NZ	2.26	0.61
1:RA:2839:G:H5'	13:RR:46:GLY:HA2	1.81	0.61
6:RG:108:ASN:O	26:R4:37:SER:N	2.33	0.61
32:QA:1020:U:H2'	32:QA:1021:G:C8	2.35	0.61
37:QF:89:MET:HE1	49:QR:72:ARG:HB3	1.81	0.61
53:QV:1:C:H42	53:QV:72:A:H61	1.48	0.61
53:XV:4:G:HO2'	53:XV:5:G:H8	1.48	0.61
1:RA:1530:C:H42	1:RA:1539:G:H1	1.47	0.61
36:QE:8:GLU:HG2	36:QE:34:VAL:HG22	1.80	0.61
55:QY:316:ARG:NE	55:QY:327:TYR:OH	2.33	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:865:A:H5'	32:XA:1078:U:C5	2.35	0.61
32:XA:437:U:H5'	35:XD:155:LEU:HD21	1.82	0.61
32:QA:1003:G:H2'	32:QA:1004:A:H4'	1.81	0.61
33:QB:21:ARG:O	33:QB:23:ARG:N	2.29	0.61
40:XI:50:LEU:HB2	40:XI:56:LEU:HD23	1.82	0.61
1:RA:2126:A:H4'	1:RA:2127:G:O5'	2.01	0.61
37:QF:10:LEU:HD21	37:QF:61:LEU:HD22	1.81	0.61
1:YA:2122:U:H3	1:YA:2176:A:H61	1.48	0.61
9:YN:90:MET:HE3	9:YN:97:ARG:HB3	1.83	0.61
44:XM:96:LEU:O	44:XM:110:ARG:NH1	2.34	0.61
1:RA:272(L):U:H5'	8:RI:50:ARG:HH12	1.64	0.61
1:RA:1057:A:O2'	1:RA:1058:G:OP1	2.18	0.61
1:RA:2206:G:H5''	1:RA:2207:G:C8	2.36	0.61
44:QM:13:LYS:HA	44:QM:44:ARG:HH11	1.64	0.61
26:Y4:59:PHE:CA	26:Y4:61:ARG:H	2.10	0.61
32:XA:1025:U:H3	32:XA:1036:G:H1	1.48	0.61
40:XI:53:VAL:C	40:XI:55:ALA:H	2.07	0.61
1:RA:998:C:P	16:RU:92:ARG:HH22	2.23	0.61
39:QH:64:LYS:HG2	39:QH:79:VAL:HG21	1.83	0.61
1:YA:1063:G:N2	1:YA:1075:C:N3	2.48	0.61
1:YA:2839:G:H5'	13:YR:46:GLY:HA2	1.83	0.61
33:XB:76:GLN:HB2	33:XB:208:ILE:HG12	1.83	0.61
1:RA:1067:A:H4'	1:RA:1068:G:OP2	2.01	0.61
32:QA:297:G:N2	32:QA:300:A:OP2	2.30	0.61
1:YA:11:G:H2'	1:YA:12:U:H5'	1.83	0.61
1:YA:652(U):C:H2'	1:YA:652(V):G:C8	2.36	0.61
32:XA:1073:U:O2'	33:XB:104:ASN:OD1	2.19	0.61
33:XB:101:MET:HA	33:XB:108:ILE:HG13	1.83	0.61
1:RA:2128:C:N3	1:RA:2160:G:N2	2.42	0.61
33:QB:69:LEU:HD13	33:QB:91:PRO:HB2	1.83	0.61
1:YA:1423:G:OP1	1:YA:1492:G:O2'	2.19	0.61
1:RA:1379:A:H4'	1:RA:1380:G:OP2	2.00	0.60
1:RA:2612:C:OP2	27:R5:2:ALA:N	2.34	0.60
33:QB:195:ASP:O	39:QH:68:ARG:NH2	2.34	0.60
1:YA:1639:U:H2'	1:YA:1640:C:H5''	1.83	0.60
25:Y3:8:LEU:HD12	25:Y3:31:LEU:HA	1.83	0.60
26:Y4:16:CYS:SG	26:Y4:17:GLY:N	2.74	0.60
34:XC:152:ILE:HG13	34:XC:199:LYS:HB2	1.81	0.60
1:RA:2206:G:H3'	1:RA:2207:G:H8	1.65	0.60
1:RA:2286:A:C8	28:R6:34:LEU:HD21	2.36	0.60
5:RF:185:ASP:HA	5:RF:188:ARG:HD3	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:791:G:N2	32:QA:1497:G:O3'	2.34	0.60
34:QC:6:HIS:CE1	34:QC:8:ILE:HB	2.35	0.60
35:QD:88:VAL:HG22	36:QE:96:PRO:HB2	1.83	0.60
1:YA:334:C:OP1	1:YA:335:C:N4	2.34	0.60
1:YA:1050:A:C2	1:YA:2751:G:C2	2.89	0.60
1:YA:2306:C:N4	6:YG:43:LEU:O	2.33	0.60
2:YB:13:A:N1	2:YB:69:G:O2'	2.28	0.60
32:XA:266:G:O3'	48:XQ:67:LYS:HB2	2.00	0.60
36:QE:33:VAL:HG21	36:QE:109:ILE:HA	1.82	0.60
41:QJ:11:PHE:HE1	41:QJ:67:THR:HG22	1.65	0.60
55:QY:263:GLN:O	55:QY:267:LYS:N	2.33	0.60
21:YZ:144:LEU:HD21	21:YZ:150:LEU:HD13	1.83	0.60
32:XA:921:U:O2'	36:XE:19:MET:O	2.19	0.60
15:RT:95:ARG:HH11	15:RT:95:ARG:HG2	1.65	0.60
20:RY:102:CYS:SG	20:RY:103:GLY:N	2.74	0.60
1:YA:784:A:C6	3:YD:229:VAL:HG11	2.36	0.60
26:Y4:61:ARG:NH2	50:XS:9:VAL:HG11	2.16	0.60
32:XA:1002:G:H2'	32:XA:1003:G:C8	2.36	0.60
32:XA:1319:A:OP2	50:XS:3:ARG:NH2	2.32	0.60
23:R1:51:VAL:HG11	23:R1:74:VAL:HG21	1.84	0.60
32:QA:921:U:O2	36:QE:19:MET:HB2	2.01	0.60
1:RA:2122:U:H3	1:RA:2176:A:H61	1.50	0.60
28:Y6:13:CYS:SG	28:Y6:47:THR:HG21	2.42	0.60
15:RT:24:PRO:HA	15:RT:49:VAL:HG23	1.84	0.60
32:QA:612:C:O2	32:QA:629:G:N2	2.35	0.60
46:QO:39:LEU:HD13	46:QO:56:LEU:HB2	1.82	0.60
1:YA:1038:C:N4	1:YA:1117:G:H1	1.98	0.60
1:RA:1507:A:O2'	1:RA:1508:A:O5'	2.18	0.60
6:RG:50:ALA:C	6:RG:52:ILE:H	2.10	0.60
38:QG:27:ILE:HD12	38:QG:40:ALA:HA	1.82	0.60
1:YA:2261:C:OP1	22:Y0:19:LYS:NZ	2.29	0.60
33:XB:16:HIS:CG	33:XB:210:SER:HB3	2.37	0.60
9:RN:15:LEU:HB2	9:RN:135:PRO:HB2	1.83	0.60
11:RP:59:LEU:HD21	30:R8:10:ALA:HA	1.83	0.60
32:QA:901:A:O2'	32:QA:1513:A:OP1	2.11	0.60
32:QA:1070:U:OP1	36:QE:20:GLN:NE2	2.24	0.60
41:XJ:11:PHE:HE1	41:XJ:67:THR:HG22	1.65	0.60
35:QD:162:LEU:HD13	35:QD:181:MET:HG2	1.84	0.60
32:XA:769:G:H4'	32:XA:1513:A:H4'	1.84	0.60
33:XB:187:LEU:HA	33:XB:201:ILE:HB	1.83	0.60
1:RA:1798:U:OP2	3:RD:274:ARG:NH2	2.31	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:2527:C:O4'	31:Y9:1:MET:N	2.35	0.59
4:YE:12:THR:HG22	4:YE:13:ARG:H	1.66	0.59
32:XA:696:A:N1	32:XA:797:C:O2'	2.30	0.59
32:QA:335:C:H1'	32:QA:1434:A:H1'	1.84	0.59
32:QA:955:U:OP1	55:QY:137:ARG:NH1	2.34	0.59
32:QA:1298:C:C4	38:QG:114:ARG:HD2	2.37	0.59
39:QH:51:VAL:HG12	39:QH:52:ASP:H	1.67	0.59
1:YA:674:G:H1'	5:YF:74:ARG:HD3	1.84	0.59
22:Y0:27:GLU:HG3	22:Y0:68:GLU:HA	1.84	0.59
32:XA:1360:A:OP2	45:XN:35:ARG:NH2	2.36	0.59
55:XY:326:LEU:HD21	55:XY:328:ARG:HH21	1.66	0.59
8:RI:69:LYS:NZ	8:RI:137:PRO:O	2.27	0.59
32:QA:1010:G:N2	32:QA:1020:U:H1'	2.17	0.59
55:QY:263:GLN:HA	55:QY:266:ASN:HB2	1.83	0.59
9:YN:15:LEU:HB2	9:YN:135:PRO:HB2	1.84	0.59
33:XB:118:LEU:HD13	33:XB:142:LEU:HB2	1.84	0.59
1:RA:752:A:H3'	29:R7:1:MET:HE2	1.82	0.59
1:RA:2748:A:H5'	7:RH:4:ILE:HD12	1.84	0.59
1:RA:2749:A:H5'	7:RH:3:ARG:NH2	2.17	0.59
32:QA:1435:G:H2'	32:QA:1436:U:C6	2.36	0.59
36:QE:57:LYS:HG2	36:QE:61:TYR:CE2	2.37	0.59
1:YA:1800:C:OP2	3:YD:183:ARG:NH2	2.35	0.59
3:YD:71:ASP:HB3	3:YD:103:ARG:HH22	1.67	0.59
6:YG:80:PHE:O	6:YG:82:LEU:N	2.35	0.59
33:XB:8:LYS:HG2	33:XB:9:GLU:H	1.68	0.59
1:RA:674:G:H1'	5:RF:74:ARG:HD3	1.83	0.59
1:YA:1530:C:H42	1:YA:1539:G:H1	1.50	0.59
1:YA:2787:C:H1'	4:YE:62:PRO:HG3	1.84	0.59
6:YG:77:ILE:HG21	6:YG:80:PHE:CD2	2.36	0.59
1:RA:270:A:OP2	1:RA:272(X):G:N1	2.29	0.59
1:RA:1639:U:H2'	1:RA:1640:C:H5''	1.83	0.59
32:QA:17:U:H2'	32:QA:18:C:C6	2.37	0.59
32:QA:256:U:OP1	48:QQ:17:LYS:NZ	2.30	0.59
1:YA:1057:A:O2'	1:YA:1058:G:OP1	2.19	0.59
1:YA:2279:G:N7	22:Y0:14:ARG:NH1	2.50	0.59
51:XT:50:GLU:HG3	51:XT:100:ILE:HD11	1.84	0.59
1:RA:2150:U:H2'	1:RA:2151:G:C8	2.37	0.59
7:RH:11:VAL:HG21	7:RH:50:VAL:HG23	1.85	0.59
37:QF:99:ALA:HB2	49:QR:31:LEU:HD21	1.83	0.59
55:QY:217:ILE:HD12	55:QY:274:LEU:HD12	1.84	0.59
23:Y1:50:ARG:HG2	23:Y1:59:THR:HG22	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:673:G:H2'	32:QA:674:G:C8	2.38	0.59
36:QE:137:GLU:OE1	36:QE:141:GLN:NE2	2.29	0.59
1:YA:1076:C:H4'	1:YA:1077:A:OP1	2.02	0.59
1:RA:2001:A:H2'	1:RA:2002:G:C8	2.38	0.59
23:R1:3:LYS:HG3	23:R1:4:VAL:H	1.68	0.59
32:QA:355:C:O2'	32:QA:388:G:N3	2.29	0.59
34:QC:8:ILE:HG23	34:QC:16:ARG:HG2	1.84	0.59
36:QE:74:GLY:HA3	36:QE:116:THR:HG22	1.85	0.59
32:XA:17:U:H2'	32:XA:18:C:C6	2.38	0.59
32:XA:1376:U:H2'	32:XA:1377:A:H8	1.67	0.59
36:XE:12:LEU:HD12	36:XE:128:PRO:HB2	1.85	0.59
1:RA:2304:G:H22	1:RA:2312:U:H3	1.48	0.59
32:QA:1256:A:OP2	32:QA:1279:A:N6	2.36	0.59
1:YA:588:U:H2'	1:YA:589:C:C6	2.38	0.59
1:YA:1507:A:O2'	1:YA:1508:A:O5'	2.19	0.59
2:YB:14:U:OP2	2:YB:70:C:O2'	2.21	0.59
3:YD:206:LEU:HD22	3:YD:211:ARG:HG2	1.85	0.59
39:XH:10:LEU:HD22	39:XH:83:ILE:HD11	1.84	0.59
4:RE:73:GLU:H	4:RE:73:GLU:CD	2.10	0.58
17:RV:72:VAL:HG13	17:RV:85:LYS:HB3	1.84	0.58
35:QD:106:TYR:HE2	35:QD:107:ARG:HH11	1.50	0.58
32:XA:1129:C:H2'	32:XA:1139:G:N7	2.17	0.58
2:YB:91:C:OP2	12:YQ:16:ARG:NH1	2.36	0.58
37:XF:10:LEU:HD21	37:XF:61:LEU:HD22	1.84	0.58
1:RA:574:C:N3	4:RE:145:LYS:NZ	2.42	0.58
14:RS:59:LYS:HD2	14:RS:60:GLY:N	2.12	0.58
33:QB:54:THR:HG21	33:QB:201:ILE:HD11	1.85	0.58
33:QB:167:PRO:HG3	33:QB:186:ALA:HB1	1.85	0.58
1:YA:652(C):A:H61	1:YA:655:A:H1'	1.68	0.58
5:YF:178:PRO:HB2	5:YF:201:VAL:CG2	2.31	0.58
7:YH:113:VAL:HG11	7:YH:151:ILE:HD13	1.84	0.58
11:YP:86:LYS:HB3	11:YP:118:GLY:HA3	1.85	0.58
32:XA:890:G:O2'	32:XA:906:G:O6	2.18	0.58
34:QC:6:HIS:HE1	34:QC:8:ILE:HB	1.69	0.58
35:QD:170:VAL:HG12	35:QD:174:LEU:HB2	1.84	0.58
1:YA:878:A:H3'	1:YA:879:G:H8	1.68	0.58
4:YE:24:THR:HG23	4:YE:186:GLY:O	2.03	0.58
5:YF:11:VAL:HB	5:YF:18:ARG:HB3	1.85	0.58
21:YZ:5:LEU:HD11	21:YZ:39:VAL:HB	1.84	0.58
31:Y9:25:VAL:HB	31:Y9:34:GLN:HB2	1.85	0.58
36:XE:74:GLY:HA3	36:XE:116:THR:HG22	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RE:119:ARG:HD3	4:RE:160:TYR:HB2	1.85	0.58
32:QA:677:U:H3	32:QA:713:G:H22	1.52	0.58
43:QL:70:ILE:HG12	43:QL:100:ILE:HD12	1.86	0.58
55:XY:119:THR:H	55:XY:302:ASP:CG	2.11	0.58
1:RA:652(U):C:H2'	1:RA:652(V):G:C8	2.37	0.58
1:RA:2747:G:OP1	7:RH:138:LYS:NZ	2.34	0.58
32:QA:441:A:H3'	32:QA:442:C:H6	1.69	0.58
48:QQ:53:LEU:HD23	48:QQ:82:MET:HE1	1.84	0.58
1:YA:301:G:OP2	20:YY:84:ARG:NH2	2.37	0.58
1:YA:1721:G:H2'	1:YA:1740:G:O6	2.04	0.58
1:YA:2218:U:O2	23:Y1:52:ARG:NH2	2.36	0.58
1:YA:2347:C:OP1	28:Y6:38:LYS:NZ	2.25	0.58
36:QE:92:LYS:HB3	36:QE:119:LEU:HB2	1.86	0.58
53:QV:28:C:H2'	53:QV:29:G:C8	2.39	0.58
7:YH:11:VAL:HG21	7:YH:50:VAL:HG23	1.85	0.58
32:QA:1292:U:OP2	38:QG:41:ARG:NH2	2.37	0.58
55:QY:262:SER:HB3	55:QY:265:LYS:HG2	1.84	0.58
1:YA:2502:G:H5''	1:YA:2503:2MA:H5''	1.84	0.58
10:YO:115:VAL:HG13	10:YO:121:VAL:HG21	1.85	0.58
19:YX:11:PRO:HB3	19:YX:92:LEU:HD11	1.86	0.58
32:XA:164:U:H2'	32:XA:165:C:C6	2.39	0.58
32:QA:890:G:O2'	32:QA:906:G:O6	2.18	0.58
32:QA:1375:A:H4'	38:QG:29:LYS:HE2	1.85	0.58
3:YD:182:LEU:HB2	3:YD:272:ALA:HB3	1.85	0.58
6:RG:115:ARG:HB3	6:RG:136:ARG:HH22	1.69	0.58
32:QA:45:U:H2'	32:QA:46:G:C8	2.38	0.58
55:QY:182:HIS:HB3	55:QY:310:TYR:HE1	1.69	0.58
1:YA:2110:G:H5''	1:YA:2111:C:H5	1.69	0.58
1:YA:2150:U:H2'	1:YA:2151:G:C8	2.38	0.58
1:YA:2573:C:N4	55:XY:228:ARG:HE	2.02	0.58
34:XC:6:HIS:CD2	34:XC:9:GLY:H	2.22	0.58
32:QA:1441:G:O2'	32:QA:1460:A:N6	2.36	0.57
7:RH:40:GLU:OE1	7:RH:60:ARG:NH1	2.36	0.57
32:QA:992:U:H4'	32:QA:993:G:H5'	1.86	0.57
37:QF:69:GLU:O	37:QF:72:VAL:HG12	2.04	0.57
1:YA:1056:G:N1	1:YA:1102:C:OP2	2.37	0.57
32:XA:473:G:OP2	47:XP:75:ARG:HD3	2.04	0.57
32:XA:933:G:O6	38:XG:3:ARG:NH2	2.35	0.57
32:XA:1004:A:N7	32:XA:1037:C:H2'	2.18	0.57
32:QA:222:U:H2'	32:QA:223:U:C6	2.39	0.57
49:QR:32:ARG:HA	49:QR:69:THR:HG21	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:1053:C:H2'	1:YA:1054:A:H8	1.68	0.57
1:YA:1087:G:N2	1:YA:1102:C:N3	2.43	0.57
1:YA:2478:A:OP2	31:Y9:2:LYS:NZ	2.22	0.57
40:XI:9:ARG:HG2	40:XI:14:VAL:HG12	1.86	0.57
55:XY:263:GLN:HA	55:XY:266:ASN:HB2	1.86	0.57
1:RA:2529:G:O6	31:R9:31:LYS:NZ	2.37	0.57
33:QB:115:LEU:O	33:QB:119:GLU:HG2	2.03	0.57
1:YA:1049:C:N4	1:YA:2751:G:O6	2.33	0.57
1:YA:2115:G:N1	1:YA:2119:A:OP2	2.38	0.57
1:YA:2152:G:H2'	1:YA:2153:G:C8	2.40	0.57
26:Y4:53:GLU:CD	26:Y4:53:GLU:H	2.13	0.57
32:XA:1412:C:H2'	32:XA:1413:A:C8	2.39	0.57
34:XC:179:ARG:NH1	34:XC:206:GLU:OE1	2.35	0.57
46:XO:25:THR:HG21	46:XO:70:LEU:HB2	1.86	0.57
55:XY:200:ALA:HB3	55:XY:302:ASP:CB	2.32	0.57
1:RA:247:G:H4'	1:RA:386:G:C5	2.40	0.57
1:RA:1087:G:H1	1:RA:1102:C:N4	2.02	0.57
5:RF:184:TYR:CE2	5:RF:188:ARG:HD2	2.40	0.57
32:QA:737:A:H2'	32:QA:738:C:C6	2.39	0.57
32:QA:159:G:N2	32:QA:161:A:H3'	2.20	0.57
32:QA:1013:G:N2	32:QA:1016:A:OP2	2.35	0.57
1:RA:1889:A:N1	1:RA:2234:G:H1'	2.19	0.57
7:RH:3:ARG:HD3	7:RH:54:ARG:HH12	1.70	0.57
33:QB:178:ARG:HH22	39:QH:68:ARG:HH12	1.53	0.57
32:XA:662:G:H2'	32:XA:663:A:C8	2.40	0.57
32:XA:1191:A:OP2	34:XC:3:ASN:ND2	2.37	0.57
1:RA:2127:G:H2'	1:RA:2128:C:O4'	2.04	0.57
7:RH:3:ARG:HB3	7:RH:6:ARG:HG2	1.87	0.57
33:QB:229:VAL:HG12	33:QB:230:VAL:H	1.68	0.57
35:QD:166:LYS:N	35:QD:168:ARG:HH21	2.02	0.57
1:YA:2115:G:H21	1:YA:2171:A:H61	1.53	0.57
32:XA:1023:G:H3'	32:XA:1024:G:H8	1.70	0.57
34:XC:40:ARG:NH2	34:XC:55:VAL:O	2.38	0.57
1:RA:1786:A:H1'	1:RA:1938:A:N6	2.19	0.57
32:QA:1286:A:H2'	32:QA:1287:A:H4'	1.87	0.57
33:QB:16:HIS:HB2	33:QB:204:ASN:HB3	1.87	0.57
32:XA:474:G:H2'	32:XA:475:G:C8	2.40	0.57
32:XA:1435:G:H2'	32:XA:1436:U:C6	2.40	0.57
1:RA:992:C:OP1	16:RU:47:TYR:OH	2.14	0.57
1:RA:2115:G:N1	1:RA:2119:A:OP2	2.38	0.57
3:RD:71:ASP:HB3	3:RD:103:ARG:NH2	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RE:2:LYS:HB2	4:RE:95:ILE:HD12	1.86	0.57
5:RF:51:THR:HB	5:RF:88:VAL:HG11	1.86	0.57
32:QA:1179:A:OP2	40:QI:93:ARG:NH2	2.38	0.57
1:YA:1688:U:O2	1:YA:1700:A:H5'	2.05	0.57
32:XA:953:G:N7	44:XM:104:ARG:NH2	2.52	0.57
33:XB:7:VAL:O	33:XB:217:ARG:NE	2.32	0.57
5:RF:64:ILE:HG21	5:RF:78:ILE:HG23	1.87	0.56
13:RR:83:ILE:O	13:RR:86:ARG:HG2	2.04	0.56
32:QA:1216:G:H5''	45:QN:5:ALA:HB2	1.84	0.56
32:XA:921:U:O2	36:XE:19:MET:HB2	2.05	0.56
33:XB:229:VAL:HG12	33:XB:230:VAL:H	1.68	0.56
36:XE:137:GLU:HG2	36:XE:140:ARG:HH11	1.69	0.56
43:XL:60:LEU:HD21	43:XL:66:VAL:HG22	1.87	0.56
1:RA:1049:C:H2'	1:RA:1050:A:H8	1.70	0.56
7:RH:90:LYS:HD3	7:RH:159:GLU:HG2	1.87	0.56
1:YA:1086:A:OP1	1:YA:1104:C:O2'	2.23	0.56
7:YH:40:GLU:OE1	7:YH:60:ARG:NH1	2.38	0.56
32:XA:35:G:O2'	43:XL:118:SER:O	2.21	0.56
1:RA:876:C:H2'	1:RA:877:U:O4'	2.05	0.56
33:QB:185:ILE:HG22	33:QB:199:TYR:HB2	1.86	0.56
55:QY:332:VAL:HG13	55:QY:337:LEU:HB3	1.88	0.56
1:YA:637:A:H5''	11:YP:117:GLU:HG2	1.87	0.56
1:YA:796:C:H2'	1:YA:797:C:C6	2.40	0.56
1:YA:2012:G:OP1	18:YW:11:ARG:NH2	2.38	0.56
1:YA:2321:G:O2'	1:YA:2322:A:OP1	2.21	0.56
19:RX:35:THR:HG22	19:RX:37:THR:H	1.70	0.56
21:RZ:19:ARG:NH1	21:RZ:84:GLU:O	2.38	0.56
1:YA:714:U:N3	1:YA:717:G:OP2	2.24	0.56
32:XA:38:G:H22	32:XA:397:A:H5''	1.69	0.56
32:XA:919:A:O2'	32:XA:1080:A:N1	2.26	0.56
34:XC:57:ILE:HG12	34:XC:66:VAL:HG22	1.88	0.56
24:R2:23:LYS:O	24:R2:27:GLU:HG3	2.05	0.56
32:QA:966:M2G:HM12	53:QV:34:C:H5'	1.86	0.56
32:QA:1030(A):C:N4	32:QA:1032:G:O6	2.38	0.56
33:QB:27:LYS:HD2	33:QB:193:ASP:OD1	2.06	0.56
1:YA:300:A:O2'	1:YA:318:C:O2	2.22	0.56
1:YA:458:G:O2'	1:YA:469:G:O6	2.22	0.56
13:YR:18:LEU:HD11	13:YR:22:ARG:CZ	2.35	0.56
17:YV:35:LEU:HB2	17:YV:57:VAL:HG22	1.88	0.56
32:XA:539:A:H2'	32:XA:540:G:C8	2.41	0.56
32:XA:1305:G:N2	32:XA:1331:G:H1'	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:XB:88:ALA:HB2	33:XB:219:VAL:HG13	1.87	0.56
55:XY:228:ARG:HA	55:XY:241:ASP:HA	1.86	0.56
1:RA:517:C:OP1	27:R5:16:ARG:NH2	2.39	0.56
9:RN:120:LEU:HD22	9:RN:122:VAL:HG23	1.88	0.56
15:RT:64:ARG:HB2	15:RT:73:GLU:HG2	1.87	0.56
33:QB:16:HIS:HB3	33:QB:210:SER:HB2	1.87	0.56
53:QV:52:G:H2'	53:QV:52:G:N3	2.21	0.56
1:YA:876:C:H2'	1:YA:877:U:O4'	2.06	0.56
35:XD:12:CYS:SG	35:XD:19:LEU:HB2	2.46	0.56
1:YA:483:A:O2'	20:YY:49:VAL:O	2.15	0.56
32:XA:1353:G:OP1	52:XU:10:ARG:NH1	2.39	0.56
55:XY:114:GLU:HB3	55:XY:163:ILE:HB	1.87	0.56
8:RI:92:VAL:HG13	8:RI:120:ILE:HB	1.86	0.56
46:QO:11:VAL:HG21	46:QO:34:LEU:HD22	1.88	0.56
5:YF:164:ARG:HD2	5:YF:175:THR:HG23	1.88	0.56
32:XA:719:C:O2'	49:XR:49:LYS:HB3	2.05	0.56
1:RA:1076:C:H1'	1:RA:1077:A:H5'	1.86	0.56
1:RA:1798:U:H5'	3:RD:259:THR:CG2	2.36	0.56
20:RY:92:ASN:N	20:RY:93:GLY:HA2	2.21	0.56
32:QA:187:C:O2'	51:QT:89:ARG:NH2	2.34	0.56
32:QA:343:U:O2'	32:QA:346:G:O6	2.15	0.56
32:QA:539:A:OP2	43:QL:115:LYS:NZ	2.38	0.56
32:QA:1074:G:O2'	32:QA:1101:A:N1	2.37	0.56
32:QA:1239:A:O2'	38:QG:114:ARG:O	2.21	0.56
40:QI:108:VAL:HG12	40:QI:109:VAL:H	1.71	0.56
1:YA:1028:A:H62	1:YA:1126:A:H8	1.53	0.56
1:YA:1062:G:O2'	1:YA:1063:G:H5'	2.06	0.56
1:YA:1124:C:H2'	1:YA:1125:G:O4'	2.06	0.56
21:YZ:91:LEU:HG	21:YZ:130:PRO:HG3	1.87	0.56
32:XA:1053:G:N7	32:XA:1200:C:H5''	2.21	0.56
1:RA:2464:C:H2'	1:RA:2465:C:O4'	2.05	0.56
21:RZ:72:ARG:CG	21:RZ:89:PHE:HB2	2.35	0.56
32:QA:750:G:O2'	46:QO:22:THR:O	2.17	0.56
48:QQ:78:GLU:HG2	48:QQ:79:SER:H	1.71	0.56
1:YA:323:G:H1'	1:YA:1205:U:O2	2.06	0.56
1:RA:2094:G:P	8:RI:22:LYS:HD2	2.46	0.55
1:RA:2171:A:H4'	1:RA:2172:U:OP1	2.06	0.55
1:YA:1889:A:N1	1:YA:2234:G:H1'	2.21	0.55
12:YQ:80:GLU:CD	55:XY:264:HIS:HB2	2.32	0.55
1:RA:2321:G:O2'	1:RA:2322:A:OP1	2.23	0.55
4:RE:51:PHE:H	4:RE:75:VAL:CG1	2.19	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:110:C:O2'	47:QP:25:ARG:O	2.22	0.55
53:QV:4:G:HO2'	53:QV:5:G:H8	1.53	0.55
1:YA:1364:G:P	23:Y1:3:LYS:HG3	2.46	0.55
1:YA:2659:G:O2'	7:YH:175:LYS:HE2	2.06	0.55
32:XA:142:G:H2'	32:XA:143:A:H8	1.72	0.55
32:XA:411:A:OP2	35:XD:25:ARG:NH2	2.39	0.55
32:XA:444:C:H42	32:XA:490:G:H1	1.54	0.55
49:XR:56:THR:HB	49:XR:58:LEU:HD23	1.87	0.55
1:RA:212:G:H2'	1:RA:213:A:O4'	2.07	0.55
1:YA:300:A:H2'	1:YA:334:C:H1'	1.87	0.55
16:YU:108:GLU:O	16:YU:112:ARG:HG2	2.06	0.55
49:XR:59:SER:OG	49:XR:62:GLU:HG2	2.06	0.55
19:RX:53:LYS:HB3	19:RX:82:GLN:HB3	1.87	0.55
1:YA:528:A:OP2	9:YN:114:ARG:NH1	2.39	0.55
32:XA:1030(A):C:N3	32:XA:1031:G:N2	2.54	0.55
32:XA:1047:G:OP1	45:YN:4:LYS:NZ	2.34	0.55
55:XY:108:GLU:HA	55:XY:170:GLY:HA2	1.89	0.55
1:RA:1800:C:OP2	3:RD:183:ARG:NH2	2.40	0.55
1:RA:2810:A:N6	1:RA:2891:G:O2'	2.34	0.55
4:RE:170:LEU:HB3	4:RE:184:VAL:HG22	1.89	0.55
33:QB:21:ARG:H	33:QB:21:ARG:CD	2.20	0.55
5:YF:132:VAL:HG21	5:YF:163:VAL:HG22	1.89	0.55
7:YH:89:ILE:O	7:YH:129:THR:HG23	2.06	0.55
26:Y4:61:ARG:HH22	50:XS:9:VAL:HG21	1.71	0.55
1:RA:588:U:H2'	1:RA:589:C:C6	2.41	0.55
1:RA:1050:A:C2	1:RA:2751:G:C2	2.95	0.55
35:QD:13:ARG:NH1	35:QD:38:TYR:O	2.40	0.55
12:YQ:45:GLN:OE1	12:YQ:45:GLN:N	2.37	0.55
1:RA:250:G:P	30:R8:13:ARG:HH22	2.30	0.55
1:RA:1049:C:H2'	1:RA:1050:A:C8	2.42	0.55
1:RA:1688:U:O2	1:RA:1700:A:H5'	2.06	0.55
32:QA:1187:G:H4'	40:QI:111:ARG:HH11	1.71	0.55
46:QO:74:ASP:OD2	46:QO:77:ARG:HG3	2.07	0.55
3:YD:69:ARG:NH2	3:YD:128:GLY:O	2.32	0.55
8:YI:130:TYR:HB3	8:YI:138:ILE:HB	1.88	0.55
19:YX:53:LYS:HB3	19:YX:82:GLN:HB3	1.88	0.55
42:XK:115:PRO:C	42:XK:117:ASN:HA	2.31	0.55
46:XO:74:ASP:OD2	46:XO:77:ARG:HG3	2.06	0.55
8:RI:38:LEU:H	8:RI:38:LEU:HD12	1.72	0.55
11:RP:98:GLU:OE1	11:RP:102:ARG:NH1	2.30	0.55
32:QA:103:C:O2'	32:QA:172:A:N1	2.32	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:2128:C:H5'	1:YA:2129:C:OP2	2.07	0.55
6:YG:11:TYR:HA	6:YG:15:VAL:HB	1.88	0.55
6:YG:66:GLN:HG3	26:Y4:1:MET:HE3	1.87	0.55
21:YZ:125:LEU:HB3	21:YZ:165:VAL:HG13	1.88	0.55
53:XV:9:G:O2'	53:XV:10:G:N7	2.37	0.55
1:RA:84:A:H5''	20:RY:8:LYS:HE2	1.88	0.55
1:RA:2142:C:H2'	1:RA:2143:C:C6	2.42	0.55
21:RZ:126:VAL:CG1	21:RZ:161:VAL:HG23	2.37	0.55
23:R1:64:ALA:HA	23:R1:67:ILE:HG13	1.89	0.55
33:QB:158:LEU:HG	33:QB:182:ILE:HD11	1.89	0.55
44:QM:3:ARG:HD2	44:QM:9:ILE:HG12	1.88	0.55
1:YA:607:U:OP1	5:YF:102:PRO:HA	2.07	0.55
1:YA:1087:G:H1	1:YA:1102:C:N4	2.04	0.55
35:XD:150:GLU:HA	35:XD:153:ARG:HE	1.72	0.55
35:XD:13:ARG:NH1	35:XD:38:TYR:O	2.40	0.55
9:RN:94:HIS:HB3	9:RN:97:ARG:HD3	1.89	0.54
13:RR:67:LEU:HD13	13:RR:76:VAL:HG21	1.89	0.54
1:YA:82:G:N1	1:YA:103:A:OP2	2.35	0.54
1:YA:276:A:H5''	1:YA:277:C:H5'	1.89	0.54
1:YA:747:U:O2	1:YA:2014:A:H1'	2.08	0.54
1:YA:1075:C:H2'	1:YA:1076:C:H5'	1.90	0.54
1:YA:2189:U:H2'	1:YA:2190:G:C8	2.42	0.54
23:Y1:64:ALA:HA	23:Y1:67:ILE:HG13	1.89	0.54
32:XA:922:G:H4'	36:XE:20:GLN:HA	1.89	0.54
33:XB:84:GLU:HB3	33:XB:219:VAL:HG21	1.89	0.54
34:XC:12:LEU:HD11	45:XN:51:GLY:HA2	1.89	0.54
39:XH:64:LYS:HG2	39:XH:79:VAL:HG21	1.88	0.54
1:RA:764:A:H5'	3:RD:210:GLY:HA2	1.88	0.54
1:RA:1721:G:H2'	1:RA:1740:G:O6	2.07	0.54
5:RF:140:LEU:HD21	5:RF:170:LEU:HD11	1.88	0.54
9:RN:4:TYR:CD2	16:RU:100:VAL:HG11	2.42	0.54
20:RY:87:LYS:HB3	20:RY:95:LYS:HD3	1.90	0.54
32:QA:1391:U:H2'	32:QA:1392:G:C8	2.42	0.54
46:QO:84:LYS:O	46:QO:84:LYS:HD3	2.06	0.54
1:YA:1816:G:O6	3:YD:35:LYS:NZ	2.38	0.54
1:YA:2127:G:H2'	1:YA:2128:C:O4'	2.07	0.54
1:YA:2142:C:H2'	1:YA:2143:C:C6	2.41	0.54
33:XB:44:LEU:H	33:XB:44:LEU:HD22	1.73	0.54
1:RA:1086:A:OP1	1:RA:1104:C:O2'	2.24	0.54
1:RA:2110:G:H5''	1:RA:2111:C:H5	1.73	0.54
1:RA:2128:C:H5'	1:RA:2129:C:OP2	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:QH:10:LEU:HD22	39:QH:83:ILE:HD11	1.89	0.54
50:QS:22:LEU:HD22	50:QS:28:LYS:HA	1.89	0.54
1:YA:1359:A:H61	1:YA:1372:U:H3	1.54	0.54
15:YT:65:LYS:HE3	15:YT:67:SER:HB2	1.90	0.54
32:XA:406:G:H5'	35:XD:5:ILE:HD11	1.88	0.54
32:XA:503:C:OP2	43:XL:116:SER:HB3	2.07	0.54
32:XA:632:A:H5'	32:XA:633:G:OP2	2.07	0.54
39:XH:12:ARG:HD2	39:XH:26:VAL:HG12	1.89	0.54
1:RA:1803:A:O2'	3:RD:259:THR:HG21	2.07	0.54
1:RA:2189:U:H2'	1:RA:2190:G:C8	2.42	0.54
1:RA:2445:G:OP1	5:RF:74:ARG:NH2	2.38	0.54
32:QA:38:G:N2	32:QA:397:A:H5'	2.21	0.54
32:QA:261:U:OP2	51:QT:79:ARG:NH2	2.40	0.54
32:QA:324:G:N1	32:QA:327:A:OP2	2.40	0.54
1:YA:265:A:N1	1:YA:427:U:O2'	2.33	0.54
1:YA:1032:A:H4'	31:Y9:16:VAL:HG11	1.88	0.54
1:YA:1667:G:O2'	1:YA:1991:U:O4	2.23	0.54
1:YA:2099:U:H3	1:YA:2190:G:H1	1.54	0.54
1:YA:2327:A:H2'	1:YA:2328:A:C8	2.42	0.54
3:YD:30:GLU:HG3	3:YD:94:LEU:HD21	1.90	0.54
15:YT:95:ARG:HG2	15:YT:95:ARG:HH11	1.73	0.54
1:RA:747:U:O2	1:RA:2014:A:H1'	2.08	0.54
19:RX:5:TYR:O	24:R2:36:ARG:NH2	2.39	0.54
1:YA:593:G:H4'	30:Y8:4:MET:HE2	1.88	0.54
1:YA:601:C:OP1	5:YF:108:LYS:HE3	2.07	0.54
1:YA:1184:G:OP1	25:Y3:30:ARG:HD2	2.07	0.54
1:YA:1341:U:OP1	1:YA:1397:U:N3	2.33	0.54
3:YD:10:THR:OG1	3:YD:13:ARG:HG2	2.08	0.54
6:YG:113:ARG:HH21	26:Y4:33:VAL:HG12	1.71	0.54
24:Y2:12:GLU:HA	24:Y2:15:LYS:HZ2	1.71	0.54
32:XA:1510:U:H2'	32:XA:1511:G:C8	2.43	0.54
12:RQ:18:LYS:O	12:RQ:98:LYS:NZ	2.33	0.54
13:RR:36:THR:HG22	13:RR:37:THR:H	1.73	0.54
1:YA:1250:G:N7	11:YP:18:ARG:NH2	2.55	0.54
6:YG:146:TYR:HD2	44:XM:8:GLU:CD	2.14	0.54
32:XA:576:G:O6	32:XA:880:C:O2'	2.24	0.54
32:XA:1157:A:H5'	32:XA:1158:C:C6	2.43	0.54
41:XJ:37:PRO:HA	41:XJ:72:VAL:HG12	1.89	0.54
41:XJ:57:LYS:HE2	41:XJ:60:ARG:NH2	2.23	0.54
46:XO:35:ARG:NH2	46:XO:59:MET:HE2	2.22	0.54
1:RA:1036:G:H1	1:RA:1119:C:H42	1.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:2336:A:H61	22:R0:43:THR:HG22	1.73	0.54
25:R3:8:LEU:HD12	25:R3:31:LEU:HA	1.89	0.54
26:R4:41:PRO:HG3	26:R4:49:PHE:CE1	2.42	0.54
32:QA:1003:G:N2	32:QA:1004:A:H1'	2.23	0.54
32:QA:1279:A:H5''	41:QJ:7:LYS:NZ	2.23	0.54
32:QA:1442(A):G:N3	32:QA:1442(A):G:H2'	2.23	0.54
35:QD:81:GLU:O	35:QD:85:LYS:HB2	2.08	0.54
37:QF:97:PHE:HB2	49:QR:32:ARG:HD2	1.90	0.54
1:YA:1049:C:O2	1:YA:1113:U:H4'	2.07	0.54
1:YA:1101:U:H2'	1:YA:1102:C:C6	2.43	0.54
1:YA:2461:C:H2'	1:YA:2462:U:C6	2.43	0.54
17:YV:43:GLU:N	17:YV:43:GLU:OE2	2.41	0.54
32:XA:1030(B):G:H2'	32:XA:1030(C):C:H5''	1.88	0.54
32:XA:1131:G:H2'	32:XA:1132:C:C6	2.43	0.54
1:RA:2152:G:H2'	1:RA:2153:G:C8	2.42	0.54
1:RA:2354:G:H21	22:R0:36:ILE:HD11	1.73	0.54
1:RA:2507:C:O4'	55:QY:238:ASN:HB3	2.08	0.54
3:RD:108:PRO:HD2	3:RD:111:LEU:HG	1.88	0.54
9:RN:128:HIS:O	9:RN:131:GLN:NE2	2.40	0.54
25:R3:3:ARG:NH1	25:R3:60:GLU:OE2	2.36	0.54
40:QI:49:PRO:HD2	40:QI:81:ILE:HD11	1.89	0.54
1:YA:2262:U:H4'	1:YA:2328:A:C2	2.42	0.54
5:YF:167:ALA:HB1	5:YF:173:VAL:HG11	1.88	0.54
5:YF:184:TYR:O	5:YF:188:ARG:HG3	2.07	0.54
32:XA:1239:A:H62	32:XA:1299:A:H62	1.56	0.54
33:XB:9:GLU:C	33:XB:11:LEU:H	2.15	0.54
35:XD:173:TRP:CD1	35:XD:189:PRO:HG3	2.42	0.54
45:XN:4:LYS:HG3	45:XN:7:ILE:HD11	1.90	0.54
51:XT:60:GLU:HG3	51:XT:81:LYS:HD2	1.89	0.54
4:RE:78:LEU:O	4:RE:79:ARG:NH1	2.36	0.54
6:RG:116:ASP:OD1	44:QM:68:GLY:HA3	2.07	0.54
9:RN:46:VAL:HG23	9:RN:48:MET:HG2	1.90	0.54
40:QI:16:ARG:HD3	40:QI:64:THR:HG21	1.89	0.54
55:QY:106:ASP:HA	55:QY:109:ARG:HD3	1.90	0.54
1:YA:517:C:OP1	27:Y5:16:ARG:NH2	2.41	0.54
6:YG:18:GLU:OE1	6:YG:21:ARG:NH2	2.40	0.54
30:Y8:63:PRO:HG2	30:Y8:64:TYR:CE2	2.42	0.54
32:XA:452:A:N3	47:XP:72:ARG:NH1	2.56	0.54
32:XA:1106:G:H5''	34:XC:172:ARG:HG2	1.89	0.54
32:XA:1151:A:O2'	32:XA:1152:A:H8	1.90	0.54
34:XC:150:LYS:HG3	34:XC:169:ALA:HB2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:XG:132:GLY:O	38:XG:136:LYS:HG2	2.06	0.54
1:RA:2115:G:H21	1:RA:2171:A:H61	1.55	0.54
51:QT:47:GLY:HA2	51:QT:48:LYS:HB2	1.88	0.54
1:YA:774:A:H2'	1:YA:774:A:N3	2.23	0.54
6:YG:11:TYR:OH	6:YG:33:ARG:HG3	2.08	0.54
32:XA:979:C:H42	45:XN:18:VAL:HG12	1.73	0.54
32:XA:1015:A:H2'	32:XA:1016:A:C8	2.43	0.54
33:XB:54:THR:HG21	33:XB:201:ILE:HD11	1.89	0.54
44:XM:95:GLY:O	44:XM:110:ARG:HG3	2.08	0.54
5:RF:178:PRO:HB2	5:RF:201:VAL:CG2	2.38	0.53
8:RI:130:TYR:HB3	8:RI:138:ILE:HB	1.89	0.53
55:QY:245:ARG:HB2	55:QY:256:GLU:HB3	1.90	0.53
35:XD:173:TRP:CD1	35:XD:174:LEU:HG	2.43	0.53
55:XY:177:PHE:HB3	55:XY:321:ARG:HH22	1.74	0.53
1:RA:1029:A:OP1	12:RQ:128:LYS:NZ	2.40	0.53
1:RA:2502:G:H5''	1:RA:2503:2MA:H5''	1.89	0.53
5:RF:53:THR:HG22	5:RF:55:GLY:H	1.74	0.53
13:RR:24:GLN:HB3	13:RR:44:LEU:HD11	1.90	0.53
32:QA:411:A:OP2	35:QD:25:ARG:NH2	2.41	0.53
33:QB:15:VAL:HG23	33:QB:209:ARG:HB3	1.89	0.53
42:QK:99:GLN:HG2	42:QK:105:VAL:HG21	1.90	0.53
1:YA:998:C:OP2	16:YU:92:ARG:NH2	2.41	0.53
1:YA:2022:U:O2'	1:YA:2617:C:H5'	2.08	0.53
3:YD:72:LYS:NZ	3:YD:99:ASP:OD2	2.37	0.53
19:YX:65:ARG:HB3	19:YX:70:LEU:HD23	1.89	0.53
30:Y8:6:THR:HG23	30:Y8:64:TYR:HD2	1.73	0.53
32:XA:324:G:N1	32:XA:327:A:OP2	2.40	0.53
32:XA:1492:A:OP2	43:XL:47:LYS:HG3	2.09	0.53
36:XE:57:LYS:HG2	36:XE:61:TYR:HE2	1.72	0.53
41:XJ:5:ARG:N	41:XJ:99:LYS:O	2.40	0.53
1:RA:185:U:H4'	1:RA:218:A:H4'	1.91	0.53
33:QB:76:GLN:NE2	33:QB:206:ASP:OD1	2.42	0.53
35:QD:15:GLU:HG3	35:QD:63:LYS:HD3	1.91	0.53
36:QE:110:LEU:HD13	36:QE:118:ILE:HG21	1.89	0.53
39:QH:86:ILE:HG13	39:QH:133:LEU:HD22	1.90	0.53
32:XA:404:U:C5'	35:XD:122:ARG:HD3	2.38	0.53
1:RA:84:A:N1	1:RA:98:G:O2'	2.38	0.53
1:RA:2022:U:O2'	1:RA:2617:C:H5'	2.08	0.53
32:QA:1068:G:OP2	32:QA:1068:G:H8	1.91	0.53
46:QO:17:ARG:HD3	46:QO:26:GLU:OE1	2.09	0.53
1:YA:2313:C:H2'	1:YA:2314:C:C6	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:YI:114:LEU:HD12	8:YI:116:LEU:HB2	1.89	0.53
15:YT:39:ARG:HH22	32:XA:344:A:H4'	1.73	0.53
32:XA:707:C:OP1	42:XK:85:ARG:NH1	2.41	0.53
32:XA:975:A:N1	41:XJ:48:THR:HB	2.24	0.53
32:XA:1402:4OC:HM22	32:XA:1403:C:H5'	1.90	0.53
40:XI:4:TYR:HB2	40:XI:19:LEU:HB2	1.91	0.53
40:XI:22:GLY:HA3	40:XI:60:ASP:OD1	2.07	0.53
52:XU:5:ASP:O	52:XU:11:GLY:HA3	2.09	0.53
1:RA:1031:G:O2'	31:R9:7:VAL:O	2.24	0.53
6:RG:77:ILE:HG21	6:RG:80:PHE:CD2	2.43	0.53
32:QA:1030(A):C:N3	32:QA:1031:G:N2	2.56	0.53
1:YA:1471:A:OP2	1:YA:1519:G:N2	2.38	0.53
32:XA:17:U:O2'	32:XA:1079:G:H1'	2.07	0.53
32:XA:942:G:H21	40:XI:124:GLN:NE2	2.05	0.53
33:XB:69:LEU:HB3	33:XB:162:ILE:HG22	1.90	0.53
1:RA:1075:C:H2'	1:RA:1076:C:H5'	1.89	0.53
1:RA:1087:G:N2	1:RA:1102:C:N3	2.44	0.53
1:RA:1824:G:O3'	3:RD:249:PRO:HD3	2.09	0.53
1:RA:2526:G:H5'	1:RA:2742:C:O2'	2.09	0.53
1:YA:1991:U:H2'	1:YA:1992:G:H5''	1.91	0.53
32:XA:1006:C:H2'	32:XA:1007:C:C6	2.43	0.53
41:XJ:61:GLU:OE1	45:XN:58:LYS:NZ	2.38	0.53
55:XY:184:VAL:HG23	55:XY:200:ALA:HA	1.90	0.53
1:RA:1171:G:N2	1:RA:1178:C:O2	2.42	0.53
1:RA:1889:A:H2'	1:RA:1890:A:C8	2.44	0.53
1:RA:2311:A:C6	6:RG:80:PHE:HB3	2.44	0.53
1:RA:2756:U:H5''	31:R9:19:ARG:HA	1.91	0.53
32:QA:921:U:O2'	36:QE:19:MET:O	2.12	0.53
32:QA:1158:C:H5	32:QA:1181:G:H1	1.55	0.53
44:QM:34:LEU:HD13	44:QM:41:PRO:HA	1.89	0.53
1:YA:1101:U:H2'	1:YA:1102:C:H6	1.73	0.53
15:YT:108:ARG:NH1	32:XA:1464:G:OP1	2.41	0.53
32:XA:1029:C:N4	32:XA:1030(A):C:H41	2.07	0.53
1:RA:1062:G:N7	1:RA:1070:A:H1'	2.24	0.53
53:QV:19:G:H5'	53:QV:20:U:C5	2.44	0.53
55:QY:328:ARG:HH22	55:QY:340:LEU:N	2.06	0.53
1:YA:2171:A:H4'	1:YA:2172:U:OP1	2.07	0.53
1:YA:2805:G:H2'	1:YA:2807:G:C8	2.43	0.53
13:YR:36:THR:HG22	13:YR:37:THR:H	1.73	0.53
32:XA:1157:A:H4'	32:XA:1158:C:O5'	2.09	0.53
38:XG:113:GLU:HG3	38:XG:118:VAL:HG12	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:1412:C:H2'	32:QA:1413:A:C8	2.44	0.53
1:YA:2345:G:H1'	1:YA:2382:G:H5'	1.90	0.53
4:YE:111:ARG:HG3	4:YE:160:TYR:CD2	2.43	0.53
5:YF:184:TYR:CE2	5:YF:188:ARG:HD2	2.43	0.53
32:XA:737:A:H2'	32:XA:738:C:C6	2.44	0.53
33:XB:71:VAL:HG12	33:XB:93:VAL:HG22	1.91	0.53
40:XI:26:VAL:HA	40:XI:61:ALA:O	2.09	0.53
22:R0:27:GLU:HG3	22:R0:68:GLU:HA	1.91	0.53
32:QA:1033:G:H2'	32:QA:1034:G:H8	1.74	0.53
39:QH:86:ILE:HG21	39:QH:133:LEU:HD13	1.91	0.53
1:YA:1062:G:N7	1:YA:1070:A:H1'	2.24	0.53
12:YQ:7:MET:HG3	12:YQ:9:TYR:O	2.09	0.53
17:YV:29:PRO:HA	17:YV:61:VAL:HG23	1.91	0.53
24:Y2:16:LEU:O	24:Y2:67:LYS:NZ	2.41	0.53
32:XA:1347:G:N2	32:XA:1373:G:H2'	2.24	0.53
1:RA:273(A):G:H4'	1:RA:273(B):U:H5''	1.90	0.52
1:RA:300:A:H2'	1:RA:334:C:H1'	1.90	0.52
40:QI:33:PHE:HE1	40:QI:43:ALA:HB1	1.74	0.52
1:YA:321:G:OP2	5:YF:135:LYS:HD3	2.09	0.52
1:YA:1378:A:OP1	29:Y7:10:ARG:NH2	2.42	0.52
1:YA:1406:U:H2'	1:YA:1407:C:C6	2.44	0.52
1:YA:2893:G:H5''	1:YA:2894:G:O4'	2.09	0.52
11:YP:100:LEU:HD12	11:YP:112:LEU:HD11	1.90	0.52
20:YY:82:PRO:O	20:YY:101:LYS:NZ	2.27	0.52
44:XM:54:VAL:HA	44:XM:57:ARG:HB3	1.91	0.52
1:RA:922:U:H2'	1:RA:923:C:C6	2.44	0.52
1:RA:2836:U:H2'	1:RA:2837:G:C8	2.44	0.52
19:RX:11:PRO:HB3	19:RX:92:LEU:HD11	1.91	0.52
44:QM:3:ARG:HG3	44:QM:4:ILE:N	2.23	0.52
1:YA:2659:G:H4'	7:YH:175:LYS:HD3	1.91	0.52
17:YV:52:VAL:HG23	17:YV:55:ALA:HB3	1.90	0.52
36:XE:12:LEU:HB3	36:XE:31:LEU:HB2	1.91	0.52
41:XJ:9:ARG:NH2	41:XJ:95:GLU:OE1	2.42	0.52
32:QA:376:G:H5''	47:QP:5:ARG:HD3	1.91	0.52
49:QR:33:ASP:OD2	49:QR:36:ASN:HB2	2.10	0.52
1:YA:1110:G:H1'	1:YA:1111:A:C8	2.44	0.52
1:YA:2206:G:H5''	1:YA:2207:G:N7	2.24	0.52
5:YF:103:LYS:O	5:YF:106:ARG:HG2	2.10	0.52
7:YH:143:GLN:NE2	7:YH:147:ASN:OD1	2.42	0.52
17:YV:72:VAL:HG13	17:YV:85:LYS:HB3	1.90	0.52
32:XA:1129:C:OP1	40:XI:16:ARG:NH1	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:XC:164:ARG:NH1	34:XC:166:GLU:OE1	2.42	0.52
1:RA:1084:A:H3'	1:RA:1085:A:C4'	2.39	0.52
26:R4:59:PHE:HE1	50:QS:64:GLU:HA	1.75	0.52
32:QA:176:C:H2'	32:QA:177:C:C6	2.44	0.52
51:QT:10:LEU:HB3	51:QT:12:ALA:H	1.74	0.52
1:YA:922:U:H2'	1:YA:923:C:C6	2.44	0.52
1:YA:1300:U:H4'	1:YA:1301:A:H5'	1.92	0.52
1:YA:2104:G:N2	1:YA:2105:C:C4	2.77	0.52
10:YO:80:ASP:OD1	15:YT:64:ARG:NH2	2.40	0.52
32:XA:977:A:N6	32:XA:1224:G:OP1	2.38	0.52
33:XB:16:HIS:HB2	33:XB:204:ASN:HB3	1.90	0.52
40:XI:24:GLY:HA2	40:XI:59:PHE:O	2.10	0.52
55:XY:174:ARG:NH1	55:XY:338:ASP:OD1	2.43	0.52
1:RA:272(E):U:H2'	1:RA:272(F):C:C6	2.44	0.52
1:RA:514:A:N3	1:RA:581:C:O2'	2.40	0.52
1:RA:2206:G:H8	1:RA:2207:G:N7	2.08	0.52
34:QC:148:GLY:HA3	34:QC:172:ARG:O	2.09	0.52
1:YA:1067:A:H4'	1:YA:1068:G:OP2	2.09	0.52
1:YA:2752:C:OP2	7:YH:4:ILE:HD11	2.09	0.52
6:YG:36:LYS:HE2	6:YG:95:ARG:NH1	2.24	0.52
9:YN:62:VAL:CG1	9:YN:66:LYS:HB2	2.40	0.52
13:YR:67:LEU:HD13	13:YR:76:VAL:HG21	1.92	0.52
21:YZ:72:ARG:CG	21:YZ:89:PHE:HB2	2.39	0.52
32:XA:457:C:H2'	32:XA:458:C:H6	1.75	0.52
35:XD:15:GLU:HG3	35:XD:63:LYS:HD3	1.91	0.52
1:RA:1038:C:N4	1:RA:1117:G:H1	2.06	0.52
1:RA:1165:U:H2'	1:RA:1166:C:C6	2.45	0.52
11:RP:63:PRO:HD3	30:R8:27:THR:HG22	1.91	0.52
14:RS:14:VAL:O	14:RS:18:ILE:HG12	2.10	0.52
14:RS:15:ARG:O	14:RS:19:LYS:HG2	2.08	0.52
32:QA:328:C:H4'	32:QA:329:A:H5'	1.92	0.52
33:QB:82:ARG:HG3	33:QB:92:TYR:CZ	2.43	0.52
34:QC:22:TRP:CZ2	45:QN:54:PRO:HG2	2.44	0.52
1:YA:154(B):C:H42	1:YA:171:G:H1	1.57	0.52
1:YA:212:G:H2'	1:YA:213:A:O4'	2.10	0.52
32:XA:841:U:OP1	32:XA:841:U:H6	1.92	0.52
32:XA:1002:G:N3	32:XA:1003:G:H8	2.07	0.52
40:XI:8:GLY:HA3	40:XI:76:ALA:O	2.09	0.52
44:XM:6:GLY:HA3	44:XM:67:GLU:HG3	1.92	0.52
46:XO:17:ARG:HD3	46:XO:26:GLU:OE1	2.10	0.52
49:XR:32:ARG:HA	49:XR:69:THR:HG21	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:586:A:N1	1:RA:809:G:O2'	2.38	0.52
1:RA:2023:G:H5'	1:RA:2617:C:H4'	1.91	0.52
18:RW:23:LEU:HD11	27:R5:25:LEU:HB2	1.92	0.52
32:QA:457:C:H2'	32:QA:458:C:H6	1.74	0.52
41:QJ:8:LEU:HB2	41:QJ:70:ARG:HB2	1.91	0.52
46:QO:25:THR:HG21	46:QO:70:LEU:HB2	1.91	0.52
1:YA:637:A:OP1	11:YP:133:SER:OG	2.24	0.52
1:YA:2756:U:OP2	31:Y9:19:ARG:NE	2.30	0.52
32:XA:1456:G:O3'	51:XT:39:LYS:NZ	2.43	0.52
1:RA:1796:U:H2'	1:RA:1797:C:C6	2.45	0.52
1:RA:1827:C:O2'	1:RA:1970:A:N3	2.41	0.52
32:QA:1360:A:OP2	45:QN:35:ARG:NH2	2.42	0.52
32:QA:1479:C:H2'	32:QA:1480:G:H8	1.75	0.52
36:QE:12:LEU:HB3	36:QE:31:LEU:HB2	1.92	0.52
1:YA:1019:U:OP1	1:YA:1035:U:O2'	2.23	0.52
1:YA:1310:G:OP2	29:Y7:9:ARG:HD2	2.09	0.52
30:Y8:23:VAL:HG13	30:Y8:47:LYS:HB3	1.92	0.52
1:RA:8:A:H2'	1:RA:9:U:C6	2.44	0.52
1:RA:1530:C:HO2'	1:RA:1531:C:P	2.32	0.52
13:RR:21:TYR:OH	13:RR:43:GLU:HG2	2.09	0.52
26:R4:50:VAL:HG21	44:QM:64:TRP:C	2.35	0.52
32:QA:56:U:H2'	32:QA:57:G:C8	2.44	0.52
32:QA:1479:C:H2'	32:QA:1480:G:C8	2.45	0.52
40:QI:121:ARG:NH1	40:QI:122:ALA:O	2.43	0.52
43:QL:60:LEU:HD21	43:QL:66:VAL:HG22	1.91	0.52
55:QY:326:LEU:CD1	55:QY:328:ARG:HH21	2.22	0.52
1:YA:1411:C:H2'	1:YA:1412:A:C8	2.45	0.52
1:YA:2602:A:N1	55:XY:242:SER:OG	2.42	0.52
5:YF:157:VAL:HB	5:YF:194:MET:HG2	1.92	0.52
7:YH:115:VAL:HG11	7:YH:148:ILE:HD11	1.91	0.52
32:XA:539:A:OP2	43:XL:115:LYS:NZ	2.43	0.52
44:XM:19:LEU:HD21	44:XM:56:LEU:HD21	1.91	0.52
1:RA:2165:G:H2'	1:RA:2166:G:O4'	2.09	0.52
18:RW:4:LYS:HG2	18:RW:5:ALA:N	2.24	0.52
32:QA:1216:G:OP1	45:QN:2:ALA:HA	2.10	0.52
53:QV:9:G:O2'	53:QV:10:G:N7	2.41	0.52
1:YA:2165:G:H2'	1:YA:2166:G:O4'	2.10	0.52
1:YA:2319:G:H22	14:YS:3:ARG:CZ	2.23	0.52
16:YU:86:ALA:O	17:YV:49:THR:HG23	2.10	0.52
32:XA:1391:U:H2'	32:XA:1392:G:C8	2.45	0.52
51:XT:57:ARG:HH12	51:XT:100:ILE:HB	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:1101:U:H2'	1:RA:1102:C:H6	1.75	0.51
1:RA:1991:U:H2'	1:RA:1992:G:H5''	1.91	0.51
1:RA:2099:U:H3	1:RA:2190:G:H1	1.57	0.51
1:RA:2284:C:OP1	28:R6:5:VAL:HG13	2.09	0.51
1:RA:2758:A:C2	7:RH:71:LEU:HD21	2.45	0.51
21:RZ:126:VAL:HG11	21:RZ:161:VAL:HG23	1.92	0.51
21:RZ:129:SER:HB3	21:RZ:132:ASN:HB2	1.91	0.51
32:QA:1060:C:C5	34:QC:2:GLY:HA3	2.45	0.51
32:QA:1240:U:C2	38:QG:32:ARG:HD3	2.45	0.51
35:QD:196:LEU:H	35:QD:196:LEU:HD12	1.76	0.51
32:XA:1218:C:H2'	32:XA:1219:U:C6	2.45	0.51
55:XY:229:SER:OG	55:XY:242:SER:OG	2.27	0.51
1:RA:2105:C:N4	1:RA:2106:G:O6	2.42	0.51
3:RD:106:ILE:O	3:RD:108:PRO:HD3	2.11	0.51
5:RF:101:LEU:O	5:RF:106:ARG:NH1	2.42	0.51
32:QA:109:A:C6	32:QA:326:G:C6	2.99	0.51
33:QB:84:GLU:HB3	33:QB:219:VAL:HG21	1.92	0.51
34:QC:58:GLU:HB3	41:QJ:92:THR:HG21	1.92	0.51
1:YA:330:A:HO2'	1:YA:331:A:H8	1.58	0.51
6:YG:56:ALA:HA	6:YG:153:ARG:NH2	2.25	0.51
18:YW:23:LEU:O	18:YW:27:LYS:NZ	2.44	0.51
22:Y0:8:GLY:N	53:XV:2:G:H5'	2.25	0.51
32:XA:1513:A:H2'	32:XA:1514:C:C6	2.45	0.51
55:XY:116:ARG:HH11	55:XY:161:GLU:HG3	1.75	0.51
1:RA:833:U:O2	11:RP:55:ARG:NH2	2.38	0.51
1:RA:878:A:H3'	1:RA:879:G:H8	1.74	0.51
1:RA:956:G:P	12:RQ:14:ARG:HH22	2.33	0.51
9:RN:62:VAL:CG1	9:RN:66:LYS:HB2	2.40	0.51
19:RX:5:TYR:HB3	24:R2:33:MET:HB2	1.93	0.51
32:QA:164:U:H2'	32:QA:165:C:C6	2.45	0.51
1:YA:218:A:C2	1:YA:235:U:H4'	2.45	0.51
1:YA:1029:A:H2	1:YA:2465:C:H2'	1.74	0.51
10:YO:2:ILE:HB	10:YO:33:ALA:HB3	1.91	0.51
37:XF:95:GLU:O	49:XR:32:ARG:NH2	2.43	0.51
43:XL:28:LYS:N	43:XL:29:GLY:HA2	2.24	0.51
34:QC:32:LEU:HD22	34:QC:59:ARG:NH1	2.26	0.51
1:YA:1721:G:H8	1:YA:1741:A:H62	1.58	0.51
1:YA:1796:U:H2'	1:YA:1797:C:C6	2.45	0.51
5:YF:103:LYS:HA	5:YF:106:ARG:HD3	1.91	0.51
6:YG:97:ASP:HA	6:YG:100:TRP:HD1	1.75	0.51
32:XA:404:U:H5''	35:XD:122:ARG:HD3	1.90	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:545:C:OP1	35:XD:61:LYS:NZ	2.44	0.51
32:XA:660:G:H1	32:XA:745:C:H42	1.58	0.51
33:XB:96:ARG:HD2	33:XB:98:LEU:HD23	1.91	0.51
34:XC:8:ILE:HD12	34:XC:16:ARG:HD3	1.93	0.51
44:XM:81:LEU:HD13	44:XM:88:ARG:HG2	1.92	0.51
47:XP:23:ASP:OD1	47:XP:25:ARG:HD3	2.10	0.51
1:RA:774:A:H2'	1:RA:774:A:N3	2.26	0.51
1:RA:1084:A:H3'	1:RA:1085:A:H4'	1.92	0.51
1:RA:1453:U:OP1	13:RR:77:ARG:NH1	2.39	0.51
21:RZ:92:SER:O	21:RZ:130:PRO:HG2	2.10	0.51
28:R6:6:ARG:NH1	28:R6:26:ASN:HB2	2.26	0.51
1:YA:250:G:P	30:Y8:13:ARG:HH22	2.33	0.51
1:YA:2168:G:H22	1:YA:2171:A:H2'	1.75	0.51
1:YA:2573:C:H41	55:XY:239:THR:HA	1.72	0.51
23:Y1:3:LYS:HB2	23:Y1:61:ARG:NH1	2.26	0.51
32:XA:501:C:H2'	32:XA:502:G:C8	2.45	0.51
32:XA:1309:G:OP1	44:XM:88:ARG:HD2	2.09	0.51
35:XD:70:ILE:HD11	35:XD:74:GLN:HB3	1.93	0.51
36:XE:57:LYS:HG2	36:XE:61:TYR:CE2	2.44	0.51
46:XO:39:LEU:HD13	46:XO:56:LEU:HB2	1.92	0.51
1:RA:299:A:N1	1:RA:322:A:O2'	2.36	0.51
1:RA:587:C:P	11:RP:21:ARG:HH22	2.34	0.51
1:RA:1756:G:H4'	1:RA:1758:G:O4'	2.11	0.51
4:RE:105:THR:OG1	4:RE:199:ARG:NH2	2.44	0.51
8:RI:72:LEU:C	8:RI:74:ASN:H	2.18	0.51
20:RY:13:VAL:HB	20:RY:72:VAL:HG13	1.93	0.51
32:QA:1402:4OC:HM22	32:QA:1403:C:H5'	1.92	0.51
34:QC:179:ARG:NH1	34:QC:206:GLU:OE1	2.44	0.51
41:QJ:38:ILE:HG12	41:QJ:71:LEU:HB3	1.91	0.51
1:YA:273(A):G:H4'	1:YA:273(B):U:H5''	1.91	0.51
1:YA:1069:A:H5'	1:YA:1096:A:H5'	1.93	0.51
6:YG:5:VAL:HG12	26:Y4:25:TYR:CE1	2.45	0.51
32:XA:841:U:C5	32:XA:848:C:H1'	2.46	0.51
32:XA:858:G:O6	32:XA:869:G:H3'	2.11	0.51
32:XA:1346:A:OP1	40:XI:120:ARG:NH1	2.38	0.51
36:XE:6:PHE:HB2	36:XE:34:VAL:HG13	1.91	0.51
1:RA:1019:U:OP1	1:RA:1035:U:O2'	2.23	0.51
1:RA:2698:U:H2'	1:RA:2699:C:C6	2.46	0.51
28:R6:13:CYS:SG	28:R6:47:THR:HG21	2.51	0.51
32:QA:946:A:H2'	32:QA:947:G:C8	2.46	0.51
32:QA:1101:A:H4'	32:QA:1102:A:O5'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:1278:U:H5'	32:QA:1279:A:H5'	1.92	0.51
35:QD:108:LEU:HB3	35:QD:110:PHE:CE1	2.46	0.51
50:QS:41:VAL:HG22	50:QS:42:PRO:HD2	1.93	0.51
1:YA:2134:A:H8	1:YA:2156:G:H21	1.59	0.51
1:YA:2683:C:OP1	15:YT:53:ARG:NH2	2.44	0.51
7:YH:55:PRO:HG2	7:YH:61:HIS:CE1	2.45	0.51
20:YY:38:ILE:HD11	20:YY:66:PRO:HG3	1.92	0.51
32:XA:28:G:O2'	32:XA:296:U:OP1	2.28	0.51
32:XA:229:U:O2'	47:XP:23:ASP:OD2	2.28	0.51
36:XE:144:THR:H	36:XE:147:ASP:HB2	1.76	0.51
38:QG:89:MET:HE1	38:QG:155:ARG:HB2	1.93	0.51
38:QG:111:ARG:NH1	38:QG:113:GLU:OE1	2.43	0.51
1:YA:2206:G:H8	1:YA:2207:G:N7	2.09	0.51
1:YA:2698:U:H2'	1:YA:2699:C:C6	2.45	0.51
26:Y4:15:ILE:HD12	26:Y4:21:VAL:HG22	1.93	0.51
32:XA:926:G:H22	54:XX:16:A:P	2.33	0.51
32:XA:1304:G:OP1	52:XU:2:GLY:N	2.43	0.51
55:XY:316:ARG:NH2	55:XY:327:TYR:OH	2.43	0.51
1:RA:1053:C:O2'	1:RA:1054:A:O4'	2.27	0.51
8:RI:133:HIS:ND1	8:RI:134:PRO:O	2.44	0.51
30:R8:62:LEU:HB3	30:R8:65:GLU:HG2	1.92	0.51
32:QA:189(L):U:H2'	32:QA:189(M):G:C8	2.46	0.51
32:QA:189(L):U:H2'	32:QA:189(M):G:H8	1.76	0.51
32:QA:410:G:OP1	35:QD:30:LYS:NZ	2.32	0.51
32:QA:1227:A:OP1	50:QS:80:TYR:OH	2.24	0.51
1:YA:61:G:H5'	24:Y2:50:ILE:HG21	1.93	0.51
1:YA:1275:A:N1	1:YA:1295:C:O2'	2.43	0.51
1:YA:1778:U:H2'	1:YA:1784:A:N6	2.26	0.51
1:YA:2023:G:H5'	1:YA:2617:C:H4'	1.93	0.51
1:RA:2334:G:H5'	14:RS:9:ARG:HG2	1.93	0.51
6:RG:50:ALA:O	6:RG:52:ILE:N	2.44	0.51
12:RQ:14:ARG:HG2	12:RQ:41:TRP:HH2	1.76	0.51
19:RX:60:ARG:HH22	29:R7:47:ARG:HH22	1.57	0.51
32:QA:186:C:H2'	32:QA:187:C:C6	2.45	0.51
32:QA:368:U:O4	8:YI:82:ARG:HD2	2.11	0.51
41:QJ:37:PRO:HA	41:QJ:72:VAL:HG12	1.92	0.51
1:YA:300:A:OP1	20:YY:86:ARG:NH2	2.44	0.51
1:YA:489:G:N7	18:YW:49:LYS:NZ	2.58	0.51
1:YA:1593:G:H2'	1:YA:1594:G:C8	2.46	0.51
7:YH:28:GLY:HA3	7:YH:79:VAL:HB	1.92	0.51
32:XA:1118:C:H1'	32:XA:1179:A:C4	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:321:G:H5'	5:RF:134:GLY:O	2.10	0.50
1:RA:784:A:C6	3:RD:229:VAL:HG11	2.45	0.50
5:RF:12:LEU:HD13	5:RF:124:LEU:HD11	1.93	0.50
32:QA:881:G:P	43:QL:12:ARG:HH22	2.33	0.50
32:QA:1347:G:H5''	40:QI:107:ARG:HB3	1.93	0.50
32:QA:1510:U:H2'	32:QA:1511:G:C8	2.45	0.50
53:QV:51:C:H2'	53:QV:52:G:O4'	2.11	0.50
1:YA:1932:A:H2'	1:YA:1933:G:O4'	2.11	0.50
1:YA:2031:A:N3	1:YA:2455:G:O2'	2.41	0.50
6:YG:66:GLN:HB3	6:YG:92:VAL:HG21	1.91	0.50
32:QA:441:A:H3'	32:QA:442:C:C6	2.45	0.50
32:QA:973:G:H3'	32:QA:974:A:H5''	1.93	0.50
1:YA:616:G:H5'	5:YF:205:ARG:HD2	1.93	0.50
2:YB:84:C:OP1	25:Y3:15:TYR:OH	2.24	0.50
11:YP:100:LEU:HD22	11:YP:105:LEU:HD12	1.91	0.50
30:Y8:23:VAL:HG11	30:Y8:47:LYS:HD3	1.93	0.50
32:XA:689:C:OP1	42:XK:27:ASN:ND2	2.38	0.50
47:XP:20:VAL:HG21	47:XP:32:TYR:CG	2.46	0.50
1:RA:272(L):U:H5'	8:RI:50:ARG:NH1	2.26	0.50
11:RP:99:LEU:HD23	11:RP:102:ARG:HH21	1.77	0.50
26:R4:1:MET:HE2	26:R4:6:HIS:CD2	2.46	0.50
30:R8:23:VAL:HG11	30:R8:47:LYS:HD3	1.92	0.50
32:QA:171:A:H2'	32:QA:172:A:C8	2.47	0.50
32:QA:454:C:OP2	32:QA:455:C:N4	2.39	0.50
32:QA:629:G:H2'	32:QA:630:G:O4'	2.11	0.50
44:QM:19:LEU:HD21	44:QM:56:LEU:HD21	1.93	0.50
6:YG:120:LEU:HB3	6:YG:131:TYR:OH	2.11	0.50
32:XA:380:G:N2	32:XA:383:A:OP2	2.44	0.50
32:XA:1146:A:H3'	32:XA:1147:C:H5''	1.92	0.50
33:XB:95:GLN:HG3	33:XB:147:LYS:O	2.11	0.50
1:RA:2206:G:H5''	1:RA:2207:G:N7	2.25	0.50
1:RA:2345:G:H1'	1:RA:2382:G:H5'	1.93	0.50
27:R5:16:ARG:HH11	27:R5:16:ARG:HG2	1.76	0.50
32:QA:67:C:H2'	32:QA:68:G:C8	2.47	0.50
32:QA:96:U:H2'	32:QA:97:G:C8	2.45	0.50
32:QA:1305:G:N2	32:QA:1331:G:H1'	2.26	0.50
33:QB:178:ARG:NH2	39:QH:68:ARG:HH12	2.09	0.50
1:YA:997:G:OP1	16:YU:92:ARG:HG2	2.11	0.50
1:YA:2115:G:N1	1:YA:2117:A:N7	2.58	0.50
1:YA:2180:U:H2'	1:YA:2181:G:C8	2.45	0.50
2:YB:66:A:H61	2:YB:109:C:H5'	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:1005:A:H5''	32:XA:1006:C:C5	2.46	0.50
35:XD:162:LEU:HD13	35:XD:181:MET:HG2	1.93	0.50
51:XT:18:GLN:O	51:XT:22:ARG:HG3	2.10	0.50
1:RA:1794:U:H2'	1:RA:1795:C:C6	2.47	0.50
1:RA:2104:G:N2	1:RA:2105:C:C4	2.80	0.50
25:R3:3:ARG:HH11	25:R3:60:GLU:CD	2.19	0.50
38:QG:48:LYS:O	38:QG:52:GLU:HG2	2.12	0.50
1:YA:1058:G:H1	1:YA:1080:C:H42	1.60	0.50
1:YA:1063:G:H2'	1:YA:1065:U:H6	1.76	0.50
32:XA:1100:C:H2'	32:XA:1102:A:O5'	2.11	0.50
45:XN:32:SER:OG	45:XN:41:ARG:HG2	2.12	0.50
1:RA:1068:G:H3'	1:RA:1096:A:OP2	2.12	0.50
32:QA:642:A:N3	39:QH:113:SER:OG	2.33	0.50
32:QA:838:G:H2'	32:QA:839:U:H2'	1.93	0.50
32:QA:1055:A:O2'	34:QC:161:GLU:O	2.18	0.50
40:QI:16:ARG:HB2	40:QI:64:THR:HG22	1.94	0.50
55:QY:328:ARG:HD2	55:QY:332:VAL:HG23	1.93	0.50
1:YA:1364:G:OP2	23:Y1:3:LYS:HG3	2.11	0.50
6:YG:3:LEU:H	6:YG:3:LEU:HD23	1.76	0.50
7:YH:87:LEU:HD23	7:YH:164:TYR:HA	1.93	0.50
9:YN:96:GLU:HB2	9:YN:122:VAL:HG12	1.93	0.50
25:Y3:23:LEU:HD22	25:Y3:50:VAL:HG11	1.93	0.50
32:XA:1313:U:P	50:XS:5:LEU:HG	2.51	0.50
33:XB:201:ILE:HG21	33:XB:214:ILE:HG21	1.93	0.50
47:XP:59:TRP:HA	47:XP:62:VAL:HG12	1.94	0.50
1:RA:1223:G:N2	1:RA:1226:A:OP2	2.39	0.50
16:RU:76:TYR:CZ	16:RU:80:ILE:HG13	2.46	0.50
5:YF:21:ALA:HB3	5:YF:22:ALA:HA	1.94	0.50
32:XA:429:U:H3'	35:XD:9:CYS:SG	2.52	0.50
32:XA:1302:U:OP2	44:XM:21:TYR:OH	2.22	0.50
32:XA:1456:G:N1	51:XT:51:GLU:OE1	2.44	0.50
1:RA:1667:G:O2'	1:RA:1991:U:O4	2.23	0.50
1:RA:1816:G:O6	3:RD:35:LYS:NZ	2.38	0.50
1:RA:2168:G:H22	1:RA:2171:A:H2'	1.77	0.50
32:QA:437:U:O2'	35:QD:123:HIS:ND1	2.32	0.50
1:YA:26:G:C6	1:YA:27:G:N1	2.79	0.50
1:YA:583:G:OP2	16:YU:10:ARG:HD2	2.12	0.50
14:YS:67:ARG:HG3	14:YS:71:ARG:NH1	2.27	0.50
16:YU:76:TYR:OH	16:YU:92:ARG:NH1	2.44	0.50
26:Y4:20:ASN:HD21	26:Y4:38:LYS:HG3	1.76	0.50
27:Y5:16:ARG:HG2	27:Y5:16:ARG:HH11	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:438:G:O2'	32:XA:494:U:O4	2.23	0.50
1:RA:642:G:N2	1:RA:645:C:OP2	2.45	0.50
1:RA:796:C:H2'	1:RA:797:C:C6	2.47	0.50
1:RA:2704:C:H2'	1:RA:2705:A:O4'	2.11	0.50
8:RI:140:LEU:HD12	8:RI:142:VAL:HG22	1.93	0.50
33:QB:115:LEU:HD13	33:QB:145:LEU:HB3	1.93	0.50
50:QS:50:ALA:HB1	50:QS:57:HIS:HB3	1.93	0.50
51:QT:10:LEU:HD23	51:QT:11:SER:H	1.77	0.50
1:YA:642:G:N2	1:YA:645:C:OP2	2.44	0.50
1:YA:1812:A:O2'	3:YD:45:ASN:N	2.45	0.50
4:YE:51:PHE:O	4:YE:77:ILE:N	2.44	0.50
32:XA:881:G:P	43:XL:12:ARG:HH22	2.35	0.50
32:XA:1376:U:H2'	32:XA:1377:A:C8	2.47	0.50
34:XC:152:ILE:HG22	34:XC:167:TRP:HB2	1.94	0.50
1:RA:265:A:N1	1:RA:427:U:O2'	2.38	0.49
1:RA:479:A:N3	1:RA:481:G:H5''	2.27	0.49
1:RA:2420:C:H5''	28:R6:8:LYS:HD2	1.94	0.49
6:RG:77:ILE:HG13	6:RG:82:LEU:HD12	1.94	0.49
26:R4:16:CYS:SG	26:R4:17:GLY:N	2.85	0.49
32:QA:509:A:N3	32:QA:543:C:O2'	2.39	0.49
32:QA:1030(D):G:H2'	32:QA:1030(E):A:C8	2.46	0.49
32:QA:1157:A:H4'	32:QA:1158:C:O5'	2.12	0.49
34:QC:70:VAL:HG22	34:QC:72:LYS:H	1.77	0.49
1:YA:1794:U:H2'	1:YA:1795:C:C6	2.47	0.49
1:YA:2805:G:H2'	1:YA:2807:G:H8	1.77	0.49
6:YG:7:LEU:HD23	6:YG:100:TRP:HE3	1.76	0.49
9:YN:54:VAL:HB	9:YN:122:VAL:HG22	1.94	0.49
14:YS:14:VAL:O	14:YS:18:ILE:HG12	2.11	0.49
26:Y4:15:ILE:HB	26:Y4:32:TYR:CD1	2.47	0.49
5:RF:30:PRO:HB3	11:RP:1:MET:HE1	1.94	0.49
32:QA:1356:G:H2'	32:QA:1357:A:C8	2.47	0.49
55:QY:138:TYR:HD1	55:QY:336:LYS:HB2	1.77	0.49
1:YA:572:A:OP2	17:YV:78:LYS:NZ	2.39	0.49
1:YA:2233:U:H2'	1:YA:2234:G:C8	2.47	0.49
32:XA:1179:A:H2'	32:XA:1180:A:O4'	2.12	0.49
33:XB:16:HIS:CD2	33:XB:210:SER:HB3	2.48	0.49
34:XC:22:TRP:CD1	34:XC:59:ARG:HD2	2.48	0.49
55:XY:138:TYR:HD1	55:XY:336:LYS:HB2	1.77	0.49
1:RA:9:U:O2'	1:RA:10:G:OP1	2.30	0.49
6:RG:50:ALA:C	6:RG:52:ILE:N	2.69	0.49
9:RN:94:HIS:CB	9:RN:97:ARG:HD3	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:1255:G:OP1	41:QJ:45:ARG:NH2	2.43	0.49
1:YA:272(E):U:H2'	1:YA:272(F):C:C6	2.47	0.49
1:YA:910:A:N1	1:YA:2277:G:H1'	2.28	0.49
26:Y4:1:MET:HE2	26:Y4:6:HIS:CD2	2.47	0.49
32:XA:1030(A):C:H42	32:XA:1031:G:H1	1.58	0.49
32:XA:1270:C:O2'	32:XA:1314:C:H5'	2.11	0.49
32:XA:1340:A:O2'	53:XV:32:C:H5'	2.12	0.49
40:XI:5:TYR:HE1	40:XI:16:ARG:HB3	1.77	0.49
42:XK:84:VAL:HG21	42:XK:95:ILE:HD11	1.94	0.49
1:RA:26:G:C6	1:RA:27:G:N1	2.80	0.49
1:RA:55:G:O2'	1:RA:127:A:N1	2.42	0.49
1:RA:572:A:OP2	17:RV:78:LYS:NZ	2.38	0.49
7:RH:4:ILE:O	7:RH:69:ARG:HG2	2.12	0.49
15:RT:28:VAL:HG13	15:RT:86:ILE:HG23	1.94	0.49
16:RU:61:TRP:CH2	16:RU:93:LYS:HB2	2.48	0.49
26:R4:57:GLU:HB2	26:R4:58:ARG:HA	1.93	0.49
32:QA:1003:G:C2'	32:QA:1004:A:H4'	2.42	0.49
32:QA:1118:C:H1'	32:QA:1179:A:C4	2.47	0.49
33:QB:178:ARG:HH22	39:QH:68:ARG:NH1	2.10	0.49
39:QH:14:ARG:O	39:QH:18:ARG:HG2	2.12	0.49
1:YA:300:A:H1'	1:YA:319:C:H1'	1.94	0.49
1:YA:824:A:H1'	1:YA:2358:G:N7	2.28	0.49
40:XI:5:TYR:OH	40:XI:16:ARG:HG2	2.12	0.49
1:RA:2031:A:C6	1:RA:2498:C:H1'	2.48	0.49
1:RA:2285:C:H5''	28:R6:29:ASN:ND2	2.27	0.49
5:RF:184:TYR:O	5:RF:188:ARG:HG3	2.12	0.49
7:RH:25:LYS:HG3	7:RH:34:GLU:HG2	1.93	0.49
26:R4:44:THR:O	26:R4:46:GLN:N	2.46	0.49
55:QY:101:LEU:H	55:QY:102:PRO:HD2	1.76	0.49
1:YA:8:A:H2'	1:YA:9:U:C6	2.48	0.49
1:YA:764:A:H5'	3:YD:210:GLY:HA2	1.95	0.49
1:YA:2130:U:H2'	1:YA:2158:A:H61	1.77	0.49
14:YS:93:LYS:HD2	14:YS:95:HIS:HB2	1.93	0.49
32:XA:1002:G:N3	32:XA:1003:G:C8	2.81	0.49
32:XA:1289:A:N1	32:XA:1371:G:O2'	2.43	0.49
36:XE:33:VAL:HG21	36:XE:109:ILE:HA	1.95	0.49
26:R4:54:GLY:O	26:R4:56:VAL:HA	2.12	0.49
32:QA:555:C:H2'	32:QA:556:C:C6	2.48	0.49
1:YA:1028:A:O2'	1:YA:1029:A:O4'	2.30	0.49
1:YA:1063:G:H2'	1:YA:1065:U:C6	2.47	0.49
1:YA:1411:C:H2'	1:YA:1412:A:H8	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:1889:A:H2'	1:YA:1890:A:C8	2.48	0.49
1:YA:2389:G:H5''	1:YA:2390:U:O4'	2.12	0.49
7:YH:90:LYS:HD2	7:YH:163:TYR:CD1	2.48	0.49
11:YP:50:ARG:HD3	30:Y8:7:HIS:CD2	2.47	0.49
33:XB:124:SER:HB2	33:XB:125:PRO:HD3	1.94	0.49
36:XE:143:ARG:NH1	39:XH:77:GLU:OE2	2.42	0.49
1:RA:272(K):U:H1'	8:RI:50:ARG:NH2	2.22	0.49
1:RA:1101:U:H2'	1:RA:1102:C:C6	2.48	0.49
1:RA:2074:U:H2'	1:RA:2075:U:C6	2.47	0.49
1:RA:2805:G:H2'	1:RA:2807:G:C8	2.48	0.49
23:R1:51:VAL:HG12	23:R1:53:VAL:HG23	1.95	0.49
32:QA:950:U:OP2	44:QM:102:ARG:HD2	2.13	0.49
32:QA:1060:C:C4	34:QC:2:GLY:HA3	2.47	0.49
49:QR:47:THR:HG23	49:QR:49:LYS:HG3	1.94	0.49
55:QY:204:ALA:HB2	55:QY:298:LEU:HD21	1.94	0.49
1:YA:1607:C:N4	1:YA:1622:G:OP2	2.31	0.49
1:YA:1923:U:OP1	53:XV:24:U:O2'	2.29	0.49
5:YF:110:LEU:HA	5:YF:183:VAL:HG12	1.95	0.49
11:YP:63:PRO:HD3	30:Y8:27:THR:HG22	1.94	0.49
15:YT:64:ARG:HB2	15:YT:73:GLU:HG2	1.95	0.49
32:XA:978:A:O2'	32:XA:1322:C:N3	2.37	0.49
38:XG:45:ASP:O	38:XG:49:ILE:HG13	2.11	0.49
1:RA:323:G:C8	5:RF:171:PRO:HG3	2.47	0.49
1:RA:468:G:N7	29:R7:39:ARG:NH2	2.53	0.49
1:RA:1065:U:H4'	1:RA:1066:U:H5'	1.94	0.49
1:RA:1224:C:O2'	17:RV:85:LYS:HA	2.13	0.49
1:RA:1721:G:H8	1:RA:1741:A:H62	1.60	0.49
1:RA:1904:G:O2'	1:RA:1928:A:N1	2.44	0.49
7:RH:3:ARG:HH22	7:RH:66:GLY:HA3	1.77	0.49
32:QA:235:C:H5'	48:QQ:70:ARG:HG2	1.93	0.49
32:QA:1106:G:H5''	34:QC:172:ARG:HG2	1.94	0.49
32:QA:1513:A:H2'	32:QA:1514:C:C6	2.48	0.49
34:QC:47:LEU:HD13	34:QC:68:VAL:HG11	1.93	0.49
48:QQ:6:LEU:HG	48:QQ:23:VAL:HG11	1.94	0.49
1:YA:2105:C:N4	1:YA:2106:G:O6	2.46	0.49
1:YA:2298:A:H62	1:YA:2318:G:H8	1.60	0.49
9:YN:46:VAL:HG23	9:YN:48:MET:HG2	1.94	0.49
26:Y4:57:GLU:CB	26:Y4:58:ARG:HD2	2.42	0.49
32:XA:70:G:H1	32:XA:99:U:H3	1.61	0.49
32:XA:406:G:O2'	35:XD:3:ARG:NH2	2.46	0.49
32:XA:512:U:H2'	32:XA:513:C:C6	2.48	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:XC:32:LEU:HD12	34:XC:59:ARG:NH1	2.28	0.49
34:XC:152:ILE:CG1	34:XC:199:LYS:HB2	2.43	0.49
37:XF:67:MET:SD	37:XF:72:VAL:HG12	2.53	0.49
49:XR:47:THR:HG23	49:XR:49:LYS:HG3	1.93	0.49
50:XS:20:LEU:HD23	50:XS:23:ASN:ND2	2.24	0.49
55:XY:213:GLU:C	55:XY:215:PRO:HD3	2.38	0.49
1:RA:362:U:O2'	1:RA:363(A):G:H5'	2.12	0.49
1:RA:1032:A:H1'	31:R9:23:VAL:HG21	1.94	0.49
1:RA:1188:U:H4'	17:RV:79:VAL:HG22	1.95	0.49
4:RE:51:PHE:H	4:RE:75:VAL:HG11	1.77	0.49
28:R6:6:ARG:NE	28:R6:24:GLU:OE1	2.32	0.49
30:R8:23:VAL:HG13	30:R8:47:LYS:HB3	1.94	0.49
51:QT:57:ARG:HH22	51:QT:100:ILE:HD12	1.78	0.49
1:YA:2243:U:H2'	1:YA:2244:U:C6	2.47	0.49
6:YG:41:GLN:NE2	6:YG:154:GLY:O	2.40	0.49
32:XA:328:C:H4'	32:XA:329:A:H5'	1.94	0.49
32:XA:1135:U:H2'	32:XA:1137:C:N3	2.28	0.49
32:XA:1223:C:P	50:XS:78:ARG:HH22	2.36	0.49
32:XA:1366:C:O2'	41:XJ:60:ARG:NH2	2.31	0.49
36:XE:137:GLU:OE1	36:XE:141:GLN:NE2	2.40	0.49
1:RA:1059:G:N1	1:RA:1079:C:N4	2.61	0.49
1:RA:2115:G:N1	1:RA:2117:A:N7	2.61	0.49
3:RD:108:PRO:HG3	3:RD:143:HIS:CE1	2.48	0.49
21:RZ:182:LYS:O	21:RZ:185:GLU:HG3	2.13	0.49
27:R5:45:VAL:HG11	27:R5:58:LEU:HD12	1.93	0.49
32:QA:1010:G:H22	32:QA:1020:U:H1'	1.78	0.49
32:QA:1062:U:H2'	32:QA:1063:C:C6	2.47	0.49
33:QB:9:GLU:CD	33:QB:217:ARG:HH22	2.20	0.49
34:QC:58:GLU:O	34:QC:64:VAL:HG23	2.13	0.49
1:YA:881:G:H2'	1:YA:882:G:C8	2.47	0.49
36:XE:92:LYS:HB3	36:XE:119:LEU:HB2	1.95	0.49
40:XI:23:ASN:H	40:XI:23:ASN:HD22	1.60	0.49
1:RA:1084:A:C8	1:RA:1085:A:H4'	2.48	0.48
1:RA:1803:A:H4'	3:RD:259:THR:HG23	1.95	0.48
6:RG:77:ILE:N	6:RG:82:LEU:O	2.37	0.48
30:R8:14:VAL:HG13	30:R8:22:VAL:HG13	1.95	0.48
32:QA:632:A:H5'	32:QA:633:G:OP2	2.12	0.48
32:QA:1151:A:O2'	32:QA:1152:A:H8	1.96	0.48
45:QN:48:ALA:HB2	45:QN:53:LEU:HD12	1.95	0.48
46:QO:16:ALA:HB1	46:QO:21:ASP:HB3	1.95	0.48
1:YA:994:C:OP1	16:YU:53:ARG:NH2	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:1104:C:H2'	1:YA:1105:U:C6	2.48	0.48
1:YA:2137:C:C2	1:YA:2154:G:N1	2.81	0.48
1:YA:2391:G:O6	1:YA:2425:A:H8	1.96	0.48
32:XA:1030(D):G:H2'	32:XA:1030(E):A:C8	2.48	0.48
47:XP:68:ASP:O	47:XP:71:ARG:HG2	2.13	0.48
1:RA:2689:U:P	1:RA:2719:G:H22	2.36	0.48
32:QA:341:C:H2'	32:QA:342:C:C6	2.48	0.48
32:QA:532:A:N6	34:QC:193:TYR:HA	2.23	0.48
33:QB:166:ASP:OD2	33:QB:169:LYS:HB2	2.13	0.48
41:QJ:78:ASN:O	41:QJ:80:LYS:N	2.46	0.48
1:YA:1059:G:N1	1:YA:1079:C:N4	2.61	0.48
1:YA:2104:G:O6	1:YA:2186:G:C4	2.66	0.48
11:YP:101:VAL:HA	11:YP:106:LEU:O	2.14	0.48
30:Y8:46:ARG:HB2	30:Y8:46:ARG:HH21	1.78	0.48
33:XB:16:HIS:O	33:XB:18:GLY:N	2.46	0.48
34:XC:36:ASP:O	34:XC:40:ARG:HG3	2.13	0.48
35:XD:108:LEU:HB3	35:XD:110:PHE:CE1	2.48	0.48
40:X1:16:ARG:HD3	40:X1:64:THR:HG21	1.93	0.48
1:RA:2390:U:P	30:R8:35:GLN:HE22	2.36	0.48
32:QA:524:G:H2'	32:QA:525:C:C6	2.48	0.48
32:QA:542:G:H5'	35:QD:41:GLY:HA3	1.94	0.48
32:QA:1070:U:H2'	32:QA:1071:C:C6	2.47	0.48
50:QS:3:ARG:HH21	50:QS:7:LYS:HE2	1.77	0.48
1:YA:1084:A:H3'	1:YA:1085:A:C4'	2.44	0.48
1:YA:1525:G:H2'	1:YA:1526:G:C8	2.47	0.48
5:YF:165:ARG:HG2	5:YF:168:ARG:NH2	2.28	0.48
9:YN:94:HIS:CB	9:YN:97:ARG:HD3	2.42	0.48
33:XB:155:LEU:HD21	33:XB:159:PRO:HG3	1.95	0.48
36:XE:122:GLU:O	36:XE:126:ARG:NH1	2.46	0.48
43:XL:77:LEU:HD21	43:XL:107:ALA:HA	1.96	0.48
46:XO:54:ARG:HD2	46:XO:58:MET:HE2	1.94	0.48
49:XR:52:PRO:HB2	49:XR:54:ARG:HG2	1.95	0.48
53:XV:50:U:H3	53:XV:64:G:H1	1.61	0.48
1:RA:330:A:N7	1:RA:1210:A:O2'	2.33	0.48
1:RA:1341:U:OP1	1:RA:1397:U:N3	2.37	0.48
1:RA:2537:U:H2'	1:RA:2538:C:C6	2.49	0.48
6:RG:101:ILE:HD13	26:R4:25:TYR:HB2	1.94	0.48
8:RI:130:TYR:CE2	8:RI:132:PRO:HB3	2.49	0.48
32:QA:1023:G:H2'	32:QA:1024:G:C8	2.48	0.48
1:YA:299:A:N1	1:YA:322:A:O2'	2.37	0.48
6:YG:67:LYS:HE3	6:YG:68:PRO:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:YP:62:LEU:O	30:Y8:13:ARG:HD3	2.13	0.48
32:XA:222:U:H2'	32:XA:223:U:C6	2.48	0.48
32:XA:973:G:H3'	32:XA:974:A:H5''	1.94	0.48
1:RA:848:G:H2'	1:RA:849:A:C8	2.48	0.48
1:RA:1005:C:H2'	1:RA:1006:C:C6	2.49	0.48
12:RQ:109:VAL:HG13	12:RQ:113:GLN:HB2	1.96	0.48
32:QA:769:G:H4'	32:QA:1513:A:H4'	1.96	0.48
32:QA:1202:G:N1	45:QN:46:GLU:OE1	2.46	0.48
33:QB:15:VAL:HG22	33:QB:15:VAL:O	2.14	0.48
35:QD:108:LEU:HD21	35:QD:174:LEU:HD22	1.95	0.48
41:QJ:40:LEU:HB2	41:QJ:69:ASN:HB2	1.95	0.48
44:QM:3:ARG:O	44:QM:57:ARG:NH2	2.43	0.48
55:QY:186:ARG:HB3	55:QY:312:PHE:HD2	1.79	0.48
1:YA:1165:U:H2'	1:YA:1166:C:C6	2.48	0.48
11:YP:97:PRO:HD3	11:YP:126:VAL:O	2.12	0.48
25:Y3:29:ARG:HB2	25:Y3:30:ARG:HD3	1.95	0.48
33:XB:218:ALA:O	33:XB:222:ILE:HG23	2.13	0.48
1:RA:218:A:C2	1:RA:235:U:H4'	2.48	0.48
1:RA:1104:C:H2'	1:RA:1105:U:C6	2.48	0.48
33:QB:231:GLU:HB3	33:QB:232:PRO:HD3	1.96	0.48
35:QD:166:LYS:HB2	35:QD:168:ARG:NH2	2.28	0.48
1:YA:569:U:C4	1:YA:570:G:C6	3.02	0.48
1:YA:587:C:OP2	11:YP:21:ARG:NH2	2.46	0.48
1:YA:1496:A:N3	1:YA:1577:C:O2'	2.46	0.48
4:YE:18:ASP:HB3	15:YT:82:LEU:HD21	1.95	0.48
5:YF:130:ALA:HB3	5:YF:142:TRP:HD1	1.79	0.48
9:YN:4:TYR:CD2	16:YU:100:VAL:HG11	2.48	0.48
32:XA:1158:C:O2	32:XA:1158:C:H2'	2.12	0.48
37:XF:69:GLU:H	37:XF:69:GLU:CD	2.20	0.48
40:XI:31:GLN:HG3	40:XI:36:TYR:HB2	1.95	0.48
1:RA:721:C:H2'	1:RA:722:A:C8	2.49	0.48
3:RD:72:LYS:NZ	3:RD:99:ASP:OD2	2.38	0.48
8:RI:81:VAL:O	8:RI:146:ALA:HA	2.14	0.48
32:QA:337:C:H2'	32:QA:338:A:C8	2.48	0.48
32:QA:1002:G:C6	32:QA:1003:G:C2	3.02	0.48
55:QY:333:MET:HB2	55:QY:333:MET:HE3	1.67	0.48
1:YA:2079:U:OP1	23:Y1:21:ARG:NH2	2.47	0.48
1:YA:2755:C:C2	31:Y9:19:ARG:HD3	2.49	0.48
34:XC:9:GLY:HA3	45:XN:49:HIS:HA	1.95	0.48
1:RA:637:A:OP1	11:RP:133:SER:OG	2.23	0.48
1:RA:873:G:H1	1:RA:904:C:H42	1.60	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:2010:G:H5''	18:RW:42:ARG:HB2	1.96	0.48
1:RA:2849:U:O4	15:RT:23:ARG:NH2	2.46	0.48
12:RQ:21:THR:CG2	12:RQ:101:ARG:HB2	2.43	0.48
32:QA:457:C:H2'	32:QA:458:C:C6	2.49	0.48
47:QP:20:VAL:HG21	47:QP:32:TYR:CG	2.49	0.48
55:QY:219:PRO:O	55:QY:221:ASP:N	2.46	0.48
1:YA:273(A):G:N7	1:YA:421:U:H2'	2.29	0.48
1:YA:1570:A:H2'	1:YA:1571:A:C8	2.49	0.48
1:YA:1826:G:H4'	3:YD:242:ARG:CZ	2.44	0.48
5:YF:140:LEU:HD21	5:YF:170:LEU:HD11	1.95	0.48
8:YI:110:ASP:N	8:YI:130:TYR:OH	2.37	0.48
32:XA:1036:G:H3'	32:XA:1037:C:C6	2.49	0.48
41:XJ:78:ASN:O	41:XJ:80:LYS:N	2.46	0.48
1:RA:2286:A:H4'	1:RA:2287:A:O4'	2.14	0.48
1:RA:2478:A:H5'	31:R9:31:LYS:HE2	1.96	0.48
26:R4:68:ARG:HA	26:R4:68:ARG:NH2	2.29	0.48
32:QA:974:A:H8	32:QA:974:A:OP1	1.96	0.48
38:QG:26:PHE:O	38:QG:30:ILE:HG13	2.14	0.48
1:YA:1803:A:O2'	3:YD:259:THR:HG21	2.13	0.48
1:YA:2115:G:N2	1:YA:2171:A:H61	2.12	0.48
1:YA:2507:C:O4'	55:XY:238:ASN:HB3	2.13	0.48
6:YG:35:GLU:HG3	6:YG:36:LYS:HE3	1.95	0.48
21:YZ:179:ASP:O	21:YZ:182:LYS:HG2	2.14	0.48
26:Y4:20:ASN:ND2	26:Y4:38:LYS:HG3	2.28	0.48
32:XA:109:A:C6	32:XA:326:G:C6	3.02	0.48
1:RA:1410:G:H2'	1:RA:1411:C:C6	2.48	0.48
1:RA:2611:U:C4	27:R5:3:LYS:HG2	2.48	0.48
1:RA:2785:C:O2'	4:RE:66:HIS:ND1	2.38	0.48
5:RF:165:ARG:HA	5:RF:168:ARG:CD	2.44	0.48
5:RF:167:ALA:HB1	5:RF:173:VAL:HG11	1.96	0.48
34:QC:50:ALA:HB1	34:QC:70:VAL:HG21	1.96	0.48
47:QP:75:ARG:HG3	47:QP:80:PHE:HD2	1.78	0.48
51:QT:18:GLN:O	51:QT:22:ARG:HG3	2.13	0.48
12:YQ:77:LYS:NZ	12:YQ:86:GLY:O	2.47	0.48
32:XA:396:G:O2'	32:XA:398:C:OP1	2.21	0.48
32:XA:972:C:H4'	41:XJ:57:LYS:HB2	1.96	0.48
55:XY:177:PHE:O	55:XY:321:ARG:NH1	2.47	0.48
1:RA:1814:G:H4'	3:RD:51:VAL:HG21	1.95	0.47
1:RA:2262:U:H4'	1:RA:2328:A:C2	2.49	0.47
18:RW:46:PHE:O	18:RW:50:VAL:HG23	2.14	0.47
32:QA:1316:G:H5''	45:QN:17:LYS:NZ	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:1516:G:N1	32:QA:1519:MA6:OP2	2.46	0.47
33:QB:21:ARG:H	33:QB:21:ARG:HD3	1.78	0.47
1:YA:2152:G:H2'	1:YA:2153:G:H8	1.78	0.47
17:YV:52:VAL:CG2	17:YV:55:ALA:HB3	2.44	0.47
21:YZ:126:VAL:HG11	21:YZ:161:VAL:HG13	1.96	0.47
28:Y6:35:GLU:OE2	28:Y6:50:ARG:NH1	2.46	0.47
32:XA:126:G:OP1	32:XA:605:U:O2'	2.26	0.47
33:XB:9:GLU:O	33:XB:11:LEU:N	2.47	0.47
1:RA:57:C:H2'	1:RA:58:G:O4'	2.14	0.47
1:RA:1070:A:H2'	1:RA:1071:G:C8	2.48	0.47
1:RA:2137:C:C2	1:RA:2154:G:N1	2.82	0.47
1:RA:2683:C:OP1	15:RT:53:ARG:NH2	2.47	0.47
3:RD:72:LYS:HG3	3:RD:103:ARG:NH2	2.29	0.47
5:RF:178:PRO:HB2	5:RF:201:VAL:HG21	1.95	0.47
10:RO:73:ASP:HB2	15:RT:82:LEU:HD13	1.96	0.47
32:QA:384:G:H2'	32:QA:385:C:C6	2.48	0.47
35:QD:178:VAL:HG12	35:QD:179:GLU:H	1.79	0.47
40:QI:16:ARG:H	40:QI:64:THR:HG22	1.78	0.47
44:QM:11:ARG:HA	44:QM:45:VAL:HB	1.96	0.47
55:QY:114:GLU:OE2	55:QY:294:ARG:HD3	2.13	0.47
1:YA:1278:A:OP1	13:YR:36:THR:HG23	2.14	0.47
1:YA:2086:U:H2'	1:YA:2087:G:C8	2.49	0.47
1:YA:2420:C:OP1	30:Y8:34:TRP:HB3	2.14	0.47
26:Y4:24:THR:OG1	26:Y4:25:TYR:N	2.47	0.47
32:XA:972:C:O5'	41:XJ:57:LYS:HG2	2.14	0.47
33:XB:28:PHE:O	33:XB:32:ILE:HG13	2.14	0.47
34:XC:8:ILE:HG23	34:XC:16:ARG:HG2	1.95	0.47
39:XH:86:ILE:HG12	39:XH:135:CYS:HA	1.96	0.47
40:XI:21:PRO:HA	40:XI:59:PHE:HA	1.96	0.47
1:RA:1300:U:H4'	1:RA:1301:A:H5'	1.95	0.47
1:RA:2098:U:H2'	1:RA:2099:U:O4'	2.14	0.47
1:RA:2567:G:H2'	1:RA:2568:C:C6	2.49	0.47
1:RA:2889:C:H3'	1:RA:2891:G:C8	2.49	0.47
11:RP:50:ARG:HD3	30:R8:7:HIS:CD2	2.50	0.47
20:RY:76:CYS:SG	20:RY:78:ALA:HB3	2.54	0.47
21:RZ:103:ARG:HD2	21:RZ:136:PHE:CD2	2.49	0.47
28:R6:34:LEU:HB2	28:R6:51:GLU:HB2	1.95	0.47
32:QA:1402:4OC:H6	32:QA:1402:4OC:O5'	2.13	0.47
55:QY:236:HIS:O	55:QY:240:THR:OG1	2.19	0.47
1:YA:1405:U:H2'	1:YA:1406:U:C6	2.49	0.47
1:YA:1805:U:O2	3:YD:50:THR:HB	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:2342:C:O2'	1:YA:2374:C:H5''	2.13	0.47
1:YA:2401:U:H3'	1:YA:2402:C:C6	2.48	0.47
7:YH:20:ALA:HB1	7:YH:21:PRO:HD2	1.96	0.47
9:YN:131:GLN:CD	9:YN:131:GLN:H	2.21	0.47
32:XA:1518:MA6:H93	32:XA:1519:MA6:H102	1.96	0.47
40:XI:100:GLY:O	40:XI:103:THR:HG22	2.14	0.47
1:RA:579:G:H2'	1:RA:580:C:C6	2.49	0.47
9:RN:15:LEU:HD12	9:RN:137:LYS:HG2	1.96	0.47
32:QA:266:G:H2'	32:QA:266:G:N3	2.29	0.47
32:QA:1316:G:O2'	45:QN:18:VAL:HG11	2.14	0.47
33:QB:95:GLN:HB3	33:QB:96:ARG:H	1.58	0.47
44:QM:86:CYS:HB2	50:QS:73:GLU:HB3	1.96	0.47
1:YA:1171:G:N2	1:YA:1178:C:O2	2.47	0.47
1:YA:1665:A:H4'	10:YO:67:LYS:HB2	1.96	0.47
1:YA:1750:G:O2'	1:YA:2860:A:N1	2.47	0.47
1:YA:2359:C:H2'	1:YA:2360:A:O4'	2.13	0.47
5:YF:10:PRO:HB3	5:YF:17:ARG:HE	1.80	0.47
32:XA:1333:A:H2'	32:XA:1334:G:O4'	2.13	0.47
33:XB:71:VAL:HG23	33:XB:164:VAL:HA	1.96	0.47
38:XG:26:PHE:O	38:XG:30:ILE:HG13	2.15	0.47
38:XG:65:ALA:HB1	38:XG:127:ALA:HB3	1.96	0.47
50:XS:77:THR:HG23	50:XS:78:ARG:HG3	1.97	0.47
1:RA:11:G:C2'	1:RA:12:U:H5'	2.44	0.47
1:RA:918:A:H5''	2:RB:98:G:O2'	2.14	0.47
1:RA:2391:G:O6	1:RA:2425:A:H8	1.97	0.47
3:RD:2:ALA:N	3:RD:200:ASP:OD2	2.47	0.47
5:RF:29:ASN:H	5:RF:112:MET:HE3	1.79	0.47
32:QA:1004:A:O2'	32:QA:1038:C:O2	2.25	0.47
51:QT:53:LEU:HD23	51:QT:56:MET:HE3	1.96	0.47
1:YA:1266:G:O2'	1:YA:2012:G:O6	2.27	0.47
1:YA:2031:A:C6	1:YA:2498:C:H1'	2.49	0.47
6:YG:55:LYS:HD3	6:YG:150:ASP:OD2	2.14	0.47
21:YZ:10:ARG:HH21	21:YZ:26:GLY:H	1.61	0.47
21:YZ:150:LEU:HB3	21:YZ:171:ILE:HD11	1.96	0.47
32:XA:1040:U:H2'	32:XA:1041:A:H5''	1.96	0.47
55:XY:341:ILE:HA	55:XY:344:ILE:HD12	1.96	0.47
1:RA:523:C:H4'	1:RA:540:C:O2	2.14	0.47
1:RA:1058:G:H1	1:RA:1080:C:H42	1.62	0.47
1:RA:2820:A:OP2	13:RR:2:ARG:NH2	2.47	0.47
30:R8:4:MET:HE3	30:R8:63:PRO:HG3	1.97	0.47
32:QA:630:G:O2'	32:QA:631:G:H5'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:QB:16:HIS:CG	33:QB:17:PHE:N	2.82	0.47
33:QB:115:LEU:HD12	33:QB:142:LEU:HD12	1.95	0.47
35:QD:166:LYS:H	35:QD:168:ARG:HH21	1.62	0.47
48:QQ:78:GLU:HG2	48:QQ:79:SER:N	2.28	0.47
4:YE:98:PRO:HD3	4:YE:175:VAL:HG12	1.97	0.47
14:YS:27:SER:HA	14:YS:88:ASP:HB3	1.96	0.47
32:XA:1032:G:C2'	32:XA:1033:G:H5'	2.44	0.47
32:XA:1286:A:H2'	32:XA:1287:A:H4'	1.97	0.47
38:XG:111:ARG:HD3	38:XG:113:GLU:OE2	2.15	0.47
55:XY:282:GLU:OE1	55:XY:285:LYS:NZ	2.36	0.47
1:RA:1359:A:H61	1:RA:1372:U:H3	1.63	0.47
1:RA:1899:G:H2'	1:RA:1899:G:N3	2.30	0.47
1:RA:2111:C:H42	1:RA:2147:G:H22	1.62	0.47
1:RA:2122:U:H2'	1:RA:2123:G:C8	2.50	0.47
1:RA:2250:G:O2'	1:RA:2496:C:OP1	2.33	0.47
7:RH:7:LEU:O	7:RH:69:ARG:NH1	2.46	0.47
8:RI:72:LEU:HD13	8:RI:140:LEU:HD23	1.95	0.47
11:RP:94:GLU:HG3	11:RP:124:LYS:HD3	1.97	0.47
19:RX:44:GLU:HG3	19:RX:51:VAL:HG23	1.97	0.47
32:QA:1003:G:C2	32:QA:1004:A:H1'	2.50	0.47
32:QA:1027:C:H2'	32:QA:1028:C:C5	2.50	0.47
34:QC:8:ILE:HD12	34:QC:16:ARG:HD3	1.97	0.47
36:QE:90:VAL:O	36:QE:120:THR:HA	2.14	0.47
1:YA:1092:C:OP2	1:YA:1092:C:H6	1.98	0.47
1:YA:2158:A:H1'	1:YA:2159:G:C8	2.50	0.47
1:YA:2336:A:H61	22:Y0:43:THR:HG22	1.79	0.47
3:YD:12:SER:HB3	3:YD:208:LYS:HB3	1.97	0.47
3:YD:16:MET:HG3	3:YD:206:LEU:O	2.15	0.47
7:YH:12:PRO:O	7:YH:15:VAL:HG22	2.15	0.47
8:YI:50:ARG:HE	8:YI:50:ARG:HB3	1.40	0.47
15:YT:118:ARG:HG2	32:XA:1442(B):G:C8	2.49	0.47
17:YV:15:GLU:O	17:YV:18:LEU:HB2	2.15	0.47
20:YY:13:VAL:HB	20:YY:72:VAL:HG13	1.95	0.47
32:XA:542:G:OP1	35:XD:10:ARG:NH1	2.43	0.47
32:XA:950:U:OP2	44:XM:102:ARG:HD3	2.15	0.47
32:XA:1036:G:H3'	32:XA:1037:C:H6	1.79	0.47
32:XA:1118:C:P	40:XI:104:ARG:HH11	2.37	0.47
33:XB:222:ILE:HG13	33:XB:223:ILE:N	2.29	0.47
34:XC:140:ARG:NH1	34:XC:140:ARG:HB2	2.30	0.47
35:XD:199:ASN:OD1	35:XD:201:GLN:HB2	2.14	0.47
41:XJ:38:ILE:HG12	41:XJ:71:LEU:HB3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:XS:27:GLU:OE1	50:XS:47:HIS:NE2	2.46	0.47
1:RA:1817:G:OP1	3:RD:88:ARG:NH2	2.33	0.47
32:QA:186:C:H2'	32:QA:187:C:H6	1.80	0.47
32:QA:652:U:O4	32:QA:752:G:O2'	2.27	0.47
32:QA:1218:C:H2'	32:QA:1219:U:C6	2.50	0.47
32:QA:1279:A:O2'	32:QA:1282:C:N4	2.48	0.47
39:QH:95:VAL:HB	39:QH:99:GLU:HB2	1.97	0.47
43:QL:33:ARG:HD2	43:QL:33:ARG:HA	1.62	0.47
1:YA:272(O):C:H2'	1:YA:272(P):C:C6	2.49	0.47
1:YA:1125:G:C6	1:YA:1126:A:N6	2.83	0.47
1:YA:2823:A:OP1	4:YE:113:PHE:HB2	2.13	0.47
32:XA:130:A:O2'	32:XA:131:C:O5'	2.31	0.47
55:XY:133:ARG:O	55:XY:137:ARG:HG2	2.14	0.47
1:RA:228:A:H8	1:RA:229:A:H5'	1.79	0.47
1:RA:1139:G:O2'	1:RA:1143:A:N1	2.37	0.47
1:RA:1805:U:O2	3:RD:50:THR:HB	2.14	0.47
1:RA:2104:G:O6	1:RA:2186:G:C4	2.67	0.47
14:RS:27:SER:HA	14:RS:88:ASP:HB3	1.96	0.47
32:QA:179:A:H2'	32:QA:180:U:C6	2.50	0.47
32:QA:745:C:H2'	32:QA:746:A:C8	2.49	0.47
44:QM:40:ASN:HB3	44:QM:43:THR:HG23	1.96	0.47
46:QO:26:GLU:OE1	46:QO:77:ARG:NE	2.48	0.47
1:YA:57:C:H2'	1:YA:58:G:O4'	2.14	0.47
1:YA:295:G:OP1	20:YY:1:MET:HB2	2.15	0.47
1:YA:529:A:OP2	9:YN:114:ARG:NH2	2.47	0.47
1:YA:581:C:H2'	1:YA:582:G:C8	2.49	0.47
1:YA:1608:A:H1'	1:YA:1610:A:OP2	2.15	0.47
1:YA:2122:U:H3	1:YA:2176:A:N6	2.13	0.47
1:YA:2552:2MU:O5'	1:YA:2552:2MU:H6	2.15	0.47
1:YA:2811:G:OP1	4:YE:60:ASN:HB2	2.14	0.47
1:YA:2836:U:H2'	1:YA:2837:G:C8	2.49	0.47
6:YG:83:ARG:O	6:YG:86:MET:HB2	2.15	0.47
8:YI:72:LEU:O	8:YI:75:LEU:HD22	2.15	0.47
55:XY:138:TYR:HD1	55:XY:337:LEU:H	1.63	0.47
1:RA:668:G:H5'	1:RA:669:G:OP2	2.14	0.47
1:RA:1053:C:H4'	1:RA:1054:A:OP1	2.15	0.47
1:RA:1657:C:H2'	1:RA:1658:C:C6	2.50	0.47
1:RA:1936:A:OP2	1:RA:1962:5MC:N4	2.37	0.47
1:RA:1939:5MU:OP1	1:RA:2604:U:O2'	2.33	0.47
1:RA:2420:C:H5''	28:R6:8:LYS:HZ2	1.80	0.47
1:RA:2528:U:H2'	1:RA:2530:A:O5'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:RW:4:LYS:HB2	18:RW:106:ILE:HG12	1.97	0.47
20:RY:6:HIS:HE1	20:RY:72:VAL:O	1.98	0.47
21:RZ:125:LEU:HB3	21:RZ:165:VAL:HG13	1.96	0.47
40:QI:33:PHE:CE1	40:QI:43:ALA:HB1	2.50	0.47
53:QV:21:A:H61	53:QV:46:G:H2'	1.80	0.47
53:QV:43:A:H2'	53:QV:44:A:C8	2.49	0.47
1:YA:859:G:O2'	1:YA:916:G:O6	2.31	0.47
1:YA:1028:A:N7	1:YA:1126:A:N7	2.63	0.47
1:YA:1252:G:C2	1:YA:1253:A:C2	3.03	0.47
1:YA:1514:U:H2'	1:YA:1515:G:H8	1.79	0.47
1:YA:1683:C:H2'	1:YA:1684:C:C6	2.50	0.47
1:YA:1814:G:H4'	3:YD:51:VAL:HG21	1.97	0.47
1:YA:1914:C:OP1	55:XY:116:ARG:NH2	2.48	0.47
1:YA:2111:C:H42	1:YA:2147:G:H22	1.62	0.47
1:YA:2162:G:O3'	1:YA:2172:U:O2'	2.32	0.47
4:YE:14:ILE:HG13	4:YE:21:VAL:HG13	1.96	0.47
20:YY:37:VAL:HG21	20:YY:72:VAL:HG21	1.96	0.47
32:XA:662:G:H2'	32:XA:663:A:H8	1.80	0.47
32:XA:828:A:H2'	32:XA:829:G:O4'	2.15	0.47
32:XA:1142:G:H2'	32:XA:1143:G:O4'	2.14	0.47
32:XA:1342:C:H2'	32:XA:1343:G:H8	1.80	0.47
40:XI:51:ARG:HG2	40:XI:56:LEU:HD21	1.97	0.47
1:RA:375:C:H2'	1:RA:376:C:C6	2.50	0.46
1:RA:2438:U:O2'	1:RA:2440:C:OP1	2.21	0.46
1:RA:2478:A:H5'	31:R9:31:LYS:HG2	1.98	0.46
1:RA:2849:U:H4'	1:RA:2868:A:C2	2.50	0.46
43:QL:71:PRO:O	43:QL:102:ARG:NH1	2.47	0.46
53:QV:50:U:H3	53:QV:64:G:H1	1.62	0.46
1:YA:98:G:H5'	24:Y2:3:LEU:HG	1.97	0.46
1:YA:746:A:H2'	1:YA:2612:C:H5''	1.97	0.46
1:YA:954:G:H5''	12:YQ:13:GLN:HB3	1.96	0.46
1:YA:2611:U:C4	27:Y5:3:LYS:HG2	2.50	0.46
6:YG:36:LYS:HE2	6:YG:95:ARG:HH12	1.81	0.46
8:YI:4:ILE:HD11	8:YI:44:LEU:HD13	1.96	0.46
11:YP:91:PHE:CE2	11:YP:99:LEU:HD21	2.50	0.46
11:YP:97:PRO:HA	11:YP:112:LEU:HD12	1.96	0.46
32:XA:8:A:N6	35:XD:205:GLU:O	2.46	0.46
32:XA:41:G:H2'	32:XA:42:G:C8	2.50	0.46
41:XJ:11:PHE:CE1	41:XJ:67:THR:HG22	2.48	0.46
1:RA:824:A:H1'	1:RA:2358:G:N7	2.31	0.46
1:RA:2850:A:N7	1:RA:2868:A:O2'	2.37	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:335:C:H2'	32:QA:336:C:C6	2.50	0.46
32:QA:1124:G:N2	32:QA:1125:U:O4	2.47	0.46
55:QY:133:ARG:O	55:QY:137:ARG:HG2	2.15	0.46
1:YA:1657:C:H2'	1:YA:1658:C:C6	2.50	0.46
1:YA:1756:G:H4'	1:YA:1758:G:O4'	2.15	0.46
1:YA:2306:C:C4	1:YA:2307:G:C6	3.04	0.46
5:YF:132:VAL:CG2	5:YF:163:VAL:HG22	2.44	0.46
37:XF:35:ALA:HA	37:XF:67:MET:HB3	1.97	0.46
49:XR:33:ASP:OD2	49:XR:36:ASN:HB2	2.15	0.46
1:RA:272(O):C:H2'	1:RA:272(P):C:C6	2.50	0.46
1:RA:2149:G:C2	1:RA:2150:U:H1'	2.50	0.46
3:RD:17:THR:O	3:RD:211:ARG:NH2	2.38	0.46
32:QA:18:C:H4'	32:QA:1078:U:O2	2.15	0.46
32:QA:1118:C:P	40:QI:104:ARG:HH11	2.39	0.46
44:QM:11:ARG:C	44:QM:13:LYS:H	2.23	0.46
47:QP:43:LYS:HG2	47:QP:48:TRP:CE2	2.50	0.46
55:QY:221:ASP:HB3	55:QY:250:PRO:HD3	1.96	0.46
1:YA:184:C:H2'	1:YA:185:U:C6	2.50	0.46
1:YA:1514:U:H2'	1:YA:1515:G:C8	2.51	0.46
1:YA:1557:C:H5''	1:YA:1558:A:OP2	2.15	0.46
3:YD:108:PRO:HB3	3:YD:143:HIS:HE1	1.78	0.46
7:YH:41:MET:N	7:YH:41:MET:SD	2.88	0.46
32:XA:60:A:H4'	32:XA:61:G:O5'	2.16	0.46
32:XA:784:C:H2'	32:XA:785:G:O4'	2.16	0.46
33:XB:19:HIS:CG	33:XB:20:GLU:N	2.83	0.46
42:XK:27:ASN:OD1	42:XK:28:THR:N	2.46	0.46
55:XY:233:GLY:HA3	55:XY:237:VAL:HG23	1.97	0.46
1:RA:1239:G:H2'	1:RA:1240:U:O4'	2.15	0.46
1:RA:1385:G:O2'	1:RA:1396:U:O2	2.31	0.46
1:RA:1404:C:H2'	1:RA:1405:U:H6	1.80	0.46
1:RA:1514:U:H2'	1:RA:1515:G:H8	1.81	0.46
1:RA:1686:C:H2'	1:RA:1687:G:O4'	2.15	0.46
1:RA:1971:A:C4	3:RD:241:PRO:HD3	2.50	0.46
1:RA:2158:A:H1'	1:RA:2159:G:C8	2.50	0.46
1:RA:2180:U:H2'	1:RA:2181:G:C8	2.50	0.46
6:RG:43:LEU:HD23	6:RG:53:LEU:HD12	1.98	0.46
8:RI:117:GLU:HG3	8:RI:118:LYS:N	2.31	0.46
9:RN:20:GLY:HA2	9:RN:61:ARG:HD3	1.97	0.46
32:QA:840:C:H4'	32:QA:841:U:OP1	2.16	0.46
38:QG:28:ASN:HA	38:QG:31:MET:HE2	1.97	0.46
40:QI:17:VAL:HG23	40:QI:63:ILE:HG12	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:QY:219:PRO:C	55:QY:221:ASP:H	2.24	0.46
1:YA:286:C:H2'	1:YA:287:C:C6	2.49	0.46
1:YA:1163:G:OP1	17:YV:24:LYS:NZ	2.31	0.46
1:YA:2134:A:C5	1:YA:2157:G:H5'	2.50	0.46
4:YE:170:LEU:HD23	4:YE:184:VAL:HG11	1.96	0.46
15:YT:39:ARG:NH2	32:XA:345:C:OP2	2.46	0.46
15:YT:118:ARG:HG2	32:XA:1442(B):G:N9	2.30	0.46
21:YZ:125:LEU:HG	21:YZ:164:ALA:HB3	1.96	0.46
23:Y1:51:VAL:HG12	23:Y1:53:VAL:HG23	1.97	0.46
32:XA:1305:G:H22	32:XA:1331:G:H1'	1.79	0.46
40:XI:8:GLY:HA2	40:XI:79:LEU:HD23	1.96	0.46
55:XY:114:GLU:OE2	55:XY:294:ARG:HD3	2.15	0.46
1:RA:300:A:H1'	1:RA:319:C:H1'	1.98	0.46
1:RA:839:U:H2'	1:RA:840:C:C6	2.49	0.46
1:RA:1278:A:OP1	13:RR:36:THR:HG23	2.15	0.46
27:R5:35:GLU:HG3	27:R5:51:TYR:CB	2.45	0.46
32:QA:551:U:H2'	32:QA:552:U:C6	2.50	0.46
32:QA:664:G:N2	32:QA:741:G:H1	2.06	0.46
32:QA:765:G:N1	32:QA:812:C:O2'	2.44	0.46
32:QA:881:G:OP2	43:QL:12:ARG:NH2	2.49	0.46
33:QB:69:LEU:HB3	33:QB:162:ILE:HG22	1.97	0.46
33:QB:91:PRO:HG2	33:QB:155:LEU:HD23	1.96	0.46
39:QH:36:LEU:HD12	39:QH:59:LEU:HD13	1.97	0.46
1:YA:7:G:H2'	1:YA:8:A:C8	2.50	0.46
1:YA:1041:C:N4	1:YA:1114:G:H1	2.00	0.46
1:YA:1048:A:N1	1:YA:1112:G:O2'	2.30	0.46
1:YA:1525:G:H2'	1:YA:1526:G:H8	1.81	0.46
1:YA:2315:G:H2'	1:YA:2316:C:C6	2.51	0.46
2:YB:42:C:O2	6:YG:93:THR:N	2.40	0.46
6:YG:106:LEU:HA	6:YG:110:ALA:HB3	1.96	0.46
9:YN:120:LEU:HD11	9:YN:122:VAL:HG23	1.98	0.46
9:YN:137:LYS:HD3	9:YN:138:LEU:N	2.30	0.46
55:XY:329:LEU:HG	55:XY:330:ASP:N	2.30	0.46
1:RA:1062:G:O2'	1:RA:1063:G:H5'	2.16	0.46
2:RB:41:U:H5	6:RG:70:VAL:O	1.98	0.46
6:RG:7:LEU:HD13	6:RG:100:TRP:CE3	2.50	0.46
18:RW:14:PRO:HG2	18:RW:78:GLU:CG	2.42	0.46
32:QA:4:U:O4	39:QH:105:ARG:HA	2.16	0.46
32:QA:540:G:H2'	32:QA:541:G:O4'	2.16	0.46
32:QA:564:C:O2'	39:QH:91:ARG:NH2	2.45	0.46
32:QA:757:U:H2'	32:QA:758:G:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:1036:G:H5'	32:QA:1037:C:OP2	2.16	0.46
32:QA:1302:U:H5	44:QM:17:VAL:HG21	1.80	0.46
33:QB:146:GLN:O	33:QB:150:SER:HB3	2.15	0.46
48:QQ:10:VAL:HG13	48:QQ:19:VAL:HB	1.98	0.46
1:YA:579:G:H2'	1:YA:580:C:C6	2.50	0.46
1:YA:886:C:O2'	1:YA:889:C:N4	2.46	0.46
1:YA:2285:C:OP2	28:Y6:26:ASN:ND2	2.42	0.46
32:XA:555:C:H2'	32:XA:556:C:C6	2.51	0.46
35:XD:61:LYS:HD2	35:XD:207:TYR:OH	2.15	0.46
50:XS:50:ALA:HA	50:XS:58:VAL:O	2.16	0.46
55:XY:109:ARG:CZ	55:XY:209:LEU:HD13	2.46	0.46
55:XY:326:LEU:HD13	55:XY:328:ARG:HB2	1.98	0.46
1:RA:140:G:N3	1:RA:142(A):A:N6	2.57	0.46
1:RA:2023:G:H4'	1:RA:2617:C:O3'	2.16	0.46
13:RR:44:LEU:HD22	13:RR:48:VAL:HG23	1.97	0.46
22:R0:23:VAL:HG22	22:R0:38:VAL:HG22	1.98	0.46
33:QB:76:GLN:HE21	33:QB:206:ASP:HA	1.81	0.46
44:QM:54:VAL:HA	44:QM:57:ARG:HB3	1.98	0.46
53:QV:19:G:H5'	53:QV:20:U:H5	1.81	0.46
1:YA:84:A:N1	1:YA:98:G:O2'	2.42	0.46
1:YA:185:U:H4'	1:YA:218:A:H4'	1.98	0.46
1:YA:740:U:H2'	1:YA:741:G:C8	2.50	0.46
1:YA:817:C:H4'	1:YA:932:G:C5	2.51	0.46
1:YA:1053:C:O2'	1:YA:1054:A:O5'	2.34	0.46
32:XA:520:A:N1	32:XA:536:C:H1'	2.30	0.46
32:XA:736:C:H2'	32:XA:737:A:C8	2.51	0.46
38:XG:27:ILE:HD12	38:XG:40:ALA:HA	1.97	0.46
44:XM:17:VAL:O	44:XM:20:THR:OG1	2.31	0.46
55:XY:227:PHE:O	55:XY:243:ALA:HB3	2.16	0.46
1:RA:10:G:H1'	1:RA:2801(B):A:N1	2.31	0.46
1:RA:1063:G:H2'	1:RA:1065:U:H6	1.80	0.46
1:RA:2693:A:H2'	1:RA:2694:G:H8	1.80	0.46
15:RT:108:ARG:HA	15:RT:111:ARG:NH1	2.30	0.46
32:QA:1003:G:C2	32:QA:1004:A:N3	2.84	0.46
52:QU:5:ASP:O	52:QU:11:GLY:HA3	2.16	0.46
1:YA:247:G:H4'	1:YA:386:G:C5	2.50	0.46
1:YA:492:A:H2'	1:YA:493:G:O4'	2.16	0.46
1:YA:668:G:H5'	1:YA:669:G:OP2	2.15	0.46
1:YA:754:C:H2'	1:YA:755:C:C6	2.51	0.46
1:YA:2564:A:C2	1:YA:2647:U:H4'	2.51	0.46
1:YA:2741:A:OP1	31:Y9:22:ARG:NH2	2.42	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:2754:U:O2'	31:Y9:17:ILE:HG12	2.16	0.46
10:YO:10:VAL:HG21	10:YO:16:ALA:HB3	1.97	0.46
12:YQ:109:VAL:HG13	12:YQ:113:GLN:HB2	1.97	0.46
44:XM:34:LEU:HD13	44:XM:41:PRO:HA	1.98	0.46
1:RA:1581:G:H2'	1:RA:1582:C:O4'	2.15	0.46
1:RA:2012:G:OP1	18:RW:11:ARG:NH2	2.46	0.46
6:RG:7:LEU:HD13	6:RG:100:TRP:HE3	1.81	0.46
32:QA:828:A:H2'	32:QA:829:G:O4'	2.16	0.46
32:QA:1053:G:N7	32:QA:1200:C:H5''	2.31	0.46
36:QE:31:LEU:HD23	36:QE:31:LEU:HA	1.82	0.46
42:QK:34:ASP:OD2	42:QK:38:ASN:HB2	2.16	0.46
42:QK:92:GLU:O	42:QK:96:ARG:HG2	2.16	0.46
1:YA:277:C:H1'	1:YA:278:A:OP1	2.15	0.46
1:YA:455:C:N3	1:YA:472:A:H2'	2.30	0.46
3:YD:5:LYS:HB3	3:YD:5:LYS:HE3	1.67	0.46
32:XA:262:A:H2'	32:XA:263:A:C8	2.51	0.46
32:XA:1129:C:N4	32:XA:1143:G:H1	2.14	0.46
32:XA:1164:G:H1	32:XA:1172:C:N4	2.13	0.46
32:XA:1286:A:C8	32:XA:1287:A:H4'	2.51	0.46
1:RA:1266:G:O2'	1:RA:2012:G:O6	2.34	0.46
1:RA:1587:A:H2'	1:RA:1588:C:C6	2.51	0.46
1:RA:1693:U:O2'	3:RD:14:ARG:NH2	2.48	0.46
1:RA:1790:C:H5''	1:RA:1791:A:OP1	2.15	0.46
3:RD:12:SER:HB3	3:RD:208:LYS:HB3	1.98	0.46
6:RG:62:LEU:HD12	6:RG:148:MET:HE1	1.97	0.46
32:QA:15:G:H1'	36:QE:24:ARG:HE	1.79	0.46
32:QA:1015:A:H2'	32:QA:1016:A:C8	2.51	0.46
32:QA:1201:A:H1'	32:QA:1202:G:OP2	2.16	0.46
32:QA:1343:G:H4'	40:QI:122:ALA:HB3	1.98	0.46
37:QF:76:ALA:O	37:QF:80:ARG:HG3	2.16	0.46
38:QG:89:MET:HE2	38:QG:89:MET:HA	1.98	0.46
55:QY:316:ARG:HG2	55:QY:327:TYR:CE2	2.51	0.46
1:YA:479:A:N3	1:YA:481:G:H5''	2.31	0.46
1:YA:1899:G:H2'	1:YA:1899:G:N3	2.31	0.46
32:XA:767:A:H2'	32:XA:768:A:O4'	2.16	0.46
32:XA:1035:A:H2'	32:XA:1036:G:C8	2.51	0.46
33:XB:48:MET:HA	33:XB:51:LEU:HD12	1.98	0.46
50:XS:41:VAL:HG22	50:XS:42:PRO:HD2	1.97	0.46
55:XY:177:PHE:CA	55:XY:321:ARG:HH22	2.29	0.46
1:RA:1341:U:O4'	19:RX:57:LEU:HD23	2.16	0.45
1:RA:2184:G:N1	1:RA:2185:C:O2	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:2328:A:H2'	1:RA:2329:G:C8	2.51	0.45
6:RG:181:ARG:HG3	6:RG:182:LYS:N	2.31	0.45
11:RP:126:VAL:CG1	11:RP:148:LEU:HD21	2.46	0.45
32:QA:427:U:OP1	35:QD:13:ARG:NH2	2.49	0.45
33:QB:134:GLU:HG3	33:QB:137:ARG:NH2	2.32	0.45
39:QH:82:HIS:NE2	39:QH:84:ARG:HG2	2.31	0.45
41:QJ:33:GLN:O	41:QJ:75:ILE:N	2.37	0.45
44:QM:81:LEU:HD13	44:QM:88:ARG:HG2	1.98	0.45
55:QY:133:ARG:NH1	55:QY:334:GLU:HG2	2.31	0.45
55:QY:236:HIS:CD2	55:QY:240:THR:HG21	2.51	0.45
55:QY:311:ASN:O	55:QY:329:LEU:HD11	2.16	0.45
1:YA:848:G:H2'	1:YA:849:A:C8	2.51	0.45
6:YG:46:ALA:HB2	6:YG:53:LEU:HG	1.97	0.45
11:YP:63:PRO:HG2	30:Y8:25:MET:HB2	1.98	0.45
16:YU:103:PRO:HD2	16:YU:104:GLN:NE2	2.30	0.45
17:YV:98:GLU:OE1	17:YV:100:ARG:NH1	2.50	0.45
26:Y4:48:ARG:HB3	26:Y4:52:THR:HA	1.98	0.45
32:XA:1028:C:H2'	32:XA:1033:G:H22	1.81	0.45
32:XA:1101:A:H4'	32:XA:1102:A:O5'	2.16	0.45
1:RA:2134:A:H8	1:RA:2156:G:H21	1.63	0.45
12:RQ:11:LYS:HE2	12:RQ:88:GLY:O	2.16	0.45
32:QA:1304:G:OP1	52:QU:2:GLY:N	2.49	0.45
35:QD:53:ASP:HB3	35:QD:57:ARG:NH1	2.30	0.45
40:QI:77:ILE:O	40:QI:81:ILE:HG23	2.17	0.45
50:QS:22:LEU:HD12	50:QS:31:ILE:HD11	1.97	0.45
53:QV:17(A):U:H5''	53:QV:18:G:OP2	2.16	0.45
1:YA:662:G:H5'	11:YP:14:LYS:O	2.16	0.45
1:YA:1292:U:H2'	1:YA:1293:C:C6	2.50	0.45
1:YA:1341:U:O4'	19:YX:57:LEU:HD23	2.15	0.45
1:YA:1936:A:OP2	1:YA:1962:5MC:N4	2.43	0.45
1:YA:2106:G:C4	1:YA:2107:C:H1'	2.51	0.45
1:YA:2279:G:O6	22:Y0:14:ARG:HD2	2.15	0.45
3:YD:108:PRO:HG2	3:YD:111:LEU:HB2	1.98	0.45
7:YH:3:ARG:HB3	7:YH:3:ARG:NH1	2.31	0.45
20:YY:99:CYS:SG	20:YY:100:ALA:N	2.88	0.45
23:Y1:51:VAL:HG11	23:Y1:74:VAL:HG21	1.98	0.45
32:XA:1318:A:H5''	50:XS:3:ARG:NH2	2.30	0.45
33:XB:22:LYS:HB2	33:XB:22:LYS:HE3	1.73	0.45
1:RA:30:G:H2'	1:RA:31:C:C6	2.50	0.45
1:RA:593:G:H4'	30:R8:4:MET:HE2	1.99	0.45
5:RF:125:LEU:HD12	5:RF:194:MET:HB2	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:RX:60:ARG:NH2	29:R7:47:ARG:HH22	2.14	0.45
26:R4:10:VAL:HG21	26:R4:29:PRO:HG3	1.99	0.45
32:QA:620:C:C2	35:QD:135:LEU:HG	2.52	0.45
32:QA:657:G:H4'	46:QO:28:GLN:HG2	1.98	0.45
32:QA:744:C:O2'	32:QA:851:G:N2	2.48	0.45
32:QA:1136:U:H5''	32:QA:1137:C:C2	2.51	0.45
32:QA:1226:C:N4	44:QM:104:ARG:HD2	2.31	0.45
39:QH:6:ILE:HB	39:QH:85:ARG:NH1	2.30	0.45
1:YA:2311:A:H3'	1:YA:2312:U:C6	2.52	0.45
19:YX:61:GLY:HA3	19:YX:73:ARG:O	2.16	0.45
24:Y2:21:LEU:HB2	24:Y2:64:LEU:HD23	1.98	0.45
26:Y4:40:HIS:HB3	26:Y4:43:TYR:CD1	2.51	0.45
32:XA:848:C:H2'	32:XA:849:C:H6	1.82	0.45
32:XA:946:A:H2'	32:XA:947:G:C8	2.51	0.45
34:XC:19:GLU:HB3	34:XC:40:ARG:HH22	1.80	0.45
35:XD:190:ASP:O	35:XD:193:ASP:HB2	2.16	0.45
49:XR:26:LEU:HD11	49:XR:42:ARG:NE	2.31	0.45
1:RA:108:U:H2'	1:RA:109:G:C8	2.51	0.45
1:RA:1032:A:H4'	31:R9:16:VAL:HG11	1.98	0.45
1:RA:1102:C:H2'	1:RA:1103:A:C8	2.51	0.45
1:RA:2572:A:C8	4:RE:144:ARG:HG2	2.52	0.45
5:RF:29:ASN:HB3	5:RF:112:MET:HE1	1.99	0.45
16:RU:108:GLU:O	16:RU:112:ARG:HG2	2.16	0.45
32:QA:1239:A:H62	32:QA:1299:A:N6	2.15	0.45
32:QA:1404:5MC:O2	32:QA:1519:MA6:O2'	2.30	0.45
1:YA:1051:G:H4'	1:YA:2752:C:C4'	2.44	0.45
1:YA:1070:A:H2'	1:YA:1071:G:C8	2.52	0.45
1:YA:2061:G:H5''	1:YA:2503:2MA:C2	2.46	0.45
1:YA:2064:C:H2'	1:YA:2065:C:C6	2.52	0.45
12:YQ:30:GLY:HA2	12:YQ:107:ALA:HB2	1.98	0.45
13:YR:33:ARG:NH1	13:YR:115:GLU:OE2	2.49	0.45
32:XA:142:G:H2'	32:XA:143:A:C8	2.49	0.45
35:XD:108:LEU:HB3	35:XD:110:PHE:CD1	2.52	0.45
35:XD:148:VAL:HG11	35:XD:158:ILE:HG21	1.98	0.45
40:XI:23:ASN:OD1	40:XI:25:LYS:HE3	2.17	0.45
1:RA:36:G:N3	1:RA:450:G:O2'	2.48	0.45
1:RA:323:G:H1'	1:RA:1205:U:O2	2.16	0.45
1:RA:1593:G:H2'	1:RA:1594:G:C8	2.51	0.45
1:RA:2693:A:H2'	1:RA:2694:G:C8	2.52	0.45
4:RE:36:ARG:HG2	4:RE:47:VAL:HG22	1.98	0.45
6:RG:108:ASN:HA	26:R4:37:SER:HB3	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:RH:117:PRO:HG3	7:RH:123:PHE:CD2	2.51	0.45
15:RT:39:ARG:NH1	15:RT:41:ARG:HD3	2.31	0.45
32:QA:123:C:OP1	32:QA:311:C:O2'	2.27	0.45
32:QA:309:G:O2'	32:QA:607:A:N1	2.48	0.45
32:QA:811:C:O2'	32:QA:901:A:N1	2.46	0.45
33:QB:40:HIS:HB3	33:QB:190:THR:HG21	1.98	0.45
33:QB:44:LEU:HD12	33:QB:44:LEU:HA	1.77	0.45
35:QD:108:LEU:HD12	35:QD:176:LEU:HD13	1.99	0.45
36:QE:102:ALA:HB1	36:QE:106:PRO:HG2	1.97	0.45
55:QY:111:ALA:HB2	55:QY:172:TYR:HB2	1.98	0.45
1:YA:910:A:C6	1:YA:911:A:C6	3.04	0.45
1:YA:2001:A:H2'	1:YA:2002:G:C8	2.51	0.45
1:YA:2051:A:H5'	1:YA:2578:G:O4'	2.16	0.45
2:YB:17:C:H2'	2:YB:18:G:O4'	2.16	0.45
7:YH:86:GLU:OE2	7:YH:132:ARG:NH2	2.49	0.45
12:YQ:32:TYR:OH	12:YQ:111:GLU:OE1	2.29	0.45
32:XA:235:C:H5'	48:XQ:70:ARG:HG2	1.98	0.45
33:XB:87:ARG:HD3	33:XB:234:PRO:HD2	1.97	0.45
53:XV:43:A:H2'	53:XV:44:A:C8	2.51	0.45
1:RA:336:C:O2'	20:RY:35:TYR:OH	2.31	0.45
1:RA:1049:C:H1'	1:RA:1113:U:O2'	2.17	0.45
1:RA:1053:C:H2'	1:RA:1054:A:C8	2.46	0.45
1:RA:1097:U:O2	1:RA:1097:U:H2'	2.15	0.45
1:RA:2092:U:H4'	1:RA:2093:G:O5'	2.17	0.45
1:RA:2243:U:H2'	1:RA:2244:U:C6	2.51	0.45
1:RA:2364:C:H2'	1:RA:2365:G:O4'	2.16	0.45
1:RA:2466:C:H5''	31:R9:6:SER:HB3	1.99	0.45
15:RT:16:ARG:HD3	15:RT:18:ASP:OD1	2.17	0.45
15:RT:24:PRO:HD3	15:RT:52:ILE:HD12	1.99	0.45
32:QA:12:U:H4'	32:QA:526:C:H4'	1.99	0.45
32:QA:995:C:N3	32:QA:1046:A:O2'	2.46	0.45
32:QA:1030(C):C:O2	32:QA:1030(C):C:H2'	2.16	0.45
42:QK:62:GLN:HB2	42:QK:93:GLN:HG3	1.98	0.45
44:QM:4:ILE:HA	44:QM:5:ALA:HA	1.65	0.45
50:QS:3:ARG:NH1	50:QS:10:PHE:HB2	2.31	0.45
53:QV:76:A:H2'	55:QY:234:GLY:HA3	1.99	0.45
55:QY:222:LEU:HD22	55:QY:246:ILE:HG22	1.98	0.45
1:YA:1005:C:H2'	1:YA:1006:C:C6	2.52	0.45
1:YA:1050:A:H2	1:YA:2751:G:C2	2.33	0.45
1:YA:1084:A:C8	1:YA:1085:A:H4'	2.52	0.45
4:YE:115:GLY:O	4:YE:119:ARG:HB2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:YQ:55:VAL:HG23	21:YZ:178:GLU:HB3	1.97	0.45
29:Y7:10:ARG:NH1	29:Y7:14:LYS:HE3	2.31	0.45
32:XA:815:A:N7	32:XA:1509:C:O2'	2.44	0.45
32:XA:1005:A:H1'	32:XA:1025:U:N3	2.32	0.45
39:XH:19:VAL:HG23	39:XH:21:LYS:HD3	1.97	0.45
41:XJ:32:ALA:HB1	41:XJ:33:GLN:CD	2.42	0.45
55:XY:229:SER:HB2	55:XY:237:VAL:HG13	1.99	0.45
1:RA:852:G:H2'	1:RA:853:G:C8	2.51	0.45
1:RA:1932:A:H2'	1:RA:1933:G:O4'	2.17	0.45
1:RA:2061:G:H5''	1:RA:2503:2MA:C2	2.46	0.45
4:RE:111:ARG:HG2	4:RE:160:TYR:O	2.17	0.45
15:RT:37:GLY:HA2	15:RT:38:ASN:HA	1.69	0.45
32:QA:1148:U:H2'	32:QA:1149:C:O4'	2.17	0.45
32:QA:1347:G:N2	32:QA:1373:G:H2'	2.32	0.45
33:QB:7:VAL:HG12	33:QB:217:ARG:HD2	1.99	0.45
45:QN:27:CYS:SG	45:QN:29:ARG:HB2	2.57	0.45
55:QY:236:HIS:NE2	55:QY:240:THR:HG21	2.32	0.45
1:YA:144:C:H5'	19:YX:2:LYS:HE2	1.98	0.45
1:YA:1916:A:H2'	1:YA:1917:PSU:O4'	2.16	0.45
1:YA:1971:A:C4	3:YD:241:PRO:HD3	2.52	0.45
1:YA:2298:A:N6	1:YA:2318:G:C8	2.83	0.45
1:YA:2298:A:N6	1:YA:2318:G:H8	2.15	0.45
2:YB:8:U:O2'	14:YS:40:ILE:HD13	2.16	0.45
4:YE:101:ARG:CZ	4:YE:171:GLU:HB2	2.47	0.45
8:YI:130:TYR:CE2	8:YI:132:PRO:HB3	2.52	0.45
16:YU:104:GLN:CD	16:YU:104:GLN:H	2.25	0.45
32:XA:67:C:H2'	32:XA:68:G:C8	2.52	0.45
32:XA:580:U:H2'	32:XA:581:G:O4'	2.17	0.45
32:XA:814:A:H2'	32:XA:816:A:H5''	1.98	0.45
32:XA:1068:G:H8	32:XA:1068:G:OP2	1.99	0.45
1:RA:1153:C:H2'	1:RA:1154:G:O4'	2.17	0.45
1:RA:1557:C:H5''	1:RA:1558:A:OP2	2.17	0.45
1:RA:1847:A:H3'	1:RA:1848:A:H5'	1.99	0.45
1:RA:2031:A:N3	1:RA:2455:G:O2'	2.38	0.45
1:RA:2107:C:H42	1:RA:2182:G:H1	1.65	0.45
1:RA:2128:C:H3'	1:RA:2129:C:H5''	1.98	0.45
1:RA:2401:U:H3'	1:RA:2402:C:C6	2.52	0.45
1:RA:2832:U:O4	1:RA:2883:A:H5''	2.17	0.45
2:RB:13:A:N1	2:RB:69:G:O2'	2.45	0.45
11:RP:55:ARG:HG2	11:RP:56:SER:N	2.31	0.45
17:RV:40:LEU:HB2	17:RV:46:VAL:HG12	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:R8:34:TRP:CE2	30:R8:35:GLN:HB3	2.51	0.45
32:QA:707:C:OP1	42:QK:85:ARG:NH1	2.49	0.45
37:QF:91:VAL:HG11	49:QR:72:ARG:NH1	2.31	0.45
39:QH:6:ILE:O	39:QH:10:LEU:HG	2.17	0.45
41:QJ:19:SER:O	41:QJ:23:ILE:HG12	2.17	0.45
48:QQ:58:GLU:OE2	48:QQ:75:ARG:NH2	2.50	0.45
1:YA:350:U:H2'	1:YA:351:G:O4'	2.17	0.45
1:YA:1049:C:H1'	1:YA:1113:U:O2'	2.16	0.45
1:YA:2023:G:H4'	1:YA:2617:C:O3'	2.17	0.45
1:YA:2516:G:C6	1:YA:2517:C:N4	2.85	0.45
1:YA:2849:U:H4'	1:YA:2868:A:C2	2.51	0.45
4:YE:150:VAL:HG13	4:YE:154:LYS:HG3	1.98	0.45
7:YH:164:TYR:HB2	7:YH:167:GLU:HB2	1.98	0.45
33:XB:42:ILE:HD13	33:XB:203:GLY:HA2	1.98	0.45
51:XT:38:LYS:HB3	51:XT:38:LYS:HE2	1.68	0.45
55:XY:333:MET:HE2	55:XY:333:MET:HB3	1.77	0.45
1:RA:1055:G:H2'	1:RA:1056:G:O4'	2.17	0.45
1:RA:1166:C:H2'	1:RA:1167:U:C6	2.52	0.45
1:RA:1358:G:O2'	1:RA:1359:A:H5'	2.16	0.45
1:RA:1812:A:O2'	3:RD:45:ASN:N	2.49	0.45
1:RA:2313:C:H2'	1:RA:2314:C:C6	2.52	0.45
1:RA:2477:C:N4	31:R9:10:ILE:HG23	2.32	0.45
32:QA:657:G:O2'	46:QO:23:GLY:HA2	2.17	0.45
1:YA:1029:A:C2	1:YA:2465:C:C2'	3.00	0.45
1:YA:1097:U:O2	1:YA:1097:U:H2'	2.15	0.45
1:YA:1358:G:O2'	1:YA:1359:A:H5'	2.17	0.45
1:YA:2522:U:O2'	1:YA:2647:U:OP1	2.30	0.45
1:YA:2870:C:H2'	1:YA:2871:C:O4'	2.16	0.45
8:YI:4:ILE:HG12	8:YI:18:VAL:HG22	1.99	0.45
12:YQ:137:TYR:O	12:YQ:141:GLN:HG2	2.17	0.45
32:XA:189(L):U:H2'	32:XA:189(M):G:C8	2.52	0.45
32:XA:1154:G:H2'	32:XA:1155:G:H8	1.82	0.45
32:XA:1327:C:H2'	32:XA:1328:C:C6	2.52	0.45
32:XA:1492:A:C8	43:XL:47:LYS:HG2	2.51	0.45
38:XG:9:VAL:HG11	38:XG:94:ARG:HD3	1.98	0.45
41:XJ:38:ILE:CG1	41:XJ:71:LEU:HB3	2.47	0.45
51:XT:39:LYS:HE3	51:XT:39:LYS:HB2	1.80	0.45
53:XV:21:A:N6	53:XV:46:G:H2'	2.32	0.45
1:RA:2317:C:H2'	1:RA:2318:G:H5'	1.99	0.45
32:QA:262:A:H2'	32:QA:263:A:C8	2.51	0.45
32:QA:1058:G:OP1	34:QC:199:LYS:HE3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:1124:G:N7	32:QA:1145:C:O2'	2.50	0.45
35:QD:85:LYS:HD3	35:QD:86:LYS:N	2.31	0.45
35:QD:173:TRP:CE3	35:QD:174:LEU:HG	2.52	0.45
38:QG:79:ARG:HA	38:QG:84:ASN:HA	1.98	0.45
1:YA:1794:U:H2'	1:YA:1795:C:H6	1.81	0.45
1:YA:1939:5MU:OP1	1:YA:2604:U:O2'	2.33	0.45
1:YA:2074:U:H2'	1:YA:2075:U:C6	2.52	0.45
1:YA:2774:C:H2'	1:YA:2775:A:O4'	2.16	0.45
8:YI:40:THR:O	8:YI:44:LEU:HD22	2.17	0.45
10:YO:9:GLU:O	10:YO:83:ALA:HA	2.17	0.45
10:YO:120:GLU:HG2	10:YO:122:LEU:HG	1.98	0.45
16:YU:36:ARG:HD2	16:YU:40:PHE:CZ	2.52	0.45
29:Y7:34:ARG:NH1	29:Y7:41:ARG:O	2.50	0.45
32:XA:859:A:OP2	32:XA:869:G:N1	2.45	0.45
37:XF:100:ASN:ND2	49:XR:23:LYS:HE2	2.32	0.45
53:XV:47:U:H3'	53:XV:48:C:C5'	2.46	0.45
1:RA:272(K):U:O2	8:RI:50:ARG:HD3	2.16	0.44
1:RA:686:G:N2	1:RA:788:A:H61	2.15	0.44
1:RA:2629:A:H1'	1:RA:2630:G:H5''	1.99	0.44
16:RU:104:GLN:CD	16:RU:104:GLN:H	2.25	0.44
19:RX:60:ARG:HH12	29:R7:47:ARG:HH22	1.65	0.44
32:QA:1034:G:H3'	32:QA:1035:A:C8	2.51	0.44
32:QA:1148:U:O3'	40:QI:14:VAL:HG11	2.17	0.44
1:YA:11:G:C2'	1:YA:12:U:H5'	2.47	0.44
1:YA:523:C:H4'	1:YA:540:C:O2	2.17	0.44
1:YA:1084:A:H3'	1:YA:1085:A:H4'	1.99	0.44
1:YA:2629:A:H1'	1:YA:2630:G:H5''	1.99	0.44
4:YE:11:MET:CG	4:YE:24:THR:HG22	2.43	0.44
8:YI:6:LEU:HD11	8:YI:37:VAL:HG23	2.00	0.44
8:YI:69:LYS:HB2	8:YI:138:ILE:HG12	1.98	0.44
23:Y1:3:LYS:HB2	23:Y1:61:ARG:HH12	1.81	0.44
25:Y3:23:LEU:HD12	25:Y3:28:LEU:HB2	1.99	0.44
32:XA:434:U:H2'	32:XA:435:C:C6	2.51	0.44
34:XC:43:LEU:O	34:XC:47:LEU:HB2	2.16	0.44
35:XD:20:TYR:CD2	35:XD:26:CYS:HB3	2.52	0.44
36:XE:20:GLN:OE1	36:XE:25:ARG:HD2	2.17	0.44
37:XF:25:ILE:HD13	37:XF:82:ARG:HE	1.82	0.44
42:XK:78:GLN:O	42:XK:103:LEU:HA	2.17	0.44
47:XP:43:LYS:HA	47:XP:48:TRP:HB3	1.98	0.44
1:RA:764:A:O4'	3:RD:213:ARG:HG3	2.17	0.44
1:RA:2115:G:N2	1:RA:2171:A:H61	2.14	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:2315:G:H2'	1:RA:2316:C:C6	2.52	0.44
4:RE:119:ARG:HG2	4:RE:120:TRP:CD1	2.52	0.44
29:R7:24:THR:HG22	29:R7:27:GLY:H	1.82	0.44
33:QB:41:ILE:HD13	33:QB:41:ILE:HA	1.84	0.44
40:QI:22:GLY:HA3	40:QI:60:ASP:OD1	2.17	0.44
1:YA:863:A:P	12:YQ:22:LYS:HG3	2.58	0.44
1:YA:1416:G:O2'	1:YA:1417:C:OP2	2.29	0.44
1:YA:1472:A:H2'	1:YA:1473:G:O4'	2.17	0.44
1:YA:2016:U:H1'	27:Y5:6:VAL:HG13	1.98	0.44
1:YA:2317:C:H2'	1:YA:2318:G:H5'	1.98	0.44
1:YA:2839:G:H5'	13:YR:46:GLY:CA	2.46	0.44
11:YP:106:LEU:HD13	11:YP:107:LYS:O	2.17	0.44
12:YQ:103:MET:HE1	12:YQ:125:LEU:HD13	1.98	0.44
32:XA:692:U:H1'	32:XA:695:A:N7	2.32	0.44
32:XA:1159:U:O4'	32:XA:1182:G:N2	2.50	0.44
44:XM:16:ASP:OD1	44:XM:16:ASP:N	2.49	0.44
1:RA:470:A:OP1	5:RF:59:TYR:HE1	2.01	0.44
1:RA:528:A:O2'	1:RA:529:A:H5'	2.17	0.44
1:RA:754:C:H2'	1:RA:755:C:C6	2.52	0.44
1:RA:911:A:H2'	12:RQ:9:TYR:OH	2.17	0.44
1:RA:1025:G:C4	1:RA:1135:C:H1'	2.52	0.44
1:RA:1092:C:OP2	1:RA:1092:C:H6	2.00	0.44
1:RA:2277:G:OP2	22:R0:10:THR:HG21	2.17	0.44
1:RA:2786:U:O2'	4:RE:62:PRO:O	2.30	0.44
26:R4:24:THR:OG1	26:R4:25:TYR:N	2.51	0.44
32:QA:186:C:O2'	51:QT:85:MET:SD	2.73	0.44
32:QA:1179:A:H2'	32:QA:1180:A:O4'	2.17	0.44
32:QA:1456:G:C2	51:QT:55:ILE:HD11	2.53	0.44
33:QB:185:ILE:HG22	33:QB:199:TYR:HD2	1.80	0.44
35:QD:108:LEU:HB3	35:QD:110:PHE:CD1	2.53	0.44
36:QE:69:VAL:HG12	36:QE:139:LEU:HB3	1.98	0.44
39:QH:51:VAL:HG21	39:QH:60:ARG:HH11	1.81	0.44
39:QH:51:VAL:HG11	39:QH:60:ARG:HH12	1.83	0.44
45:QN:4:LYS:O	45:QN:7:ILE:HG12	2.18	0.44
46:QO:18:PHE:HB2	46:QO:19:PRO:HD2	1.99	0.44
1:YA:1057:A:HO2'	1:YA:1058:G:P	2.38	0.44
1:YA:1104:C:H2'	1:YA:1105:U:H6	1.81	0.44
1:YA:1408:C:C2	1:YA:1595:G:N2	2.85	0.44
1:YA:2119:A:H61	1:YA:2168:G:H21	1.66	0.44
1:YA:2704:C:H2'	1:YA:2705:A:O4'	2.17	0.44
32:XA:1148:U:O2'	40:XI:66:ARG:NH1	2.44	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:XB:212:GLN:OE1	33:XB:235:SER:OG	2.32	0.44
55:XY:308:ARG:NH2	55:XY:319:ASP:OD2	2.25	0.44
1:RA:580:C:H2'	1:RA:581:C:C6	2.52	0.44
1:RA:1406:U:H2'	1:RA:1407:C:C6	2.52	0.44
1:RA:1639:U:C2'	1:RA:1640:C:H5''	2.47	0.44
1:RA:2375:G:O2'	1:RA:2377:A:N7	2.46	0.44
1:RA:2420:C:OP1	30:R8:34:TRP:HB3	2.18	0.44
1:RA:2805:G:H2'	1:RA:2807:G:H8	1.83	0.44
3:RD:10:THR:OG1	3:RD:13:ARG:HG2	2.16	0.44
29:R7:12:ARG:NH2	29:R7:44:PRO:HB3	2.33	0.44
32:QA:17:U:O2'	32:QA:1079:G:H1'	2.17	0.44
32:QA:393:A:H5'	32:QA:483:C:O2'	2.18	0.44
46:QO:26:GLU:HG3	46:QO:81:LEU:HD22	1.99	0.44
46:QO:82:ILE:O	46:QO:86:GLY:N	2.50	0.44
1:YA:613:G:O2'	1:YA:614(D):A:N1	2.49	0.44
1:YA:1239:G:H2'	1:YA:1240:U:O4'	2.17	0.44
1:YA:2648:C:H2'	1:YA:2649:U:C6	2.52	0.44
1:YA:2680:C:H5'	4:YE:189:PRO:HA	2.00	0.44
1:YA:2832:U:O4	1:YA:2883:A:H5''	2.17	0.44
2:YB:96:U:H2'	2:YB:97:G:C8	2.53	0.44
15:YT:91:ARG:HD2	15:YT:120:ARG:NH1	2.32	0.44
19:YX:12:VAL:HG22	19:YX:29:TRP:CE2	2.52	0.44
32:XA:359:U:H2'	32:XA:360:A:C8	2.53	0.44
32:XA:881:G:OP2	43:XL:12:ARG:NH2	2.51	0.44
32:XA:1403:C:H1'	32:XA:1500:A:N1	2.33	0.44
35:XD:8:VAL:HG22	35:XD:21:LEU:HD13	1.97	0.44
44:XM:15:VAL:HG12	44:XM:45:VAL:HG22	1.99	0.44
53:XV:21:A:H61	53:XV:46:G:H2'	1.82	0.44
55:XY:103:LYS:H	55:XY:103:LYS:HG2	1.60	0.44
1:RA:875:G:H2'	1:RA:876:C:O4'	2.18	0.44
1:RA:1794:U:H2'	1:RA:1795:C:H6	1.81	0.44
1:RA:1796:U:H2'	1:RA:1797:C:H6	1.81	0.44
1:RA:1916:A:H2'	1:RA:1917:PSU:O4'	2.17	0.44
1:RA:2512:C:H2'	1:RA:2513:G:O4'	2.17	0.44
5:RF:110:LEU:HA	5:RF:183:VAL:HG12	1.99	0.44
20:RY:9:LYS:HA	20:RY:10:GLY:HA2	1.74	0.44
32:QA:149:A:H2'	32:QA:150:C:C6	2.52	0.44
32:QA:656:C:O2'	46:QO:28:GLN:OE1	2.21	0.44
32:QA:1333:A:H2'	32:QA:1334:G:O4'	2.18	0.44
40:QI:65:VAL:HG21	40:QI:73:GLN:HB3	2.00	0.44
55:QY:219:PRO:C	55:QY:221:ASP:N	2.75	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:QY:318:THR:HG22	55:QY:325:THR:HB	2.00	0.44
1:YA:9:U:O2'	1:YA:10:G:OP1	2.32	0.44
1:YA:93:G:H2'	1:YA:94(A):C:C6	2.53	0.44
1:YA:1069:A:H5'	1:YA:1096:A:C5'	2.48	0.44
1:YA:1102:C:H2'	1:YA:1103:A:C8	2.52	0.44
8:YI:62:LYS:HG2	8:YI:133:HIS:NE2	2.33	0.44
16:YU:92:ARG:HA	16:YU:95:LEU:HB2	1.98	0.44
32:XA:397:A:H3'	32:XA:397:A:N3	2.32	0.44
32:XA:1005:A:H1'	32:XA:1025:U:C2	2.52	0.44
35:XD:191:ARG:HD2	35:XD:191:ARG:HA	1.76	0.44
47:XP:18:ARG:NH1	47:XP:32:TYR:OH	2.51	0.44
50:XS:12:ASP:OD2	50:XS:35:SER:HB3	2.17	0.44
1:RA:1011:G:H1'	1:RA:1013:C:O4'	2.18	0.44
1:RA:1104:C:H2'	1:RA:1105:U:H6	1.83	0.44
1:RA:2016:U:H1'	27:R5:6:VAL:HG13	1.98	0.44
20:RY:90:LEU:HD21	20:RY:96:ILE:HG12	1.99	0.44
26:R4:15:ILE:HB	26:R4:32:TYR:CD1	2.53	0.44
32:QA:406:G:H5'	35:QD:5:ILE:HD11	1.99	0.44
32:QA:864:A:H2'	32:QA:865:A:C8	2.52	0.44
33:QB:185:ILE:HG22	33:QB:199:TYR:CD2	2.53	0.44
34:QC:22:TRP:CD1	34:QC:59:ARG:HD2	2.52	0.44
35:QD:194:LEU:HD12	35:QD:195:ALA:H	1.82	0.44
40:QI:16:ARG:HH11	40:QI:64:THR:HG21	1.83	0.44
46:QO:55:GLY:HA2	46:QO:58:MET:HE3	1.99	0.44
1:YA:195:A:H61	1:YA:198:C:H3'	1.83	0.44
1:YA:1045:A:H2'	1:YA:1045:A:N3	2.33	0.44
1:YA:1164:G:H2'	1:YA:1165:U:C6	2.52	0.44
1:YA:1400:G:H2'	1:YA:1401:G:C8	2.53	0.44
1:YA:2320:A:H2'	1:YA:2320:A:N3	2.33	0.44
5:YF:20:LEU:HD12	5:YF:125:LEU:HD13	2.00	0.44
13:YR:56:LYS:NZ	13:YR:90:ARG:O	2.51	0.44
32:XA:266:G:N3	32:XA:266:G:H5''	2.33	0.44
32:XA:964:A:N3	32:XA:969:A:O2'	2.46	0.44
32:XA:992:U:H4'	32:XA:993:G:C5'	2.48	0.44
34:XC:63:ASN:HB2	34:XC:98:ASN:HB2	1.99	0.44
49:XR:21:LYS:HD3	49:XR:21:LYS:HA	1.79	0.44
1:RA:1041:C:N4	1:RA:1114:G:H1	2.04	0.44
1:RA:1309:G:P	29:R7:9:ARG:HD3	2.58	0.44
1:RA:1514:U:H2'	1:RA:1515:G:C8	2.53	0.44
1:RA:2133:G:N2	1:RA:2157:G:H2'	2.33	0.44
1:RA:2152:G:H2'	1:RA:2153:G:H8	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:2228:G:OP1	3:RD:261:LYS:NZ	2.29	0.44
1:RA:2331:G:O2'	1:RA:2336:A:N1	2.41	0.44
32:QA:956:U:OP2	55:QY:137:ARG:NH2	2.51	0.44
32:QA:1070:U:H2'	32:QA:1071:C:H6	1.83	0.44
37:QF:25:ILE:HG13	37:QF:82:ARG:HH12	1.81	0.44
38:QG:45:ASP:O	38:QG:49:ILE:HG13	2.18	0.44
38:QG:111:ARG:HB3	38:QG:113:GLU:OE2	2.17	0.44
42:QK:85:ARG:HD3	42:QK:113:PRO:HD3	2.00	0.44
51:QT:57:ARG:NH1	51:QT:100:ILE:HD12	2.31	0.44
1:YA:1143:A:OP1	9:YN:25:ARG:NH2	2.51	0.44
3:YD:71:ASP:HB3	3:YD:103:ARG:NH2	2.32	0.44
3:YD:85:ASP:OD2	3:YD:88:ARG:HD2	2.18	0.44
26:Y4:64:GLY:C	26:Y4:66:SER:N	2.74	0.44
32:XA:297:G:H4'	32:XA:557:G:H4'	1.99	0.44
32:XA:1239:A:C4	32:XA:1298:C:N4	2.86	0.44
32:XA:1244:C:H2'	32:XA:1245:A:C8	2.53	0.44
32:XA:1266:G:N2	32:XA:1269:A:OP2	2.46	0.44
32:XA:1492:A:C2'	55:XY:303:ARG:HH12	2.31	0.44
33:XB:53:ARG:HG2	33:XB:56:ARG:HH21	1.83	0.44
44:XM:13:LYS:HA	44:XM:44:ARG:HH11	1.82	0.44
48:XQ:81:ARG:HA	48:XQ:81:ARG:HD2	1.81	0.44
1:RA:634:C:H2'	1:RA:635:C:C6	2.53	0.44
1:RA:1027:A:C6	1:RA:1126:A:C4	3.06	0.44
1:RA:2823:A:OP1	4:RE:113:PHE:HB2	2.18	0.44
3:RD:5:LYS:HB3	3:RD:5:LYS:HE3	1.82	0.44
32:QA:179:A:H2'	32:QA:180:U:H6	1.83	0.44
32:QA:520:A:N1	32:QA:536:C:H1'	2.33	0.44
32:QA:1071:C:H5''	36:QE:49:PRO:HG2	1.99	0.44
32:QA:1158:C:H5	32:QA:1181:G:N1	2.16	0.44
41:QJ:11:PHE:CE1	41:QJ:67:THR:HG22	2.48	0.44
43:QL:33:ARG:NH1	43:QL:62:SER:HB3	2.33	0.44
44:QM:15:VAL:O	44:QM:19:LEU:HD13	2.18	0.44
1:YA:362:U:O2'	1:YA:363(A):G:H5'	2.18	0.44
1:YA:514:A:N3	1:YA:581:C:O2'	2.43	0.44
1:YA:721:C:H2'	1:YA:722:A:C8	2.53	0.44
1:YA:1410:G:H2'	1:YA:1411:C:C6	2.53	0.44
1:YA:2107:C:H42	1:YA:2182:G:H1	1.66	0.44
12:YQ:52:VAL:HA	12:YQ:55:VAL:HG12	1.99	0.44
24:Y2:35:LEU:HD21	24:Y2:49:LYS:HE2	2.00	0.44
40:XI:26:VAL:HG13	40:XI:61:ALA:HB3	1.99	0.44
55:XY:123:GLU:OE2	55:XY:186:ARG:HD3	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:881:G:H2'	1:RA:882:G:C8	2.52	0.44
1:RA:1210:A:H4'	1:RA:1211:U:O5'	2.17	0.44
1:RA:2893:G:H5''	1:RA:2894:G:O4'	2.18	0.44
8:RI:85:GLU:HB3	8:RI:86:THR:H	1.59	0.44
15:RT:51:ARG:HG3	15:RT:98:LYS:HE3	1.99	0.44
26:R4:7:PRO:HB2	26:R4:27:THR:HG21	1.99	0.44
32:QA:19:C:O2'	32:QA:572:A:N1	2.42	0.44
32:QA:131:C:H2'	32:QA:132:C:C6	2.52	0.44
32:QA:134:A:H61	47:QP:25:ARG:NH1	2.16	0.44
32:QA:1241:G:H2'	32:QA:1242:C:C6	2.53	0.44
33:QB:155:LEU:HD11	33:QB:159:PRO:HD3	2.00	0.44
34:QC:180:ALA:HB1	34:QC:203:PHE:CE1	2.52	0.44
36:QE:151:LEU:HD11	39:QH:77:GLU:CD	2.43	0.44
44:QM:16:ASP:N	44:QM:16:ASP:OD1	2.49	0.44
1:YA:2128:C:H3'	1:YA:2129:C:H5''	2.00	0.44
1:YA:2552:2MU:H2'	1:YA:2554:U:OP2	2.18	0.44
1:YA:2687:U:H2'	1:YA:2688:U:O4'	2.18	0.44
1:YA:2889:C:H3'	1:YA:2891:G:C8	2.53	0.44
2:YB:95:C:H2'	2:YB:96:U:C6	2.53	0.44
7:YH:95:ARG:HB2	7:YH:128:PRO:HB3	1.99	0.44
11:YP:135:LEU:HA	11:YP:135:LEU:HD23	1.72	0.44
14:YS:43:GLU:OE1	22:Y0:49:LYS:HE3	2.17	0.44
23:Y1:83:GLU:HA	23:Y1:84:GLY:HA2	1.66	0.44
32:XA:738:C:OP1	37:XF:2:ARG:NH1	2.48	0.44
32:XA:1414:U:H3	32:XA:1486:G:H1	1.65	0.44
1:RA:531:C:H4'	1:RA:532:A:H5''	2.00	0.43
6:RG:170:ARG:C	6:RG:170:ARG:HD3	2.43	0.43
32:QA:134:A:H1'	32:QA:325:A:C5	2.53	0.43
32:QA:977:A:H1'	32:QA:982:U:O4	2.18	0.43
32:QA:1024:G:N2	32:QA:1025:U:O4'	2.48	0.43
40:QI:24:GLY:HA2	40:QI:59:PHE:O	2.18	0.43
1:YA:251:A:C5	1:YA:252:G:H1'	2.53	0.43
1:YA:394:A:C6	1:YA:395:U:C4	3.06	0.43
1:YA:1110:G:H1'	1:YA:1111:A:H8	1.82	0.43
1:YA:1500:G:O2'	3:YD:100:GLY:O	2.32	0.43
1:YA:2149:G:C2	1:YA:2150:U:H1'	2.53	0.43
1:YA:2286:A:H4'	1:YA:2287:A:O4'	2.18	0.43
1:YA:2689:U:P	1:YA:2719:G:H22	2.41	0.43
5:YF:172:TRP:CD1	5:YF:172:TRP:H	2.35	0.43
14:YS:25:ARG:HD3	14:YS:42:ASP:OD2	2.18	0.43
32:XA:501:C:OP1	43:XL:117:ARG:NH2	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:790:A:C6	32:XA:791:G:C6	3.06	0.43
32:XA:1030(B):G:H8	32:XA:1030(B):G:O5'	2.01	0.43
32:XA:1347:G:HO2'	32:XA:1373:G:H1	1.64	0.43
1:RA:93:G:H2'	1:RA:94(A):C:C6	2.53	0.43
1:RA:108:U:H2'	1:RA:109:G:H8	1.83	0.43
1:RA:1296:G:OP1	1:RA:2709:G:O2'	2.32	0.43
1:RA:1378:A:OP1	29:R7:10:ARG:NH2	2.52	0.43
12:RQ:75:THR:HG21	12:RQ:87:LYS:HG2	1.99	0.43
32:QA:161:A:H8	32:QA:161:A:O5'	2.01	0.43
33:QB:109:SER:O	33:QB:112:VAL:HG22	2.18	0.43
53:QV:3:C:C2'	53:QV:4:G:H5'	2.48	0.43
55:QY:134:MET:HE3	55:QY:337:LEU:HD13	2.01	0.43
55:QY:138:TYR:CD1	55:QY:336:LYS:HB2	2.54	0.43
1:YA:706:A:H2'	1:YA:707:G:O4'	2.18	0.43
1:YA:1429:G:H2'	1:YA:1430:C:C6	2.53	0.43
1:YA:2311:A:C2	6:YG:80:PHE:HB3	2.53	0.43
2:YB:14:U:O3'	2:YB:108:U:O2'	2.33	0.43
4:YE:119:ARG:HD3	4:YE:160:TYR:HB2	2.00	0.43
5:YF:101:LEU:HD12	5:YF:102:PRO:HD2	2.00	0.43
6:YG:170:ARG:HH21	6:YG:180:PHE:CB	2.31	0.43
7:YH:33:LEU:HD11	7:YH:75:ALA:HB1	2.00	0.43
7:YH:137:ASP:HB3	7:YH:140:LYS:HB3	2.01	0.43
32:XA:575:G:O2'	32:XA:821:G:H5'	2.18	0.43
32:XA:952:U:H4'	32:XA:964:A:N1	2.33	0.43
32:XA:1202:G:H1'	45:XN:29:ARG:HD2	2.00	0.43
33:XB:179:LYS:HA	39:XH:72:PRO:HG3	2.00	0.43
37:XF:91:VAL:HG11	49:XR:72:ARG:NH1	2.33	0.43
38:XG:16:LEU:HD11	40:XI:45:ALA:HB2	2.00	0.43
55:XY:263:GLN:O	55:XY:267:LYS:N	2.48	0.43
1:RA:1423:G:OP1	1:RA:1492:G:O2'	2.35	0.43
1:RA:1472:A:H2'	1:RA:1473:G:O4'	2.18	0.43
1:RA:2543:G:H2'	1:RA:2544:G:C8	2.52	0.43
1:RA:2869:G:H2'	1:RA:2870:C:O4'	2.18	0.43
7:RH:137:ASP:HB3	7:RH:140:LYS:HB3	2.00	0.43
13:RR:24:GLN:HE21	13:RR:44:LEU:HG	1.82	0.43
35:QD:15:GLU:OE2	35:QD:66:ARG:NH1	2.51	0.43
42:QK:109:VAL:HG23	49:QR:85:LEU:O	2.18	0.43
46:QO:71:GLN:HB2	46:QO:78:TYR:CG	2.54	0.43
1:YA:300:A:P	20:YY:86:ARG:HH21	2.41	0.43
1:YA:309:G:H21	1:YA:330:A:P	2.40	0.43
1:YA:1410:G:H1	1:YA:1592:C:H42	1.65	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:1587:A:H2'	1:YA:1588:C:C6	2.53	0.43
1:YA:2080:G:OP1	23:Y1:35:THR:HG21	2.18	0.43
1:YA:2186:G:C2	1:YA:2187:G:C5	3.06	0.43
18:YW:1:MET:HE2	18:YW:62:HIS:HB3	2.00	0.43
32:XA:176:C:H2'	32:XA:177:C:C6	2.54	0.43
32:XA:601:C:H2'	32:XA:602:A:C8	2.53	0.43
32:XA:757:U:H2'	32:XA:758:G:O4'	2.19	0.43
32:XA:1346:A:N1	32:XA:1374:A:H5''	2.32	0.43
33:XB:18:GLY:HA2	33:XB:42:ILE:HD12	1.99	0.43
33:XB:114:ARG:NH1	33:XB:118:LEU:HG	2.33	0.43
34:XC:137:ALA:HA	34:XC:140:ARG:NH1	2.34	0.43
55:XY:121:GLY:O	55:XY:123:GLU:N	2.49	0.43
55:XY:177:PHE:CB	55:XY:321:ARG:HH22	2.30	0.43
1:RA:1704:G:H5'	32:QA:1429:C:O2'	2.17	0.43
1:RA:2130:U:H2'	1:RA:2158:A:H61	1.83	0.43
1:RA:2130:U:H2'	1:RA:2158:A:N1	2.34	0.43
11:RP:62:LEU:O	30:R8:13:ARG:HD3	2.19	0.43
17:RV:1:MET:HE3	17:RV:40:LEU:HB3	2.01	0.43
18:RW:33:ARG:NH2	18:RW:52:GLU:OE1	2.50	0.43
32:QA:1239:A:C4	32:QA:1298:C:N4	2.86	0.43
51:QT:39:LYS:HE3	51:QT:39:LYS:HB2	1.90	0.43
55:QY:123:GLU:HG3	55:QY:188:PRO:HB3	2.00	0.43
1:YA:1080:C:H2'	1:YA:1081:U:C6	2.53	0.43
1:YA:2098:U:H2'	1:YA:2099:U:O4'	2.17	0.43
1:YA:2133:G:N2	1:YA:2157:G:H2'	2.34	0.43
4:YE:34:VAL:HG12	4:YE:72:VAL:HG21	2.00	0.43
4:YE:150:VAL:CG1	4:YE:154:LYS:HG3	2.47	0.43
7:YH:9:ILE:HG12	7:YH:69:ARG:HD3	2.01	0.43
26:Y4:59:PHE:HA	26:Y4:60:GLN:C	2.38	0.43
32:XA:926:G:H22	54:XX:15:A:H3'	1.83	0.43
34:XC:70:VAL:HG22	34:XC:72:LYS:H	1.84	0.43
35:XD:122:ARG:NH1	35:XD:136:PRO:HD3	2.34	0.43
42:XK:116:HIS:N	42:XK:117:ASN:HA	2.34	0.43
47:XP:20:VAL:HG21	47:XP:32:TYR:CD2	2.53	0.43
49:XR:58:LEU:HD12	49:XR:62:GLU:CG	2.48	0.43
1:RA:657:U:H2'	1:RA:658:C:C6	2.54	0.43
1:RA:981:A:N1	1:RA:2027:G:O2'	2.49	0.43
1:RA:2114:A:H3'	1:RA:2115:G:H8	1.83	0.43
1:RA:2122:U:H3	1:RA:2176:A:N6	2.15	0.43
1:RA:2394:C:OP2	30:R8:30:ARG:HD2	2.18	0.43
6:RG:131:TYR:HB3	6:RG:159:VAL:CG1	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:RI:75:LEU:HD22	8:RI:105:HIS:ND1	2.33	0.43
32:QA:56:U:H2'	32:QA:57:G:H8	1.83	0.43
45:QN:3:ARG:HA	45:QN:3:ARG:HD3	1.77	0.43
51:QT:101:GLY:HA2	51:QT:102:GLY:HA2	1.68	0.43
53:QV:64:G:H2'	53:QV:65:C:C6	2.54	0.43
1:YA:1638:C:O3'	1:YA:2709:G:N2	2.51	0.43
1:YA:1790:C:H5''	1:YA:1791:A:OP1	2.18	0.43
1:YA:1810:A:H2'	1:YA:1811:G:O4'	2.19	0.43
1:YA:2184:G:N1	1:YA:2185:C:O2	2.51	0.43
9:YN:62:VAL:HG11	9:YN:66:LYS:HB2	2.00	0.43
32:XA:839:U:H3'	32:XA:840:C:C5	2.54	0.43
47:XP:75:ARG:HG3	47:XP:80:PHE:HD2	1.84	0.43
55:XY:138:TYR:CD1	55:XY:336:LYS:HB2	2.53	0.43
1:RA:321:G:O2'	1:RA:340:A:N3	2.51	0.43
1:RA:577:G:O2'	1:RA:1254:A:OP1	2.33	0.43
1:RA:2086:U:H2'	1:RA:2087:G:C8	2.52	0.43
1:RA:2186:G:C2	1:RA:2187:G:C5	3.06	0.43
1:RA:2319:G:H22	14:RS:3:ARG:CZ	2.32	0.43
6:RG:55:LYS:O	6:RG:59:GLU:HG3	2.18	0.43
11:RP:84:ASN:OD1	11:RP:117:GLU:HB2	2.19	0.43
12:RQ:16:ARG:HG2	12:RQ:18:LYS:HD3	2.00	0.43
13:RR:104:ARG:HD2	13:RR:107:ASP:OD1	2.19	0.43
14:RS:66:ALA:O	14:RS:69:VAL:HG22	2.19	0.43
16:RU:86:ALA:O	17:RV:49:THR:HG23	2.18	0.43
26:R4:59:PHE:CE1	50:QS:64:GLU:HA	2.53	0.43
32:QA:575:G:N2	32:QA:881:G:H1'	2.33	0.43
32:QA:1493:A:H4'	55:QY:121:GLY:N	2.34	0.43
34:QC:18:TRP:HZ2	45:QN:57:ARG:HB3	1.83	0.43
38:QG:150:ALA:HA	42:QK:59:TYR:HB3	2.01	0.43
39:QH:41:ARG:NH1	39:QH:123:GLU:OE2	2.48	0.43
46:QO:61:GLY:O	46:QO:65:ARG:HG3	2.19	0.43
1:YA:873:G:H1	1:YA:904:C:H42	1.64	0.43
1:YA:911:A:H2'	12:YQ:9:TYR:OH	2.18	0.43
1:YA:1404:C:H2'	1:YA:1405:U:H6	1.83	0.43
1:YA:1518:U:H2'	1:YA:1519:G:O4'	2.19	0.43
1:YA:2734:A:H2'	1:YA:2735:G:O4'	2.18	0.43
4:YE:59:VAL:HG12	4:YE:64:LYS:HG3	2.00	0.43
21:YZ:23:LYS:NZ	21:YZ:40:ASP:OD2	2.51	0.43
22:Y0:50:ASN:HB3	22:Y0:63:VAL:HG22	2.00	0.43
32:XA:864:A:H2'	32:XA:865:A:C8	2.54	0.43
32:XA:1103:C:OP1	33:XB:96:ARG:NH1	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:1402:4OC:O5'	32:XA:1402:4OC:H6	2.19	0.43
34:XC:180:ALA:HB1	34:XC:203:PHE:CE1	2.53	0.43
1:RA:184:C:H2'	1:RA:185:U:C6	2.53	0.43
1:RA:607:U:OP1	5:RF:102:PRO:HA	2.18	0.43
1:RA:1029:A:N6	1:RA:1125:G:O2'	2.50	0.43
12:RQ:55:VAL:HG12	12:RQ:64:ILE:HD12	1.99	0.43
26:R4:48:ARG:O	26:R4:49:PHE:C	2.62	0.43
26:R4:50:VAL:HG13	44:QM:65:LYS:HG2	2.01	0.43
34:QC:36:ASP:OD1	34:QC:57:ILE:HG21	2.18	0.43
53:QV:4:G:O2'	53:QV:5:G:H8	2.02	0.43
1:YA:78:A:H2'	1:YA:79:G:H8	1.83	0.43
1:YA:370:G:H4'	1:YA:371:A:OP2	2.18	0.43
1:YA:2526:G:C2'	31:Y9:1:MET:H1	2.28	0.43
1:YA:2693:A:H2'	1:YA:2694:G:C8	2.54	0.43
5:YF:34:TRP:CH2	11:YP:8:PRO:HB3	2.54	0.43
6:YG:47:LYS:HG2	6:YG:48:GLU:N	2.34	0.43
6:YG:126:ASP:HB3	6:YG:128:ARG:H	1.84	0.43
9:YN:58:ASP:OD1	9:YN:58:ASP:N	2.49	0.43
16:YU:49:HIS:HA	16:YU:52:ARG:HB3	1.98	0.43
18:YW:19:LEU:HD23	27:Y5:25:LEU:HD21	2.00	0.43
32:XA:114:U:H2'	32:XA:115:G:C8	2.54	0.43
32:XA:750:G:N3	46:XO:23:GLY:HA3	2.33	0.43
32:XA:1062:U:H2'	32:XA:1063:C:C6	2.53	0.43
38:XG:50:ILE:HD11	38:XG:58:PRO:HA	2.00	0.43
41:XJ:45:ARG:HG2	41:XJ:47:PHE:CZ	2.54	0.43
55:XY:229:SER:OG	55:XY:242:SER:O	2.37	0.43
1:RA:601:C:OP1	5:RF:108:LYS:HE3	2.18	0.43
1:RA:1188:U:C4'	17:RV:79:VAL:HG22	2.49	0.43
1:RA:1697:G:OP2	1:RA:1698:A:O2'	2.35	0.43
1:RA:1778:U:H2'	1:RA:1784:A:N6	2.33	0.43
1:RA:2106:G:C4	1:RA:2107:C:H1'	2.54	0.43
3:RD:145:VAL:HB	3:RD:155:LEU:HB2	2.01	0.43
6:RG:106:LEU:HA	6:RG:110:ALA:HB3	1.99	0.43
32:QA:620:C:H2'	32:QA:621:A:O4'	2.19	0.43
33:QB:8:LYS:HZ3	33:QB:52:GLU:HB2	1.84	0.43
38:QG:90:GLU:H	38:QG:90:GLU:CD	2.25	0.43
42:QK:18:ARG:NH2	42:QK:35:PRO:O	2.52	0.43
53:QV:28:C:H2'	53:QV:29:G:H8	1.82	0.43
1:YA:36:G:N3	1:YA:450:G:O2'	2.52	0.43
1:YA:528:A:O2'	1:YA:529:A:H5'	2.19	0.43
1:YA:1045:A:H8	1:YA:1047:G:N3	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:1091:G:H2'	1:YA:1091:G:N3	2.33	0.43
1:YA:1287:A:H8	13:YR:104:ARG:HD3	1.83	0.43
1:YA:1359:A:N6	1:YA:1372:U:H3	2.15	0.43
1:YA:2119:A:O2'	1:YA:2120:G:H5'	2.18	0.43
1:YA:2348:U:O4	1:YA:2382:G:N1	2.52	0.43
3:YD:142:VAL:HG23	3:YD:193:VAL:HA	2.00	0.43
15:YT:118:ARG:HH22	15:YT:121:ILE:HG21	1.84	0.43
30:Y8:63:PRO:HG2	30:Y8:64:TYR:CD2	2.54	0.43
32:XA:273:A:H1'	48:XQ:16:GLN:NE2	2.33	0.43
32:XA:537:G:H5''	43:XL:113:ARG:NH1	2.34	0.43
32:XA:737:A:H2'	32:XA:738:C:H6	1.84	0.43
34:XC:148:GLY:HA3	34:XC:172:ARG:O	2.19	0.43
35:XD:153:ARG:H	35:XD:153:ARG:HG2	1.65	0.43
41:XJ:49:VAL:HG22	41:XJ:50:ILE:O	2.18	0.43
43:XL:32:PHE:CD2	43:XL:86:ARG:HB3	2.54	0.43
44:XM:15:VAL:O	44:XM:19:LEU:HD13	2.17	0.43
55:XY:328:ARG:O	55:XY:329:LEU:HG	2.18	0.43
1:RA:251:A:C5	1:RA:252:G:H1'	2.54	0.43
1:RA:1179:C:H2'	1:RA:1180:C:C6	2.54	0.43
1:RA:1530:C:N4	1:RA:1539:G:H1	2.16	0.43
1:RA:2389:G:H5''	1:RA:2390:U:O4'	2.19	0.43
6:RG:114:ILE:HG12	6:RG:140:ILE:HG12	2.01	0.43
13:RR:87:TYR:OH	13:RR:117:VAL:O	2.31	0.43
19:RX:41:ASN:O	19:RX:45:THR:HG23	2.18	0.43
20:RY:19:LYS:HB3	20:RY:19:LYS:HE2	1.86	0.43
32:QA:567:G:H2'	32:QA:568:G:O4'	2.19	0.43
32:QA:1323:G:H2'	32:QA:1324:A:C8	2.53	0.43
33:QB:124:SER:HA	33:QB:125:PRO:HA	1.71	0.43
1:YA:336:C:O2'	20:YY:35:TYR:OH	2.34	0.43
1:YA:956:G:OP2	12:YQ:14:ARG:NH2	2.49	0.43
1:YA:1058:G:N2	1:YA:1080:C:N3	2.59	0.43
1:YA:1530:C:HO2'	1:YA:1531:C:P	2.38	0.43
1:YA:2119:A:N6	1:YA:2168:G:H21	2.16	0.43
1:YA:2137:C:H1'	1:YA:2154:G:H22	1.84	0.43
19:YX:56:THR:HB	19:YX:77:LYS:HE3	2.01	0.43
20:YY:87:LYS:HB3	20:YY:95:LYS:HD3	2.00	0.43
33:XB:19:HIS:CG	33:XB:20:GLU:H	2.36	0.43
34:XC:180:ALA:HB1	34:XC:203:PHE:HE1	1.84	0.43
39:XH:73:ASP:OD1	39:XH:75:ARG:HD3	2.19	0.43
45:XN:4:LYS:O	45:XN:7:ILE:HG12	2.19	0.43
50:XS:30:LEU:HD11	50:XS:50:ALA:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:XY:103:LYS:HE2	55:XY:103:LYS:HB3	1.88	0.43
55:XY:165:LYS:HE2	55:XY:167:SER:OG	2.19	0.43
1:RA:492:A:H2'	1:RA:493:G:O4'	2.19	0.43
1:RA:1971:A:P	3:RD:242:ARG:HH22	2.41	0.43
1:RA:2870:C:H2'	1:RA:2871:C:O4'	2.19	0.43
12:RQ:110:THR:HG23	12:RQ:113:GLN:OE1	2.19	0.43
15:RT:60:THR:HG22	15:RT:77:PRO:HA	2.01	0.43
32:QA:46:G:H2'	32:QA:366:C:C5	2.54	0.43
36:QE:33:VAL:HG13	36:QE:112:LEU:HD12	2.01	0.43
55:QY:114:GLU:HB3	55:QY:163:ILE:HB	2.01	0.43
1:YA:1050:A:C2	1:YA:1051:G:C5	3.06	0.43
1:YA:1759:A:H1'	1:YA:2711:A:C2	2.54	0.43
1:YA:1904:G:O2'	1:YA:1928:A:N1	2.48	0.43
7:YH:84:SER:HA	7:YH:133:VAL:O	2.18	0.43
9:YN:34:LEU:HD23	9:YN:107:LEU:HD11	2.01	0.43
9:YN:108:PRO:O	9:YN:113:GLY:HA3	2.19	0.43
32:XA:1023:G:H3'	32:XA:1024:G:C8	2.50	0.43
32:XA:1039:C:C4	32:XA:1040:U:C4	3.06	0.43
32:XA:1342:C:H2'	32:XA:1343:G:C8	2.54	0.43
1:RA:476:G:H4'	1:RA:502:A:N1	2.34	0.42
1:RA:886:C:O2'	1:RA:889:C:N4	2.51	0.42
1:RA:1503:U:H2'	1:RA:1504:C:C6	2.54	0.42
1:RA:2355:C:H1'	22:R0:39:ARG:HH21	1.83	0.42
3:RD:206:LEU:HD22	3:RD:211:ARG:HG2	2.00	0.42
26:R4:56:VAL:HB	26:R4:60:GLN:HG2	2.01	0.42
32:QA:320:C:O2'	32:QA:1435:G:O2'	2.31	0.42
32:QA:1047:G:H5''	45:QN:4:LYS:HD3	2.01	0.42
32:QA:1065:U:H4'	32:QA:1066:C:O5'	2.19	0.42
42:QK:20:TYR:HB2	42:QK:31:THR:HG23	2.01	0.42
55:QY:119:THR:HG21	55:QY:303:ARG:HH11	1.83	0.42
1:YA:78:A:H2'	1:YA:79:G:C8	2.53	0.42
1:YA:577:G:O2'	1:YA:1254:A:OP1	2.33	0.42
1:YA:1798:U:H5'	3:YD:259:THR:CG2	2.46	0.42
1:YA:2262:U:H4'	1:YA:2328:A:H2	1.83	0.42
7:YH:72:ILE:O	7:YH:75:ALA:HB3	2.19	0.42
12:YQ:11:LYS:HE2	12:YQ:88:GLY:O	2.19	0.42
21:YZ:33:LEU:HD11	21:YZ:90:VAL:HG21	2.00	0.42
26:Y4:64:GLY:C	26:Y4:66:SER:H	2.27	0.42
32:XA:779:C:H2'	32:XA:780:A:O4'	2.19	0.42
32:XA:1151:A:O4'	41:XJ:39:PRO:HB2	2.19	0.42
32:XA:1315:U:H2'	32:XA:1316:G:O4'	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:XC:6:HIS:NE2	34:XC:8:ILE:HB	2.34	0.42
34:XC:77:ILE:O	34:XC:84:ILE:N	2.47	0.42
34:XC:164:ARG:HG2	34:XC:165:THR:H	1.83	0.42
41:XJ:70:ARG:HA	41:XJ:70:ARG:HD3	1.88	0.42
1:RA:740:U:H2'	1:RA:741:G:C8	2.54	0.42
1:RA:1053:C:O2'	1:RA:1054:A:O5'	2.37	0.42
1:RA:1056:G:N1	1:RA:1102:C:OP2	2.45	0.42
1:RA:1091:G:H2'	1:RA:1091:G:N3	2.34	0.42
1:RA:1864:U:OP1	1:RA:2410:G:O2'	2.27	0.42
1:RA:2051:A:H5'	1:RA:2578:G:O4'	2.19	0.42
1:RA:2390:U:O2'	1:RA:2391:G:H5'	2.19	0.42
6:RG:170:ARG:HD3	6:RG:170:ARG:O	2.19	0.42
7:RH:86:GLU:HB3	7:RH:165:ALA:HB2	2.01	0.42
21:RZ:28:MET:HE1	21:RZ:61:LEU:HD21	2.00	0.42
21:RZ:70:LEU:HG	21:RZ:91:LEU:HD21	2.01	0.42
25:R3:8:LEU:CD1	25:R3:31:LEU:HD22	2.49	0.42
32:QA:159:G:H2'	32:QA:161:A:OP2	2.18	0.42
32:QA:576:G:N2	32:QA:760:G:OP1	2.52	0.42
36:QE:50:GLU:HB2	36:QE:53:LEU:HD13	2.01	0.42
42:QK:70:LYS:HE2	42:QK:70:LYS:HB2	1.86	0.42
47:QP:74:LEU:O	47:QP:79:VAL:HG22	2.19	0.42
53:QV:47:U:H3'	53:QV:48:C:C5'	2.49	0.42
1:YA:634:C:H2'	1:YA:635:C:C6	2.54	0.42
1:YA:700:G:O2'	1:YA:1632:A:N3	2.44	0.42
1:YA:1371:G:O2'	1:YA:1372:U:H5	2.02	0.42
1:YA:2742:C:P	31:Y9:35:ARG:HH11	2.41	0.42
3:YD:38:LYS:HA	3:YD:38:LYS:HD2	1.82	0.42
6:YG:16:ARG:O	6:YG:20:ILE:HG13	2.19	0.42
6:YG:101:ILE:HD13	26:Y4:25:TYR:HB2	2.01	0.42
6:YG:170:ARG:NH2	6:YG:182:LYS:O	2.51	0.42
12:YQ:60:ARG:NH2	21:YZ:181:GLU:OE1	2.49	0.42
25:Y3:24:LYS:HB2	25:Y3:24:LYS:HE2	1.89	0.42
32:XA:65:U:H1'	32:XA:66:G:OP2	2.18	0.42
32:XA:954:G:H21	32:XA:1227:A:H62	1.67	0.42
32:XA:1504:G:OP1	32:XA:1507:A:H4'	2.19	0.42
33:XB:71:VAL:HG12	33:XB:93:VAL:CG2	2.49	0.42
43:XL:117:ARG:HB3	43:XL:122:THR:O	2.19	0.42
55:XY:312:PHE:H	55:XY:313:PRO:HD2	1.83	0.42
1:RA:1035:U:OP2	7:RH:59:ARG:NH2	2.52	0.42
1:RA:1275:A:N1	1:RA:1295:C:O2'	2.49	0.42
8:RI:109:ILE:HD12	8:RI:109:ILE:HA	1.76	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:RU:49:HIS:HA	16:RU:52:ARG:HB3	2.01	0.42
19:RX:5:TYR:HD1	24:R2:33:MET:SD	2.42	0.42
26:R4:59:PHE:CE1	50:QS:64:GLU:HG3	2.53	0.42
32:QA:790:A:H1'	53:QV:38:A:H4'	2.00	0.42
32:QA:1084:G:C5	32:QA:1085:U:C4	3.08	0.42
37:QF:61:LEU:HD23	37:QF:63:TYR:OH	2.19	0.42
41:QJ:38:ILE:CG1	41:QJ:71:LEU:HB3	2.49	0.42
1:YA:9:U:H3	1:YA:2629:A:H2	1.66	0.42
1:YA:234:C:H2'	1:YA:235:U:C6	2.54	0.42
1:YA:1153:C:H2'	1:YA:1154:G:O4'	2.19	0.42
7:YH:9:ILE:HG12	7:YH:69:ARG:CD	2.50	0.42
7:YH:69:ARG:HD2	7:YH:69:ARG:C	2.44	0.42
19:YX:44:GLU:HG3	19:YX:51:VAL:HG23	2.01	0.42
20:YY:7:VAL:CG1	20:YY:27:VAL:HG21	2.49	0.42
23:Y1:85:LEU:HD23	23:Y1:89:GLU:HB3	2.01	0.42
32:XA:18:C:H4'	32:XA:1078:U:O2	2.19	0.42
33:XB:213:LEU:O	33:XB:217:ARG:HB2	2.20	0.42
40:XI:37:PHE:HB3	40:XI:43:ALA:CB	2.50	0.42
47:XP:21:VAL:HG11	47:XP:59:TRP:NE1	2.34	0.42
55:XY:309:THR:HG23	55:XY:320:HIS:NE2	2.34	0.42
1:RA:1400:G:H2'	1:RA:1401:G:C8	2.54	0.42
1:RA:2119:A:H61	1:RA:2168:G:H21	1.66	0.42
2:RB:90:A:N7	2:RB:91:C:H1'	2.34	0.42
12:RQ:35:VAL:CG1	12:RQ:130:LYS:HB3	2.49	0.42
32:QA:112:G:HO2'	32:QA:354:G:HO2'	1.67	0.42
32:QA:437:U:H5'	35:QD:155:LEU:HD21	2.01	0.42
32:QA:553:A:H5''	43:QL:24:VAL:HG21	2.01	0.42
32:QA:575:G:C5	32:QA:881:G:C2	3.07	0.42
37:QF:35:ALA:HA	37:QF:67:MET:HB3	2.01	0.42
44:QM:108:ARG:NH1	44:QM:112:GLY:O	2.48	0.42
55:QY:312:PHE:N	55:QY:313:PRO:HD2	2.35	0.42
1:YA:1036:G:H1	1:YA:1119:C:H42	1.67	0.42
1:YA:1493:C:C5	1:YA:2206:G:H2'	2.54	0.42
1:YA:2144:U:H1'	1:YA:2147:G:O6	2.19	0.42
1:YA:2693:A:H2'	1:YA:2694:G:H8	1.84	0.42
3:YD:275:LYS:HA	3:YD:276:LYS:C	2.44	0.42
6:YG:9:ARG:NH1	6:YG:13:GLU:OE1	2.45	0.42
8:YI:48:GLU:HG3	8:YI:52:ARG:HH11	1.83	0.42
15:YT:28:VAL:HG13	15:YT:86:ILE:HG23	2.00	0.42
32:XA:528:C:H5'	32:XA:529:G:OP2	2.19	0.42
32:XA:993:G:O6	32:XA:1045:C:N4	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:1458:G:OP1	51:XT:35:THR:OG1	2.30	0.42
34:XC:64:VAL:O	34:XC:99:VAL:HA	2.19	0.42
39:XH:98:LYS:HE3	39:XH:98:LYS:HB2	1.80	0.42
41:XJ:21:GLN:O	41:XJ:25:GLU:HG2	2.20	0.42
47:XP:66:PRO:HG2	47:XP:71:ARG:NH1	2.34	0.42
1:RA:493:G:H2'	1:RA:494:G:O4'	2.19	0.42
1:RA:828:U:H4'	1:RA:831:G:N1	2.34	0.42
1:RA:2320:A:N3	1:RA:2320:A:H2'	2.34	0.42
3:RD:242:ARG:HD3	3:RD:242:ARG:N	2.34	0.42
11:RP:101:VAL:HA	11:RP:106:LEU:O	2.19	0.42
12:RQ:35:VAL:HG13	12:RQ:130:LYS:HB3	2.01	0.42
20:RY:20:TYR:O	20:RY:23:ARG:HB2	2.20	0.42
32:QA:1125:U:H4'	41:QJ:5:ARG:NH2	2.34	0.42
32:QA:1518:MA6:H93	32:QA:1519:MA6:H92	2.02	0.42
36:QE:57:LYS:HG2	36:QE:61:TYR:HE2	1.81	0.42
37:QF:23:LYS:NZ	37:QF:42:GLU:OE2	2.29	0.42
55:QY:184:VAL:O	55:QY:198:THR:HA	2.18	0.42
1:YA:125:G:N3	29:Y7:48:LYS:HE2	2.34	0.42
1:YA:861:A:H2'	1:YA:862:G:O4'	2.19	0.42
1:YA:945:A:C4	1:YA:2448:A:C2	3.07	0.42
1:YA:1019:U:H2'	1:YA:1020:A:C8	2.54	0.42
1:YA:2321:G:HO2'	1:YA:2322:A:P	2.40	0.42
1:YA:2390:U:O2'	1:YA:2391:G:H5'	2.20	0.42
1:YA:2757:A:N3	7:YH:63:SER:OG	2.52	0.42
32:XA:101:A:H5'	51:XT:10:LEU:HD21	2.02	0.42
32:XA:1004:A:H5'	32:XA:1025:U:C5	2.48	0.42
32:XA:1402:4OC:HM41	54:XX:18:G:OP2	2.18	0.42
40:XI:112:LYS:HE2	40:XI:117:HIS:O	2.19	0.42
1:RA:330:A:HO2'	1:RA:331:A:H8	1.62	0.42
1:RA:1288:U:C2	1:RA:1327:C:O2	2.73	0.42
1:RA:1291:C:H2'	1:RA:1292:U:C6	2.55	0.42
1:RA:1430:C:H2'	1:RA:1431:U:C6	2.55	0.42
1:RA:1504:C:H2'	1:RA:1505:C:C6	2.54	0.42
2:RB:14:U:O3'	2:RB:108:U:O2'	2.37	0.42
4:RE:116:VAL:HG13	4:RE:122:PHE:HB2	2.01	0.42
7:RH:41:MET:HE2	7:RH:65:HIS:HA	2.01	0.42
21:RZ:140:ASP:OD1	21:RZ:142:SER:OG	2.38	0.42
26:R4:57:GLU:CB	26:R4:58:ARG:HA	2.48	0.42
32:QA:1024:G:H2'	32:QA:1024:G:N3	2.34	0.42
35:QD:8:VAL:HG22	35:QD:21:LEU:HD13	2.01	0.42
38:QG:113:GLU:HG3	38:QG:118:VAL:HG12	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:QM:74:VAL:O	44:QM:78:ILE:HG13	2.20	0.42
55:QY:325:THR:O	55:QY:325:THR:OG1	2.34	0.42
1:YA:1065:U:H4'	1:YA:1066:U:C5'	2.48	0.42
1:YA:1092:C:O2	1:YA:1092:C:H2'	2.18	0.42
1:YA:1108:U:H3'	1:YA:1109:C:C6	2.54	0.42
1:YA:1529:G:C6	1:YA:1530:C:N4	2.87	0.42
1:YA:1668:A:H4'	1:YA:1669:A:O5'	2.18	0.42
1:YA:1695:G:H1'	3:YD:8:PRO:O	2.20	0.42
1:YA:2109:U:H2'	1:YA:2110:G:C8	2.54	0.42
5:YF:135:LYS:HG3	5:YF:137:LYS:HG2	2.01	0.42
7:YH:154:PRO:HB3	7:YH:163:TYR:CE2	2.54	0.42
10:YO:26:LYS:O	10:YO:30:ALA:HB2	2.20	0.42
12:YQ:1:MET:HB3	12:YQ:1:MET:HE2	1.73	0.42
13:YR:118:GLU:H	13:YR:118:GLU:CD	2.28	0.42
21:YZ:140:ASP:OD1	21:YZ:142:SER:OG	2.38	0.42
26:Y4:47:GLN:C	26:Y4:49:PHE:H	2.27	0.42
32:XA:796:C:O5'	32:XA:796:C:H6	2.03	0.42
32:XA:1030(B):G:H21	32:XA:1030(D):G:H3'	1.84	0.42
32:XA:1301:U:O2'	32:XA:1302:U:H5'	2.19	0.42
33:XB:58:ILE:CG2	33:XB:222:ILE:HG22	2.50	0.42
33:XB:118:LEU:HD23	33:XB:118:LEU:HA	1.87	0.42
33:XB:178:ARG:NH2	39:XH:74:PRO:HB3	2.35	0.42
39:XH:82:HIS:NE2	39:XH:84:ARG:HG2	2.35	0.42
47:XP:4:ILE:HG23	47:XP:36:ILE:HD11	2.01	0.42
50:XS:20:LEU:HA	50:XS:23:ASN:HB2	2.02	0.42
55:XY:322:ILE:HD12	55:XY:324:LEU:HD13	2.02	0.42
1:RA:250:G:C6	1:RA:251:A:C6	3.08	0.42
1:RA:582:G:H2'	1:RA:583:G:C8	2.54	0.42
1:RA:641:C:O2'	1:RA:2350:C:OP1	2.31	0.42
1:RA:1022:G:C5	1:RA:1140:C:C4	3.08	0.42
1:RA:1057:A:N6	1:RA:1087:G:OP2	2.53	0.42
1:RA:1069:A:H5'	1:RA:1096:A:H5'	2.02	0.42
1:RA:1092:C:H2'	1:RA:1092:C:O2	2.18	0.42
1:RA:1418:G:H8	1:RA:1418:G:O5'	2.02	0.42
1:RA:1570:A:H2'	1:RA:1571:A:C8	2.54	0.42
8:RI:72:LEU:HD12	8:RI:138:ILE:HG21	2.01	0.42
15:RT:105:LEU:HD23	15:RT:105:LEU:HA	1.89	0.42
32:QA:1302:U:C5	44:QM:17:VAL:HG21	2.55	0.42
32:QA:1504:G:OP1	32:QA:1507:A:H4'	2.20	0.42
35:QD:173:TRP:CG	35:QD:189:PRO:HG3	2.54	0.42
35:QD:188:LEU:HA	35:QD:189:PRO:HD3	1.90	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:QI:46:ALA:HB2	40:QI:74:ILE:HG23	2.02	0.42
41:QJ:30:SER:OG	41:QJ:81:THR:HG22	2.18	0.42
45:QN:45:ARG:O	45:QN:49:HIS:HD2	2.01	0.42
1:YA:724:U:H2'	1:YA:725:G:O4'	2.20	0.42
1:YA:875:G:H2'	1:YA:876:C:O4'	2.20	0.42
1:YA:1055:G:H2'	1:YA:1056:G:O4'	2.19	0.42
1:YA:1504:C:H2'	1:YA:1505:C:C6	2.54	0.42
1:YA:1641:A:H2'	1:YA:1642:G:O4'	2.19	0.42
1:YA:2112:G:H2'	1:YA:2113:U:C6	2.55	0.42
2:YB:78:A:C2	2:YB:100:A:C4	3.08	0.42
5:YF:129:PHE:O	5:YF:132:VAL:HG22	2.19	0.42
26:Y4:61:ARG:HD3	50:XS:67:VAL:HG12	2.02	0.42
32:XA:1279:A:O2'	32:XA:1281:U:OP2	2.30	0.42
37:XF:10:LEU:HB2	37:XF:59:TYR:HB3	2.01	0.42
51:XT:37:SER:O	51:XT:41:ILE:HG12	2.20	0.42
1:RA:196:A:N3	1:RA:196:A:H2'	2.35	0.42
1:RA:898:C:H2'	1:RA:899:A:O4'	2.20	0.42
1:RA:1668:A:H4'	1:RA:1669:A:O5'	2.20	0.42
1:RA:2118:U:H5	1:RA:2148:G:H1'	1.85	0.42
1:RA:2119:A:N6	1:RA:2168:G:H21	2.16	0.42
1:RA:2321:G:HO2'	1:RA:2322:A:P	2.42	0.42
2:RB:8:U:O3'	14:RS:25:ARG:NH2	2.38	0.42
3:RD:77:ALA:HB2	3:RD:97:TYR:CD2	2.55	0.42
10:RO:2:ILE:HD12	10:RO:6:THR:HG21	2.01	0.42
32:QA:571:U:H2'	32:QA:917:G:H4'	2.01	0.42
32:QA:1232:U:H5''	40:QI:124:GLN:O	2.20	0.42
33:QB:51:LEU:HD23	33:QB:201:ILE:HD12	2.02	0.42
45:QN:4:LYS:HG3	45:QN:7:ILE:HD11	2.01	0.42
45:QN:32:SER:HB3	45:QN:41:ARG:HG2	2.01	0.42
47:QP:79:VAL:HG23	47:QP:80:PHE:CD1	2.54	0.42
51:QT:92:LEU:O	51:QT:96:GLY:N	2.48	0.42
1:YA:760:G:H2'	1:YA:761:A:O4'	2.20	0.42
2:YB:78:A:H2'	2:YB:79:C:O4'	2.19	0.42
5:YF:129:PHE:CD2	5:YF:163:VAL:HG21	2.54	0.42
24:Y2:38:GLN:HB3	24:Y2:44:LEU:HB2	2.01	0.42
32:XA:1318:A:O2'	50:XS:37:ARG:HD2	2.19	0.42
51:XT:72:LEU:HD23	51:XT:72:LEU:HA	1.89	0.42
55:XY:341:ILE:O	55:XY:345:ILE:HG13	2.20	0.42
1:RA:276:A:H5''	1:RA:277:C:H5'	2.01	0.42
1:RA:334:C:OP1	1:RA:335:C:N4	2.53	0.42
1:RA:569:U:C4	1:RA:570:G:C6	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:581:C:H2'	1:RA:582:G:C8	2.55	0.42
1:RA:612:C:H2'	1:RA:613:G:O4'	2.20	0.42
1:RA:1045:A:H2'	1:RA:1045:A:N3	2.35	0.42
1:RA:1110:G:H1'	1:RA:1111:A:C8	2.54	0.42
1:RA:1292:U:H2'	1:RA:1293:C:C6	2.55	0.42
1:RA:1300:U:C2	1:RA:1626:G:C6	3.08	0.42
4:RE:101:ARG:CZ	4:RE:171:GLU:HB2	2.50	0.42
6:RG:66:GLN:HB3	6:RG:92:VAL:HG21	2.02	0.42
10:RO:7:TYR:HE1	10:RO:20:MET:HE3	1.84	0.42
32:QA:604:G:C6	32:QA:635:G:C6	3.08	0.42
32:QA:1187:G:H4'	40:QI:111:ARG:NH1	2.35	0.42
1:YA:468:G:N7	29:Y7:39:ARG:NH2	2.59	0.42
1:YA:1003:G:O2'	1:YA:1010:A:N1	2.51	0.42
1:YA:1826:G:H4'	3:YD:242:ARG:NH1	2.35	0.42
32:XA:110:C:H2'	32:XA:111:G:O4'	2.19	0.42
32:XA:343:U:O3'	32:XA:344:A:H8	2.03	0.42
32:XA:688:G:H2'	32:XA:689:C:H6	1.84	0.42
32:XA:1005:A:C5	32:XA:1006:C:H1'	2.55	0.42
34:XC:54:ARG:HB3	34:XC:54:ARG:NH1	2.35	0.42
41:XJ:19:SER:O	41:XJ:23:ILE:HG12	2.19	0.42
47:XP:17:TYR:HE1	47:XP:41:PRO:HG3	1.84	0.42
51:XT:43:LEU:HD13	51:XT:51:GLU:HB3	2.00	0.42
52:XU:12:LYS:HB3	52:XU:22:ARG:HD2	2.01	0.42
53:XV:3:C:C2'	53:XV:4:G:H5'	2.49	0.42
55:XY:123:GLU:HG3	55:XY:188:PRO:HB3	2.02	0.42
55:XY:333:MET:H	55:XY:333:MET:HG2	1.50	0.42
1:RA:1073:A:O2'	1:RA:1074:G:O5'	2.36	0.42
1:RA:1080:C:H2'	1:RA:1081:U:C6	2.55	0.42
1:RA:1607:C:N4	1:RA:1622:G:OP2	2.34	0.42
1:RA:2282:G:OP1	1:RA:2283:C:H1'	2.19	0.42
4:RE:150:VAL:CG1	4:RE:154:LYS:HG3	2.50	0.42
10:RO:26:LYS:O	10:RO:30:ALA:HB2	2.19	0.42
32:QA:1023:G:H2'	32:QA:1024:G:N7	2.35	0.42
35:QD:57:ARG:HH22	36:QE:107:ARG:HD3	1.85	0.42
35:QD:61:LYS:HD2	35:QD:207:TYR:OH	2.20	0.42
55:QY:311:ASN:ND2	55:QY:314:GLN:HB2	2.35	0.42
55:QY:312:PHE:H	55:QY:313:PRO:HD2	1.85	0.42
1:YA:1022:G:C5	1:YA:1140:C:C4	3.07	0.42
1:YA:1179:C:H2'	1:YA:1180:C:C6	2.55	0.42
1:YA:1510:G:H2'	1:YA:1511:C:C6	2.55	0.42
7:YH:90:LYS:HD3	7:YH:159:GLU:HG2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:YI:129:THR:HA	8:YI:138:ILE:O	2.20	0.42
32:XA:148:G:H2'	32:XA:149:A:C8	2.55	0.42
32:XA:148:G:H2'	32:XA:149:A:H8	1.85	0.42
32:XA:163:C:H2'	32:XA:164:U:O4'	2.19	0.42
32:XA:448:A:P	32:XA:485:G:H22	2.41	0.42
32:XA:567:G:H2'	32:XA:568:G:O4'	2.20	0.42
32:XA:745:C:H1'	32:XA:836:G:O2'	2.20	0.42
32:XA:1151:A:H5''	41:XJ:41:PRO:HA	2.02	0.42
32:XA:1442(A):G:H2'	32:XA:1442(A):G:N3	2.34	0.42
50:XS:23:ASN:HA	50:XS:27:GLU:OE2	2.20	0.42
55:XY:101:LEU:H	55:XY:102:PRO:HD2	1.84	0.42
55:XY:211:ASP:OD1	55:XY:286:ARG:NH2	2.52	0.42
1:RA:1057:A:C2	1:RA:1058:G:C4	3.07	0.41
1:RA:2188:C:H2'	1:RA:2189:U:O4'	2.20	0.41
1:RA:2648:C:H2'	1:RA:2649:U:C6	2.55	0.41
1:RA:2690:C:N4	1:RA:2713:A:H1'	2.35	0.41
32:QA:107:G:H2'	32:QA:108:G:O4'	2.20	0.41
32:QA:112:G:H4'	32:QA:389:A:H4'	2.02	0.41
33:QB:47:THR:HA	33:QB:202:PRO:HG2	2.02	0.41
36:QE:69:VAL:HA	36:QE:70:PRO:HD3	1.78	0.41
42:QK:79:SER:HA	42:QK:104:GLN:HB2	2.01	0.41
44:QM:13:LYS:HA	44:QM:44:ARG:NH1	2.34	0.41
50:QS:52:TYR:HB2	50:QS:57:HIS:CD2	2.54	0.41
55:QY:222:LEU:HD13	55:QY:246:ILE:HG21	2.01	0.41
1:YA:30:G:H2'	1:YA:31:C:C6	2.54	0.41
1:YA:180:G:OP2	29:Y7:32:LYS:HE3	2.20	0.41
1:YA:192:C:O2'	1:YA:802:A:N3	2.48	0.41
1:YA:228:A:H8	1:YA:229:A:H5'	1.85	0.41
1:YA:1057:A:H62	1:YA:1087:G:P	2.43	0.41
1:YA:1068:G:H3'	1:YA:1096:A:OP2	2.20	0.41
1:YA:1166:C:H2'	1:YA:1167:U:C6	2.55	0.41
1:YA:1316:U:H2'	1:YA:1317:A:C8	2.55	0.41
1:YA:1753:G:OP1	15:YT:95:ARG:HD3	2.20	0.41
1:YA:2271:G:OP1	22:Y0:18:ALA:HB1	2.20	0.41
7:YH:55:PRO:HG2	7:YH:61:HIS:ND1	2.35	0.41
9:YN:67:LEU:HD13	9:YN:67:LEU:HA	1.96	0.41
12:YQ:130:LYS:HB3	12:YQ:130:LYS:HE2	1.88	0.41
20:YY:20:TYR:CE1	20:YY:43:ASN:HA	2.55	0.41
32:XA:501:C:H2'	32:XA:502:G:H8	1.83	0.41
32:XA:859:A:H2'	32:XA:860:A:O4'	2.20	0.41
32:XA:1003:G:H3'	32:XA:1003:G:N3	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:1206:G:H2'	32:XA:1207:2MG:O4'	2.20	0.41
32:XA:1492:A:O4'	43:XL:47:LYS:HD3	2.18	0.41
34:XC:6:HIS:HB3	45:XN:49:HIS:ND1	2.35	0.41
40:XI:108:VAL:HG12	40:XI:109:VAL:H	1.85	0.41
41:XJ:16:LEU:HD13	41:XJ:70:ARG:HG2	2.02	0.41
51:XT:42:GLN:O	51:XT:45:GLN:HB3	2.20	0.41
1:RA:2420:C:H5''	28:R6:8:LYS:CD	2.50	0.41
1:RA:2461:C:H2'	1:RA:2462:U:C6	2.54	0.41
6:RG:138:GLN:HE22	6:RG:153:ARG:HD2	1.84	0.41
7:RH:98:LEU:HD12	7:RH:98:LEU:HA	1.93	0.41
10:RO:80:ASP:CG	15:RT:64:ARG:HH22	2.28	0.41
23:R1:3:LYS:HG2	23:R1:61:ARG:NH1	2.34	0.41
32:QA:110:C:H2'	32:QA:111:G:O4'	2.21	0.41
32:QA:713:G:H2'	32:QA:714:G:C8	2.55	0.41
32:QA:1077:G:N2	32:QA:1080:A:OP2	2.52	0.41
34:QC:3:ASN:OD1	34:QC:3:ASN:N	2.52	0.41
39:QH:81:HIS:N	39:QH:138:TRP:O	2.53	0.41
1:YA:478:A:C6	1:YA:480:A:C6	3.08	0.41
1:YA:748:G:OP1	1:YA:2612:C:N4	2.53	0.41
1:YA:1053:C:H4'	1:YA:1054:A:OP1	2.20	0.41
1:YA:2810:A:N6	1:YA:2891:G:O2'	2.40	0.41
5:YF:29:ASN:H	5:YF:112:MET:HE3	1.84	0.41
5:YF:53:THR:HG22	5:YF:56:GLU:OE2	2.20	0.41
6:YG:126:ASP:HB2	6:YG:130:ASN:O	2.20	0.41
7:YH:98:LEU:HD12	7:YH:98:LEU:HA	1.91	0.41
7:YH:163:TYR:CE2	7:YH:169:VAL:HG22	2.55	0.41
8:YI:62:LYS:HE2	8:YI:133:HIS:NE2	2.35	0.41
18:YW:9:TYR:HA	18:YW:100:THR:CG2	2.49	0.41
29:Y7:12:ARG:NH2	29:Y7:44:PRO:HB3	2.36	0.41
32:XA:523:A:N1	43:XL:92:0TD:H6	2.35	0.41
32:XA:600:C:H2'	32:XA:601:C:C6	2.55	0.41
32:XA:1068:G:N2	32:XA:1191:A:N3	2.61	0.41
32:XA:1151:A:O2'	32:XA:1152:A:O5'	2.34	0.41
42:XK:92:GLU:O	42:XK:96:ARG:HG2	2.20	0.41
43:XL:117:ARG:NH2	43:XL:124:LYS:HB2	2.36	0.41
46:XO:61:GLY:O	46:XO:65:ARG:HG3	2.20	0.41
48:XQ:6:LEU:O	48:XQ:58:GLU:HA	2.20	0.41
1:RA:458:G:O2'	1:RA:469:G:O6	2.22	0.41
1:RA:1405:U:H2'	1:RA:1406:U:C6	2.54	0.41
1:RA:2820:A:P	13:RR:2:ARG:HH22	2.43	0.41
9:RN:58:ASP:OD1	9:RN:58:ASP:N	2.52	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:R8:33:ASN:HA	30:R8:36:LYS:HD2	2.02	0.41
32:QA:1007:C:N3	32:QA:1022:G:O6	2.53	0.41
33:QB:8:LYS:H	33:QB:8:LYS:HG2	1.60	0.41
36:QE:66:MET:HE3	36:QE:66:MET:HB3	1.97	0.41
37:QF:69:GLU:H	37:QF:69:GLU:CD	2.24	0.41
1:YA:1639:U:C2'	1:YA:1640:C:H5''	2.49	0.41
1:YA:2331:G:O2'	1:YA:2336:A:N1	2.45	0.41
1:YA:2785:C:O2'	4:YE:66:HIS:ND1	2.42	0.41
5:YF:33:LEU:HD13	5:YF:112:MET:HE2	2.02	0.41
6:YG:115:ARG:HG2	6:YG:136:ARG:HH21	1.85	0.41
32:XA:297:G:N2	32:XA:300:A:OP2	2.44	0.41
32:XA:1030(B):G:H1'	32:XA:1030(D):G:C5	2.55	0.41
32:XA:1065:U:H4'	32:XA:1066:C:O5'	2.20	0.41
35:XD:189:PRO:HB2	35:XD:194:LEU:HD11	2.02	0.41
55:XY:195:ARG:HE	55:XY:197:HIS:CE1	2.38	0.41
55:XY:209:LEU:HD12	55:XY:209:LEU:HA	1.88	0.41
1:RA:9:U:H3	1:RA:2629:A:H2	1.65	0.41
1:RA:337:C:H2'	1:RA:338:G:O4'	2.20	0.41
1:RA:721:C:H2'	1:RA:722:A:H8	1.84	0.41
1:RA:955:C:OP1	12:RQ:87:LYS:HE2	2.20	0.41
1:RA:1270:C:H5''	1:RA:1271:G:O5'	2.20	0.41
1:RA:2695:C:H2'	1:RA:2696:U:C6	2.55	0.41
1:RA:2749:A:OP2	1:RA:2750:A:O2'	2.38	0.41
5:RF:101:LEU:HD12	5:RF:102:PRO:HD2	2.01	0.41
5:RF:116:ASP:OD1	5:RF:119:ARG:NH2	2.48	0.41
7:RH:12:PRO:O	7:RH:15:VAL:HG22	2.20	0.41
32:QA:942:G:C2	32:QA:1342:C:C2	3.08	0.41
32:QA:1298:C:H4'	32:QA:1299:A:C4	2.55	0.41
35:QD:156:GLU:O	35:QD:160:GLN:HG2	2.20	0.41
40:QI:108:VAL:HG12	40:QI:109:VAL:N	2.36	0.41
41:QJ:38:ILE:O	41:QJ:38:ILE:HG13	2.19	0.41
1:YA:385:C:O2	11:YP:71:VAL:HG21	2.20	0.41
1:YA:1030:G:N1	1:YA:1124:C:O2	2.50	0.41
1:YA:1187:G:H5'	17:YV:81:TYR:CE1	2.55	0.41
1:YA:1449:A:N3	1:YA:1529:G:H1'	2.36	0.41
1:YA:1709:U:H2'	1:YA:1710:C:C6	2.54	0.41
2:YB:33:G:C6	2:YB:34:U:C4	3.09	0.41
15:YT:16:ARG:HD3	15:YT:18:ASP:OD1	2.20	0.41
32:XA:262:A:C6	32:XA:263:A:C6	3.07	0.41
32:XA:552:U:O3'	43:XL:87:GLY:HA2	2.20	0.41
32:XA:560:U:H4'	32:XA:561:U:O5'	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:1005:A:H5''	32:XA:1006:C:C6	2.55	0.41
32:XA:1070:U:H2'	32:XA:1071:C:H6	1.84	0.41
33:XB:9:GLU:C	33:XB:11:LEU:N	2.79	0.41
33:XB:127:ILE:C	33:XB:129:GLU:H	2.29	0.41
33:XB:127:ILE:HG12	33:XB:128:GLU:H	1.85	0.41
47:XP:19:ILE:HG22	47:XP:36:ILE:HG13	2.01	0.41
53:XV:10:G:N2	53:XV:26:G:H1'	2.35	0.41
53:XV:16:C:O2'	53:XV:61:C:OP1	2.34	0.41
55:XY:129:GLY:O	55:XY:133:ARG:HG2	2.20	0.41
55:XY:311:ASN:HD21	55:XY:313:PRO:HG2	1.85	0.41
1:RA:27:G:C2	1:RA:512:G:N3	2.89	0.41
1:RA:154(B):C:H42	1:RA:171:G:H1	1.68	0.41
1:RA:370:G:H4'	1:RA:371:A:OP2	2.20	0.41
1:RA:583:G:OP2	16:RU:10:ARG:HD2	2.20	0.41
1:RA:1063:G:H2'	1:RA:1065:U:C6	2.55	0.41
1:RA:2680:C:OP2	4:RE:111:ARG:NH2	2.53	0.41
6:RG:77:ILE:HB	6:RG:82:LEU:HB3	2.02	0.41
20:RY:15:VAL:HG21	20:RY:42:VAL:HG11	2.02	0.41
21:RZ:91:LEU:HD12	21:RZ:130:PRO:HG3	2.03	0.41
23:R1:82:LEU:HD23	23:R1:82:LEU:HA	1.90	0.41
26:R4:13:ARG:HB3	26:R4:15:ILE:HD11	2.03	0.41
32:QA:141:A:H1'	32:QA:182:U:O2	2.21	0.41
33:QB:224:GLN:HA	33:QB:228:GLY:O	2.21	0.41
38:QG:16:LEU:HD11	40:QI:45:ALA:HB2	2.02	0.41
1:YA:1025:G:C4	1:YA:1135:C:H1'	2.55	0.41
1:YA:1048:A:C5	1:YA:1049:C:C4	3.09	0.41
1:YA:1802:A:N1	1:YA:1822:G:H1'	2.36	0.41
1:YA:2130:U:H2'	1:YA:2158:A:N1	2.36	0.41
1:YA:2591:C:H2'	1:YA:2592:G:C8	2.55	0.41
1:YA:2748:A:C2	1:YA:2749:A:C4	3.08	0.41
1:YA:2748:A:C6	1:YA:2749:A:C6	3.08	0.41
3:YD:134:ARG:NH1	3:YD:188:GLU:OE2	2.48	0.41
5:YF:184:TYR:CE1	11:YP:3:LEU:HD21	2.54	0.41
13:YR:87:TYR:OH	13:YR:117:VAL:O	2.26	0.41
21:YZ:53:ILE:HG22	21:YZ:71:VAL:O	2.21	0.41
30:Y8:23:VAL:CG1	30:Y8:47:LYS:HD3	2.50	0.41
32:XA:663:A:H5'	32:XA:836:G:OP1	2.21	0.41
32:XA:1201:A:H4'	32:XA:1202:G:H5''	2.03	0.41
32:XA:1305:G:H5'	52:XU:4:GLY:HA3	2.02	0.41
36:XE:60:TYR:CZ	36:XE:64:ARG:HD3	2.56	0.41
40:XI:42:ARG:HE	40:XI:42:ARG:HB3	1.62	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:YN:50:LYS:HD2	45:YN:50:LYS:HA	1.79	0.41
45:YN:58:LYS:HB3	45:YN:58:LYS:HE3	1.88	0.41
1:RA:1002:G:H2'	1:RA:1003:G:O4'	2.20	0.41
1:RA:1057:A:O2'	1:RA:1058:G:P	2.79	0.41
1:RA:1479:G:H1'	1:RA:1558:A:OP1	2.21	0.41
1:RA:1810:A:H2'	1:RA:1811:G:O4'	2.21	0.41
1:RA:1827:C:OP2	3:RD:222:ARG:HD2	2.20	0.41
1:RA:2306:C:C4	1:RA:2307:G:C6	3.08	0.41
1:RA:2336:A:H61	22:R0:43:THR:CG2	2.34	0.41
1:RA:2342:C:O2'	1:RA:2374:C:H5''	2.21	0.41
1:RA:2781:A:H5''	1:RA:2782:G:H5'	2.03	0.41
6:RG:126:ASP:HB3	6:RG:128:ARG:H	1.85	0.41
11:RP:96:THR:H	11:RP:99:LEU:HD12	1.86	0.41
34:QC:15:THR:HG21	34:QC:181:ASN:HA	2.02	0.41
39:QH:34:GLU:OE1	39:QH:37:ARG:NH1	2.54	0.41
44:QM:80:ARG:O	44:QM:84:ILE:HG23	2.21	0.41
55:QY:214:LEU:N	55:QY:215:PRO:HD3	2.36	0.41
1:YA:531:C:H4'	1:YA:532:A:H5''	2.03	0.41
1:YA:721:C:H2'	1:YA:722:A:H8	1.86	0.41
1:YA:818:G:N1	1:YA:1188:U:OP2	2.33	0.41
1:YA:1047:G:H2'	1:YA:1110:G:H22	1.84	0.41
1:YA:2114:A:H2'	1:YA:2115:G:O4'	2.21	0.41
1:YA:2181:G:H2'	1:YA:2182:G:O4'	2.20	0.41
22:Y0:68:GLU:OE1	22:Y0:82:ARG:NH1	2.53	0.41
23:Y1:70:VAL:O	23:Y1:74:VAL:HG23	2.21	0.41
24:Y2:53:LEU:HA	24:Y2:53:LEU:HD23	1.88	0.41
32:XA:76:C:H42	32:XA:93:G:H1	1.67	0.41
32:XA:620:C:C2	35:XD:135:LEU:HG	2.55	0.41
32:XA:1104:G:O5'	33:XB:111:ARG:HD2	2.21	0.41
37:XF:11:ASN:HB3	37:XF:14:LEU:HG	2.03	0.41
38:XG:12:LEU:HD12	38:XG:12:LEU:H	1.85	0.41
41:XJ:25:GLU:O	41:XJ:29:ARG:HG2	2.20	0.41
44:XM:27:LYS:HD3	44:XM:27:LYS:HA	1.89	0.41
45:YN:6:LEU:HD23	45:YN:23:ARG:NH2	2.35	0.41
1:RA:1073:A:H4'	1:RA:1074:G:OP1	2.21	0.41
1:RA:2552:2MU:H6'3	1:RA:2554:U:C6	2.56	0.41
4:RE:47:VAL:HG23	4:RE:84:PHE:O	2.21	0.41
5:RF:183:VAL:O	5:RF:187:VAL:HG23	2.20	0.41
7:RH:69:ARG:HD2	7:RH:69:ARG:C	2.45	0.41
12:RQ:30:GLY:HA2	12:RQ:107:ALA:HB2	2.03	0.41
17:RV:1:MET:HE1	17:RV:44:LYS:HG3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:RY:56:PRO:C	20:RY:58:GLY:H	2.29	0.41
23:R1:3:LYS:O	23:R1:12:PRO:HD3	2.20	0.41
32:QA:299:G:H2'	32:QA:300:A:C8	2.56	0.41
32:QA:302:G:O2'	32:QA:556:C:H5''	2.21	0.41
32:QA:685:G:O2'	32:QA:686:U:H5'	2.19	0.41
32:QA:900:A:H2'	32:QA:901:A:C8	2.55	0.41
32:QA:1330:U:H2'	32:QA:1331:G:H5'	2.01	0.41
32:QA:1410:G:H2'	32:QA:1411:C:C6	2.55	0.41
33:QB:21:ARG:HD3	33:QB:21:ARG:N	2.35	0.41
34:QC:82:GLU:OE1	34:QC:85:ARG:NH2	2.47	0.41
36:QE:69:VAL:HG21	36:QE:113:ALA:HB1	2.03	0.41
42:QK:84:VAL:HG21	42:QK:95:ILE:HD11	2.02	0.41
43:QL:83:VAL:HG13	43:QL:100:ILE:HG23	2.02	0.41
49:QR:42:ARG:NH2	49:QR:42:ARG:HA	2.36	0.41
49:QR:66:LEU:O	49:QR:70:ILE:HG13	2.21	0.41
55:QY:311:ASN:HD22	55:QY:314:GLN:HB2	1.85	0.41
1:YA:566:U:H5''	11:YP:29:LYS:HE3	2.02	0.41
1:YA:1430:C:H2'	1:YA:1431:U:C6	2.55	0.41
1:YA:1495:A:H2'	1:YA:1496:A:C8	2.56	0.41
1:YA:2051:A:H8	1:YA:2051:A:OP2	2.03	0.41
1:YA:2136:C:C6	1:YA:2137:C:H5	2.38	0.41
1:YA:2144:U:O2'	1:YA:2147:G:N1	2.49	0.41
1:YA:2335:A:C8	1:YA:2337:G:C5	3.08	0.41
6:YG:145:THR:HG22	6:YG:148:MET:HE3	2.02	0.41
20:YY:40:GLU:O	20:YY:42:VAL:HG23	2.20	0.41
32:XA:922:G:H2'	32:XA:923:A:C8	2.56	0.41
32:XA:946:A:O2'	32:XA:1333:A:N3	2.51	0.41
36:XE:70:PRO:O	36:XE:72:GLN:NE2	2.54	0.41
42:XK:84:VAL:HG11	42:XK:91:ARG:HH11	1.85	0.41
44:XM:80:ARG:O	44:XM:84:ILE:HG23	2.20	0.41
50:XS:40:ILE:HB	50:XS:67:VAL:O	2.21	0.41
1:RA:127:A:H5''	1:RA:128:C:O4'	2.21	0.41
1:RA:361:G:O2'	1:RA:362:U:H5'	2.21	0.41
1:RA:463:G:N2	1:RA:466:A:OP2	2.43	0.41
1:RA:635:C:H2'	1:RA:636:G:O4'	2.21	0.41
1:RA:644:A:H4'	1:RA:645:C:H5	1.84	0.41
1:RA:768:G:O2'	1:RA:1379:A:N1	2.46	0.41
1:RA:1079:C:N4	1:RA:1080:C:C2	2.82	0.41
1:RA:1641:A:H2'	1:RA:1642:G:O4'	2.20	0.41
1:RA:1695:G:H1'	3:RD:8:PRO:O	2.20	0.41
1:RA:2119:A:O2'	1:RA:2120:G:H5'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:2259:G:C2	1:RA:2282:G:N1	2.89	0.41
3:RD:69:ARG:C	3:RD:71:ASP:N	2.79	0.41
5:RF:192:LEU:HD13	5:RF:194:MET:HE2	2.01	0.41
12:RQ:109:VAL:HG13	12:RQ:113:GLN:CB	2.51	0.41
18:RW:37:ARG:HD3	18:RW:38:TYR:CE2	2.56	0.41
18:RW:65:LEU:HD23	18:RW:65:LEU:HA	1.88	0.41
27:R5:37:LYS:HA	27:R5:37:LYS:HD3	1.90	0.41
32:QA:604:G:C5	32:QA:635:G:C6	3.08	0.41
32:QA:1205:U:O2'	34:QC:195:VAL:HG23	2.20	0.41
34:QC:59:ARG:H	41:QJ:92:THR:CG2	2.32	0.41
36:QE:40:ARG:NH2	36:QE:68:GLU:OE1	2.54	0.41
39:QH:37:ARG:HH21	39:QH:41:ARG:HH21	1.69	0.41
42:QK:27:ASN:OD1	42:QK:28:THR:N	2.52	0.41
53:QV:21:A:N6	53:QV:46:G:H2'	2.35	0.41
55:QY:247:THR:HG23	55:QY:254:VAL:HG12	2.03	0.41
1:YA:7:G:H2'	1:YA:8:A:H8	1.84	0.41
1:YA:851:U:O2'	25:Y3:42:ALA:O	2.32	0.41
1:YA:1059:G:N2	1:YA:1079:C:N3	2.69	0.41
1:YA:2122:U:H2'	1:YA:2123:G:C8	2.56	0.41
1:YA:2869:G:H2'	1:YA:2870:C:O4'	2.21	0.41
5:YF:33:LEU:HB3	11:YP:6:LEU:HD21	2.02	0.41
8:YI:62:LYS:HG2	8:YI:133:HIS:CD2	2.56	0.41
17:YV:40:LEU:HB2	17:YV:46:VAL:HG12	2.01	0.41
21:YZ:126:VAL:CG1	21:YZ:161:VAL:HG13	2.50	0.41
32:XA:384:G:H2'	32:XA:385:C:C6	2.55	0.41
32:XA:1002:G:C4	32:XA:1003:G:C8	3.08	0.41
34:XC:12:LEU:O	45:YN:57:ARG:NH2	2.41	0.41
46:XO:55:GLY:HA2	46:XO:58:MET:HE3	2.03	0.41
48:XQ:19:VAL:HG23	48:XQ:44:ALA:HB3	2.02	0.41
53:XV:4:G:O2'	53:XV:5:G:H8	2.02	0.41
1:RA:588:U:H1'	5:RF:90:PHE:CG	2.56	0.41
1:RA:725:G:C6	1:RA:726:G:N1	2.89	0.41
1:RA:746:A:H2'	1:RA:2612:C:H5''	2.03	0.41
1:RA:1045:A:H8	1:RA:1047:G:N3	2.18	0.41
1:RA:1340:U:OP1	19:RX:16:LYS:NZ	2.46	0.41
1:RA:2136:C:C6	1:RA:2137:C:H5	2.39	0.41
1:RA:2734:A:H2'	1:RA:2735:G:O4'	2.21	0.41
1:RA:2752:C:H2'	1:RA:2753:A:O4'	2.21	0.41
1:RA:2852:G:H2'	1:RA:2853:C:O4'	2.20	0.41
2:RB:24:G:N7	2:RB:56:G:H2'	2.36	0.41
2:RB:95:C:H2'	2:RB:96:U:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:RD:132:PRO:HD3	3:RD:190:TYR:CZ	2.56	0.41
4:RE:28:ALA:HB3	4:RE:93:VAL:HG12	2.03	0.41
6:RG:79:ASN:OD1	6:RG:79:ASN:N	2.53	0.41
6:RG:133:LEU:HD11	6:RG:157:ILE:HD12	2.03	0.41
9:RN:14:VAL:HG11	9:RN:138:LEU:HD12	2.01	0.41
10:RO:8:LEU:HD13	10:RO:82:ASN:HB3	2.03	0.41
12:RQ:32:TYR:OH	12:RQ:111:GLU:OE1	2.22	0.41
17:RV:76:LYS:HB2	17:RV:81:TYR:HB3	2.03	0.41
32:QA:160:A:H2'	32:QA:161:A:O4'	2.20	0.41
32:QA:486:U:H2'	32:QA:487:A:C8	2.56	0.41
32:QA:519:C:OP2	43:QL:50:SER:OG	2.23	0.41
32:QA:1148:U:O4'	40:QI:16:ARG:HD2	2.20	0.41
32:QA:1225:A:H2'	32:QA:1226:C:C5	2.56	0.41
34:QC:181:ASN:HB3	34:QC:205:GLY:O	2.21	0.41
35:QD:187:ARG:HH22	35:QD:193:ASP:CG	2.24	0.41
36:QE:116:THR:HG23	36:QE:117:ASP:OD2	2.21	0.41
1:YA:24:G:H2'	1:YA:25:U:O4'	2.21	0.41
1:YA:36:G:O2'	1:YA:450:G:H2'	2.21	0.41
1:YA:207:A:H2'	1:YA:208:C:O4'	2.21	0.41
1:YA:972:G:C6	1:YA:973:A:C6	3.09	0.41
1:YA:1073:A:O2'	1:YA:1074:G:O5'	2.36	0.41
1:YA:1083:U:H5''	1:YA:1084:A:OP1	2.21	0.41
1:YA:1268:A:H2'	1:YA:1269:A:O4'	2.21	0.41
1:YA:1301:A:C8	1:YA:1303:G:C8	3.09	0.41
1:YA:2330:G:H2'	1:YA:2331:G:O4'	2.21	0.41
1:YA:2786:U:O2	4:YE:62:PRO:HB3	2.20	0.41
2:YB:43:C:H5''	26:Y4:1:MET:HG2	2.02	0.41
4:YE:47:VAL:O	4:YE:80:GLU:HA	2.21	0.41
6:YG:43:LEU:HB3	6:YG:44:GLY:H	1.68	0.41
6:YG:114:ILE:HA	6:YG:136:ARG:HH22	1.86	0.41
9:YN:99:LEU:HA	9:YN:99:LEU:HD23	1.85	0.41
15:YT:41:ARG:NH2	32:XA:346:G:OP1	2.38	0.41
21:YZ:14:LYS:HE2	21:YZ:14:LYS:HB3	1.79	0.41
23:Y1:40:ARG:HD3	23:Y1:40:ARG:C	2.46	0.41
23:Y1:51:VAL:HG11	23:Y1:74:VAL:CG2	2.51	0.41
26:Y4:61:ARG:HG2	50:XS:42:PRO:CG	2.51	0.41
32:XA:155:C:H2'	32:XA:156:G:O4'	2.21	0.41
32:XA:540:G:C6	32:XA:541:G:C5	3.09	0.41
32:XA:691:G:H1'	32:XA:696:A:N6	2.35	0.41
32:XA:730:G:C5	32:XA:731:G:H1'	2.56	0.41
32:XA:1084:G:H5'	32:XA:1102:A:OP2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:1216:G:H5'	45:XN:5:ALA:HB2	2.03	0.41
36:XE:110:LEU:HD13	36:XE:118:ILE:HG21	2.03	0.41
39:XH:14:ARG:O	39:XH:18:ARG:HD3	2.21	0.41
42:XK:82:VAL:HB	42:XK:108:ILE:HG12	2.03	0.41
1:RA:192:C:O2'	1:RA:802:A:N3	2.42	0.41
1:RA:196:A:O2'	1:RA:805:G:O6	2.32	0.41
1:RA:286:C:H2'	1:RA:287:C:C6	2.56	0.41
1:RA:1274:A:N3	1:RA:1297:C:H1'	2.36	0.41
1:RA:2112:G:H2'	1:RA:2113:U:C6	2.56	0.41
1:RA:2745:C:H2'	1:RA:2746:U:O4'	2.21	0.41
8:RI:92:VAL:CG1	8:RI:120:ILE:HB	2.51	0.41
12:RQ:137:TYR:O	12:RQ:141:GLN:HG2	2.21	0.41
28:R6:8:LYS:HD3	30:R8:34:TRP:HB3	2.03	0.41
32:QA:434:U:H2'	32:QA:435:C:C6	2.56	0.41
48:QQ:86:GLU:O	48:QQ:90:ILE:HG12	2.21	0.41
55:QY:233:GLY:HA3	55:QY:237:VAL:CG2	2.50	0.41
55:QY:341:ILE:O	55:QY:345:ILE:HG13	2.21	0.41
1:YA:249:C:O2	30:Y8:12:LYS:NZ	2.35	0.41
1:YA:969:U:H2'	1:YA:970:C:C6	2.56	0.41
1:YA:1073:A:H4'	1:YA:1074:G:OP1	2.22	0.41
1:YA:2032:G:OP2	1:YA:2454:G:O2'	2.34	0.41
1:YA:2328:A:H2'	1:YA:2329:G:C8	2.56	0.41
1:YA:2747:G:OP1	7:YH:138:LYS:NZ	2.51	0.41
2:YB:73:A:C4	2:YB:105:A:C2	3.09	0.41
14:YS:19:LYS:HE3	14:YS:42:ASP:CG	2.46	0.41
18:YW:9:TYR:HA	18:YW:100:THR:HG23	2.01	0.41
26:Y4:8:LYS:HE2	26:Y4:8:LYS:HB3	1.85	0.41
32:XA:411:A:O2'	32:XA:413:G:H5'	2.20	0.41
32:XA:1144:G:C6	32:XA:1145:C:C4	3.09	0.41
32:XA:1502:A:C8	32:XA:1505:G:N2	2.89	0.41
55:XY:183:ARG:HA	55:XY:200:ALA:HB2	2.02	0.41
55:XY:187:VAL:HG13	55:XY:196:ILE:HD13	2.03	0.41
1:RA:443:A:H1'	1:RA:1201:C:O4'	2.21	0.40
1:RA:1469:A:H2'	1:RA:1470:G:O4'	2.22	0.40
1:RA:1818:U:O2'	3:RD:154:LYS:O	2.34	0.40
1:RA:2134:A:C5	1:RA:2157:G:H5'	2.56	0.40
1:RA:2647:U:H2'	1:RA:2648:C:C6	2.56	0.40
1:RA:2749:A:C6	1:RA:2750:A:C6	3.10	0.40
7:RH:20:ALA:HB1	7:RH:21:PRO:HD2	2.01	0.40
9:RN:42:TRP:CH2	9:RN:44:PRO:HB3	2.56	0.40
12:RQ:111:GLU:O	12:RQ:115:MET:HG2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:RR:54:LEU:HD12	13:RR:54:LEU:HA	1.98	0.40
19:RX:60:ARG:NH1	29:R7:47:ARG:HH22	2.19	0.40
21:RZ:125:LEU:HG	21:RZ:164:ALA:HB3	2.02	0.40
24:R2:53:LEU:HD23	24:R2:53:LEU:HA	1.89	0.40
32:QA:4:U:C4	39:QH:105:ARG:HD3	2.56	0.40
32:QA:102:G:O2'	32:QA:151:A:N3	2.43	0.40
32:QA:743:U:H2'	32:QA:744:C:C6	2.56	0.40
32:QA:1081:G:H8	32:QA:1081:G:O5'	2.04	0.40
33:QB:19:HIS:HE1	33:QB:206:ASP:OD2	2.04	0.40
41:QJ:4:ILE:N	41:QJ:100:THR:HG22	2.36	0.40
47:QP:5:ARG:HH21	47:QP:24:ALA:HA	1.85	0.40
1:YA:656:G:H2'	1:YA:657:U:O4'	2.22	0.40
1:YA:1291:C:H2'	1:YA:1292:U:C6	2.56	0.40
1:YA:2505:G:O6	1:YA:2576:G:H2'	2.20	0.40
2:YB:13:A:O2'	2:YB:14:U:H3'	2.21	0.40
2:YB:77:U:OP1	21:YZ:19:ARG:NH2	2.54	0.40
3:YD:232:PRO:HB3	3:YD:244:ARG:CZ	2.51	0.40
7:YH:13:LYS:HA	7:YH:14:GLY:HA2	1.79	0.40
14:YS:49:VAL:HG21	14:YS:77:ALA:HA	2.03	0.40
32:XA:337:C:H2'	32:XA:338:A:C8	2.56	0.40
32:XA:411:A:OP1	35:XD:30:LYS:NZ	2.45	0.40
32:XA:501:C:H1'	32:XA:549:C:H1'	2.03	0.40
32:XA:663:A:H5''	49:XR:61:LYS:NZ	2.36	0.40
38:XG:108:ALA:O	38:XG:119:ARG:HD2	2.21	0.40
1:RA:662:G:H5'	11:RP:14:LYS:O	2.22	0.40
1:RA:1431:U:H2'	1:RA:1432:C:C6	2.56	0.40
1:RA:1689:A:H4'	32:QA:1475:G:H4'	2.03	0.40
1:RA:1790:C:H2'	1:RA:1791:A:C5	2.56	0.40
1:RA:2114:A:H2'	1:RA:2115:G:O4'	2.21	0.40
1:RA:2359:C:H2'	1:RA:2360:A:O4'	2.20	0.40
1:RA:2552:2MU:O5'	1:RA:2552:2MU:H6	2.21	0.40
28:R6:8:LYS:HG2	30:R8:34:TRP:CD1	2.56	0.40
32:QA:127:G:O2'	48:QQ:2:PRO:O	2.37	0.40
32:QA:1353:G:C2	32:QA:1370:G:C2	3.09	0.40
32:QA:1417:G:O2'	32:QA:1483:A:N6	2.51	0.40
35:QD:31:CYS:O	35:QD:35:ARG:HG3	2.22	0.40
38:QG:102:ARG:O	38:QG:106:GLN:HG3	2.22	0.40
43:QL:124:LYS:HA	43:QL:125:PRO:HD3	1.94	0.40
55:QY:143:ARG:HA	55:QY:143:ARG:NE	2.36	0.40
1:YA:644:A:H4'	1:YA:645:C:H5	1.86	0.40
1:YA:674:G:O2'	5:YF:74:ARG:HD3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:686:G:N2	1:YA:788:A:H61	2.20	0.40
1:YA:2370:G:C6	1:YA:2371:G:C6	3.09	0.40
1:YA:2526:G:O2'	31:Y9:1:MET:HB2	2.21	0.40
1:YA:2660:A:H2'	1:YA:2661:G:O4'	2.22	0.40
2:YB:75:G:N3	21:YZ:85:HIS:CE1	2.90	0.40
5:YF:110:LEU:HD13	5:YF:202:PHE:HE1	1.87	0.40
14:YS:23:ARG:NH1	14:YS:85:VAL:O	2.54	0.40
21:YZ:108:PRO:HA	21:YZ:142:SER:HA	2.03	0.40
23:Y1:54:ALA:HB1	23:Y1:83:GLU:HG3	2.02	0.40
32:XA:149:A:H2'	32:XA:150:C:C6	2.56	0.40
32:XA:598:U:H4'	39:XH:94:TYR:CD2	2.57	0.40
32:XA:778:G:H2'	32:XA:779:C:O4'	2.21	0.40
32:XA:1516:G:H2'	32:XA:1518:MA6:OP2	2.22	0.40
33:XB:20:GLU:HB3	33:XB:21:ARG:H	1.56	0.40
34:XC:125:GLU:OE1	34:XC:190:ARG:HD3	2.20	0.40
55:XY:274:LEU:HD23	55:XY:274:LEU:HA	1.94	0.40
1:RA:859:G:O2'	1:RA:916:G:O6	2.38	0.40
1:RA:900:A:H2'	1:RA:901:A:O4'	2.21	0.40
1:RA:1614:A:H8	1:RA:1614:A:P	2.45	0.40
1:RA:1913:A:N7	32:QA:1493:A:O2'	2.43	0.40
1:RA:2144:U:H1'	1:RA:2147:G:O6	2.21	0.40
1:RA:2163:C:H5''	1:RA:2164:C:OP2	2.22	0.40
1:RA:2643:G:H2'	1:RA:2644:G:O4'	2.21	0.40
3:RD:72:LYS:HG3	3:RD:103:ARG:HH22	1.86	0.40
5:RF:20:LEU:HD13	5:RF:21:ALA:N	2.37	0.40
5:RF:150:GLY:HA2	5:RF:172:TRP:CD2	2.56	0.40
10:RO:64:ARG:NH2	10:RO:99:PHE:O	2.55	0.40
11:RP:83:VAL:HG12	11:RP:112:LEU:HD21	2.02	0.40
13:RR:118:GLU:H	13:RR:118:GLU:CD	2.28	0.40
21:RZ:28:MET:HA	21:RZ:88:PHE:O	2.21	0.40
32:QA:195:A:C6	32:QA:196:A:N1	2.90	0.40
32:QA:429:U:H3'	35:QD:9:CYS:SG	2.61	0.40
32:QA:1035:A:H8	32:QA:1035:A:O5'	2.04	0.40
32:QA:1312:G:N7	50:QS:2:PRO:HD2	2.37	0.40
48:QQ:22:LEU:HD13	48:QQ:41:LYS:HG3	2.03	0.40
53:QV:16:C:O2'	53:QV:61:C:OP1	2.36	0.40
1:YA:55:G:O2'	1:YA:127:A:N1	2.38	0.40
1:YA:64:A:O3'	19:YX:71:GLY:HA3	2.22	0.40
1:YA:322:A:OP1	5:YF:168:ARG:HD2	2.21	0.40
1:YA:639:U:H2'	1:YA:640:C:C6	2.56	0.40
1:YA:784:A:N6	3:YD:229:VAL:HG11	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:1075:C:N4	1:YA:1077:A:C5	2.89	0.40
1:YA:2319:G:H1	14:YS:3:ARG:NH2	2.19	0.40
1:YA:2345:G:N3	1:YA:2381:C:H2'	2.36	0.40
1:YA:2364:C:H2'	1:YA:2365:G:O4'	2.21	0.40
2:YB:22:U:H2'	2:YB:23:G:C8	2.56	0.40
33:XB:92:TYR:CE1	33:XB:94:ASN:HB2	2.57	0.40
35:XD:111:ALA:HB2	35:XD:120:LEU:HD12	2.03	0.40
55:XY:223:ARG:NH1	55:XY:225:ASP:OD2	2.54	0.40
1:RA:1567:A:OP2	3:RD:84:TYR:OH	2.33	0.40
1:RA:1569:A:H5'	3:RD:61:LEU:HD11	2.02	0.40
1:RA:1637:A:H4'	1:RA:2711:A:O2'	2.21	0.40
1:RA:1653:G:C6	13:RR:9:LYS:HB2	2.56	0.40
1:RA:2181:G:H2'	1:RA:2182:G:O4'	2.22	0.40
11:RP:138:LEU:HD23	11:RP:145:PRO:HB3	2.03	0.40
21:RZ:24:LEU:HD21	21:RZ:86:VAL:HG13	2.03	0.40
23:R1:67:ILE:N	23:R1:68:PRO:HD2	2.37	0.40
32:QA:1020:U:H2'	32:QA:1021:G:H8	1.84	0.40
32:QA:1030(D):G:H2'	32:QA:1030(E):A:H8	1.86	0.40
32:QA:1030(D):G:C8	32:QA:1031:G:N2	2.89	0.40
32:QA:1183:A:H3'	32:QA:1184:G:H5''	2.02	0.40
32:QA:1263:C:H2'	32:QA:1264:C:C6	2.55	0.40
37:QF:45:LEU:HD12	37:QF:59:TYR:CD2	2.56	0.40
44:QM:88:ARG:HG3	44:QM:98:VAL:HG11	2.03	0.40
47:QP:57:ARG:NH2	47:QP:78:GLY:O	2.54	0.40
48:QQ:6:LEU:O	48:QQ:58:GLU:HA	2.22	0.40
1:YA:372:G:H8	23:Y1:65:SER:O	2.04	0.40
1:YA:588:U:H1'	5:YF:90:PHE:CG	2.56	0.40
1:YA:1180:C:H2'	1:YA:1181:C:C6	2.57	0.40
1:YA:1638:C:H2'	1:YA:1639:U:O4'	2.22	0.40
1:YA:1847:A:H3'	1:YA:1848:A:H5'	2.02	0.40
1:YA:2114:A:H3'	1:YA:2115:G:H8	1.85	0.40
1:YA:2250:G:O2'	1:YA:2496:C:OP1	2.37	0.40
1:YA:2752:C:H2'	1:YA:2753:A:O4'	2.21	0.40
4:YE:144:ARG:HB3	4:YE:145:LYS:H	1.53	0.40
5:YF:40:GLN:NE2	5:YF:182:ASN:HB2	2.36	0.40
13:YR:13:HIS:CE1	13:YR:16:HIS:HB2	2.56	0.40
20:YY:56:PRO:O	20:YY:57:GLN:HB2	2.22	0.40
23:Y1:53:VAL:HG22	23:Y1:74:VAL:HG13	2.02	0.40
32:XA:186:C:H5'	51:XT:78:ALA:HB1	2.03	0.40
32:XA:449:C:O2	47:XP:42:ARG:HD2	2.21	0.40
32:XA:1014:A:C2	32:XA:1219:U:H1'	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:1410:G:H2'	32:XA:1411:C:C6	2.56	0.40
33:XB:55:PHE:HD1	33:XB:55:PHE:HA	1.76	0.40
40:XI:7:THR:O	40:XI:83:ARG:HD2	2.22	0.40
42:XK:77:MET:HE2	42:XK:77:MET:HB2	1.99	0.40
1:RA:115:C:HO2'	1:RA:127:A:HO2'	1.70	0.40
1:RA:350:U:H2'	1:RA:351:G:O4'	2.21	0.40
1:RA:783:A:O2'	1:RA:785:G:OP1	2.31	0.40
1:RA:1043:C:HO2'	1:RA:1048:A:HO2'	1.67	0.40
1:RA:1050:A:C2	1:RA:1051:G:C5	3.09	0.40
1:RA:1083:U:H5''	1:RA:1084:A:OP1	2.22	0.40
1:RA:1392:A:C6	1:RA:1393:A:C6	3.09	0.40
1:RA:1410:G:H2'	1:RA:1411:C:H6	1.85	0.40
1:RA:1495:A:H2'	1:RA:1496:A:C8	2.56	0.40
1:RA:1510:G:H2'	1:RA:1511:C:C6	2.57	0.40
1:RA:1668:A:O2'	1:RA:1674:G:N7	2.48	0.40
1:RA:2311:A:H3'	1:RA:2312:U:C6	2.56	0.40
1:RA:2344:U:OP2	28:R6:37:ARG:HB2	2.21	0.40
1:RA:2802:G:H2'	1:RA:2803:C:O4'	2.22	0.40
3:RD:70:TRP:HB3	3:RD:190:TYR:CE1	2.56	0.40
4:RE:119:ARG:HG2	4:RE:120:TRP:CE2	2.57	0.40
19:RX:12:VAL:HG22	19:RX:29:TRP:CE2	2.56	0.40
32:QA:126:G:O2'	32:QA:635:G:O4'	2.35	0.40
32:QA:1499:A:H1'	32:QA:1520:G:H5'	2.02	0.40
42:QK:78:GLN:C	42:QK:103:LEU:HD23	2.46	0.40
46:QO:21:ASP:OD1	46:QO:24:SER:HB3	2.22	0.40
1:YA:586:A:N1	1:YA:809:G:O2'	2.46	0.40
1:YA:1359:A:N1	1:YA:1372:U:O4	2.54	0.40
1:YA:1479:G:H5''	1:YA:1560:G:H4'	2.02	0.40
1:YA:2118:U:H5	1:YA:2148:G:H1'	1.86	0.40
1:YA:2144:U:O3'	1:YA:2145:C:H2'	2.22	0.40
1:YA:2282:G:OP1	1:YA:2283:C:H1'	2.21	0.40
2:YB:28:C:H2'	2:YB:29:A:O4'	2.21	0.40
5:YF:34:TRP:CZ3	11:YP:8:PRO:HB3	2.57	0.40
11:YP:6:LEU:HD23	11:YP:6:LEU:HA	1.79	0.40
32:XA:404:U:H5'	35:XD:122:ARG:HD3	2.03	0.40
32:XA:719:C:H3'	32:XA:720:C:C6	2.56	0.40
32:XA:857:C:H2'	32:XA:858:G:O4'	2.20	0.40
32:XA:1070:U:H2'	32:XA:1071:C:C6	2.57	0.40
32:XA:1143:G:H2'	32:XA:1144:G:H8	1.86	0.40
32:XA:1236:A:OP2	52:XU:3:LYS:HD3	2.22	0.40
35:XD:10:ARG:HB2	35:XD:40:PRO:HG3	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:XF:61:LEU:HD23	37:XF:63:TYR:OH	2.21	0.40
40:XI:6:GLY:HA3	40:XI:83:ARG:HB2	2.03	0.40
44:XM:89:GLY:O	44:XM:93:ARG:HG3	2.22	0.40
47:XP:3:LYS:O	47:XP:21:VAL:HA	2.22	0.40

All (1) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:R2:46:GLN:OE1	1:YA:277:C:O2'[3_555]	2.14	0.06

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	
3	RD	273/276 (99%)	261 (96%)	12 (4%)	0	100	100
3	YD	273/276 (99%)	262 (96%)	11 (4%)	0	100	100
4	RE	202/206 (98%)	195 (96%)	6 (3%)	1 (0%)	24	59
4	YE	202/206 (98%)	195 (96%)	7 (4%)	0	100	100
5	RF	201/210 (96%)	197 (98%)	4 (2%)	0	100	100
5	YF	201/210 (96%)	196 (98%)	3 (2%)	2 (1%)	12	45
6	RG	179/182 (98%)	166 (93%)	12 (7%)	1 (1%)	21	56
6	YG	179/182 (98%)	170 (95%)	8 (4%)	1 (1%)	21	56
7	RH	172/180 (96%)	167 (97%)	5 (3%)	0	100	100
7	YH	171/180 (95%)	164 (96%)	7 (4%)	0	100	100
8	RI	145/148 (98%)	135 (93%)	10 (7%)	0	100	100
8	YI	144/148 (97%)	137 (95%)	7 (5%)	0	100	100
9	RN	138/140 (99%)	136 (99%)	2 (1%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
9	YN	138/140 (99%)	136 (99%)	2 (1%)	0	100	100
10	RO	120/122 (98%)	114 (95%)	6 (5%)	0	100	100
10	YO	120/122 (98%)	114 (95%)	6 (5%)	0	100	100
11	RP	147/150 (98%)	142 (97%)	4 (3%)	1 (1%)	18	52
11	YP	147/150 (98%)	142 (97%)	4 (3%)	1 (1%)	18	52
12	RQ	139/141 (99%)	136 (98%)	3 (2%)	0	100	100
12	YQ	139/141 (99%)	136 (98%)	3 (2%)	0	100	100
13	RR	116/118 (98%)	114 (98%)	2 (2%)	0	100	100
13	YR	116/118 (98%)	114 (98%)	2 (2%)	0	100	100
14	RS	108/112 (96%)	104 (96%)	3 (3%)	1 (1%)	14	47
14	YS	108/112 (96%)	105 (97%)	3 (3%)	0	100	100
15	RT	129/146 (88%)	124 (96%)	5 (4%)	0	100	100
15	YT	129/146 (88%)	125 (97%)	4 (3%)	0	100	100
16	RU	114/118 (97%)	113 (99%)	1 (1%)	0	100	100
16	YU	114/118 (97%)	114 (100%)	0	0	100	100
17	RV	99/101 (98%)	96 (97%)	2 (2%)	1 (1%)	12	45
17	YV	99/101 (98%)	96 (97%)	2 (2%)	1 (1%)	12	45
18	RW	110/113 (97%)	109 (99%)	1 (1%)	0	100	100
18	YW	110/113 (97%)	109 (99%)	1 (1%)	0	100	100
19	RX	93/96 (97%)	92 (99%)	1 (1%)	0	100	100
19	YX	93/96 (97%)	92 (99%)	1 (1%)	0	100	100
20	RY	105/110 (96%)	99 (94%)	6 (6%)	0	100	100
20	YY	105/110 (96%)	102 (97%)	3 (3%)	0	100	100
21	RZ	187/206 (91%)	182 (97%)	5 (3%)	0	100	100
21	YZ	187/206 (91%)	181 (97%)	6 (3%)	0	100	100
22	R0	75/85 (88%)	73 (97%)	2 (3%)	0	100	100
22	Y0	75/85 (88%)	73 (97%)	2 (3%)	0	100	100
23	R1	95/98 (97%)	94 (99%)	0	1 (1%)	11	43
23	Y1	95/98 (97%)	93 (98%)	1 (1%)	1 (1%)	11	43
24	R2	68/72 (94%)	67 (98%)	1 (2%)	0	100	100
24	Y2	68/72 (94%)	67 (98%)	1 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
25	R3	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
25	Y3	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
26	R4	67/71 (94%)	56 (84%)	7 (10%)	4 (6%)	1	10
26	Y4	67/71 (94%)	55 (82%)	9 (13%)	3 (4%)	2	15
27	R5	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
27	Y5	57/60 (95%)	56 (98%)	1 (2%)	0	100	100
28	R6	51/54 (94%)	49 (96%)	2 (4%)	0	100	100
28	Y6	51/54 (94%)	49 (96%)	2 (4%)	0	100	100
29	R7	46/49 (94%)	46 (100%)	0	0	100	100
29	Y7	46/49 (94%)	46 (100%)	0	0	100	100
30	R8	62/65 (95%)	62 (100%)	0	0	100	100
30	Y8	62/65 (95%)	62 (100%)	0	0	100	100
31	R9	35/37 (95%)	35 (100%)	0	0	100	100
31	Y9	35/37 (95%)	35 (100%)	0	0	100	100
33	QB	229/256 (90%)	201 (88%)	24 (10%)	4 (2%)	7	35
33	XB	229/256 (90%)	205 (90%)	19 (8%)	5 (2%)	5	29
34	QC	204/239 (85%)	190 (93%)	14 (7%)	0	100	100
34	XC	204/239 (85%)	189 (93%)	15 (7%)	0	100	100
35	QD	206/209 (99%)	197 (96%)	9 (4%)	0	100	100
35	XD	206/209 (99%)	199 (97%)	7 (3%)	0	100	100
36	QE	146/162 (90%)	144 (99%)	2 (1%)	0	100	100
36	XE	146/162 (90%)	144 (99%)	2 (1%)	0	100	100
37	QF	98/101 (97%)	96 (98%)	2 (2%)	0	100	100
37	XF	98/101 (97%)	96 (98%)	2 (2%)	0	100	100
38	QG	153/156 (98%)	151 (99%)	2 (1%)	0	100	100
38	XG	153/156 (98%)	149 (97%)	3 (2%)	1 (1%)	18	52
39	QH	135/138 (98%)	132 (98%)	3 (2%)	0	100	100
39	XH	135/138 (98%)	132 (98%)	3 (2%)	0	100	100
40	QI	125/128 (98%)	116 (93%)	9 (7%)	0	100	100
40	XI	124/128 (97%)	113 (91%)	9 (7%)	2 (2%)	7	36
41	QJ	95/105 (90%)	83 (87%)	8 (8%)	4 (4%)	2	16

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
41	XJ	94/105 (90%)	84 (89%)	8 (8%)	2 (2%)	5	31
42	QK	112/129 (87%)	105 (94%)	6 (5%)	1 (1%)	14	47
42	XK	112/129 (87%)	106 (95%)	6 (5%)	0	100	100
43	QL	119/132 (90%)	117 (98%)	2 (2%)	0	100	100
43	XL	119/132 (90%)	116 (98%)	3 (2%)	0	100	100
44	QM	114/126 (90%)	105 (92%)	7 (6%)	2 (2%)	6	34
44	XM	112/126 (89%)	105 (94%)	6 (5%)	1 (1%)	14	47
45	QN	58/61 (95%)	56 (97%)	2 (3%)	0	100	100
45	XN	58/61 (95%)	56 (97%)	2 (3%)	0	100	100
46	QO	86/89 (97%)	83 (96%)	3 (4%)	0	100	100
46	XO	86/89 (97%)	82 (95%)	4 (5%)	0	100	100
47	QP	80/88 (91%)	77 (96%)	3 (4%)	0	100	100
47	XP	80/88 (91%)	77 (96%)	3 (4%)	0	100	100
48	QQ	97/105 (92%)	94 (97%)	2 (2%)	1 (1%)	12	45
48	XQ	97/105 (92%)	95 (98%)	2 (2%)	0	100	100
49	QR	66/88 (75%)	66 (100%)	0	0	100	100
49	XR	66/88 (75%)	65 (98%)	1 (2%)	0	100	100
50	QS	81/93 (87%)	78 (96%)	2 (2%)	1 (1%)	10	42
50	XS	81/93 (87%)	77 (95%)	4 (5%)	0	100	100
51	QT	94/106 (89%)	88 (94%)	5 (5%)	1 (1%)	11	43
51	XT	96/106 (91%)	89 (93%)	5 (5%)	2 (2%)	5	31
52	QU	21/27 (78%)	19 (90%)	2 (10%)	0	100	100
52	XU	21/27 (78%)	18 (86%)	2 (10%)	1 (5%)	2	14
55	QY	255/360 (71%)	224 (88%)	17 (7%)	14 (6%)	1	11
55	XY	256/360 (71%)	222 (87%)	25 (10%)	9 (4%)	3	20
All	All	11925/12848 (93%)	11396 (96%)	459 (4%)	70 (1%)	21	56

All (70) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
26	R4	49	PHE
33	QB	16	HIS
33	QB	22	LYS

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Mol	Chain	Res	Type
51	QT	95	ALA
55	QY	215	PRO
55	QY	217	ILE
55	QY	241	ASP
55	QY	306	ARG
55	QY	322	ILE
23	Y1	3	LYS
33	XB	17	PHE
33	XB	20	GLU
33	XB	124	SER
40	XI	44	VAL
40	XI	54	ASP
55	XY	105	PRO
6	RG	51	ARG
14	RS	60	GLY
26	R4	45	GLY
26	R4	47	GLN
26	R4	55	ARG
41	QJ	31	GLY
41	QJ	78	ASN
55	QY	105	PRO
55	QY	121	GLY
55	QY	220	ALA
55	QY	299	GLY
5	YF	21	ALA
6	YG	81	LYS
26	Y4	60	GLN
33	XB	10	LEU
44	XM	67	GLU
51	XT	95	ALA
55	XY	322	ILE
33	QB	17	PHE
41	QJ	79	ARG
33	XB	125	PRO
41	XJ	78	ASN
41	XJ	79	ARG
55	XY	194	GLY
55	XY	303	ARG
55	XY	306	ARG
55	XY	323	ASN
4	RE	52	LEU
42	QK	117	ASN

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Mol	Chain	Res	Type
44	QM	12	ASN
48	QQ	68	ARG
55	QY	329	LEU
55	XY	229	SER
11	RP	29	LYS
23	R1	3	LYS
55	QY	101	LEU
26	Y4	45	GLY
52	XU	7	ARG
33	QB	127	ILE
44	QM	67	GLU
50	QS	12	ASP
55	QY	323	ASN
5	YF	130	ALA
11	YP	29	LYS
26	Y4	55	ARG
38	XG	7	ALA
51	XT	100	ILE
55	XY	241	ASP
55	XY	101	LEU
55	QY	162	ILE
17	RV	79	VAL
41	QJ	77	PRO
55	QY	194	GLY
17	YV	79	VAL

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	RD	214/218 (98%)	207 (97%)	7 (3%)	33	65
3	YD	215/218 (99%)	209 (97%)	6 (3%)	38	68
4	RE	164/166 (99%)	153 (93%)	11 (7%)	15	47
4	YE	164/166 (99%)	152 (93%)	12 (7%)	13	43
5	RF	160/166 (96%)	152 (95%)	8 (5%)	22	55

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
5	YF	159/166 (96%)	150 (94%)	9 (6%)	18	51
6	RG	144/156 (92%)	138 (96%)	6 (4%)	26	60
6	YG	142/156 (91%)	135 (95%)	7 (5%)	22	55
7	RH	144/148 (97%)	144 (100%)	0	100	100
7	YH	143/148 (97%)	134 (94%)	9 (6%)	16	48
8	RI	111/124 (90%)	100 (90%)	11 (10%)	7	31
8	YI	108/124 (87%)	99 (92%)	9 (8%)	10	38
9	RN	119/119 (100%)	111 (93%)	8 (7%)	15	47
9	YN	118/119 (99%)	112 (95%)	6 (5%)	21	54
10	RO	100/100 (100%)	98 (98%)	2 (2%)	48	72
10	YO	100/100 (100%)	97 (97%)	3 (3%)	36	66
11	RP	115/116 (99%)	111 (96%)	4 (4%)	32	64
11	YP	115/116 (99%)	112 (97%)	3 (3%)	40	69
12	RQ	111/111 (100%)	108 (97%)	3 (3%)	39	68
12	YQ	111/111 (100%)	106 (96%)	5 (4%)	24	58
13	RR	101/101 (100%)	94 (93%)	7 (7%)	14	45
13	YR	101/101 (100%)	95 (94%)	6 (6%)	18	50
14	RS	87/88 (99%)	85 (98%)	2 (2%)	44	70
14	YS	85/88 (97%)	84 (99%)	1 (1%)	63	79
15	RT	115/127 (91%)	113 (98%)	2 (2%)	53	75
15	YT	113/127 (89%)	112 (99%)	1 (1%)	70	81
16	RU	93/94 (99%)	90 (97%)	3 (3%)	34	65
16	YU	93/94 (99%)	91 (98%)	2 (2%)	45	71
17	RV	81/82 (99%)	76 (94%)	5 (6%)	16	49
17	YV	80/82 (98%)	77 (96%)	3 (4%)	29	62
18	RW	90/92 (98%)	87 (97%)	3 (3%)	33	65
18	YW	90/92 (98%)	89 (99%)	1 (1%)	65	79
19	RX	77/78 (99%)	76 (99%)	1 (1%)	61	78
19	YX	77/78 (99%)	76 (99%)	1 (1%)	61	78
20	RY	86/91 (94%)	84 (98%)	2 (2%)	44	70
20	YY	86/91 (94%)	85 (99%)	1 (1%)	63	79

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
21	RZ	159/179 (89%)	150 (94%)	9 (6%)	18	51
21	YZ	156/179 (87%)	150 (96%)	6 (4%)	29	62
22	R0	61/67 (91%)	59 (97%)	2 (3%)	33	65
22	Y0	61/67 (91%)	61 (100%)	0	100	100
23	R1	79/83 (95%)	78 (99%)	1 (1%)	61	78
23	Y1	81/83 (98%)	78 (96%)	3 (4%)	30	63
24	R2	65/67 (97%)	63 (97%)	2 (3%)	35	66
24	Y2	66/67 (98%)	63 (96%)	3 (4%)	24	58
25	R3	51/52 (98%)	49 (96%)	2 (4%)	28	62
25	Y3	50/52 (96%)	48 (96%)	2 (4%)	28	61
26	R4	58/63 (92%)	56 (97%)	2 (3%)	32	64
26	Y4	54/63 (86%)	51 (94%)	3 (6%)	19	52
27	R5	51/52 (98%)	48 (94%)	3 (6%)	18	50
27	Y5	50/52 (96%)	47 (94%)	3 (6%)	17	50
28	R6	51/52 (98%)	51 (100%)	0	100	100
28	Y6	50/52 (96%)	50 (100%)	0	100	100
29	R7	41/42 (98%)	38 (93%)	3 (7%)	13	43
29	Y7	41/42 (98%)	39 (95%)	2 (5%)	22	55
30	R8	54/55 (98%)	52 (96%)	2 (4%)	30	63
30	Y8	54/55 (98%)	52 (96%)	2 (4%)	30	63
31	R9	34/34 (100%)	34 (100%)	0	100	100
31	Y9	34/34 (100%)	34 (100%)	0	100	100
33	QB	191/220 (87%)	181 (95%)	10 (5%)	21	54
33	XB	187/220 (85%)	177 (95%)	10 (5%)	20	53
34	QC	144/188 (77%)	143 (99%)	1 (1%)	76	83
34	XC	140/188 (74%)	138 (99%)	2 (1%)	59	77
35	QD	171/181 (94%)	168 (98%)	3 (2%)	51	74
35	XD	172/181 (95%)	168 (98%)	4 (2%)	44	70
36	QE	114/123 (93%)	111 (97%)	3 (3%)	40	69
36	XE	114/123 (93%)	112 (98%)	2 (2%)	51	74
37	QF	85/90 (94%)	85 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
37	XF	85/90 (94%)	84 (99%)	1 (1%)	63	79
38	QG	120/127 (94%)	115 (96%)	5 (4%)	26	60
38	XG	119/127 (94%)	114 (96%)	5 (4%)	26	60
39	QH	116/119 (98%)	114 (98%)	2 (2%)	53	75
39	XH	114/119 (96%)	112 (98%)	2 (2%)	51	74
40	QI	91/99 (92%)	89 (98%)	2 (2%)	45	71
40	XI	88/99 (89%)	83 (94%)	5 (6%)	18	51
41	QJ	68/92 (74%)	67 (98%)	1 (2%)	57	76
41	XJ	68/92 (74%)	66 (97%)	2 (3%)	37	67
42	QK	83/99 (84%)	82 (99%)	1 (1%)	63	79
42	XK	83/99 (84%)	83 (100%)	0	100	100
43	QL	96/108 (89%)	95 (99%)	1 (1%)	68	80
43	XL	96/108 (89%)	95 (99%)	1 (1%)	68	80
44	QM	90/101 (89%)	87 (97%)	3 (3%)	33	65
44	XM	87/101 (86%)	83 (95%)	4 (5%)	24	58
45	QN	49/50 (98%)	47 (96%)	2 (4%)	27	60
45	XN	49/50 (98%)	47 (96%)	2 (4%)	27	60
46	QO	78/80 (98%)	76 (97%)	2 (3%)	40	69
46	XO	78/80 (98%)	76 (97%)	2 (3%)	40	69
47	QP	69/74 (93%)	69 (100%)	0	100	100
47	XP	68/74 (92%)	68 (100%)	0	100	100
48	QQ	94/97 (97%)	92 (98%)	2 (2%)	47	71
48	XQ	94/97 (97%)	92 (98%)	2 (2%)	47	71
49	QR	59/77 (77%)	57 (97%)	2 (3%)	32	64
49	XR	59/77 (77%)	58 (98%)	1 (2%)	53	75
50	QS	68/80 (85%)	65 (96%)	3 (4%)	25	59
50	XS	67/80 (84%)	66 (98%)	1 (2%)	57	76
51	QT	71/82 (87%)	66 (93%)	5 (7%)	14	45
51	XT	70/82 (85%)	68 (97%)	2 (3%)	37	67
52	QU	18/22 (82%)	18 (100%)	0	100	100
52	XU	18/22 (82%)	18 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
55	QY	210/299 (70%)	201 (96%)	9 (4%)	26	59
55	XY	211/299 (71%)	192 (91%)	19 (9%)	9	34
All	All	9765/10662 (92%)	9421 (96%)	344 (4%)	32	64

All (344) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	RD	88	ARG
3	RD	94	LEU
3	RD	111	LEU
3	RD	193	VAL
3	RD	221	VAL
3	RD	257	LEU
3	RD	260	ARG
4	RE	9	VAL
4	RE	75	VAL
4	RE	78	LEU
4	RE	94	GLU
4	RE	111	ARG
4	RE	116	VAL
4	RE	119	ARG
4	RE	144	ARG
4	RE	154	LYS
4	RE	175	VAL
4	RE	184	VAL
5	RF	12	LEU
5	RF	33	LEU
5	RF	74	ARG
5	RF	110	LEU
5	RF	125	LEU
5	RF	168	ARG
5	RF	170	LEU
5	RF	201	VAL
6	RG	7	LEU
6	RG	31	VAL
6	RG	33	ARG
6	RG	43	LEU
6	RG	135	LEU
6	RG	153	ARG
8	RI	10	GLU
8	RI	12	LEU

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Mol	Chain	Res	Type
8	RI	57	ARG
8	RI	60	GLU
8	RI	68	LEU
8	RI	69	LYS
8	RI	77	LEU
8	RI	87	LYS
8	RI	109	ILE
8	RI	116	LEU
8	RI	140	LEU
9	RN	7	LYS
9	RN	33	LEU
9	RN	34	LEU
9	RN	71	ILE
9	RN	87	LEU
9	RN	115	ARG
9	RN	120	LEU
9	RN	131	GLN
10	RO	10	VAL
10	RO	24	VAL
11	RP	3	LEU
11	RP	98	GLU
11	RP	112	LEU
11	RP	119	GLU
12	RQ	21	THR
12	RQ	55	VAL
12	RQ	109	VAL
13	RR	18	LEU
13	RR	44	LEU
13	RR	54	LEU
13	RR	60	LEU
13	RR	65	LEU
13	RR	75	LEU
13	RR	79	LEU
14	RS	59	LYS
14	RS	69	VAL
15	RT	6	LEU
15	RT	35	LYS
16	RU	5	LYS
16	RU	36	ARG
16	RU	92	ARG
17	RV	18	LEU
17	RV	61	VAL

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Mol	Chain	Res	Type
17	RV	62	LEU
17	RV	79	VAL
17	RV	95	LEU
18	RW	4	LYS
18	RW	23	LEU
18	RW	51	LEU
19	RX	66	LEU
20	RY	23	ARG
20	RY	72	VAL
21	RZ	11	GLU
21	RZ	19	ARG
21	RZ	61	LEU
21	RZ	72	ARG
21	RZ	126	VAL
21	RZ	150	LEU
21	RZ	156	LYS
21	RZ	161	VAL
21	RZ	171	ILE
22	R0	11	ARG
22	R0	55	ARG
23	R1	52	ARG
24	R2	32	LEU
24	R2	53	LEU
25	R3	54	VAL
25	R3	60	GLU
26	R4	50	VAL
26	R4	58	ARG
27	R5	6	VAL
27	R5	29	THR
27	R5	60	VAL
29	R7	9	ARG
29	R7	24	THR
29	R7	43	THR
30	R8	14	VAL
30	R8	32	LEU
33	QB	15	VAL
33	QB	16	HIS
33	QB	48	MET
33	QB	95	GLN
33	QB	135	GLN
33	QB	154	LEU
33	QB	155	LEU

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Mol	Chain	Res	Type
33	QB	157	ARG
33	QB	170	GLU
33	QB	187	LEU
34	QC	131	ARG
35	QD	8	VAL
35	QD	31	CYS
35	QD	58	LEU
36	QE	41	VAL
36	QE	68	GLU
36	QE	91	LEU
38	QG	32	ARG
38	QG	57	GLU
38	QG	89	MET
38	QG	104	LEU
38	QG	114	ARG
39	QH	63	LEU
39	QH	127	LEU
40	QI	56	LEU
40	QI	65	VAL
41	QJ	30	SER
42	QK	48	ILE
43	QL	33	ARG
44	QM	3	ARG
44	QM	4	ILE
44	QM	70	LEU
45	QN	18	VAL
45	QN	33	VAL
46	QO	38	ARG
46	QO	39	LEU
48	QQ	6	LEU
48	QQ	74	LEU
49	QR	28	GLU
49	QR	32	ARG
50	QS	41	VAL
50	QS	56	GLN
50	QS	81	ARG
51	QT	10	LEU
51	QT	30	LYS
51	QT	65	LYS
51	QT	84	LEU
51	QT	100	ILE
55	QY	184	VAL

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Mol	Chain	Res	Type
55	QY	187	VAL
55	QY	190	THR
55	QY	193	GLN
55	QY	209	LEU
55	QY	244	ILE
55	QY	329	LEU
55	QY	332	VAL
55	QY	340	LEU
3	YD	61	LEU
3	YD	88	ARG
3	YD	94	LEU
3	YD	221	VAL
3	YD	257	LEU
3	YD	260	ARG
4	YE	9	VAL
4	YE	52	LEU
4	YE	73	GLU
4	YE	75	VAL
4	YE	78	LEU
4	YE	111	ARG
4	YE	116	VAL
4	YE	119	ARG
4	YE	144	ARG
4	YE	154	LYS
4	YE	181	LEU
4	YE	188	VAL
5	YF	33	LEU
5	YF	88	VAL
5	YF	106	ARG
5	YF	110	LEU
5	YF	170	LEU
5	YF	175	THR
5	YF	183	VAL
5	YF	192	LEU
5	YF	201	VAL
6	YG	3	LEU
6	YG	31	VAL
6	YG	33	ARG
6	YG	55	LYS
6	YG	135	LEU
6	YG	136	ARG
6	YG	153	ARG

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Mol	Chain	Res	Type
7	YH	3	ARG
7	YH	7	LEU
7	YH	41	MET
7	YH	46	GLU
7	YH	81	GLU
7	YH	84	SER
7	YH	88	LEU
7	YH	105	LEU
7	YH	136	ILE
8	YI	38	LEU
8	YI	44	LEU
8	YI	50	ARG
8	YI	68	LEU
8	YI	75	LEU
8	YI	77	LEU
8	YI	92	VAL
8	YI	116	LEU
8	YI	140	LEU
9	YN	28	THR
9	YN	34	LEU
9	YN	62	VAL
9	YN	67	LEU
9	YN	87	LEU
9	YN	99	LEU
10	YO	10	VAL
10	YO	24	VAL
10	YO	113	LYS
11	YP	3	LEU
11	YP	70	GLN
11	YP	112	LEU
12	YQ	7	MET
12	YQ	21	THR
12	YQ	56	ARG
12	YQ	79	LEU
12	YQ	109	VAL
13	YR	28	LEU
13	YR	44	LEU
13	YR	65	LEU
13	YR	75	LEU
13	YR	79	LEU
13	YR	100	LEU
14	YS	76	LYS

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Mol	Chain	Res	Type
15	YT	23	ARG
16	YU	13	LYS
16	YU	36	ARG
17	YV	18	LEU
17	YV	53	GLU
17	YV	62	LEU
18	YW	23	LEU
19	YX	90	GLU
20	YY	72	VAL
21	YZ	6	LYS
21	YZ	72	ARG
21	YZ	91	LEU
21	YZ	150	LEU
21	YZ	156	LYS
21	YZ	161	VAL
23	Y1	21	ARG
23	Y1	32	LYS
23	Y1	85	LEU
24	Y2	32	LEU
24	Y2	53	LEU
24	Y2	64	LEU
25	Y3	23	LEU
25	Y3	54	VAL
26	Y4	46	GLN
26	Y4	61	ARG
26	Y4	62	ARG
27	Y5	6	VAL
27	Y5	29	THR
27	Y5	48	GLU
29	Y7	9	ARG
29	Y7	43	THR
30	Y8	14	VAL
30	Y8	32	LEU
33	XB	8	LYS
33	XB	44	LEU
33	XB	76	GLN
33	XB	118	LEU
33	XB	127	ILE
33	XB	155	LEU
33	XB	158	LEU
33	XB	170	GLU
33	XB	187	LEU

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Mol	Chain	Res	Type
33	XB	224	GLN
34	XC	115	LEU
34	XC	152	ILE
35	XD	8	VAL
35	XD	31	CYS
35	XD	58	LEU
35	XD	108	LEU
36	XE	41	VAL
36	XE	47	LYS
37	XF	72	VAL
38	XG	57	GLU
38	XG	76	ARG
38	XG	78	ARG
38	XG	114	ARG
38	XG	144	MET
39	XH	63	LEU
39	XH	112	LEU
40	XI	23	ASN
40	XI	50	LEU
40	XI	65	VAL
40	XI	92	TYR
40	XI	102	LEU
41	XJ	30	SER
41	XJ	38	ILE
43	XL	41	ARG
44	XM	4	ILE
44	XM	32	GLU
44	XM	63	THR
44	XM	70	LEU
45	XN	18	VAL
45	XN	57	ARG
46	XO	48	LYS
46	XO	68	ARG
48	XQ	6	LEU
48	XQ	74	LEU
49	XR	58	LEU
50	XS	27	GLU
51	XT	56	MET
51	XT	84	LEU
55	XY	107	ASP
55	XY	153	GLU
55	XY	184	VAL

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Mol	Chain	Res	Type
55	XY	187	VAL
55	XY	190	THR
55	XY	193	GLN
55	XY	195	ARG
55	XY	197	HIS
55	XY	217	ILE
55	XY	238	ASN
55	XY	253	ILE
55	XY	274	LEU
55	XY	302	ASP
55	XY	305	ASP
55	XY	306	ARG
55	XY	318	THR
55	XY	325	THR
55	XY	326	LEU
55	XY	329	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (59) such sidechains are listed below:

Mol	Chain	Res	Type
3	RD	87	ASN
4	RE	143	ASN
8	RI	104	GLN
10	RO	5	GLN
11	RP	9	ASN
15	RT	84	GLN
16	RU	94	ASN
21	RZ	32	HIS
21	RZ	75	ASN
21	RZ	151	HIS
26	R4	47	GLN
28	R6	20	ASN
28	R6	29	ASN
30	R8	35	GLN
31	R9	20	HIS
34	QC	37	GLN
34	QC	123	GLN
35	QD	160	GLN
37	QF	94	GLN
38	QG	51	GLN
38	QG	56	GLN
38	QG	64	GLN

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Mol	Chain	Res	Type
38	QG	106	GLN
38	QG	110	GLN
40	QI	89	ASN
41	QJ	68	HIS
50	QS	14	HIS
50	QS	57	HIS
51	QT	75	ASN
55	QY	258	GLN
3	YD	87	ASN
7	YH	74	ASN
7	YH	111	HIS
7	YH	158	HIS
9	YN	131	GLN
11	YP	70	GLN
12	YQ	123	HIS
12	YQ	141	GLN
15	YT	84	GLN
16	YU	94	ASN
21	YZ	75	ASN
22	Y0	35	ASN
26	Y4	40	HIS
26	Y4	60	GLN
34	XC	6	HIS
34	XC	108	ASN
36	XE	127	ASN
37	XF	100	ASN
38	XG	64	GLN
38	XG	86	GLN
38	XG	148	ASN
40	XI	23	ASN
40	XI	124	GLN
41	XJ	69	ASN
46	XO	62	GLN
47	XP	14	ASN
48	XQ	26	GLN
50	XS	23	ASN
50	XS	69	HIS

5.3.3 RNA ⓘ

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	RA	2858/2915 (98%)	441 (15%)	27 (0%)
1	YA	2858/2915 (98%)	438 (15%)	25 (0%)
2	RB	119/122 (97%)	9 (7%)	0
2	YB	119/122 (97%)	10 (8%)	0
32	QA	1497/1521 (98%)	232 (15%)	16 (1%)
32	XA	1501/1521 (98%)	229 (15%)	19 (1%)
53	QV	76/77 (98%)	15 (19%)	0
53	XV	76/77 (98%)	15 (19%)	1 (1%)
54	QX	9/25 (36%)	2 (22%)	0
54	XX	8/25 (32%)	3 (37%)	0
All	All	9121/9320 (97%)	1394 (15%)	88 (0%)

All (1394) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	RA	10	G
1	RA	11	G
1	RA	12	U
1	RA	15	G
1	RA	45	C
1	RA	71	A
1	RA	74	A
1	RA	75	G
1	RA	84	A
1	RA	92	A
1	RA	95	G
1	RA	102	G
1	RA	118	A
1	RA	119	A
1	RA	120	U
1	RA	131	G
1	RA	141	A
1	RA	157	U
1	RA	196	A
1	RA	199	A
1	RA	205	G
1	RA	215	G
1	RA	216	A
1	RA	221	A
1	RA	222	A
1	RA	229	A

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Mol	Chain	Res	Type
1	RA	230	U
1	RA	248	G
1	RA	272(K)	U
1	RA	272(L)	U
1	RA	272(M)	G
1	RA	272(N)	U
1	RA	272(O)	C
1	RA	273(B)	U
1	RA	273(C)	G
1	RA	273(K)	C
1	RA	277	C
1	RA	278	A
1	RA	279	C
1	RA	311	A
1	RA	317	G
1	RA	324	A
1	RA	327	G
1	RA	329	G
1	RA	330	A
1	RA	342	G
1	RA	352	G
1	RA	362	U
1	RA	363(A)	G
1	RA	372	G
1	RA	386	G
1	RA	396	G
1	RA	405	U
1	RA	411	G
1	RA	412	A
1	RA	428	A
1	RA	444	C
1	RA	455	C
1	RA	456	C
1	RA	457	A
1	RA	470	A
1	RA	481	G
1	RA	505	A
1	RA	509	C
1	RA	530	G
1	RA	531	C
1	RA	532	A
1	RA	533	G

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Mol	Chain	Res	Type
1	RA	545	G
1	RA	563	G
1	RA	573	G
1	RA	575	A
1	RA	586	A
1	RA	603	A
1	RA	604	G
1	RA	607	U
1	RA	610	G
1	RA	615	G
1	RA	627	A
1	RA	634	C
1	RA	637	A
1	RA	645	C
1	RA	646	A
1	RA	652(C)	A
1	RA	652(D)	G
1	RA	652(V)	G
1	RA	653	A
1	RA	669	G
1	RA	686	G
1	RA	715	G
1	RA	717	G
1	RA	730	C
1	RA	752	A
1	RA	753	C
1	RA	764	A
1	RA	775	G
1	RA	776	G
1	RA	782	A
1	RA	784	A
1	RA	785	G
1	RA	792	G
1	RA	805	G
1	RA	812	C
1	RA	827	U
1	RA	828	U
1	RA	857	C
1	RA	859	G
1	RA	877	U
1	RA	880	G
1	RA	886	C

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Mol	Chain	Res	Type
1	RA	887	A
1	RA	888	C
1	RA	889	C
1	RA	890	A
1	RA	893	C
1	RA	896	A
1	RA	900	A
1	RA	901	A
1	RA	907	U
1	RA	910	A
1	RA	915	C
1	RA	917	A
1	RA	931	G
1	RA	932	G
1	RA	941	A
1	RA	945	A
1	RA	946	G
1	RA	953	A
1	RA	959	A
1	RA	961	C
1	RA	974	G
1	RA	975(A)	C
1	RA	980	A
1	RA	983	A
1	RA	996	A
1	RA	1012	U
1	RA	1013	C
1	RA	1017	G
1	RA	1025	G
1	RA	1033	U
1	RA	1038	C
1	RA	1044	G
1	RA	1046	A
1	RA	1047	G
1	RA	1048	A
1	RA	1052	C
1	RA	1053	C
1	RA	1054	A
1	RA	1058	G
1	RA	1060	U
1	RA	1063	G
1	RA	1064	C

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Mol	Chain	Res	Type
1	RA	1065	U
1	RA	1066	U
1	RA	1067	A
1	RA	1068	G
1	RA	1069	A
1	RA	1070	A
1	RA	1071	G
1	RA	1072	C
1	RA	1073	A
1	RA	1074	G
1	RA	1076	C
1	RA	1077	A
1	RA	1078	U
1	RA	1079	C
1	RA	1082	U
1	RA	1083	U
1	RA	1084	A
1	RA	1085	A
1	RA	1086	A
1	RA	1088	A
1	RA	1090	U
1	RA	1091	G
1	RA	1092	C
1	RA	1094	U
1	RA	1096	A
1	RA	1098	A
1	RA	1109	C
1	RA	1110	G
1	RA	1111	A
1	RA	1112	G
1	RA	1126	A
1	RA	1130	U
1	RA	1135	C
1	RA	1136	G
1	RA	1142(B)	A
1	RA	1171	G
1	RA	1206	G
1	RA	1211	U
1	RA	1212	G
1	RA	1220	A
1	RA	1236	G
1	RA	1253	A

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Mol	Chain	Res	Type
1	RA	1256	G
1	RA	1271	G
1	RA	1272	A
1	RA	1273	U
1	RA	1300	U
1	RA	1301	A
1	RA	1314	C
1	RA	1352	U
1	RA	1359	A
1	RA	1360	A
1	RA	1365	A
1	RA	1368	G
1	RA	1380	G
1	RA	1384	A
1	RA	1385	G
1	RA	1416	G
1	RA	1417	C
1	RA	1420	U
1	RA	1421	G
1	RA	1428	C
1	RA	1445(A)	A
1	RA	1450(A)	G
1	RA	1455	G
1	RA	1459	G
1	RA	1467	C
1	RA	1471	A
1	RA	1482	G
1	RA	1493	C
1	RA	1494	A
1	RA	1497	U
1	RA	1508	A
1	RA	1509(A)	C
1	RA	1509(B)	A
1	RA	1531	C
1	RA	1542	A
1	RA	1543	C
1	RA	1547	C
1	RA	1558	A
1	RA	1559	G
1	RA	1566	A
1	RA	1569	A
1	RA	1578	U

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Mol	Chain	Res	Type
1	RA	1580	A
1	RA	1584	C
1	RA	1586	A
1	RA	1608	A
1	RA	1609	A
1	RA	1610	A
1	RA	1640	C
1	RA	1648	C
1	RA	1674	G
1	RA	1696	G
1	RA	1700	A
1	RA	1701	A
1	RA	1721	G
1	RA	1722	A
1	RA	1740	G
1	RA	1750	G
1	RA	1756	G
1	RA	1762	A
1	RA	1763	G
1	RA	1764	G
1	RA	1773	A
1	RA	1780	A
1	RA	1786	A
1	RA	1791	A
1	RA	1800	C
1	RA	1801	G
1	RA	1812	A
1	RA	1816	G
1	RA	1835	G
1	RA	1847	A
1	RA	1848	A
1	RA	1877	A
1	RA	1878	G
1	RA	1900	A
1	RA	1906	G
1	RA	1914	C
1	RA	1915	5MU
1	RA	1927	A
1	RA	1929	G
1	RA	1930	G
1	RA	1936	A
1	RA	1938	A

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Mol	Chain	Res	Type
1	RA	1955	U
1	RA	1963	U
1	RA	1967	C
1	RA	1970	A
1	RA	1971	A
1	RA	1972	A
1	RA	1975	G
1	RA	1993	U
1	RA	1997	G
1	RA	2023	G
1	RA	2031	A
1	RA	2032	G
1	RA	2033	A
1	RA	2043	C
1	RA	2055	C
1	RA	2056	G
1	RA	2060	A
1	RA	2061	G
1	RA	2062	A
1	RA	2069	G
1	RA	2096	U
1	RA	2099	U
1	RA	2103	C
1	RA	2105	C
1	RA	2107	C
1	RA	2108	C
1	RA	2109	U
1	RA	2112	G
1	RA	2115	G
1	RA	2116	G
1	RA	2117	A
1	RA	2118	U
1	RA	2119	A
1	RA	2121	G
1	RA	2123	G
1	RA	2127	G
1	RA	2129	C
1	RA	2131	G
1	RA	2132	U
1	RA	2133	G
1	RA	2134	A
1	RA	2136	C

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Mol	Chain	Res	Type
1	RA	2138	C
1	RA	2145	C
1	RA	2146	C
1	RA	2147	G
1	RA	2148	G
1	RA	2151	G
1	RA	2158	A
1	RA	2159	G
1	RA	2161	C
1	RA	2163	C
1	RA	2165	G
1	RA	2172	U
1	RA	2173	A
1	RA	2180	U
1	RA	2186	G
1	RA	2189	U
1	RA	2192	G
1	RA	2198	A
1	RA	2206	G
1	RA	2207	G
1	RA	2208	A
1	RA	2218	U
1	RA	2225	A
1	RA	2238	G
1	RA	2239	G
1	RA	2269	A
1	RA	2275	C
1	RA	2278	A
1	RA	2283	C
1	RA	2287	A
1	RA	2289	G
1	RA	2291	U
1	RA	2305	A
1	RA	2308	G
1	RA	2311	A
1	RA	2312	U
1	RA	2320	A
1	RA	2321	G
1	RA	2322	A
1	RA	2325	G
1	RA	2334	G
1	RA	2335	A

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Mol	Chain	Res	Type
1	RA	2343	C
1	RA	2347	C
1	RA	2350	C
1	RA	2372	G
1	RA	2379	G
1	RA	2383	G
1	RA	2385	C
1	RA	2406	U
1	RA	2410	G
1	RA	2422	A
1	RA	2424	C
1	RA	2425	A
1	RA	2429	G
1	RA	2430	A
1	RA	2434	A
1	RA	2435	A
1	RA	2439	A
1	RA	2441	C
1	RA	2448	A
1	RA	2465	C
1	RA	2466	C
1	RA	2474	C
1	RA	2476	A
1	RA	2478	A
1	RA	2502	G
1	RA	2505	G
1	RA	2506	U
1	RA	2518	A
1	RA	2527	C
1	RA	2529	G
1	RA	2554	U
1	RA	2555	U
1	RA	2566	A
1	RA	2567	G
1	RA	2573	C
1	RA	2574	G
1	RA	2602	A
1	RA	2603	G
1	RA	2609	U
1	RA	2611	U
1	RA	2612	C
1	RA	2615	U

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Mol	Chain	Res	Type
1	RA	2629	A
1	RA	2630	G
1	RA	2654	A
1	RA	2663	G
1	RA	2689	U
1	RA	2690	C
1	RA	2703	C
1	RA	2712(B)	A
1	RA	2713	A
1	RA	2714	G
1	RA	2726	U
1	RA	2732	G
1	RA	2733	A
1	RA	2744	G
1	RA	2751	G
1	RA	2757	A
1	RA	2758	A
1	RA	2759	G
1	RA	2764	A
1	RA	2765	A
1	RA	2766	G
1	RA	2769	C
1	RA	2778	A
1	RA	2780	G
1	RA	2811	G
1	RA	2818	G
1	RA	2820	A
1	RA	2821	A
1	RA	2833	G
1	RA	2849	U
1	RA	2872	G
1	RA	2873	A
1	RA	2880	C
1	RA	2886	G
1	RA	2892	A
1	RA	2894	G
1	RA	2897	U
2	RB	2	C
2	RB	9	G
2	RB	13	A
2	RB	30	C
2	RB	56	G

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Mol	Chain	Res	Type
2	RB	73	A
2	RB	84	C
2	RB	106	G
2	RB	110	G
32	QA	5	U
32	QA	7	G
32	QA	9	G
32	QA	32	A
32	QA	39	G
32	QA	47	C
32	QA	48	C
32	QA	50	A
32	QA	51	A
32	QA	61	G
32	QA	79	G
32	QA	101	A
32	QA	116	A
32	QA	121	C
32	QA	131	C
32	QA	163	C
32	QA	174	C
32	QA	182	U
32	QA	189(F)	U
32	QA	195	A
32	QA	197	A
32	QA	202	U
32	QA	203	U
32	QA	204	U
32	QA	216	G
32	QA	247	G
32	QA	251	G
32	QA	266	G
32	QA	267	C
32	QA	289	G
32	QA	318	G
32	QA	321	A
32	QA	328	C
32	QA	332	G
32	QA	345	C
32	QA	347	G
32	QA	348	G
32	QA	352	C

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Mol	Chain	Res	Type
32	QA	353	A
32	QA	354	G
32	QA	367	U
32	QA	372	C
32	QA	373	A
32	QA	384	G
32	QA	397	A
32	QA	398	C
32	QA	406	G
32	QA	412	A
32	QA	413	G
32	QA	423	G
32	QA	424	G
32	QA	429	U
32	QA	439	A
32	QA	442	C
32	QA	452	A
32	QA	458	C
32	QA	461	A
32	QA	470	C
32	QA	485	G
32	QA	496	A
32	QA	498	U
32	QA	505	G
32	QA	509	A
32	QA	510	A
32	QA	511	C
32	QA	518	C
32	QA	521	G
32	QA	527	7MG
32	QA	532	A
32	QA	547	A
32	QA	559	A
32	QA	561	U
32	QA	564	C
32	QA	572	A
32	QA	573	A
32	QA	575	G
32	QA	576	G
32	QA	577	G
32	QA	592	G
32	QA	596	C

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Mol	Chain	Res	Type
32	QA	619	U
32	QA	630	G
32	QA	631	G
32	QA	632	A
32	QA	653	A
32	QA	661	G
32	QA	665	A
32	QA	687	A
32	QA	688	G
32	QA	695	A
32	QA	721	G
32	QA	723	U
32	QA	731	G
32	QA	753	A
32	QA	755	G
32	QA	774	G
32	QA	777	A
32	QA	787	A
32	QA	792	A
32	QA	793	U
32	QA	794	A
32	QA	817	C
32	QA	818	G
32	QA	821	G
32	QA	828	A
32	QA	829	G
32	QA	838	G
32	QA	839	U
32	QA	840	C
32	QA	841	U
32	QA	848	C
32	QA	851	G
32	QA	902	G
32	QA	914	A
32	QA	926	G
32	QA	927	G
32	QA	931	C
32	QA	934	C
32	QA	942	G
32	QA	960	U
32	QA	961	U
32	QA	968	A

Continued on next page...

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Mol	Chain	Res	Type
32	QA	969	A
32	QA	971	G
32	QA	972	C
32	QA	974	A
32	QA	975	A
32	QA	976	G
32	QA	977	A
32	QA	992	U
32	QA	993	G
32	QA	994	A
32	QA	998	G
32	QA	1002	G
32	QA	1003	G
32	QA	1006	C
32	QA	1009	G
32	QA	1020	U
32	QA	1022	G
32	QA	1023	G
32	QA	1024	G
32	QA	1025	U
32	QA	1026	G
32	QA	1027	C
32	QA	1028	C
32	QA	1029	C
32	QA	1030(B)	G
32	QA	1030(C)	C
32	QA	1030(E)	A
32	QA	1032	G
32	QA	1033	G
32	QA	1037	C
32	QA	1042	G
32	QA	1044	A
32	QA	1054	C
32	QA	1065	U
32	QA	1066	C
32	QA	1068	G
32	QA	1081	G
32	QA	1094	G
32	QA	1095	U
32	QA	1101	A
32	QA	1125	U
32	QA	1130	A

Continued on next page...

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Mol	Chain	Res	Type
32	QA	1134	G
32	QA	1136	U
32	QA	1139	G
32	QA	1140	C
32	QA	1152	A
32	QA	1158	C
32	QA	1159	U
32	QA	1166	G
32	QA	1183	A
32	QA	1184	G
32	QA	1196	U
32	QA	1197	G
32	QA	1202	G
32	QA	1208	C
32	QA	1213	A
32	QA	1224	G
32	QA	1227	A
32	QA	1238	A
32	QA	1250	A
32	QA	1256	A
32	QA	1257	U
32	QA	1258	G
32	QA	1270	C
32	QA	1278	U
32	QA	1280	A
32	QA	1281	U
32	QA	1282	C
32	QA	1286	A
32	QA	1287	A
32	QA	1299	A
32	QA	1300	G
32	QA	1302	U
32	QA	1305	G
32	QA	1312	G
32	QA	1320	C
32	QA	1338	G
32	QA	1340	A
32	QA	1347	G
32	QA	1353	G
32	QA	1363(A)	C
32	QA	1364	U
32	QA	1370	G

Continued on next page...

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Mol	Chain	Res	Type
32	QA	1394	A
32	QA	1397	C
32	QA	1399	C
32	QA	1401	G
32	QA	1402	4OC
32	QA	1419	G
32	QA	1442(A)	G
32	QA	1442(B)	G
32	QA	1446	U
32	QA	1447	A
32	QA	1452	C
32	QA	1487	G
32	QA	1492	A
32	QA	1493	A
32	QA	1497	G
32	QA	1499	A
32	QA	1503	A
32	QA	1504	G
32	QA	1506	U
32	QA	1517	G
32	QA	1519	MA6
32	QA	1520	G
32	QA	1525	G
32	QA	1529	G
32	QA	1530	G
32	QA	1531	A
53	QV	2	G
53	QV	4	G
53	QV	5	G
53	QV	9	G
53	QV	17(A)	U
53	QV	18	G
53	QV	19	G
53	QV	21	A
53	QV	31	G
53	QV	47	U
53	QV	48	C
53	QV	52	G
53	QV	53	G
53	QV	54	U
53	QV	76	A
54	QX	21	A

Continued on next page...

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Mol	Chain	Res	Type
54	QX	22	C
1	YA	10	G
1	YA	11	G
1	YA	12	U
1	YA	15	G
1	YA	45	C
1	YA	71	A
1	YA	74	A
1	YA	75	G
1	YA	84	A
1	YA	92	A
1	YA	95	G
1	YA	102	G
1	YA	118	A
1	YA	119	A
1	YA	120	U
1	YA	131	G
1	YA	141	A
1	YA	157	U
1	YA	196	A
1	YA	199	A
1	YA	205	G
1	YA	215	G
1	YA	216	A
1	YA	221	A
1	YA	222	A
1	YA	229	A
1	YA	230	U
1	YA	248	G
1	YA	272(K)	U
1	YA	272(L)	U
1	YA	272(M)	G
1	YA	272(N)	U
1	YA	272(O)	C
1	YA	273(B)	U
1	YA	273(C)	G
1	YA	273(K)	C
1	YA	277	C
1	YA	278	A
1	YA	279	C
1	YA	311	A
1	YA	317	G

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Mol	Chain	Res	Type
1	YA	324	A
1	YA	327	G
1	YA	329	G
1	YA	330	A
1	YA	342	G
1	YA	352	G
1	YA	362	U
1	YA	363(A)	G
1	YA	372	G
1	YA	386	G
1	YA	396	G
1	YA	405	U
1	YA	411	G
1	YA	412	A
1	YA	428	A
1	YA	444	C
1	YA	455	C
1	YA	456	C
1	YA	457	A
1	YA	470	A
1	YA	481	G
1	YA	505	A
1	YA	509	C
1	YA	530	G
1	YA	531	C
1	YA	532	A
1	YA	533	G
1	YA	545	G
1	YA	563	G
1	YA	573	G
1	YA	575	A
1	YA	586	A
1	YA	603	A
1	YA	604	G
1	YA	607	U
1	YA	610	G
1	YA	615	G
1	YA	627	A
1	YA	634	C
1	YA	637	A
1	YA	645	C
1	YA	646	A

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Mol	Chain	Res	Type
1	YA	652(C)	A
1	YA	652(D)	G
1	YA	652(V)	G
1	YA	653	A
1	YA	669	G
1	YA	686	G
1	YA	715	G
1	YA	717	G
1	YA	730	C
1	YA	752	A
1	YA	753	C
1	YA	764	A
1	YA	775	G
1	YA	776	G
1	YA	782	A
1	YA	784	A
1	YA	785	G
1	YA	792	G
1	YA	805	G
1	YA	811	U
1	YA	812	C
1	YA	827	U
1	YA	828	U
1	YA	857	C
1	YA	859	G
1	YA	877	U
1	YA	880	G
1	YA	886	C
1	YA	887	A
1	YA	888	C
1	YA	889	C
1	YA	890	A
1	YA	893	C
1	YA	896	A
1	YA	900	A
1	YA	901	A
1	YA	907	U
1	YA	910	A
1	YA	915	C
1	YA	917	A
1	YA	931	G
1	YA	932	G

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Mol	Chain	Res	Type
1	YA	941	A
1	YA	945	A
1	YA	946	G
1	YA	953	A
1	YA	959	A
1	YA	961	C
1	YA	974	G
1	YA	975(A)	C
1	YA	980	A
1	YA	983	A
1	YA	996	A
1	YA	1012	U
1	YA	1013	C
1	YA	1017	G
1	YA	1025	G
1	YA	1033	U
1	YA	1038	C
1	YA	1046	A
1	YA	1047	G
1	YA	1048	A
1	YA	1052	C
1	YA	1053	C
1	YA	1054	A
1	YA	1058	G
1	YA	1060	U
1	YA	1063	G
1	YA	1064	C
1	YA	1065	U
1	YA	1066	U
1	YA	1067	A
1	YA	1068	G
1	YA	1069	A
1	YA	1070	A
1	YA	1071	G
1	YA	1073	A
1	YA	1074	G
1	YA	1076	C
1	YA	1077	A
1	YA	1078	U
1	YA	1079	C
1	YA	1082	U
1	YA	1083	U

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Mol	Chain	Res	Type
1	YA	1084	A
1	YA	1085	A
1	YA	1086	A
1	YA	1088	A
1	YA	1090	U
1	YA	1091	G
1	YA	1092	C
1	YA	1094	U
1	YA	1096	A
1	YA	1097	U
1	YA	1098	A
1	YA	1109	C
1	YA	1110	G
1	YA	1111	A
1	YA	1112	G
1	YA	1126	A
1	YA	1130	U
1	YA	1135	C
1	YA	1136	G
1	YA	1142(B)	A
1	YA	1171	G
1	YA	1206	G
1	YA	1212	G
1	YA	1220	A
1	YA	1236	G
1	YA	1253	A
1	YA	1256	G
1	YA	1271	G
1	YA	1272	A
1	YA	1273	U
1	YA	1300	U
1	YA	1301	A
1	YA	1314	C
1	YA	1352	U
1	YA	1359	A
1	YA	1360	A
1	YA	1365	A
1	YA	1368	G
1	YA	1380	G
1	YA	1384	A
1	YA	1385	G
1	YA	1416	G

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Mol	Chain	Res	Type
1	YA	1417	C
1	YA	1420	U
1	YA	1421	G
1	YA	1428	C
1	YA	1445(A)	A
1	YA	1450(A)	G
1	YA	1455	G
1	YA	1459	G
1	YA	1467	C
1	YA	1471	A
1	YA	1482	G
1	YA	1493	C
1	YA	1494	A
1	YA	1497	U
1	YA	1508	A
1	YA	1509(A)	C
1	YA	1509(B)	A
1	YA	1531	C
1	YA	1542	A
1	YA	1543	C
1	YA	1547	C
1	YA	1558	A
1	YA	1559	G
1	YA	1566	A
1	YA	1569	A
1	YA	1578	U
1	YA	1580	A
1	YA	1584	C
1	YA	1586	A
1	YA	1608	A
1	YA	1609	A
1	YA	1610	A
1	YA	1640	C
1	YA	1648	C
1	YA	1674	G
1	YA	1696	G
1	YA	1700	A
1	YA	1701	A
1	YA	1721	G
1	YA	1722	A
1	YA	1750	G
1	YA	1756	G

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Mol	Chain	Res	Type
1	YA	1762	A
1	YA	1763	G
1	YA	1764	G
1	YA	1773	A
1	YA	1780	A
1	YA	1786	A
1	YA	1791	A
1	YA	1800	C
1	YA	1801	G
1	YA	1812	A
1	YA	1816	G
1	YA	1835	G
1	YA	1847	A
1	YA	1848	A
1	YA	1877	A
1	YA	1878	G
1	YA	1900	A
1	YA	1906	G
1	YA	1914	C
1	YA	1915	5MU
1	YA	1927	A
1	YA	1929	G
1	YA	1930	G
1	YA	1936	A
1	YA	1938	A
1	YA	1955	U
1	YA	1963	U
1	YA	1967	C
1	YA	1970	A
1	YA	1971	A
1	YA	1972	A
1	YA	1975	G
1	YA	1993	U
1	YA	1997	G
1	YA	2023	G
1	YA	2031	A
1	YA	2032	G
1	YA	2033	A
1	YA	2043	C
1	YA	2055	C
1	YA	2056	G
1	YA	2060	A

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Mol	Chain	Res	Type
1	YA	2061	G
1	YA	2062	A
1	YA	2069	G
1	YA	2096	U
1	YA	2099	U
1	YA	2103	C
1	YA	2104	G
1	YA	2105	C
1	YA	2107	C
1	YA	2108	C
1	YA	2109	U
1	YA	2112	G
1	YA	2115	G
1	YA	2116	G
1	YA	2117	A
1	YA	2118	U
1	YA	2119	A
1	YA	2121	G
1	YA	2123	G
1	YA	2127	G
1	YA	2128	C
1	YA	2129	C
1	YA	2131	G
1	YA	2132	U
1	YA	2133	G
1	YA	2134	A
1	YA	2136	C
1	YA	2138	C
1	YA	2145	C
1	YA	2146	C
1	YA	2147	G
1	YA	2148	G
1	YA	2151	G
1	YA	2158	A
1	YA	2159	G
1	YA	2161	C
1	YA	2163	C
1	YA	2165	G
1	YA	2172	U
1	YA	2173	A
1	YA	2180	U
1	YA	2186	G

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Mol	Chain	Res	Type
1	YA	2189	U
1	YA	2192	G
1	YA	2198	A
1	YA	2206	G
1	YA	2207	G
1	YA	2208	A
1	YA	2218	U
1	YA	2225	A
1	YA	2238	G
1	YA	2239	G
1	YA	2269	A
1	YA	2275	C
1	YA	2278	A
1	YA	2283	C
1	YA	2287	A
1	YA	2289	G
1	YA	2291	U
1	YA	2305	A
1	YA	2308	G
1	YA	2312	U
1	YA	2320	A
1	YA	2321	G
1	YA	2322	A
1	YA	2325	G
1	YA	2334	G
1	YA	2335	A
1	YA	2343	C
1	YA	2347	C
1	YA	2350	C
1	YA	2372	G
1	YA	2379	G
1	YA	2383	G
1	YA	2385	C
1	YA	2406	U
1	YA	2410	G
1	YA	2422	A
1	YA	2425	A
1	YA	2429	G
1	YA	2430	A
1	YA	2434	A
1	YA	2435	A
1	YA	2439	A

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Mol	Chain	Res	Type
1	YA	2441	C
1	YA	2448	A
1	YA	2465	C
1	YA	2466	C
1	YA	2474	C
1	YA	2476	A
1	YA	2478	A
1	YA	2502	G
1	YA	2505	G
1	YA	2506	U
1	YA	2518	A
1	YA	2527	C
1	YA	2529	G
1	YA	2554	U
1	YA	2555	U
1	YA	2566	A
1	YA	2567	G
1	YA	2573	C
1	YA	2602	A
1	YA	2609	U
1	YA	2611	U
1	YA	2612	C
1	YA	2615	U
1	YA	2629	A
1	YA	2630	G
1	YA	2654	A
1	YA	2663	G
1	YA	2689	U
1	YA	2690	C
1	YA	2702	U
1	YA	2703	C
1	YA	2712(B)	A
1	YA	2713	A
1	YA	2714	G
1	YA	2726	U
1	YA	2732	G
1	YA	2733	A
1	YA	2744	G
1	YA	2751	G
1	YA	2757	A
1	YA	2758	A
1	YA	2759	G

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Mol	Chain	Res	Type
1	YA	2764	A
1	YA	2765	A
1	YA	2766	G
1	YA	2769	C
1	YA	2778	A
1	YA	2780	G
1	YA	2811	G
1	YA	2818	G
1	YA	2820	A
1	YA	2821	A
1	YA	2833	G
1	YA	2849	U
1	YA	2872	G
1	YA	2873	A
1	YA	2880	C
1	YA	2886	G
1	YA	2892	A
1	YA	2894	G
1	YA	2897	U
2	YB	2	C
2	YB	8	U
2	YB	9	G
2	YB	13	A
2	YB	30	C
2	YB	56	G
2	YB	73	A
2	YB	84	C
2	YB	106	G
2	YB	110	G
32	XA	5	U
32	XA	7	G
32	XA	9	G
32	XA	32	A
32	XA	39	G
32	XA	47	C
32	XA	48	C
32	XA	50	A
32	XA	51	A
32	XA	61	G
32	XA	66	G
32	XA	88	A
32	XA	89	C

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Mol	Chain	Res	Type
32	XA	101	A
32	XA	116	A
32	XA	121	C
32	XA	131	C
32	XA	156	G
32	XA	163	C
32	XA	174	C
32	XA	182	U
32	XA	189(F)	U
32	XA	195	A
32	XA	197	A
32	XA	202	U
32	XA	203	U
32	XA	204	U
32	XA	216	G
32	XA	247	G
32	XA	251	G
32	XA	266	G
32	XA	267	C
32	XA	289	G
32	XA	318	G
32	XA	321	A
32	XA	328	C
32	XA	332	G
32	XA	348	G
32	XA	350	G
32	XA	352	C
32	XA	353	A
32	XA	354	G
32	XA	367	U
32	XA	372	C
32	XA	373	A
32	XA	384	G
32	XA	397	A
32	XA	398	C
32	XA	406	G
32	XA	412	A
32	XA	413	G
32	XA	424	G
32	XA	429	U
32	XA	439	A
32	XA	442	C

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Mol	Chain	Res	Type
32	XA	452	A
32	XA	458	C
32	XA	461	A
32	XA	470	C
32	XA	485	G
32	XA	496	A
32	XA	498	U
32	XA	505	G
32	XA	509	A
32	XA	510	A
32	XA	511	C
32	XA	518	C
32	XA	521	G
32	XA	527	7MG
32	XA	532	A
32	XA	533	A
32	XA	547	A
32	XA	559	A
32	XA	561	U
32	XA	564	C
32	XA	572	A
32	XA	573	A
32	XA	575	G
32	XA	576	G
32	XA	577	G
32	XA	592	G
32	XA	596	C
32	XA	630	G
32	XA	631	G
32	XA	632	A
32	XA	653	A
32	XA	661	G
32	XA	665	A
32	XA	687	A
32	XA	688	G
32	XA	695	A
32	XA	721	G
32	XA	723	U
32	XA	731	G
32	XA	749	C
32	XA	753	A
32	XA	755	G

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Mol	Chain	Res	Type
32	XA	774	G
32	XA	777	A
32	XA	787	A
32	XA	792	A
32	XA	793	U
32	XA	794	A
32	XA	817	C
32	XA	818	G
32	XA	821	G
32	XA	828	A
32	XA	829	G
32	XA	840	C
32	XA	841	U
32	XA	848	C
32	XA	851	G
32	XA	902	G
32	XA	914	A
32	XA	926	G
32	XA	927	G
32	XA	931	C
32	XA	934	C
32	XA	942	G
32	XA	960	U
32	XA	961	U
32	XA	968	A
32	XA	969	A
32	XA	971	G
32	XA	972	C
32	XA	974	A
32	XA	975	A
32	XA	976	G
32	XA	977	A
32	XA	992	U
32	XA	993	G
32	XA	994	A
32	XA	999	C
32	XA	1003	G
32	XA	1004	A
32	XA	1005	A
32	XA	1006	C
32	XA	1009	G
32	XA	1020	U

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Mol	Chain	Res	Type
32	XA	1022	G
32	XA	1023	G
32	XA	1025	U
32	XA	1026	G
32	XA	1027	C
32	XA	1028	C
32	XA	1029	C
32	XA	1030(B)	G
32	XA	1030(C)	C
32	XA	1033	G
32	XA	1036	G
32	XA	1041	A
32	XA	1044	A
32	XA	1054	C
32	XA	1055	A
32	XA	1065	U
32	XA	1066	C
32	XA	1068	G
32	XA	1081	G
32	XA	1094	G
32	XA	1095	U
32	XA	1101	A
32	XA	1117	G
32	XA	1125	U
32	XA	1129	C
32	XA	1130	A
32	XA	1136	U
32	XA	1137	C
32	XA	1138	G
32	XA	1139	G
32	XA	1140	C
32	XA	1147	C
32	XA	1152	A
32	XA	1159	U
32	XA	1183	A
32	XA	1184	G
32	XA	1196	U
32	XA	1197	G
32	XA	1211	U
32	XA	1212	U
32	XA	1213	A
32	XA	1224	G

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Mol	Chain	Res	Type
32	XA	1227	A
32	XA	1236	A
32	XA	1238	A
32	XA	1250	A
32	XA	1256	A
32	XA	1257	U
32	XA	1258	G
32	XA	1278	U
32	XA	1279	A
32	XA	1280	A
32	XA	1281	U
32	XA	1286	A
32	XA	1287	A
32	XA	1300	G
32	XA	1305	G
32	XA	1320	C
32	XA	1340	A
32	XA	1347	G
32	XA	1353	G
32	XA	1363(A)	C
32	XA	1364	U
32	XA	1370	G
32	XA	1394	A
32	XA	1397	C
32	XA	1399	C
32	XA	1401	G
32	XA	1402	4OC
32	XA	1419	G
32	XA	1442(A)	G
32	XA	1442(B)	G
32	XA	1446	U
32	XA	1447	A
32	XA	1452	C
32	XA	1487	G
32	XA	1492	A
32	XA	1493	A
32	XA	1497	G
32	XA	1499	A
32	XA	1503	A
32	XA	1504	G
32	XA	1506	U
32	XA	1517	G

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Mol	Chain	Res	Type
32	XA	1519	MA6
32	XA	1520	G
32	XA	1525	G
32	XA	1529	G
32	XA	1530	G
32	XA	1531	A
53	XV	2	G
53	XV	4	G
53	XV	5	G
53	XV	9	G
53	XV	17(A)	U
53	XV	18	G
53	XV	19	G
53	XV	21	A
53	XV	31	G
53	XV	47	U
53	XV	48	C
53	XV	52	G
53	XV	53	G
53	XV	54	U
53	XV	76	A
54	XX	15	A
54	XX	21	A
54	XX	22	C

All (88) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	RA	9	U
1	RA	196	A
1	RA	272(M)	G
1	RA	277	C
1	RA	752	A
1	RA	856	C
1	RA	900	A
1	RA	1047	G
1	RA	1053	C
1	RA	1057	A
1	RA	1065	U
1	RA	1067	A
1	RA	1073	A
1	RA	1076	C

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Mol	Chain	Res	Type
1	RA	1210	A
1	RA	1379	A
1	RA	1420	U
1	RA	1530	C
1	RA	1913	A
1	RA	1992	G
1	RA	2126	A
1	RA	2171	A
1	RA	2172	U
1	RA	2321	G
1	RA	2573	C
1	RA	2689	U
1	RA	2756	U
32	QA	115	G
32	QA	266	G
32	QA	509	A
32	QA	560	U
32	QA	687	A
32	QA	839	U
32	QA	913	A
32	QA	991	U
32	QA	1065	U
32	QA	1067	A
32	QA	1201	A
32	QA	1207	2MG
32	QA	1256	A
32	QA	1281	U
32	QA	1285	A
32	QA	1442(A)	G
1	YA	9	U
1	YA	196	A
1	YA	272(M)	G
1	YA	277	C
1	YA	752	A
1	YA	827	U
1	YA	856	C
1	YA	900	A
1	YA	1047	G
1	YA	1053	C
1	YA	1057	A
1	YA	1065	U
1	YA	1067	A

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Mol	Chain	Res	Type
1	YA	1073	A
1	YA	1076	C
1	YA	1379	A
1	YA	1420	U
1	YA	1530	C
1	YA	1992	G
1	YA	2126	A
1	YA	2171	A
1	YA	2172	U
1	YA	2321	G
1	YA	2689	U
1	YA	2756	U
32	XA	60	A
32	XA	65	U
32	XA	115	G
32	XA	266	G
32	XA	509	A
32	XA	560	U
32	XA	687	A
32	XA	748	C
32	XA	840	C
32	XA	913	A
32	XA	991	U
32	XA	992	U
32	XA	1065	U
32	XA	1067	A
32	XA	1128	C
32	XA	1212	U
32	XA	1256	A
32	XA	1279	A
32	XA	1442(A)	G
53	XV	53	G

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

50 non-standard protein/DNA/RNA residues are modelled in this entry.

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
32	5MC	XA	1404	32	19,22,23	4.08	8 (42%)	26,32,35	0.96	1 (3%)
1	4OC	YA	1920	1	19,22,24	3.13	7 (36%)	25,31,35	0.95	1 (4%)
1	4OC	RA	1920	1	19,22,24	3.15	7 (36%)	25,31,35	0.92	0
1	5MU	YA	1939	1,56	19,22,23	5.03	7 (36%)	27,32,35	4.12	9 (33%)
32	5MC	QA	1400	32	19,22,23	4.09	8 (42%)	26,32,35	0.97	1 (3%)
1	5MU	YA	1915	1,56	19,22,23	5.27	6 (31%)	27,32,35	4.11	11 (40%)
43	0TD	XL	92	43	8,9,10	1.48	1 (12%)	6,11,13	2.37	3 (50%)
32	4OC	QA	1402	32	20,23,24	3.29	7 (35%)	25,32,35	0.98	2 (8%)
1	PSU	YA	2605	1	18,21,22	4.41	7 (38%)	21,30,33	2.12	6 (28%)
32	MA6	XA	1518	32	23,26,27	1.44	4 (17%)	33,38,41	3.43	12 (36%)
1	2MA	YA	2503	1,56	22,25,26	4.33	8 (36%)	32,37,40	3.10	12 (37%)
32	UR3	XA	1498	56,32	19,22,23	3.28	7 (36%)	26,32,35	1.73	2 (7%)
32	5MC	QA	1404	32	19,22,23	4.13	8 (42%)	26,32,35	0.96	1 (3%)
1	2MA	RA	2503	1,56	22,25,26	4.26	8 (36%)	32,37,40	2.95	11 (34%)
32	M2G	QA	966	32	24,27,28	2.81	7 (29%)	33,40,43	2.19	10 (30%)
32	5MC	XA	967	32	19,22,23	4.12	8 (42%)	26,32,35	0.93	1 (3%)
32	UR3	QA	1498	32	19,22,23	3.29	7 (36%)	26,32,35	1.72	2 (7%)
1	2MU	RA	2552	1,56	19,22,24	6.65	14 (73%)	25,31,36	2.82	7 (28%)
43	0TD	QL	92	43	8,9,10	1.48	1 (12%)	6,11,13	3.23	5 (83%)
32	2MG	XA	1207	32	23,26,27	2.84	7 (30%)	33,38,41	2.44	13 (39%)
32	7MG	XA	527	56,32	23,26,27	4.33	11 (47%)	27,39,42	2.23	11 (40%)
55	MEQ	XY	235	55	8,9,10	0.93	0	5,10,12	0.80	0
32	7MG	QA	527	56,32	23,26,27	4.31	11 (47%)	27,39,42	2.25	9 (33%)
32	2MG	QA	1207	56,32	23,26,27	2.86	8 (34%)	33,38,41	2.51	15 (45%)
32	4OC	XA	1402	32	20,23,24	3.11	8 (40%)	25,32,35	1.27	1 (4%)
1	5MU	RA	1939	1	19,22,23	5.03	7 (36%)	27,32,35	3.99	10 (37%)
32	5MC	QA	967	32	19,22,23	4.15	8 (42%)	26,32,35	0.91	1 (3%)
1	5MU	RA	1915	1	19,22,23	5.27	6 (31%)	27,32,35	4.09	13 (48%)
1	OMG	RA	2251	1,56,53	23,26,27	2.40	9 (39%)	32,38,41	2.27	15 (46%)
1	OMG	YA	2251	1,56,53	23,26,27	2.38	8 (34%)	32,38,41	2.20	15 (46%)
32	5MC	XA	1407	32	19,22,23	4.08	8 (42%)	26,32,35	0.89	1 (3%)
55	MEQ	QY	235	55	8,9,10	0.96	0	5,10,12	1.09	1 (20%)
32	MA6	XA	1519	32	23,26,27	1.46	4 (17%)	33,38,41	3.28	12 (36%)
1	PSU	RA	2605	1	18,21,22	4.47	7 (38%)	21,30,33	2.19	5 (23%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
32	5MC	QA	1407	32	19,22,23	4.07	8 (42%)	26,32,35	0.99	2 (7%)
1	2MU	YA	2552	1,56	19,22,24	6.69	14 (73%)	25,31,36	2.78	7 (28%)
32	MA6	QA	1519	32	23,26,27	1.43	4 (17%)	33,38,41	3.38	12 (36%)
32	5MC	XA	1400	32	19,22,23	4.05	8 (42%)	26,32,35	1.00	2 (7%)
1	5MC	YA	1942	1	19,22,23	4.10	8 (42%)	26,32,35	1.08	2 (7%)
1	5MC	YA	1962	1,56	19,22,23	4.04	8 (42%)	26,32,35	1.05	2 (7%)
1	5MC	RA	1962	1,56	19,22,23	4.04	8 (42%)	26,32,35	1.01	1 (3%)
1	PSU	RA	1917	1	18,21,22	4.46	7 (38%)	21,30,33	1.90	4 (19%)
1	PSU	YA	1917	1	18,21,22	4.42	7 (38%)	21,30,33	2.01	4 (19%)
32	M2G	XA	966	32	24,27,28	2.74	7 (29%)	33,40,43	2.12	10 (30%)
32	MA6	QA	1518	32	23,26,27	1.45	4 (17%)	33,38,41	3.41	12 (36%)
1	PSU	YA	1911	1	18,21,22	4.39	7 (38%)	21,30,33	2.02	5 (23%)
1	5MC	RA	1942	1,56	19,22,23	4.10	8 (42%)	26,32,35	1.03	2 (7%)
1	PSU	RA	1911	1	18,21,22	4.45	7 (38%)	21,30,33	1.85	4 (19%)
32	PSU	XA	516	32	18,21,22	4.43	7 (38%)	21,30,33	2.09	6 (28%)
32	PSU	QA	516	56,32	18,21,22	4.49	7 (38%)	21,30,33	1.99	5 (23%)

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
32	5MC	XA	1404	32	-	0/7/25/26	0/2/2/2
1	4OC	YA	1920	1	-	1/9/27/30	0/2/2/2
1	4OC	RA	1920	1	-	0/9/27/30	0/2/2/2
1	5MU	YA	1939	1,56	-	0/7/25/26	0/2/2/2
32	5MC	QA	1400	32	-	2/7/25/26	0/2/2/2
1	5MU	YA	1915	1,56	-	4/7/25/26	0/2/2/2
43	0TD	XL	92	43	-	3/7/12/14	-
32	4OC	QA	1402	32	-	2/9/29/30	0/2/2/2
1	PSU	YA	2605	1	-	0/7/25/26	0/2/2/2
32	MA6	XA	1518	32	-	0/11/29/30	0/3/3/3
1	2MA	YA	2503	1,56	-	0/7/25/26	0/3/3/3
32	UR3	XA	1498	56,32	-	0/7/25/26	0/2/2/2
32	5MC	QA	1404	32	-	0/7/25/26	0/2/2/2
1	2MA	RA	2503	1,56	-	0/7/25/26	0/3/3/3
32	M2G	QA	966	32	-	0/11/29/30	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	5MC	XA	967	32	-	0/7/25/26	0/2/2/2
32	UR3	QA	1498	32	-	0/7/25/26	0/2/2/2
1	2MU	RA	2552	1,56	-	0/9/27/28	0/2/2/2
43	0TD	QL	92	43	-	1/7/12/14	-
32	2MG	XA	1207	32	-	0/9/27/28	0/3/3/3
32	7MG	XA	527	56,32	-	2/7/37/38	0/3/3/3
55	MEQ	XY	235	55	-	4/8/9/11	-
32	7MG	QA	527	56,32	-	2/7/37/38	0/3/3/3
32	2MG	QA	1207	56,32	-	0/9/27/28	0/3/3/3
32	4OC	XA	1402	32	-	2/9/29/30	0/2/2/2
1	5MU	RA	1939	1	-	0/7/25/26	0/2/2/2
32	5MC	QA	967	32	-	0/7/25/26	0/2/2/2
1	5MU	RA	1915	1	-	4/7/25/26	0/2/2/2
1	OMG	RA	2251	1,56,53	-	0/9/27/28	0/3/3/3
1	OMG	YA	2251	1,56,53	-	0/9/27/28	0/3/3/3
32	5MC	XA	1407	32	-	0/7/25/26	0/2/2/2
55	MEQ	QY	235	55	-	2/8/9/11	-
32	MA6	XA	1519	32	-	2/11/29/30	0/3/3/3
1	PSU	RA	2605	1	-	0/7/25/26	0/2/2/2
32	5MC	QA	1407	32	-	0/7/25/26	0/2/2/2
1	2MU	YA	2552	1,56	-	0/9/27/28	0/2/2/2
32	MA6	QA	1519	32	-	2/11/29/30	0/3/3/3
32	5MC	XA	1400	32	-	1/7/25/26	0/2/2/2
1	5MC	YA	1942	1	-	0/7/25/26	0/2/2/2
1	5MC	YA	1962	1,56	-	0/7/25/26	0/2/2/2
1	5MC	RA	1962	1,56	-	0/7/25/26	0/2/2/2
1	PSU	RA	1917	1	-	0/7/25/26	0/2/2/2
1	PSU	YA	1917	1	-	0/7/25/26	0/2/2/2
32	M2G	XA	966	32	-	0/11/29/30	0/3/3/3
32	MA6	QA	1518	32	-	0/11/29/30	0/3/3/3
1	PSU	YA	1911	1	-	0/7/25/26	0/2/2/2
1	5MC	RA	1942	1,56	-	0/7/25/26	0/2/2/2
1	PSU	RA	1911	1	-	0/7/25/26	0/2/2/2
32	PSU	XA	516	32	-	0/7/25/26	0/2/2/2
32	PSU	QA	516	56,32	-	0/7/25/26	0/2/2/2

All (351) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	YA	2552	2MU	C5-C4	16.99	1.80	1.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	RA	2552	2MU	C5-C4	16.90	1.80	1.43
1	YA	2503	2MA	C4-N3	13.93	1.52	1.34
1	RA	2503	2MA	C4-N3	13.52	1.51	1.34
1	YA	1915	5MU	C6-N1	12.64	1.59	1.38
1	RA	1915	5MU	C6-N1	12.57	1.59	1.38
1	YA	1939	5MU	C6-N1	12.12	1.58	1.38
1	RA	1939	5MU	C6-N1	12.04	1.58	1.38
1	RA	2605	PSU	C6-C5	11.71	1.48	1.35
1	YA	1915	5MU	C2-N1	11.63	1.56	1.38
1	RA	1915	5MU	C2-N1	11.60	1.56	1.38
32	QA	516	PSU	C6-C5	11.58	1.48	1.35
1	YA	2552	2MU	C6-N1	11.49	1.65	1.38
1	RA	2552	2MU	C6-N1	11.47	1.65	1.38
32	XA	527	7MG	C8-N9	11.43	1.53	1.45
1	RA	1911	PSU	C6-C5	11.35	1.47	1.35
32	XA	516	PSU	C6-C5	11.35	1.47	1.35
1	YA	2605	PSU	C6-C5	11.34	1.47	1.35
32	QA	527	7MG	C8-N9	11.31	1.53	1.45
1	YA	1917	PSU	C6-C5	11.19	1.47	1.35
1	YA	1911	PSU	C6-C5	11.17	1.47	1.35
1	RA	1917	PSU	C6-C5	11.17	1.47	1.35
1	YA	1939	5MU	C2-N1	10.85	1.55	1.38
1	RA	1939	5MU	C2-N1	10.74	1.55	1.38
1	RA	1917	PSU	C2-N1	10.53	1.50	1.36
1	RA	2552	2MU	C4-N3	-10.50	1.20	1.38
1	YA	2552	2MU	C4-N3	-10.49	1.20	1.38
1	YA	1939	5MU	C4-C5	10.47	1.61	1.44
32	QA	516	PSU	C2-N1	10.46	1.50	1.36
1	RA	1939	5MU	C4-C5	10.43	1.61	1.44
1	YA	1915	5MU	C4-C5	10.37	1.61	1.44
1	YA	1917	PSU	C2-N1	10.34	1.50	1.36
32	XA	516	PSU	C2-N1	10.27	1.50	1.36
1	RA	1911	PSU	C2-N1	10.23	1.50	1.36
1	RA	1915	5MU	C4-C5	10.23	1.61	1.44
1	RA	2605	PSU	C2-N1	10.21	1.50	1.36
1	YA	1911	PSU	C2-N1	10.11	1.49	1.36
1	YA	2605	PSU	C2-N1	10.06	1.49	1.36
32	QA	1404	5MC	C6-C5	9.50	1.50	1.34
32	XA	1404	5MC	C6-C5	9.40	1.49	1.34
32	QA	1400	5MC	C6-C5	9.38	1.49	1.34
32	XA	967	5MC	C6-C5	9.37	1.49	1.34
32	QA	1498	UR3	C2-N1	9.33	1.51	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	XA	1498	UR3	C2-N1	9.28	1.51	1.38
32	QA	967	5MC	C6-C5	9.21	1.49	1.34
32	QA	1407	5MC	C6-C5	9.21	1.49	1.34
32	XA	1407	5MC	C6-C5	9.10	1.49	1.34
1	RA	1962	5MC	C6-C5	9.03	1.49	1.34
1	YA	1942	5MC	C6-C5	9.01	1.49	1.34
32	XA	1400	5MC	C6-C5	8.97	1.49	1.34
1	RA	1942	5MC	C6-C5	8.97	1.49	1.34
1	YA	1962	5MC	C6-C5	8.96	1.49	1.34
1	YA	2552	2MU	C3'-C2'	-8.76	1.33	1.53
32	XA	527	7MG	C5-N7	8.71	1.46	1.35
1	RA	2552	2MU	C3'-C2'	-8.50	1.34	1.53
32	QA	967	5MC	C5-C4	8.41	1.50	1.44
32	QA	527	7MG	C5-N7	8.38	1.46	1.35
1	RA	1942	5MC	C5-C4	8.27	1.50	1.44
32	XA	967	5MC	C5-C4	8.23	1.50	1.44
1	YA	2503	2MA	C2-N3	8.18	1.48	1.34
32	XA	1404	5MC	C5-C4	8.17	1.50	1.44
1	YA	1942	5MC	C5-C4	8.13	1.50	1.44
32	QA	1404	5MC	C5-C4	8.08	1.50	1.44
32	QA	1400	5MC	C5-C4	8.07	1.50	1.44
1	YA	2503	2MA	C6-N1	8.06	1.45	1.35
1	RA	2503	2MA	C2-N3	8.05	1.47	1.34
32	XA	1400	5MC	C5-C4	8.04	1.50	1.44
32	XA	1407	5MC	C5-C4	8.04	1.50	1.44
32	QA	1402	4OC	C4-N3	7.98	1.46	1.32
32	QA	1407	5MC	C5-C4	7.97	1.50	1.44
1	RA	1962	5MC	C5-C4	7.94	1.50	1.44
1	RA	2503	2MA	C6-N1	7.88	1.45	1.35
1	YA	2552	2MU	C6-C5	-7.70	1.17	1.35
1	RA	2552	2MU	C6-C5	-7.69	1.17	1.35
1	YA	1962	5MC	C5-C4	7.69	1.49	1.44
1	RA	1942	5MC	C4-N3	7.54	1.46	1.34
1	YA	1962	5MC	C4-N3	7.52	1.46	1.34
32	QA	527	7MG	C4-N9	7.52	1.47	1.37
32	QA	966	M2G	C2-N2	7.51	1.49	1.35
1	RA	1917	PSU	C2-N3	7.48	1.49	1.37
32	QA	1207	2MG	C2-N3	7.47	1.46	1.32
1	YA	1942	5MC	C4-N3	7.46	1.46	1.34
1	RA	1915	5MU	C4-N3	-7.45	1.24	1.38
1	RA	1911	PSU	C2-N3	7.43	1.49	1.37
32	XA	1402	4OC	C4-N3	7.43	1.45	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	YA	1911	PSU	C2-N3	7.43	1.49	1.37
32	XA	1207	2MG	C2-N3	7.43	1.46	1.32
32	QA	967	5MC	C4-N3	7.43	1.46	1.34
1	YA	1917	PSU	C2-N3	7.43	1.49	1.37
1	YA	2605	PSU	C2-N3	7.41	1.49	1.37
32	XA	516	PSU	C2-N3	7.40	1.49	1.37
1	RA	1962	5MC	C4-N3	7.40	1.46	1.34
1	RA	1915	5MU	C6-C5	7.35	1.46	1.34
32	XA	1400	5MC	C4-N3	7.31	1.45	1.34
32	XA	966	M2G	C2-N2	7.31	1.48	1.35
1	RA	2605	PSU	C2-N3	7.30	1.49	1.37
1	YA	1915	5MU	C4-N3	-7.29	1.25	1.38
32	XA	1407	5MC	C4-N3	7.29	1.45	1.34
32	QA	516	PSU	C2-N3	7.28	1.49	1.37
1	YA	1915	5MU	C6-C5	7.28	1.46	1.34
32	QA	1400	5MC	C4-N3	7.24	1.45	1.34
32	QA	1407	5MC	C4-N3	7.22	1.45	1.34
32	XA	967	5MC	C4-N3	7.21	1.45	1.34
32	QA	1404	5MC	C4-N3	7.17	1.45	1.34
1	RA	1939	5MU	C6-C5	7.13	1.46	1.34
32	XA	527	7MG	C4-N9	7.06	1.46	1.37
32	XA	1404	5MC	C4-N3	7.01	1.45	1.34
32	QA	966	M2G	C4-N3	7.00	1.50	1.34
1	YA	1939	5MU	C6-C5	6.97	1.46	1.34
1	RA	2552	2MU	O4'-C1'	6.86	1.57	1.42
1	YA	2552	2MU	O4'-C1'	6.82	1.57	1.42
32	XA	966	M2G	C4-N3	6.77	1.49	1.34
1	RA	1939	5MU	C4-N3	-6.75	1.26	1.38
1	YA	1942	5MC	C2-N3	6.67	1.49	1.36
1	YA	1962	5MC	C2-N3	6.61	1.49	1.36
1	YA	1939	5MU	C4-N3	-6.60	1.26	1.38
32	QA	967	5MC	C2-N3	6.57	1.49	1.36
32	XA	1400	5MC	C2-N3	6.57	1.49	1.36
1	RA	1942	5MC	C2-N3	6.57	1.49	1.36
1	RA	1920	4OC	C2-N3	6.53	1.49	1.36
1	RA	1962	5MC	C2-N3	6.53	1.49	1.36
32	XA	967	5MC	C2-N3	6.49	1.49	1.36
32	QA	1402	4OC	C2-N3	6.45	1.49	1.36
32	QA	1407	5MC	C2-N3	6.45	1.49	1.36
1	YA	1920	4OC	C2-N3	6.44	1.49	1.36
32	QA	1404	5MC	C2-N3	6.41	1.49	1.36
32	XA	1407	5MC	C2-N3	6.41	1.49	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	QA	1400	5MC	C2-N3	6.40	1.49	1.36
32	QA	1207	2MG	C4-N3	6.34	1.48	1.34
32	QA	527	7MG	C2-N3	6.32	1.48	1.33
32	XA	1404	5MC	C2-N3	6.30	1.48	1.36
32	QA	966	M2G	C2-N3	6.27	1.47	1.32
32	XA	527	7MG	C2-N3	6.25	1.48	1.33
1	RA	1920	4OC	C6-C5	6.21	1.49	1.35
32	XA	1207	2MG	C4-N3	6.20	1.48	1.34
1	YA	2503	2MA	C2-N1	6.18	1.44	1.34
1	YA	1920	4OC	C6-C5	6.18	1.49	1.35
1	RA	2503	2MA	C2-N1	6.17	1.44	1.34
32	QA	1498	UR3	C6-C5	6.15	1.49	1.35
32	QA	527	7MG	C4-N3	6.14	1.48	1.34
32	QA	1402	4OC	C6-C5	6.12	1.49	1.35
32	XA	1498	UR3	C6-C5	6.09	1.49	1.35
32	XA	527	7MG	C4-N3	6.08	1.48	1.34
32	XA	966	M2G	C2-N3	5.98	1.46	1.32
32	XA	1402	4OC	C6-C5	5.93	1.48	1.35
32	XA	1402	4OC	C2-N3	5.87	1.48	1.36
1	RA	1920	4OC	C4-N3	5.86	1.46	1.34
1	YA	1920	4OC	C4-N3	5.83	1.46	1.34
1	RA	2251	OMG	C4-N3	5.61	1.47	1.34
32	QA	1498	UR3	C2-N3	5.61	1.50	1.39
32	QA	1207	2MG	C2-N2	5.60	1.45	1.33
32	XA	1207	2MG	C2-N2	5.58	1.45	1.33
1	YA	2552	2MU	O4'-C4'	-5.56	1.32	1.45
32	XA	1498	UR3	C2-N3	5.52	1.49	1.39
1	YA	2251	OMG	C4-N3	5.51	1.46	1.34
32	QA	516	PSU	C6-N1	5.49	1.45	1.36
1	RA	2552	2MU	O4'-C4'	-5.49	1.32	1.45
1	RA	1917	PSU	C6-N1	5.43	1.45	1.36
32	XA	1207	2MG	C2-N1	5.38	1.45	1.36
32	QA	1207	2MG	C2-N1	5.37	1.45	1.36
1	RA	1911	PSU	C6-N1	5.33	1.45	1.36
1	RA	2605	PSU	C6-N1	5.30	1.45	1.36
1	YA	1917	PSU	C6-N1	5.24	1.44	1.36
1	YA	2605	PSU	C6-N1	5.21	1.44	1.36
32	QA	1404	5MC	C6-N1	5.18	1.46	1.38
1	YA	1911	PSU	C6-N1	5.18	1.44	1.36
32	XA	516	PSU	C6-N1	5.16	1.44	1.36
32	XA	1407	5MC	C6-N1	5.15	1.46	1.38
1	RA	2251	OMG	C2-N3	5.12	1.45	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	YA	2251	OMG	C2-N3	5.02	1.45	1.33
32	XA	1404	5MC	C6-N1	4.99	1.46	1.38
1	RA	1920	4OC	C4-N4	4.98	1.46	1.33
1	YA	1920	4OC	C4-N4	4.98	1.46	1.33
32	QA	1407	5MC	C6-N1	4.95	1.46	1.38
1	RA	2552	2MU	C1'-N1	-4.92	1.33	1.47
32	QA	967	5MC	C6-N1	4.92	1.46	1.38
1	YA	2552	2MU	C1'-N1	-4.92	1.33	1.47
32	XA	967	5MC	C6-N1	4.89	1.46	1.38
1	YA	1942	5MC	C2-N1	4.89	1.50	1.40
1	RA	1920	4OC	C2-N1	4.88	1.50	1.40
1	RA	1942	5MC	C2-N1	4.88	1.50	1.40
32	QA	1400	5MC	C6-N1	4.85	1.46	1.38
1	YA	1920	4OC	C2-N1	4.85	1.50	1.40
32	XA	527	7MG	C2-N2	4.83	1.45	1.34
32	QA	1402	4OC	C2-N1	4.79	1.50	1.40
1	RA	1962	5MC	C6-N1	4.77	1.46	1.38
32	QA	527	7MG	C2-N2	4.71	1.45	1.34
1	YA	1962	5MC	C2-N1	4.71	1.49	1.40
1	YA	1942	5MC	C6-N1	4.69	1.46	1.38
1	YA	1962	5MC	C6-N1	4.68	1.46	1.38
32	QA	967	5MC	C2-N1	4.66	1.49	1.40
32	QA	1407	5MC	C2-N1	4.64	1.49	1.40
32	XA	527	7MG	C2-N1	4.64	1.48	1.37
32	XA	1400	5MC	C2-N1	4.64	1.49	1.40
32	QA	527	7MG	C2-N1	4.63	1.48	1.37
32	XA	967	5MC	C2-N1	4.62	1.49	1.40
32	XA	1400	5MC	C6-N1	4.62	1.45	1.38
32	XA	1407	5MC	C2-N1	4.61	1.49	1.40
1	RA	2251	OMG	C2-N2	4.60	1.44	1.34
1	RA	1942	5MC	C6-N1	4.59	1.45	1.38
32	QA	1404	5MC	C2-N1	4.56	1.49	1.40
1	YA	2251	OMG	C2-N2	4.55	1.44	1.34
32	XA	527	7MG	C6-N1	4.55	1.47	1.38
32	QA	1400	5MC	C2-N1	4.52	1.49	1.40
1	RA	2503	2MA	C5-C6	4.51	1.53	1.41
1	RA	1962	5MC	C2-N1	4.47	1.49	1.40
1	RA	1911	PSU	C4-N3	4.45	1.47	1.38
32	XA	1402	4OC	C2-N1	4.45	1.49	1.40
32	QA	1404	5MC	C4-N4	4.44	1.45	1.34
32	QA	527	7MG	C6-N1	4.42	1.47	1.38
32	XA	1404	5MC	C2-N1	4.41	1.49	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	XA	967	5MC	C4-N4	4.40	1.45	1.34
32	QA	1402	4OC	C4-N4	4.39	1.45	1.36
32	QA	967	5MC	C4-N4	4.39	1.45	1.34
1	YA	2605	PSU	C4-N3	4.38	1.47	1.38
32	QA	1407	5MC	C4-N4	4.38	1.45	1.34
32	XA	1404	5MC	C4-N4	4.38	1.45	1.34
32	QA	1400	5MC	C4-N4	4.37	1.45	1.34
1	YA	1911	PSU	C4-N3	4.37	1.47	1.38
32	XA	1400	5MC	C4-N4	4.37	1.45	1.34
1	YA	2503	2MA	C5-C6	4.34	1.53	1.41
1	YA	1942	5MC	C4-N4	4.34	1.45	1.34
1	YA	1962	5MC	C4-N4	4.34	1.45	1.34
1	RA	1962	5MC	C4-N4	4.34	1.45	1.34
1	RA	1942	5MC	C4-N4	4.33	1.45	1.34
32	XA	1407	5MC	C4-N4	4.33	1.45	1.34
1	YA	2552	2MU	C2-N1	4.32	1.45	1.38
1	RA	1917	PSU	C4-N3	4.32	1.46	1.38
1	YA	1917	PSU	C4-N3	4.30	1.46	1.38
1	RA	2605	PSU	C4-N3	4.24	1.46	1.38
32	XA	527	7MG	C5-C6	4.21	1.54	1.43
32	XA	516	PSU	C4-N3	4.21	1.46	1.38
1	YA	2552	2MU	C2-N3	4.20	1.45	1.38
32	QA	516	PSU	C4-N3	4.18	1.46	1.38
1	RA	2552	2MU	C2-N1	4.17	1.45	1.38
1	RA	2552	2MU	C3'-C4'	4.16	1.63	1.53
32	QA	527	7MG	C5-C6	4.15	1.53	1.43
1	RA	2552	2MU	C2-N3	4.11	1.45	1.38
1	YA	2552	2MU	C3'-C4'	4.10	1.63	1.53
32	XA	1498	UR3	C6-N1	3.99	1.47	1.38
32	XA	1498	UR3	C4-N3	3.98	1.48	1.40
32	QA	1402	4OC	C5-C4	3.95	1.49	1.41
32	XA	1402	4OC	C5-C4	3.94	1.49	1.41
32	XA	1402	4OC	C4-N4	3.94	1.44	1.36
32	QA	1498	UR3	C4-N3	3.94	1.48	1.40
32	QA	1498	UR3	C6-N1	3.91	1.47	1.38
1	YA	2251	OMG	O6-C6	-3.85	1.16	1.23
1	RA	2251	OMG	O6-C6	-3.82	1.16	1.23
32	XA	966	M2G	C2-N1	3.79	1.45	1.36
32	QA	966	M2G	C2-N1	3.77	1.45	1.36
1	YA	2503	2MA	C5-N7	-3.76	1.32	1.39
1	RA	2503	2MA	C5-N7	-3.74	1.32	1.39
1	RA	2251	OMG	C2-N1	3.61	1.46	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	RA	2552	2MU	O2-C2	-3.60	1.16	1.23
1	YA	2251	OMG	C2-N1	3.58	1.46	1.37
1	RA	1915	5MU	O2-C2	-3.57	1.16	1.23
32	QA	1518	MA6	C6-N6	3.50	1.46	1.36
1	YA	2552	2MU	O2-C2	-3.49	1.16	1.23
32	XA	1518	MA6	C6-N6	3.45	1.46	1.36
32	XA	1519	MA6	C5-N7	-3.44	1.32	1.39
32	QA	1402	4OC	C6-N1	3.43	1.46	1.38
32	QA	1519	MA6	C5-N7	-3.37	1.32	1.39
1	YA	1915	5MU	O2-C2	-3.36	1.17	1.23
32	XA	1402	4OC	C6-N1	3.35	1.46	1.38
1	RA	1920	4OC	C6-N1	3.34	1.46	1.38
1	YA	1920	4OC	C6-N1	3.33	1.46	1.38
32	QA	1498	UR3	C5-C4	3.31	1.52	1.43
32	QA	966	M2G	C6-N1	3.29	1.45	1.38
32	XA	966	M2G	C6-N1	3.29	1.45	1.38
32	XA	1498	UR3	C5-C4	3.28	1.52	1.43
32	XA	1518	MA6	C5-N7	-3.28	1.33	1.39
32	XA	1519	MA6	C6-N6	3.27	1.45	1.36
32	QA	1518	MA6	C5-N7	-3.27	1.33	1.39
32	QA	1519	MA6	C6-N6	3.26	1.45	1.36
1	RA	1920	4OC	C5-C4	2.89	1.49	1.42
32	QA	1207	2MG	C6-N1	2.89	1.44	1.38
1	YA	1920	4OC	C5-C4	2.88	1.49	1.42
32	XA	1207	2MG	C6-N1	2.87	1.44	1.38
43	QL	92	0TD	CB-CA	-2.81	1.53	1.54
1	RA	1939	5MU	O2-C2	-2.80	1.18	1.23
32	QA	527	7MG	C5-C4	2.76	1.46	1.37
32	XA	966	M2G	C5-C6	2.72	1.54	1.44
1	YA	1939	5MU	O2-C2	-2.70	1.18	1.23
32	QA	966	M2G	C5-C6	2.68	1.54	1.44
1	RA	2552	2MU	O2'-C2'	2.64	1.49	1.42
1	YA	2251	OMG	C4-N9	-2.64	1.31	1.38
32	XA	527	7MG	C5-C4	2.61	1.45	1.37
1	YA	2605	PSU	O2-C2	-2.61	1.17	1.23
1	YA	2552	2MU	O2'-C2'	2.61	1.49	1.42
1	RA	2605	PSU	O2-C2	-2.60	1.17	1.23
32	XA	1207	2MG	C5-C6	2.58	1.54	1.44
32	XA	516	PSU	O2-C2	-2.56	1.17	1.23
32	QA	1207	2MG	C5-C6	2.55	1.53	1.44
1	RA	2251	OMG	C5-C6	2.51	1.53	1.44
1	YA	1911	PSU	O2-C2	-2.49	1.18	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	RA	2251	OMG	C6-N1	2.48	1.43	1.38
1	YA	2251	OMG	C5-C6	2.47	1.53	1.44
32	XA	1404	5MC	O2-C2	-2.46	1.19	1.23
32	QA	516	PSU	O4-C4	-2.46	1.18	1.23
1	RA	2605	PSU	O4-C4	-2.46	1.18	1.23
32	QA	516	PSU	O2-C2	-2.45	1.18	1.23
1	YA	1917	PSU	O2-C2	-2.44	1.18	1.23
43	XL	92	0TD	CB-CA	-2.43	1.54	1.54
1	RA	1911	PSU	O2-C2	-2.42	1.18	1.23
1	YA	2251	OMG	C6-N1	2.41	1.43	1.38
32	XA	1207	2MG	C5-N7	-2.41	1.34	1.39
32	XA	966	M2G	C5-N7	-2.40	1.34	1.39
1	YA	2605	PSU	O4-C4	-2.39	1.19	1.23
32	QA	966	M2G	C5-N7	-2.38	1.34	1.39
32	QA	1207	2MG	C5-N7	-2.36	1.34	1.39
1	RA	2552	2MU	O4-C4	-2.36	1.19	1.24
1	RA	1911	PSU	O4-C4	-2.36	1.19	1.23
32	XA	967	5MC	O2-C2	-2.35	1.19	1.23
32	XA	1518	MA6	C8-N9	-2.35	1.33	1.37
1	RA	2251	OMG	C4-N9	-2.35	1.32	1.38
32	XA	1498	UR3	C3U-N3	2.34	1.51	1.47
32	QA	1498	UR3	C3U-N3	2.33	1.51	1.47
32	XA	516	PSU	O4-C4	-2.33	1.19	1.23
1	RA	1917	PSU	O4-C4	-2.31	1.19	1.23
32	QA	1519	MA6	C5-C4	-2.31	1.35	1.39
32	QA	1400	5MC	O2-C2	-2.30	1.19	1.23
1	RA	1917	PSU	O2-C2	-2.29	1.18	1.23
32	QA	1519	MA6	C8-N9	-2.29	1.33	1.37
1	RA	2503	2MA	C6-N6	-2.28	1.28	1.34
1	YA	1917	PSU	O4-C4	-2.27	1.19	1.23
32	XA	1400	5MC	O2-C2	-2.27	1.19	1.23
32	XA	1518	MA6	C5-C4	-2.27	1.35	1.39
32	XA	1407	5MC	O2-C2	-2.26	1.19	1.23
32	QA	1404	5MC	O2-C2	-2.26	1.19	1.23
1	YA	1911	PSU	O4-C4	-2.25	1.19	1.23
1	YA	1962	5MC	O2-C2	-2.24	1.19	1.23
32	XA	527	7MG	C8-N7	2.24	1.53	1.42
1	YA	2503	2MA	C6-N6	-2.24	1.28	1.34
1	YA	2552	2MU	O4-C4	-2.23	1.20	1.24
32	QA	967	5MC	O2-C2	-2.22	1.19	1.23
32	QA	1518	MA6	C5-C4	-2.21	1.35	1.39
1	RA	1962	5MC	O2-C2	-2.20	1.19	1.23

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	YA	2503	2MA	CM2-C2	2.17	1.55	1.49
32	XA	1402	4OC	O2-C2	-2.14	1.19	1.23
32	QA	1407	5MC	O2-C2	-2.14	1.19	1.23
32	QA	1518	MA6	C8-N9	-2.13	1.33	1.37
1	RA	2503	2MA	CM2-C2	2.11	1.55	1.49
1	RA	1942	5MC	O2-C2	-2.11	1.19	1.23
32	XA	1519	MA6	C5-C4	-2.10	1.35	1.39
1	YA	1939	5MU	C2-N3	2.08	1.41	1.38
1	RA	1939	5MU	C2-N3	2.07	1.41	1.38
32	QA	527	7MG	C8-N7	2.07	1.52	1.42
1	RA	2251	OMG	C5-N7	-2.06	1.34	1.39
32	QA	1207	2MG	C4-N9	-2.05	1.32	1.38
32	XA	1519	MA6	C10-N6	2.04	1.50	1.45
1	YA	1942	5MC	O2-C2	-2.02	1.19	1.23

All (299) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	YA	1915	5MU	C5-C4-N3	13.88	127.39	115.32
1	YA	1939	5MU	C5-C4-N3	13.66	127.19	115.32
1	RA	1915	5MU	C5-C4-N3	13.25	126.84	115.32
1	RA	1939	5MU	C5-C4-N3	12.93	126.56	115.32
32	QA	1519	MA6	N1-C6-N6	-12.10	102.12	116.86
32	XA	1518	MA6	N1-C6-N6	-12.08	102.14	116.86
32	XA	1519	MA6	N1-C6-N6	-11.80	102.48	116.86
32	QA	1518	MA6	N1-C6-N6	-11.75	102.54	116.86
1	RA	1939	5MU	C5-C6-N1	-11.24	111.10	123.31
1	YA	1939	5MU	C5-C6-N1	-11.08	111.28	123.31
1	YA	1915	5MU	C5-C6-N1	-10.08	112.36	123.31
1	RA	1915	5MU	C5-C6-N1	-10.01	112.44	123.31
1	YA	2503	2MA	C5-C4-N3	-9.48	117.20	127.18
1	RA	2503	2MA	C5-C4-N3	-9.23	117.46	127.18
1	RA	2552	2MU	C5-C4-N3	8.60	126.85	114.80
32	XA	1518	MA6	C5-C6-N6	8.40	138.62	125.33
1	YA	2552	2MU	C5-C4-N3	8.34	126.49	114.80
32	XA	1519	MA6	C5-C6-N6	8.08	138.13	125.33
32	QA	1518	MA6	C5-C6-N6	8.08	138.12	125.33
32	QA	1519	MA6	C5-C6-N6	7.99	137.98	125.33
1	YA	2503	2MA	N3-C4-N9	7.53	136.54	126.99
1	RA	2552	2MU	C4-N3-C2	-6.94	118.00	126.61
32	XA	1207	2MG	C2-N3-C4	6.91	120.64	112.00
1	YA	2552	2MU	C4-N3-C2	-6.90	118.05	126.61

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	RA	2503	2MA	N3-C4-N9	6.85	135.68	126.99
32	QA	1207	2MG	C2-N3-C4	6.81	120.52	112.00
32	QA	1498	UR3	C4-N3-C2	-6.14	119.64	124.58
32	XA	1498	UR3	C4-N3-C2	-6.08	119.69	124.58
1	RA	1915	5MU	C4-N3-C2	-6.06	119.40	127.34
1	YA	1915	5MU	C4-N3-C2	-5.99	119.49	127.34
1	RA	1915	5MU	N3-C2-N1	5.97	122.66	114.89
1	YA	1939	5MU	C4-N3-C2	-5.86	119.66	127.34
32	QA	1207	2MG	N1-C2-N2	5.75	122.43	116.56
1	RA	1939	5MU	C4-N3-C2	-5.74	119.82	127.34
32	XA	1207	2MG	N1-C2-N2	5.72	122.40	116.56
32	XA	966	M2G	C5-C4-N3	-5.69	119.33	128.39
1	RA	2503	2MA	C4-N9-C1'	-5.63	113.46	126.63
1	YA	2503	2MA	C4-N9-C1'	-5.63	113.47	126.63
32	QA	966	M2G	C5-C4-N3	-5.55	119.55	128.39
32	XA	527	7MG	C2-N3-C4	5.35	121.52	112.30
1	YA	1915	5MU	N3-C2-N1	5.33	121.83	114.89
1	RA	2503	2MA	C1'-N9-C8	5.32	138.90	127.09
1	RA	2552	2MU	O4-C4-N3	-5.32	111.56	119.27
32	XA	1519	MA6	N1-C2-N3	-5.31	120.55	128.58
32	QA	1519	MA6	C5-C4-N3	-5.14	119.64	126.72
1	YA	2552	2MU	O4-C4-N3	-5.14	111.83	119.27
32	QA	1518	MA6	C5-C4-N3	-5.13	119.65	126.72
32	QA	1518	MA6	N1-C2-N3	-5.13	120.82	128.58
1	YA	1939	5MU	O4-C4-C5	-5.13	119.05	124.92
1	YA	2605	PSU	C4-N3-C2	-5.10	119.35	126.37
32	QA	527	7MG	C2-N3-C4	5.09	121.08	112.30
32	XA	1518	MA6	N9-C8-N7	-5.06	106.76	113.94
32	QA	1518	MA6	N9-C8-N7	-5.03	106.80	113.94
1	YA	2503	2MA	C1'-N9-C8	5.02	138.24	127.09
1	RA	2605	PSU	C4-N3-C2	-5.01	119.47	126.37
43	QL	92	0TD	OD2-CG-CB	5.01	123.97	113.15
32	XA	1518	MA6	N1-C2-N3	-5.00	121.01	128.58
1	RA	2251	OMG	C2-N3-C4	5.00	120.91	112.30
1	RA	2605	PSU	N1-C2-N3	4.97	120.41	115.17
1	YA	2251	OMG	C2-N3-C4	4.89	120.72	112.30
32	XA	1519	MA6	C5-C4-N3	-4.86	120.03	126.72
32	XA	1518	MA6	C5-C4-N3	-4.86	120.03	126.72
32	QA	1519	MA6	N9-C8-N7	-4.85	107.05	113.94
1	YA	1939	5MU	C5M-C5-C4	4.82	123.92	118.78
32	QA	966	M2G	C1'-N9-C4	-4.80	112.31	126.49
32	XA	1402	4OC	CM4-N4-C4	-4.79	113.10	122.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	QA	516	PSU	C4-N3-C2	-4.77	119.80	126.37
1	YA	2605	PSU	N1-C2-N3	4.74	120.17	115.17
32	XA	516	PSU	N1-C2-N3	4.71	120.14	115.17
32	QA	1518	MA6	C4-C5-C6	4.67	120.74	115.91
32	QA	1519	MA6	N1-C2-N3	-4.67	121.51	128.58
1	YA	1939	5MU	C5M-C5-C6	-4.65	116.56	122.85
32	XA	966	M2G	C2-N3-C4	4.62	121.06	112.51
32	XA	527	7MG	C5-C6-N1	4.62	119.07	110.94
32	XA	1207	2MG	C5-C4-N3	-4.62	121.04	128.39
32	QA	966	M2G	C2-N3-C4	4.60	121.02	112.51
32	QA	1518	MA6	N3-C4-N9	4.60	134.98	127.17
32	QA	1519	MA6	C4-C5-C6	4.59	120.66	115.91
32	QA	527	7MG	C4-C5-N7	4.59	110.79	105.38
1	RA	1939	5MU	O4-C4-C5	-4.55	119.71	124.92
32	XA	516	PSU	C4-N3-C2	-4.53	120.13	126.37
32	QA	1519	MA6	N3-C4-N9	4.51	134.84	127.17
1	YA	1917	PSU	C4-N3-C2	-4.49	120.19	126.37
1	RA	2251	OMG	C1'-N9-C8	-4.49	113.99	126.73
32	XA	1498	UR3	C5-C4-N3	4.48	120.94	115.04
1	RA	2251	OMG	N9-C8-N7	-4.46	105.12	113.40
1	YA	1911	PSU	N1-C2-N3	4.46	119.87	115.17
32	QA	516	PSU	N1-C2-N3	4.45	119.86	115.17
1	YA	1917	PSU	N1-C2-N3	4.45	119.86	115.17
1	RA	1939	5MU	N3-C2-N1	4.43	120.66	114.89
32	QA	1207	2MG	C5-C4-N3	-4.43	121.34	128.39
32	QA	527	7MG	C5-C6-N1	4.43	118.73	110.94
32	XA	1518	MA6	C4-C5-C6	4.42	120.48	115.91
1	YA	1911	PSU	C4-N3-C2	-4.41	120.30	126.37
1	RA	1911	PSU	C4-N3-C2	-4.41	120.30	126.37
1	YA	2251	OMG	N9-C8-N7	-4.39	105.25	113.40
32	QA	1498	UR3	C5-C4-N3	4.39	120.83	115.04
1	RA	1917	PSU	C4-N3-C2	-4.38	120.34	126.37
32	XA	1519	MA6	C4-C5-C6	4.37	120.42	115.91
1	YA	2251	OMG	C1'-N9-C8	-4.36	114.34	126.73
1	YA	1911	PSU	C6-C5-C4	4.32	121.09	118.17
32	XA	527	7MG	C4-C5-N7	4.32	110.47	105.38
32	QA	966	M2G	C1'-N9-C8	4.31	138.98	126.73
1	RA	2251	OMG	C5-C4-N3	-4.28	121.58	128.39
1	YA	1915	5MU	O4-C4-C5	-4.28	120.02	124.92
32	XA	966	M2G	C1'-N9-C4	-4.28	113.85	126.49
1	RA	1917	PSU	C6-C5-C4	4.27	121.06	118.17
1	YA	1917	PSU	C6-C5-C4	4.26	121.05	118.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	XA	516	PSU	C6-C5-C4	4.26	121.05	118.17
32	XA	1518	MA6	N3-C4-N9	4.23	134.36	127.17
1	RA	1939	5MU	C5M-C5-C6	-4.22	117.14	122.85
1	RA	1915	5MU	C5M-C5-C6	-4.15	117.23	122.85
43	QL	92	0TD	CB-CA-N	-4.15	100.68	109.10
32	XA	1518	MA6	C4-N9-C8	4.14	110.08	105.74
1	YA	1915	5MU	C5M-C5-C4	4.12	123.18	118.78
1	YA	2251	OMG	C5-C4-N3	-4.11	121.84	128.39
1	YA	2503	2MA	N9-C8-N7	-4.08	108.14	113.94
32	XA	1519	MA6	N9-C8-N7	-4.08	108.14	113.94
1	RA	1915	5MU	O4-C4-C5	-4.08	120.25	124.92
1	YA	1939	5MU	N3-C2-N1	4.08	120.20	114.89
32	QA	1518	MA6	C4-N9-C8	4.08	110.02	105.74
1	RA	1911	PSU	N1-C2-N3	4.07	119.46	115.17
32	QA	1207	2MG	N9-C8-N7	-4.06	105.88	113.40
32	XA	966	M2G	C1'-N9-C8	4.04	138.21	126.73
1	RA	2605	PSU	C6-C5-C4	4.03	120.89	118.17
1	YA	1915	5MU	O4-C4-N3	-4.00	112.59	120.11
32	QA	527	7MG	C5-C4-N3	-3.98	120.67	128.13
1	RA	1917	PSU	N1-C2-N3	3.97	119.36	115.17
1	RA	1915	5MU	C5M-C5-C4	3.92	122.97	118.78
1	YA	1915	5MU	C5M-C5-C6	-3.91	117.56	122.85
32	QA	1519	MA6	C4-N9-C8	3.88	109.81	105.74
32	XA	1519	MA6	N3-C4-N9	3.85	133.71	127.17
1	RA	1915	5MU	O4-C4-N3	-3.83	112.91	120.11
32	XA	527	7MG	C5-C4-N3	-3.77	121.06	128.13
32	XA	1207	2MG	N9-C8-N7	-3.76	106.42	113.40
1	RA	1939	5MU	C5M-C5-C4	3.76	122.79	118.78
32	XA	1207	2MG	C2-N1-C6	-3.75	120.02	124.55
1	YA	2503	2MA	N3-C2-N1	-3.74	119.17	125.77
1	YA	2605	PSU	C6-C5-C4	3.72	120.69	118.17
1	YA	2552	2MU	N3-C2-N1	3.71	119.73	114.89
32	XA	1404	5MC	C5-C6-N1	-3.67	119.33	123.31
1	RA	2503	2MA	N3-C2-N1	-3.67	119.29	125.77
1	RA	2503	2MA	N9-C8-N7	-3.62	108.80	113.94
1	RA	2552	2MU	N3-C2-N1	3.61	119.59	114.89
43	XL	92	0TD	CB-CA-N	-3.61	101.78	109.10
32	QA	1400	5MC	C5-C6-N1	-3.61	119.39	123.31
1	YA	2503	2MA	C6-C5-C4	3.61	122.10	117.18
32	XA	516	PSU	C6-N1-C2	-3.57	119.38	122.69
32	XA	1519	MA6	C2-N1-C6	3.52	120.44	111.83
1	YA	2503	2MA	C5-N7-C8	3.52	108.98	103.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	YA	1942	5MC	C5-C6-N1	-3.51	119.50	123.31
32	QA	516	PSU	C6-C5-C4	3.51	120.54	118.17
32	XA	1518	MA6	C2-N1-C6	3.50	120.37	111.83
32	QA	1404	5MC	C5-C6-N1	-3.49	119.52	123.31
32	QA	966	M2G	N9-C8-N7	-3.48	106.96	113.40
32	QA	1518	MA6	C2-N1-C6	3.45	120.26	111.83
1	RA	1942	5MC	C5-C6-N1	-3.45	119.57	123.31
1	RA	1962	5MC	C5-C6-N1	-3.41	119.61	123.31
1	RA	1939	5MU	O4-C4-N3	-3.39	113.73	120.11
1	YA	1939	5MU	O4-C4-N3	-3.38	113.75	120.11
32	QA	966	M2G	N9-C4-N3	3.37	132.70	125.95
1	RA	2605	PSU	C6-N1-C2	-3.35	119.58	122.69
32	QA	1207	2MG	C2-N1-C6	-3.33	120.52	124.55
1	RA	1911	PSU	C6-C5-C4	3.32	120.42	118.17
1	YA	1911	PSU	C6-N1-C2	-3.30	119.63	122.69
32	QA	527	7MG	N9-C4-N3	3.27	130.26	125.46
1	RA	1915	5MU	C1'-N1-C2	3.27	123.46	117.59
1	YA	1917	PSU	C6-N1-C2	-3.24	119.68	122.69
32	XA	1207	2MG	CM2-N2-C2	-3.21	116.76	123.65
32	QA	1407	5MC	C5-C6-N1	-3.19	119.85	123.31
32	XA	966	M2G	N9-C4-N3	3.18	132.31	125.95
1	YA	2503	2MA	N6-C6-N1	3.18	121.32	117.03
32	XA	967	5MC	C5-C6-N1	-3.16	119.88	123.31
1	RA	2503	2MA	C6-C5-C4	3.14	121.47	117.18
1	RA	2503	2MA	C5-N7-C8	3.13	108.36	103.45
32	QA	1207	2MG	CM2-N2-C2	-3.12	116.94	123.65
1	RA	2251	OMG	C8-N7-C5	3.12	109.82	104.26
32	QA	1519	MA6	C2-N1-C6	3.11	119.42	111.83
32	XA	966	M2G	N9-C8-N7	-3.06	107.73	113.40
32	XA	527	7MG	O6-C6-C5	-3.06	120.12	127.62
32	QA	516	PSU	C6-N1-C2	-3.02	119.89	122.69
32	QA	1518	MA6	C2-N3-C4	3.02	119.21	111.83
32	XA	1518	MA6	C5-N7-C8	3.02	108.19	103.45
32	XA	1519	MA6	C2-N3-C4	3.02	119.20	111.83
32	QA	527	7MG	O6-C6-C5	-3.01	120.24	127.62
1	RA	1911	PSU	C6-N1-C2	-3.00	119.90	122.69
32	QA	1518	MA6	C5-N7-C8	3.00	108.16	103.45
1	YA	1915	5MU	C1'-N1-C2	3.00	122.98	117.59
32	QA	1207	2MG	C8-N7-C5	2.98	109.58	104.26
32	XA	527	7MG	N1-C2-N3	-2.97	117.88	123.32
1	YA	2605	PSU	C6-N1-C2	-2.95	119.96	122.69
32	QA	967	5MC	C5-C6-N1	-2.94	120.12	123.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	XL	92	0TD	CSB-SB-CB	2.93	107.64	102.36
1	RA	1915	5MU	O2-C2-N3	-2.92	116.10	121.49
32	QA	1519	MA6	C2-N3-C4	2.91	118.94	111.83
1	YA	1962	5MC	C5-C6-N1	-2.91	120.15	123.31
32	QA	1519	MA6	C5-N7-C8	2.91	108.02	103.45
32	QA	966	M2G	C8-N7-C5	2.90	109.43	104.26
1	YA	2251	OMG	C8-N7-C5	2.90	109.43	104.26
32	XA	1518	MA6	C2-N3-C4	2.90	118.91	111.83
1	YA	2503	2MA	CM2-C2-N3	2.90	121.46	117.13
1	RA	2552	2MU	C6-C5-C4	-2.88	115.86	119.53
32	XA	1407	5MC	C5-C6-N1	-2.87	120.19	123.31
32	XA	527	7MG	N9-C4-N3	2.87	129.67	125.46
43	QL	92	0TD	OD1-CG-CB	-2.85	116.48	122.44
32	XA	1400	5MC	C5-C6-N1	-2.85	120.22	123.31
32	XA	1519	MA6	C4-N9-C8	2.83	108.71	105.74
1	RA	2251	OMG	C1'-N9-C4	2.83	134.85	126.49
32	QA	1207	2MG	N1-C2-N3	-2.82	118.93	123.68
1	YA	1915	5MU	O2-C2-N3	-2.80	116.33	121.49
32	QA	966	M2G	O6-C6-C5	-2.80	119.15	126.53
32	XA	1207	2MG	C8-N7-C5	2.79	109.24	104.26
32	QA	527	7MG	N9-C8-N7	2.79	107.33	103.37
32	XA	966	M2G	C8-N7-C5	2.76	109.18	104.26
1	YA	2251	OMG	C8-N9-C4	2.75	111.18	106.03
1	RA	2251	OMG	C8-N9-C4	2.74	111.16	106.03
1	RA	2251	OMG	N9-C4-N3	2.73	131.41	125.95
32	QA	966	M2G	C5-C6-N1	2.72	120.19	113.25
1	RA	2503	2MA	CM2-C2-N3	2.72	121.20	117.13
1	YA	2251	OMG	C1'-N9-C4	2.71	134.48	126.49
1	YA	2605	PSU	O2-C2-N1	-2.70	120.00	122.79
32	QA	1402	4OC	CM4-N4-C4	-2.68	117.22	122.45
1	RA	1917	PSU	C6-N1-C2	-2.66	120.23	122.69
32	XA	1207	2MG	C5-C6-N1	2.64	119.98	113.25
43	QL	92	0TD	CSB-SB-CB	2.63	107.10	102.36
1	RA	2605	PSU	O2-C2-N1	-2.63	120.08	122.79
32	XA	966	M2G	O6-C6-C5	-2.63	119.60	126.53
32	QA	527	7MG	N1-C2-N3	-2.63	118.52	123.32
1	YA	2552	2MU	C5-C6-N1	-2.61	117.59	121.84
1	RA	2251	OMG	O6-C6-C5	-2.60	119.66	126.53
32	XA	1207	2MG	N1-C2-N3	-2.60	119.29	123.68
1	RA	2251	OMG	N1-C2-N3	-2.60	118.57	123.32
32	XA	1207	2MG	N9-C4-N3	2.58	131.12	125.95
32	QA	1207	2MG	C5-C6-N1	2.57	119.79	113.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	XA	966	M2G	C5-C6-N1	2.57	119.79	113.25
1	RA	2503	2MA	N6-C6-N1	2.56	120.47	117.03
1	YA	2251	OMG	N9-C4-N3	2.55	131.06	125.95
32	XA	1207	2MG	O6-C6-C5	-2.55	119.80	126.53
1	YA	2251	OMG	N1-C2-N3	-2.55	118.66	123.32
1	RA	2251	OMG	C5-C6-N1	2.54	119.71	113.25
1	YA	2251	OMG	C5-C6-N1	2.53	119.70	113.25
32	QA	1207	2MG	N9-C4-N3	2.52	130.99	125.95
32	QA	1207	2MG	O6-C6-C5	-2.51	119.91	126.53
43	XL	92	0TD	OD2-CG-CB	2.50	118.56	113.15
1	RA	1939	5MU	C6-C5-C4	2.49	120.07	118.02
1	RA	1939	5MU	O2-C2-N1	-2.48	119.57	122.80
1	YA	2251	OMG	O6-C6-C5	-2.48	120.00	126.53
1	RA	1915	5MU	C6-N1-C2	-2.46	118.85	121.30
1	YA	2552	2MU	C6-C5-C4	-2.43	116.43	119.53
1	YA	2503	2MA	C4-N9-C8	2.43	108.29	105.74
55	QY	235	MEQ	CB-CG-CD	-2.42	107.66	113.06
1	RA	2251	OMG	C2-N1-C6	-2.42	120.71	125.11
1	YA	2251	OMG	C2-N1-C6	-2.42	120.72	125.11
32	XA	966	M2G	C4-C5-N7	-2.42	106.84	110.67
32	QA	1518	MA6	C6-C5-N7	-2.40	129.60	133.43
1	RA	2251	OMG	C4-C5-N7	-2.39	106.88	110.67
1	YA	1939	5MU	O2-C2-N1	-2.38	119.70	122.80
1	RA	2552	2MU	C5-C6-N1	-2.38	117.97	121.84
1	YA	1911	PSU	O2-C2-N1	-2.38	120.34	122.79
1	RA	2251	OMG	C6-C5-N7	2.37	134.60	130.29
1	YA	2251	OMG	C6-C5-N7	2.37	134.60	130.29
32	QA	1207	2MG	C4-C5-N7	-2.36	106.92	110.67
1	YA	1962	5MC	C1'-N1-C6	-2.35	117.28	121.15
32	XA	1519	MA6	C6-C5-N7	-2.34	129.71	133.43
1	YA	1915	5MU	C1'-N1-C6	-2.32	117.33	121.15
32	XA	516	PSU	O2-C2-N1	-2.32	120.40	122.79
32	QA	1519	MA6	C6-C5-N7	-2.31	129.74	133.43
1	YA	1942	5MC	CM5-C5-C6	-2.30	119.74	122.85
32	XA	1207	2MG	C4-C5-N7	-2.30	107.03	110.67
1	RA	1942	5MC	CM5-C5-C6	-2.30	119.74	122.85
32	XA	527	7MG	C5-C4-N9	2.29	109.27	106.33
1	YA	2251	OMG	C4-C5-N7	-2.29	107.05	110.67
32	XA	1519	MA6	C5-N7-C8	2.27	107.02	103.45
32	XA	527	7MG	N2-C2-N1	2.23	121.47	116.76
32	QA	1207	2MG	O3'-C3'-C2'	2.23	118.96	111.82
32	QA	966	M2G	C4-C5-N7	-2.21	107.17	110.67

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	YA	2251	OMG	N2-C2-N1	2.18	121.35	116.76
1	RA	2251	OMG	N2-C2-N1	2.17	121.34	116.76
1	RA	1915	5MU	C6-C5-C4	2.16	119.80	118.02
32	XA	527	7MG	C6-C5-C4	-2.15	118.62	122.40
32	QA	527	7MG	C5-C4-N9	2.14	109.08	106.33
32	QA	1207	2MG	C6-C5-N7	2.14	134.18	130.29
1	RA	1915	5MU	C1'-N1-C6	-2.11	117.67	121.15
32	XA	527	7MG	N9-C8-N7	2.11	106.36	103.37
1	YA	1920	4OC	C2'-C1'-N1	-2.09	110.27	114.24
32	QA	1407	5MC	C5-C4-N3	-2.09	119.61	121.75
32	QA	1207	2MG	C8-N9-C4	2.09	109.94	106.03
32	QA	516	PSU	O4'-C1'-C2'	2.09	108.04	105.15
32	XA	516	PSU	O4'-C1'-C2'	2.09	108.04	105.15
32	QA	1402	4OC	C2'-C1'-N1	-2.07	110.31	114.24
1	RA	2552	2MU	O4-C4-C5	-2.07	121.59	125.16
1	YA	2605	PSU	O4-C4-C5	-2.05	118.92	124.01
32	XA	1518	MA6	C6-C5-N7	-2.05	130.17	133.43
1	RA	2503	2MA	C2-N3-C4	2.04	122.02	115.02
32	XA	1400	5MC	CM5-C5-C6	-2.03	120.10	122.85
1	YA	2552	2MU	O4-C4-C5	-2.01	121.69	125.16
32	XA	1207	2MG	C6-C5-N7	2.01	133.95	130.29
43	QL	92	0TD	OD2-CG-OD1	-2.01	119.53	124.08
1	YA	2503	2MA	C2-N3-C4	2.00	121.88	115.02

There are no chirality outliers.

All (34) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	RA	1915	5MU	O4'-C1'-N1-C2
1	RA	1915	5MU	O4'-C1'-N1-C6
1	RA	1915	5MU	O4'-C4'-C5'-O5'
32	QA	1402	4OC	O4'-C4'-C5'-O5'
32	QA	1519	MA6	O4'-C4'-C5'-O5'
55	QY	235	MEQ	O-C-CA-CB
1	YA	1915	5MU	O4'-C1'-N1-C2
1	YA	1915	5MU	O4'-C1'-N1-C6
1	YA	1915	5MU	O4'-C4'-C5'-O5'
32	XA	1402	4OC	O4'-C4'-C5'-O5'
32	XA	1402	4OC	C3'-C4'-C5'-O5'
32	XA	1519	MA6	O4'-C4'-C5'-O5'
32	QA	527	7MG	C3'-C4'-C5'-O5'
1	YA	1915	5MU	C3'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
32	XA	527	7MG	C3'-C4'-C5'-O5'
32	QA	1400	5MC	O4'-C4'-C5'-O5'
32	QA	1402	4OC	C3'-C4'-C5'-O5'
1	RA	1915	5MU	C3'-C4'-C5'-O5'
32	QA	1519	MA6	C3'-C4'-C5'-O5'
32	XA	1519	MA6	C3'-C4'-C5'-O5'
32	QA	527	7MG	O4'-C4'-C5'-O5'
32	XA	527	7MG	O4'-C4'-C5'-O5'
55	XY	235	MEQ	CA-CB-CG-CD
32	QA	1400	5MC	C3'-C4'-C5'-O5'
43	QL	92	0TD	CG-CB-SB-CSB
43	XL	92	0TD	CG-CB-SB-CSB
55	XY	235	MEQ	C-CA-CB-CG
43	XL	92	0TD	SB-CB-CG-OD1
55	QY	235	MEQ	CA-CB-CG-CD
55	XY	235	MEQ	OE1-CD-CG-CB
32	XA	1400	5MC	O4'-C4'-C5'-O5'
43	XL	92	0TD	CA-CB-SB-CSB
55	XY	235	MEQ	NE2-CD-CG-CB
1	YA	1920	4OC	C2'-C1'-N1-C2

There are no ring outliers.

20 monomers are involved in 32 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	YA	1939	5MU	1	0
43	XL	92	0TD	1	0
32	QA	1402	4OC	2	0
32	XA	1518	MA6	2	0
1	YA	2503	2MA	2	0
32	QA	1404	5MC	1	0
1	RA	2503	2MA	2	0
32	QA	966	M2G	1	0
1	RA	2552	2MU	4	0
32	XA	1207	2MG	1	0
32	XA	1402	4OC	3	0
1	RA	1939	5MU	1	0
32	XA	1519	MA6	1	0
1	YA	2552	2MU	4	0
32	QA	1519	MA6	4	0
1	YA	1962	5MC	1	0
1	RA	1962	5MC	1	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	RA	1917	PSU	1	0
1	YA	1917	PSU	1	0
32	QA	1518	MA6	1	0

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 2445 ligands modelled in this entry, 2443 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	$\# Z > 2$
58	SF4	QD	302	35	0,12,12	-	-	-		
58	SF4	XD	301	-	0,12,12	-	-	-		

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
58	SF4	QD	302	35	-	-	0/6/5/5
58	SF4	XD	301	-	-	-	0/6/5/5

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

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	RA	2856/2915 (97%)	-0.42	19 (0%) 84 69	56, 90, 263, 484	0
1	YA	2856/2915 (97%)	-0.41	33 (1%) 76 58	42, 78, 256, 460	0
2	RB	120/122 (98%)	-0.28	0 100 100	100, 140, 172, 232	0
2	YB	120/122 (98%)	-0.32	0 100 100	73, 106, 131, 168	0
3	RD	275/276 (99%)	0.08	9 (3%) 49 30	55, 79, 112, 177	0
3	YD	275/276 (99%)	-0.09	3 (1%) 78 61	44, 66, 99, 194	0
4	RE	204/206 (99%)	0.07	5 (2%) 58 39	57, 85, 127, 179	0
4	YE	204/206 (99%)	0.00	2 (0%) 79 63	52, 86, 134, 194	0
5	RF	203/210 (96%)	0.08	1 (0%) 87 76	57, 101, 150, 184	0
5	YF	203/210 (96%)	0.03	1 (0%) 87 76	44, 82, 135, 179	0
6	RG	181/182 (99%)	0.45	7 (3%) 43 27	116, 143, 184, 216	0
6	YG	181/182 (99%)	0.28	5 (2%) 55 35	88, 114, 157, 215	0
7	RH	174/180 (96%)	0.57	10 (5%) 29 19	112, 177, 239, 281	0
7	YH	173/180 (96%)	0.33	5 (2%) 53 35	78, 99, 142, 222	0
8	RI	147/148 (99%)	0.81	16 (10%) 10 7	85, 136, 179, 213	0
8	YI	146/148 (98%)	0.37	4 (2%) 56 36	79, 121, 157, 177	0
9	RN	140/140 (100%)	0.17	2 (1%) 73 54	63, 99, 138, 189	0
9	YN	140/140 (100%)	0.09	1 (0%) 84 69	52, 88, 127, 165	0
10	RO	122/122 (100%)	0.03	3 (2%) 58 39	65, 83, 117, 168	0
10	YO	122/122 (100%)	-0.07	1 (0%) 82 67	58, 77, 108, 132	0
11	RP	149/150 (99%)	0.33	2 (1%) 75 55	63, 106, 149, 166	0
11	YP	149/150 (99%)	0.14	5 (3%) 48 30	52, 83, 122, 168	0
12	RQ	141/141 (100%)	0.12	4 (2%) 55 35	72, 103, 132, 152	0
12	YQ	141/141 (100%)	0.06	2 (1%) 73 54	62, 80, 107, 149	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	RR	118/118 (100%)	0.12	0 100 100	60, 82, 102, 123	0
13	YR	118/118 (100%)	0.25	3 (2%) 58 39	56, 85, 115, 164	0
14	RS	110/112 (98%)	0.37	1 (0%) 81 64	102, 131, 166, 186	0
14	YS	110/112 (98%)	0.26	4 (3%) 46 28	88, 103, 137, 159	0
15	RT	131/146 (89%)	-0.01	3 (2%) 61 41	69, 92, 136, 203	0
15	YT	131/146 (89%)	0.05	0 100 100	65, 90, 135, 183	0
16	RU	116/118 (98%)	0.20	1 (0%) 81 64	60, 93, 130, 161	0
16	YU	116/118 (98%)	0.02	0 100 100	50, 82, 120, 174	0
17	RV	101/101 (100%)	-0.09	1 (0%) 79 63	62, 110, 148, 167	0
17	YV	101/101 (100%)	-0.03	0 100 100	48, 95, 136, 159	0
18	RW	112/113 (99%)	0.02	1 (0%) 81 64	59, 76, 118, 179	0
18	YW	112/113 (99%)	0.05	2 (1%) 67 48	51, 75, 114, 185	0
19	RX	95/96 (98%)	0.48	6 (6%) 26 17	78, 94, 127, 166	0
19	YX	95/96 (98%)	0.17	1 (1%) 78 61	60, 76, 112, 153	0
20	RY	107/110 (97%)	1.03	15 (14%) 6 5	89, 121, 173, 208	0
20	YY	107/110 (97%)	0.54	5 (4%) 36 23	73, 98, 163, 216	0
21	RZ	189/206 (91%)	0.17	1 (0%) 87 76	112, 140, 175, 196	0
21	YZ	189/206 (91%)	0.12	1 (0%) 87 76	88, 114, 158, 207	0
22	R0	77/85 (90%)	0.42	6 (7%) 19 12	83, 99, 134, 145	0
22	Y0	77/85 (90%)	-0.02	1 (1%) 75 55	64, 81, 123, 168	0
23	R1	97/98 (98%)	0.37	3 (3%) 51 32	61, 90, 128, 157	0
23	Y1	97/98 (98%)	-0.00	1 (1%) 79 63	51, 81, 125, 143	0
24	R2	70/72 (97%)	0.39	2 (2%) 53 35	86, 113, 148, 159	0
24	Y2	70/72 (97%)	0.49	3 (4%) 40 24	62, 85, 111, 181	0
25	R3	59/60 (98%)	0.31	1 (1%) 69 49	74, 100, 146, 208	0
25	Y3	59/60 (98%)	0.04	1 (1%) 69 49	65, 84, 137, 169	0
26	R4	69/71 (97%)	0.30	1 (1%) 73 54	134, 179, 227, 256	0
26	Y4	69/71 (97%)	0.32	4 (5%) 29 18	105, 155, 216, 228	0
27	R5	59/60 (98%)	-0.03	0 100 100	64, 88, 163, 204	0
27	Y5	59/60 (98%)	0.22	2 (3%) 48 30	51, 90, 192, 206	0
28	R6	53/54 (98%)	1.24	14 (26%) 1 1	255, 286, 320, 355	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	Y6	53/54 (98%)	1.51	16 (30%) 1 1	193, 240, 268, 295	0
29	R7	48/49 (97%)	0.31	4 (8%) 17 11	60, 70, 122, 166	0
29	Y7	48/49 (97%)	0.13	2 (4%) 40 25	50, 59, 116, 148	0
30	R8	64/65 (98%)	0.42	4 (6%) 26 17	70, 84, 115, 179	0
30	Y8	64/65 (98%)	0.29	5 (7%) 19 12	52, 71, 100, 170	0
31	R9	37/37 (100%)	3.18	25 (67%) 0 0	186, 218, 264, 281	0
31	Y9	37/37 (100%)	4.25	35 (94%) 0 0	162, 200, 247, 255	0
32	QA	1488/1521 (97%)	-0.09	21 (1%) 73 54	76, 131, 234, 406	0
32	XA	1492/1521 (98%)	-0.25	9 (0%) 85 73	57, 119, 220, 371	0
33	QB	231/256 (90%)	0.40	8 (3%) 47 29	126, 171, 212, 247	0
33	XB	231/256 (90%)	0.27	3 (1%) 75 55	102, 144, 191, 222	0
34	QC	206/239 (86%)	0.31	10 (4%) 35 22	137, 170, 218, 240	0
34	XC	206/239 (86%)	0.24	6 (2%) 53 35	109, 132, 172, 211	0
35	QD	208/209 (99%)	0.44	12 (5%) 29 18	107, 139, 175, 199	0
35	XD	208/209 (99%)	0.50	14 (6%) 24 15	98, 132, 170, 207	0
36	QE	148/162 (91%)	0.12	3 (2%) 65 45	101, 133, 163, 202	0
36	XE	148/162 (91%)	0.08	4 (2%) 56 36	95, 114, 153, 178	0
37	QF	100/101 (99%)	0.07	2 (2%) 65 45	111, 138, 175, 198	0
37	XF	100/101 (99%)	-0.09	0 100 100	84, 117, 154, 185	0
38	QG	155/156 (99%)	0.35	4 (2%) 57 37	127, 155, 192, 221	0
38	XG	155/156 (99%)	0.22	4 (2%) 57 37	112, 132, 173, 185	0
39	QH	137/138 (99%)	0.40	5 (3%) 46 28	102, 137, 168, 179	0
39	XH	137/138 (99%)	0.32	3 (2%) 62 42	88, 122, 152, 182	0
40	QI	127/128 (99%)	0.92	13 (10%) 12 8	124, 178, 212, 240	0
40	XI	126/128 (98%)	0.70	14 (11%) 10 7	95, 143, 179, 222	0
41	QJ	97/105 (92%)	0.81	9 (9%) 14 9	153, 181, 213, 225	0
41	XJ	96/105 (91%)	0.81	9 (9%) 14 9	112, 151, 189, 215	0
42	QK	114/129 (88%)	0.21	3 (2%) 57 37	104, 132, 159, 196	0
42	XK	114/129 (88%)	0.23	9 (7%) 18 12	85, 108, 140, 184	0
43	QL	121/132 (91%)	0.65	9 (7%) 20 13	91, 105, 132, 160	0
43	XL	121/132 (91%)	0.41	10 (8%) 17 11	81, 97, 129, 148	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	QM	116/126 (92%)	0.67	13 (11%) 10 7	127, 161, 186, 212	0
44	XM	114/126 (90%)	0.55	9 (7%) 18 12	110, 143, 181, 203	0
45	QN	60/61 (98%)	0.87	8 (13%) 7 6	147, 168, 196, 220	0
45	XN	60/61 (98%)	0.86	4 (6%) 24 15	106, 125, 158, 173	0
46	QO	88/89 (98%)	0.31	1 (1%) 78 61	100, 120, 155, 182	0
46	XO	88/89 (98%)	0.32	4 (4%) 38 24	83, 113, 145, 169	0
47	QP	82/88 (93%)	0.52	4 (4%) 35 22	89, 118, 143, 174	0
47	XP	82/88 (93%)	0.57	3 (3%) 45 28	111, 135, 161, 189	0
48	QQ	99/105 (94%)	0.45	4 (4%) 42 26	84, 118, 159, 178	0
48	XQ	99/105 (94%)	0.34	4 (4%) 42 26	86, 114, 139, 175	0
49	QR	68/88 (77%)	0.34	1 (1%) 72 52	115, 142, 173, 212	0
49	XR	68/88 (77%)	0.07	2 (2%) 53 35	85, 114, 152, 157	0
50	QS	83/93 (89%)	0.54	6 (7%) 21 14	134, 172, 208, 233	0
50	XS	83/93 (89%)	0.78	6 (7%) 21 14	123, 152, 192, 267	0
51	QT	96/106 (90%)	0.97	12 (12%) 8 6	90, 114, 144, 179	0
51	XT	98/106 (92%)	1.01	18 (18%) 3 3	96, 129, 161, 188	0
52	QU	23/27 (85%)	1.52	7 (30%) 1 1	136, 154, 175, 184	0
52	XU	23/27 (85%)	1.70	7 (30%) 1 1	119, 136, 158, 174	0
53	QV	77/77 (100%)	-0.41	1 (1%) 75 55	100, 138, 189, 241	0
53	XV	77/77 (100%)	-0.43	1 (1%) 75 55	74, 121, 178, 229	0
54	QX	10/25 (40%)	1.46	3 (30%) 1 1	118, 149, 217, 231	0
54	XX	9/25 (36%)	1.36	3 (33%) 1 1	96, 111, 178, 193	0
55	QY	257/360 (71%)	0.66	29 (11%) 10 7	124, 163, 221, 279	0
55	XY	258/360 (71%)	0.56	28 (10%) 10 7	107, 136, 193, 241	0
All	All	21230/22168 (95%)	0.05	677 (3%) 50 31	42, 110, 202, 484	0

All (677) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
51	QT	9	ASN	9.4
31	Y9	26	ILE	8.9
31	Y9	37	GLY	8.8
55	XY	194	GLY	8.1
31	Y9	31	LYS	7.9

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Mol	Chain	Res	Type	RSRZ
31	R9	15	LYS	7.8
31	R9	26	ILE	7.7
31	Y9	17	ILE	7.2
31	R9	14	CYS	6.7
55	XY	242	SER	6.2
31	Y9	25	VAL	6.2
44	QM	100	GLY	6.2
40	QI	128	ARG	6.1
31	R9	17	ILE	5.9
1	YA	1029	A	5.9
55	QY	192	SER	5.9
20	RY	1	MET	5.8
24	Y2	70	GLN	5.7
20	YY	1	MET	5.7
55	QY	193	GLN	5.7
35	XD	2	GLY	5.7
31	Y9	16	VAL	5.7
40	QI	127	LYS	5.5
3	RD	276	LYS	5.5
31	Y9	21	GLY	5.4
1	YA	1091	G	5.4
54	XX	22	C	5.3
51	XT	18	GLN	5.3
31	Y9	33	LYS	5.3
31	R9	13	LYS	5.3
31	R9	12	ASP	5.3
8	RI	16	GLY	5.1
31	Y9	30	PRO	5.1
29	R7	48	LYS	5.1
31	Y9	2	LYS	5.0
31	Y9	18	ARG	4.9
31	R9	18	ARG	4.9
31	Y9	1	MET	4.9
55	QY	189	ALA	4.8
1	YA	1030	G	4.8
55	QY	231	GLY	4.7
55	QY	156	HIS	4.7
31	R9	23	VAL	4.7
40	QI	106	ALA	4.6
31	R9	21	GLY	4.6
31	Y9	24	TYR	4.6
41	XJ	64	GLU	4.6

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Mol	Chain	Res	Type	RSRZ
31	Y9	34	GLN	4.6
44	XM	115	LYS	4.5
31	R9	8	LYS	4.5
33	QB	70	PHE	4.5
51	XT	15	ARG	4.5
7	YH	47	GLU	4.5
40	QI	109	VAL	4.5
6	YG	35	GLU	4.5
55	XY	258	GLN	4.4
31	Y9	8	LYS	4.4
44	XM	116	THR	4.3
15	RT	131	ALA	4.3
40	QI	11	LYS	4.3
1	YA	1031	G	4.3
23	R1	2	SER	4.3
31	R9	27	CYS	4.3
42	XK	126	ARG	4.3
40	XI	126	SER	4.3
55	XY	260	GLU	4.2
49	QR	43	PHE	4.2
40	QI	105	ASP	4.2
14	RS	3	ARG	4.2
31	Y9	19	ARG	4.2
31	Y9	7	VAL	4.2
44	QM	117	VAL	4.1
51	XT	7	LYS	4.1
1	YA	1076	C	4.1
1	YA	1026	U	4.1
33	QB	214	ILE	4.1
31	R9	37	GLY	4.1
31	R9	30	PRO	4.0
31	Y9	23	VAL	4.0
23	Y1	2	SER	4.0
31	Y9	5	ALA	4.0
11	YP	15	ARG	4.0
31	Y9	28	GLU	4.0
51	XT	103	GLY	4.0
43	QL	64	TYR	4.0
51	XT	10	LEU	4.0
44	QM	116	THR	3.9
41	XJ	66	ARG	3.9
48	QQ	100	LYS	3.9

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Mol	Chain	Res	Type	RSRZ
37	QF	90	VAL	3.9
35	QD	49	ARG	3.9
3	YD	275	LYS	3.9
40	XI	66	ARG	3.9
38	QG	86	GLN	3.9
10	YO	91	LEU	3.9
28	Y6	36	LEU	3.9
33	XB	196	LEU	3.9
32	QA	1036	G	3.9
31	Y9	32	HIS	3.8
31	Y9	22	ARG	3.8
28	R6	22	ALA	3.8
1	RA	1067	A	3.8
55	QY	237	VAL	3.8
1	RA	1536	C	3.7
45	XN	2	ALA	3.7
1	RA	1171	G	3.7
55	XY	329	LEU	3.7
45	XN	13	THR	3.7
55	QY	122	ASP	3.7
38	QG	36	LYS	3.7
28	Y6	2	ALA	3.7
31	R9	16	VAL	3.7
33	QB	97	TRP	3.7
32	XA	1397	C	3.7
42	XK	117	ASN	3.7
51	XT	6	PRO	3.7
15	RT	130	ALA	3.7
40	XI	110	GLU	3.6
22	Y0	8	GLY	3.6
45	XN	59	ALA	3.6
55	QY	324	LEU	3.6
1	YA	1536	C	3.6
40	XI	105	ASP	3.6
4	RE	163	GLU	3.6
40	XI	102	LEU	3.6
32	QA	1397	C	3.5
29	Y7	48	LYS	3.5
28	Y6	38	LYS	3.5
55	QY	190	THR	3.5
41	QJ	64	GLU	3.5
28	Y6	22	ALA	3.5

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Mol	Chain	Res	Type	RSRZ
34	QC	124	ILE	3.5
40	QI	110	GLU	3.5
12	RQ	8	LYS	3.5
44	QM	78	ILE	3.5
31	Y9	4	ARG	3.4
52	QU	6	ARG	3.4
31	Y9	12	ASP	3.4
28	Y6	23	THR	3.4
40	XI	11	LYS	3.4
48	QQ	24	GLU	3.4
1	YA	1032	A	3.4
14	YS	7	TYR	3.4
32	QA	789	U	3.4
55	QY	230	SER	3.4
31	Y9	10	ILE	3.4
51	XT	9	ASN	3.3
7	RH	71	LEU	3.3
41	XJ	46	ARG	3.3
48	QQ	91	ARG	3.3
19	YX	1	MET	3.3
34	QC	158	GLY	3.3
31	Y9	36	GLN	3.3
3	YD	276	LYS	3.3
29	R7	1	MET	3.3
1	YA	1101	U	3.3
31	R9	11	CYS	3.3
41	QJ	67	THR	3.3
44	QM	102	ARG	3.3
54	QX	22	C	3.3
52	XU	20	LYS	3.3
48	XQ	99	SER	3.2
29	Y7	47	ARG	3.2
44	QM	99	ARG	3.2
45	XN	3	ARG	3.2
43	QL	32	PHE	3.2
6	RG	35	GLU	3.2
1	YA	2758	A	3.2
8	RI	92	VAL	3.2
33	QB	163	PHE	3.2
51	QT	11	SER	3.2
38	XG	80	VAL	3.2
32	XA	789	U	3.2

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Mol	Chain	Res	Type	RSRZ
54	QX	14	A	3.2
28	R6	38	LYS	3.2
51	XT	58	LYS	3.2
1	YA	1509(A)	C	3.2
39	XH	2	LEU	3.2
20	RY	35	TYR	3.2
41	XJ	60	ARG	3.2
43	XL	89	ARG	3.2
24	Y2	15	LYS	3.1
50	QS	13	ASP	3.1
32	XA	532	A	3.1
34	QC	207	VAL	3.1
55	XY	188	PRO	3.1
26	Y4	68	ARG	3.1
30	Y8	46	ARG	3.1
51	XT	14	LYS	3.1
55	XY	302	ASP	3.1
7	RH	24	VAL	3.1
54	QX	23	A	3.1
3	RD	275	LYS	3.1
20	RY	34	LYS	3.1
42	XK	13	GLN	3.1
50	XS	56	GLN	3.1
20	RY	62	GLU	3.1
40	QI	14	VAL	3.1
52	XU	9	ARG	3.1
35	XD	4	TYR	3.1
28	Y6	8	LYS	3.1
28	R6	11	LEU	3.1
43	XL	91	LYS	3.1
42	QK	126	ARG	3.1
43	XL	18	VAL	3.1
31	R9	22	ARG	3.0
55	QY	233	GLY	3.0
7	RH	105	LEU	3.0
1	RA	1509(A)	C	3.0
1	YA	1092	C	3.0
20	RY	58	GLY	3.0
24	R2	1	MET	3.0
55	XY	333	MET	3.0
32	QA	346	G	3.0
32	QA	347	G	3.0

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Mol	Chain	Res	Type	RSRZ
5	RF	134	GLY	3.0
32	XA	1403	C	3.0
44	XM	113	PRO	3.0
39	QH	107	LEU	3.0
4	RE	151	TYR	3.0
40	XI	106	ALA	3.0
1	RA	1026	U	3.0
51	XT	27	LYS	3.0
1	RA	2062	A	3.0
40	QI	126	SER	3.0
48	XQ	100	LYS	3.0
31	Y9	20	HIS	3.0
37	QF	6	VAL	3.0
55	XY	156	HIS	3.0
28	R6	23	THR	3.0
6	RG	34	LEU	2.9
23	R1	27	GLU	2.9
32	QA	159	G	2.9
3	RD	266	SER	2.9
1	RA	2896	C	2.9
36	XE	10	MET	2.9
44	XM	106	ASN	2.9
6	RG	75	LYS	2.9
20	RY	44	ILE	2.9
51	QT	25	ARG	2.9
45	QN	15	LYS	2.9
1	RA	34	C	2.9
45	QN	34	TYR	2.9
26	Y4	66	SER	2.9
51	XT	11	SER	2.9
8	RI	1	MET	2.9
10	RO	1	MET	2.9
28	Y6	24	GLU	2.9
40	XI	2	GLU	2.9
1	YA	529	A	2.9
32	QA	160	A	2.9
32	QA	345	C	2.9
51	QT	22	ARG	2.9
20	YY	63	LYS	2.9
50	QS	84	GLY	2.9
52	XU	21	TYR	2.9
32	XA	631	G	2.9

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Mol	Chain	Res	Type	RSRZ
40	QI	102	LEU	2.9
42	QK	124	LYS	2.9
25	R3	2	PRO	2.8
34	QC	160	ALA	2.8
38	QG	84	ASN	2.8
31	Y9	35	ARG	2.8
31	Y9	13	LYS	2.8
34	QC	196	LEU	2.8
35	XD	157	LEU	2.8
51	XT	102	GLY	2.8
55	QY	229	SER	2.8
44	XM	107	ALA	2.8
8	RI	117	GLU	2.8
31	R9	25	VAL	2.8
33	XB	136	VAL	2.8
7	YH	4	ILE	2.8
10	RO	110	GLY	2.8
11	YP	54	GLY	2.8
51	XT	74	LYS	2.8
1	YA	1046	A	2.8
28	R6	10	LEU	2.8
8	RI	34	GLY	2.8
23	R1	26	ARG	2.8
29	R7	47	ARG	2.8
52	XU	3	LYS	2.8
8	YI	35	LEU	2.8
31	R9	24	TYR	2.8
1	YA	2807	G	2.8
6	RG	97	ASP	2.7
35	QD	2	GLY	2.7
39	XH	25	ASP	2.7
51	QT	64	ASP	2.7
8	RI	39	ALA	2.7
43	XL	28	LYS	2.7
43	XL	47	LYS	2.7
48	XQ	37	LYS	2.7
7	RH	115	VAL	2.7
8	RI	38	LEU	2.7
43	XL	32	PHE	2.7
1	YA	2116	G	2.7
55	XY	187	VAL	2.7
20	RY	31	LEU	2.7

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Mol	Chain	Res	Type	RSRZ
47	QP	26	ARG	2.7
50	QS	78	ARG	2.7
7	YH	57	ASP	2.7
55	QY	302	ASP	2.7
44	QM	87	TYR	2.7
8	RI	94	ALA	2.7
19	RX	66	LEU	2.7
28	Y6	34	LEU	2.7
44	XM	90	LEU	2.7
34	XC	2	GLY	2.7
45	QN	3	ARG	2.7
51	QT	80	ARG	2.7
52	QU	24	ARG	2.7
55	QY	96	LEU	2.7
32	QA	630	G	2.7
44	QM	90	LEU	2.7
44	QM	92	HIS	2.7
1	YA	1077	A	2.6
51	QT	100	ILE	2.6
52	QU	22	ARG	2.6
35	QD	86	LYS	2.6
46	XO	86	GLY	2.6
6	YG	29	TRP	2.6
48	XQ	35	VAL	2.6
50	QS	9	VAL	2.6
1	YA	2805	G	2.6
8	RI	111	PRO	2.6
13	YR	68	ARG	2.6
14	YS	3	ARG	2.6
34	QC	10	PHE	2.6
35	QD	73	ARG	2.6
32	XA	1196	U	2.6
43	QL	23	LYS	2.6
41	QJ	61	GLU	2.6
53	QV	76	A	2.6
31	Y9	27	CYS	2.6
40	XI	7	THR	2.6
28	Y6	10	LEU	2.6
34	XC	196	LEU	2.6
1	RA	1104	C	2.6
19	RX	33	LYS	2.6
20	RY	2	ARG	2.6

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Mol	Chain	Res	Type	RSRZ
31	Y9	15	LYS	2.6
28	Y6	48	VAL	2.6
42	XK	122	LYS	2.6
20	YY	5	MET	2.6
43	QL	94	PRO	2.6
55	QY	194	GLY	2.6
55	QY	187	VAL	2.6
55	XY	226	THR	2.6
55	XY	232	ALA	2.6
19	RX	68	ARG	2.6
45	QN	12	ARG	2.6
55	XY	261	ARG	2.6
55	XY	316	ARG	2.6
31	Y9	11	CYS	2.6
26	Y4	67	TYR	2.6
31	R9	32	HIS	2.6
35	QD	4	TYR	2.6
10	RO	91	LEU	2.6
40	XI	12	GLU	2.6
8	RI	83	ALA	2.6
18	RW	92	ARG	2.6
18	YW	90	ARG	2.6
33	QB	81	VAL	2.6
35	QD	122	ARG	2.6
55	XY	189	ALA	2.6
55	QY	226	THR	2.6
8	RI	91	SER	2.5
42	QK	13	GLN	2.5
47	QP	27	LYS	2.5
1	YA	1095	A	2.5
21	YZ	189	ALA	2.5
28	R6	21	TYR	2.5
52	XU	23	PRO	2.5
7	RH	103	LEU	2.5
50	XS	38	SER	2.5
9	YN	115	ARG	2.5
11	RP	15	ARG	2.5
30	R8	46	ARG	2.5
52	XU	15	ARG	2.5
30	Y8	34	TRP	2.5
32	QA	1531	A	2.5
1	YA	1171	G	2.5

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Mol	Chain	Res	Type	RSRZ
28	R6	41	PRO	2.5
28	Y6	41	PRO	2.5
42	XK	124	LYS	2.5
19	RX	1	MET	2.5
7	YH	67	LEU	2.5
17	RV	81	TYR	2.5
22	R0	74	ARG	2.5
27	Y5	58	LEU	2.5
28	R6	36	LEU	2.5
31	R9	20	HIS	2.5
40	XI	125	TYR	2.5
52	QU	15	ARG	2.5
7	RH	131	VAL	2.5
32	XA	630	G	2.5
7	RH	72	ILE	2.5
34	XC	8	ILE	2.5
35	XD	70	ILE	2.5
43	XL	61	THR	2.5
50	QS	79	THR	2.5
44	QM	94	ARG	2.5
44	XM	102	ARG	2.5
31	Y9	29	ASN	2.4
41	XJ	76	ASN	2.4
34	XC	15	THR	2.4
35	XD	64	LEU	2.4
50	QS	80	TYR	2.4
12	RQ	12	GLN	2.4
4	RE	73	GLU	2.4
31	R9	19	ARG	2.4
40	XI	127	LYS	2.4
38	XG	59	LEU	2.4
28	R6	20	ASN	2.4
31	R9	29	ASN	2.4
32	QA	161	A	2.4
8	YI	81	VAL	2.4
9	RN	9	VAL	2.4
11	YP	53	GLY	2.4
35	XD	167	GLY	2.4
8	YI	146	ALA	2.4
1	RA	2318	G	2.4
1	RA	2894	G	2.4
1	RA	2897	U	2.4

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Mol	Chain	Res	Type	RSRZ
1	YA	2141	G	2.4
24	R2	70	GLN	2.4
36	QE	26	PHE	2.4
41	QJ	46	ARG	2.4
43	QL	47	LYS	2.4
55	QY	155	GLU	2.4
7	RH	113	VAL	2.4
15	RT	37	GLY	2.4
20	RY	41	GLY	2.4
27	Y5	52	TYR	2.4
34	XC	201	TYR	2.4
1	YA	2062	A	2.4
32	XA	1531	A	2.4
35	XD	166	LYS	2.4
41	XJ	57	LYS	2.4
6	YG	7	LEU	2.4
41	QJ	40	LEU	2.4
55	XY	324	LEU	2.4
6	RG	76	SER	2.4
34	QC	154	SER	2.4
1	YA	2319	G	2.4
30	Y8	6	THR	2.4
44	QM	115	LYS	2.4
40	XI	33	PHE	2.4
45	QN	44	LEU	2.4
6	YG	32	PRO	2.4
45	QN	13	THR	2.3
55	XY	233	GLY	2.3
4	RE	60	ASN	2.3
13	YR	69	ASP	2.3
28	Y6	39	TYR	2.3
46	QO	54	ARG	2.3
5	YF	6	VAL	2.3
20	RY	77	PRO	2.3
32	QA	790	A	2.3
32	XA	790	A	2.3
51	XT	70	SER	2.3
14	YS	20	ARG	2.3
19	RX	45	THR	2.3
28	Y6	7	ILE	2.3
48	QQ	44	ALA	2.3
14	YS	92	TYR	2.3

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Mol	Chain	Res	Type	RSRZ
1	YA	2789	C	2.3
24	Y2	66	GLU	2.3
39	QH	99	GLU	2.3
7	YH	63	SER	2.3
8	RI	109	ILE	2.3
30	R8	45	GLY	2.3
20	RY	12	THR	2.3
28	R6	39	TYR	2.3
51	QT	10	LEU	2.3
9	RN	10	GLU	2.3
30	Y8	56	GLU	2.3
8	RI	121	LYS	2.3
12	RQ	76	LYS	2.3
43	XL	46	LYS	2.3
4	RE	204	ALA	2.3
20	YY	100	ALA	2.3
28	R6	2	ALA	2.3
12	YQ	21	THR	2.3
42	XK	87	THR	2.3
50	XS	39	THR	2.3
46	XO	66	LEU	2.3
1	YA	1071	G	2.3
43	QL	8	ASN	2.3
55	QY	323	ASN	2.3
31	R9	34	GLN	2.3
11	YP	16	ARG	2.3
47	QP	42	ARG	2.3
55	QY	195	ARG	2.3
55	QY	260	GLU	2.3
6	RG	20	ILE	2.3
6	RG	52	ILE	2.3
39	XH	101	PRO	2.3
40	QI	103	THR	2.3
55	XY	264	HIS	2.3
30	Y8	35	GLN	2.3
31	Y9	14	CYS	2.3
3	RD	262	ARG	2.3
55	QY	303	ARG	2.3
38	QG	21	VAL	2.3
55	XY	122	ASP	2.3
32	QA	576	G	2.2
55	QY	196	ILE	2.2

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Mol	Chain	Res	Type	RSRZ
1	RA	1046	A	2.2
1	RA	2758	A	2.2
32	QA	1196	U	2.2
42	XK	125	PHE	2.2
55	XY	229	SER	2.2
1	YA	34	C	2.2
39	QH	84	ARG	2.2
31	Y9	3	VAL	2.2
38	XG	84	ASN	2.2
34	QC	161	GLU	2.2
35	QD	67	ILE	2.2
33	QB	218	ALA	2.2
43	QL	5	PRO	2.2
35	QD	155	LEU	2.2
50	XS	84	GLY	2.2
51	QT	72	LEU	2.2
32	QA	791	G	2.2
1	YA	1028	A	2.2
55	XY	224	ILE	2.2
51	XT	20	LEU	2.2
55	QY	241	ASP	2.2
36	QE	85	GLY	2.2
41	XJ	55	LYS	2.2
11	RP	79	ARG	2.2
55	XY	192	SER	2.2
1	RA	229	A	2.2
1	RA	529	A	2.2
1	YA	2792	G	2.2
32	QA	978	A	2.2
36	QE	81	GLU	2.2
13	YR	41	ALA	2.2
20	YY	78	ALA	2.2
33	XB	131	PRO	2.2
20	RY	94	LYS	2.2
47	XP	27	LYS	2.2
43	QL	89	ARG	2.2
55	QY	239	THR	2.2
47	XP	2	VAL	2.2
28	R6	3	SER	2.2
46	XO	62	GLN	2.2
51	QT	41	ILE	2.2
55	QY	300	SER	2.2

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Mol	Chain	Res	Type	RSRZ
55	XY	256	GLU	2.2
12	RQ	22	LYS	2.2
31	R9	31	LYS	2.2
38	XG	29	LYS	2.2
40	QI	116	LYS	2.2
55	XY	315	GLY	2.2
35	QD	3	ARG	2.2
35	QD	118	ARG	2.2
3	RD	53	PHE	2.2
41	QJ	58	ASP	2.2
32	QA	377	G	2.2
52	QU	17	THR	2.1
55	XY	317	VAL	2.1
4	YE	151	TYR	2.1
35	XD	68	TYR	2.1
1	YA	1075	C	2.1
1	YA	1100	C	2.1
3	RD	106	ILE	2.1
35	QD	70	ILE	2.1
55	XY	196	ILE	2.1
41	XJ	65	LEU	2.1
35	QD	166	LYS	2.1
20	RY	23	ARG	2.1
33	QB	12	GLU	2.1
44	XM	32	GLU	2.1
35	XD	154	ASN	2.1
55	QY	313	PRO	2.1
28	R6	40	CYS	2.1
52	QU	14	TRP	2.1
4	YE	159	HIS	2.1
50	XS	69	HIS	2.1
22	R0	10	THR	2.1
32	QA	1447	A	2.1
40	QI	125	TYR	2.1
41	XJ	6	ILE	2.1
54	XX	15	A	2.1
3	RD	5	LYS	2.1
1	YA	614(C)	G	2.1
1	YA	1093	G	2.1
44	XM	94	ARG	2.1
45	QN	2	ALA	2.1
18	YW	112	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
36	XE	22	GLY	2.1
50	XS	4	SER	2.1
34	QC	167	TRP	2.1
42	XK	14	VAL	2.1
1	YA	1078	U	2.1
30	R8	16	ILE	2.1
39	QH	133	LEU	2.1
44	QM	27	LYS	2.1
12	YQ	5	ARG	2.1
20	RY	65	ALA	2.1
6	YG	164	GLU	2.1
30	R8	65	GLU	2.1
35	XD	150	GLU	2.1
43	XL	29	GLY	2.1
52	QU	16	GLY	2.1
55	XY	153	GLU	2.1
1	RA	1089	G	2.1
45	QN	18	VAL	2.1
22	R0	71	ASP	2.1
41	QJ	66	ARG	2.1
26	Y4	63	TYR	2.1
55	XY	314	GLN	2.1
16	RU	2	PRO	2.1
25	Y3	2	PRO	2.1
55	QY	256	GLU	2.1
33	QB	136	VAL	2.1
3	YD	261	LYS	2.1
3	RD	37	LEU	2.1
36	XE	12	LEU	2.1
41	QJ	4	ILE	2.1
44	QM	88	ARG	2.1
49	XR	76	LEU	2.1
51	XT	8	ARG	2.1
47	QP	68	ASP	2.1
26	R4	25	TYR	2.1
32	QA	631	G	2.1
51	QT	69	GLY	2.1
3	RD	38	LYS	2.0
28	Y6	5	VAL	2.0
51	QT	74	LYS	2.0
8	RI	4	ILE	2.0
22	R0	44	ARG	2.0

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Mol	Chain	Res	Type	RSRZ
28	Y6	19	ARG	2.0
34	QC	190	ARG	2.0
35	XD	21	LEU	2.0
42	XK	21	ILE	2.0
43	XL	19	ARG	2.0
46	XO	3	ILE	2.0
21	RZ	98	MET	2.0
8	RI	20	ASP	2.0
29	R7	45	ALA	2.0
53	XV	76	A	2.0
54	XX	14	A	2.0
22	R0	8	GLY	2.0
36	XE	20	GLN	2.0
41	QJ	10	GLY	2.0
7	RH	168	PRO	2.0
35	XD	80	GLU	2.0
1	RA	2138	C	2.0
35	XD	86	LYS	2.0
43	QL	21	LYS	2.0
47	XP	31	LYS	2.0
11	YP	79	ARG	2.0
19	RX	60	ARG	2.0
22	R0	72	ARG	2.0
32	QA	1202	G	2.0
35	XD	122	ARG	2.0
39	QH	18	ARG	2.0
28	R6	54	ILE	2.0
51	XT	55	ILE	2.0
32	QA	1364	U	2.0
31	R9	5	ALA	2.0
51	XT	66	ALA	2.0
40	XI	114	TYR	2.0
8	RI	96	ASP	2.0
1	RA	1103	A	2.0
8	YI	10	GLU	2.0
20	RY	29	GLU	2.0
7	RH	170	ARG	2.0
49	XR	39	VAL	2.0
52	XU	6	ARG	2.0
34	XC	188	LEU	2.0
28	Y6	54	ILE	2.0
55	QY	224	ILE	2.0

6.2 Non-standard residues in protein, DNA, RNA chains

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
1	5MU	RA	1915	21/22	0.72	0.14	118,129,139,151	0
32	PSU	QA	516	20/21	0.83	0.09	121,124,134,144	0
32	2MG	QA	1207	24/25	0.85	0.10	153,161,175,176	0
1	PSU	RA	1917	20/21	0.89	0.09	78,100,113,119	0
32	PSU	XA	516	20/21	0.89	0.10	105,115,124,130	0
32	2MG	XA	1207	24/25	0.89	0.12	119,129,138,139	0
32	4OC	XA	1402	22/23	0.89	0.13	73,88,101,112	0
32	M2G	QA	966	25/26	0.91	0.14	119,125,137,151	0
32	7MG	QA	527	24/25	0.91	0.13	89,108,119,125	0
1	5MU	YA	1915	21/22	0.91	0.09	86,100,112,116	0
32	5MC	XA	967	21/22	0.92	0.12	91,107,118,120	0
1	PSU	RA	1911	20/21	0.92	0.09	96,104,111,112	0
1	4OC	RA	1920	21/23	0.92	0.13	96,107,119,126	0
32	5MC	QA	1400	21/22	0.93	0.14	103,118,125,129	0
1	PSU	YA	1917	20/21	0.93	0.09	59,70,94,115	0
32	5MC	XA	1404	21/22	0.93	0.13	60,72,81,98	0
32	UR3	XA	1498	21/22	0.93	0.13	57,79,99,112	0
32	7MG	XA	527	24/25	0.94	0.11	76,93,103,112	0
1	PSU	YA	1911	20/21	0.94	0.09	73,86,94,95	0
32	5MC	QA	967	21/22	0.94	0.11	114,122,132,133	0
43	0TD	QL	92	10/11	0.94	0.11	88,108,111,111	0
1	4OC	YA	1920	21/23	0.94	0.10	71,85,97,100	0
55	MEQ	QY	235	10/11	0.94	0.20	127,132,140,142	0
1	5MU	RA	1939	21/22	0.95	0.11	57,71,84,95	0
32	4OC	QA	1402	22/23	0.95	0.10	93,102,112,115	0
32	5MC	QA	1404	21/22	0.95	0.12	88,98,109,125	0
32	UR3	QA	1498	21/22	0.95	0.12	85,94,108,113	0
32	5MC	XA	1407	21/22	0.95	0.12	67,72,85,91	0
32	M2G	XA	966	25/26	0.95	0.10	93,101,131,140	0
43	0TD	XL	92	10/11	0.95	0.10	84,100,105,108	0
1	2MA	YA	2503	23/24	0.96	0.10	39,58,67,79	0
32	5MC	XA	1400	21/22	0.96	0.10	65,81,92,101	0
1	2MU	YA	2552	21/23	0.96	0.09	43,57,72,82	0
1	2MA	RA	2503	23/24	0.96	0.09	47,56,73,77	0
32	MA6	QA	1518	24/25	0.96	0.10	77,101,114,118	0
1	5MC	RA	1942	21/22	0.96	0.09	68,81,101,115	0
1	OMG	RA	2251	24/25	0.96	0.09	64,73,83,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
55	MEQ	XY	235	10/11	0.96	0.20	113,113,129,136	0
32	5MC	QA	1407	21/22	0.97	0.07	68,80,94,102	0
1	PSU	RA	2605	20/21	0.97	0.08	47,62,74,78	0
1	5MC	RA	1962	21/22	0.97	0.07	61,72,82,98	0
32	MA6	QA	1519	24/25	0.97	0.11	90,100,106,107	0
1	2MU	RA	2552	21/23	0.97	0.08	56,69,83,86	0
32	MA6	XA	1518	24/25	0.97	0.09	58,73,92,95	0
32	MA6	XA	1519	24/25	0.97	0.10	62,72,79,85	0
1	5MU	YA	1939	21/22	0.97	0.08	43,56,71,85	0
1	5MC	YA	1942	21/22	0.97	0.07	54,65,71,83	0
1	PSU	YA	2605	20/21	0.98	0.07	36,50,56,58	0
1	5MC	YA	1962	21/22	0.98	0.06	48,56,69,81	0
1	OMG	YA	2251	24/25	0.98	0.07	45,50,64,78	0

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	QD	304	1/1	-0.44	0.29	132,132,132,132	0
56	MG	QA	1792	1/1	-0.43	0.27	144,144,144,144	0
56	MG	YA	3476	1/1	-0.36	0.63	117,117,117,117	0
56	MG	RG	201	1/1	-0.27	0.14	175,175,175,175	0
56	MG	QN	103	1/1	-0.19	0.35	128,128,128,128	0
56	MG	RA	3260	1/1	-0.10	0.28	123,123,123,123	0
56	MG	YA	3333	1/1	-0.06	0.24	120,120,120,120	0
56	MG	R5	104	1/1	-0.06	0.18	137,137,137,137	0
56	MG	QA	1773	1/1	-0.05	0.29	113,113,113,113	0
56	MG	QA	1824	1/1	-0.05	0.23	139,139,139,139	0
56	MG	YA	3358	1/1	-0.01	0.15	118,118,118,118	0
56	MG	QA	1760	1/1	-0.00	0.22	132,132,132,132	0
56	MG	RA	3637	1/1	0.00	0.60	101,101,101,101	0
56	MG	RA	3782	1/1	-0.00	0.38	125,125,125,125	0
56	MG	RA	3468	1/1	0.03	0.22	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
56	MG	QA	1798	1/1	0.03	0.28	106,106,106,106	0
56	MG	RB	210	1/1	0.03	0.20	123,123,123,123	0
56	MG	RA	3435	1/1	0.03	0.19	136,136,136,136	0
56	MG	QA	1772	1/1	0.05	0.39	109,109,109,109	0
56	MG	QA	1694	1/1	0.07	0.20	123,123,123,123	0
56	MG	RA	3188	1/1	0.07	0.23	129,129,129,129	0
56	MG	QA	1647	1/1	0.09	0.12	159,159,159,159	0
56	MG	YB	210	1/1	0.11	0.26	104,104,104,104	0
56	MG	RA	3193	1/1	0.12	0.28	141,141,141,141	0
56	MG	YA	3368	1/1	0.12	0.23	108,108,108,108	0
56	MG	XA	1704	1/1	0.12	0.27	112,112,112,112	0
56	MG	XA	1667	1/1	0.13	0.20	136,136,136,136	0
56	MG	QA	1747	1/1	0.15	0.28	152,152,152,152	0
56	MG	QA	1800	1/1	0.15	0.22	120,120,120,120	0
56	MG	QA	1758	1/1	0.15	0.19	119,119,119,119	0
56	MG	XA	1623	1/1	0.16	0.26	111,111,111,111	0
56	MG	QA	1748	1/1	0.16	0.39	129,129,129,129	0
56	MG	RA	3767	1/1	0.16	0.46	124,124,124,124	0
56	MG	RA	3486	1/1	0.17	0.24	88,88,88,88	0
56	MG	QA	1797	1/1	0.17	0.13	154,154,154,154	0
56	MG	RA	3626	1/1	0.17	0.25	119,119,119,119	0
56	MG	RG	203	1/1	0.18	0.26	99,99,99,99	0
56	MG	RA	3927	1/1	0.19	0.45	121,121,121,121	0
56	MG	XA	1777	1/1	0.19	0.30	134,134,134,134	0
56	MG	QA	1840	1/1	0.20	0.50	119,119,119,119	0
56	MG	RA	3425	1/1	0.20	0.24	132,132,132,132	0
56	MG	RA	3110	1/1	0.20	0.21	142,142,142,142	0
56	MG	YA	3338	1/1	0.21	0.26	78,78,78,78	0
56	MG	QA	1721	1/1	0.21	0.43	116,116,116,116	0
56	MG	XA	1636	1/1	0.21	0.21	108,108,108,108	0
56	MG	XA	1622	1/1	0.22	0.25	85,85,85,85	0
56	MG	RA	3034	1/1	0.22	0.30	112,112,112,112	0
56	MG	RA	3371	1/1	0.23	0.26	90,90,90,90	0
56	MG	QA	1784	1/1	0.23	0.33	132,132,132,132	0
56	MG	YA	3270	1/1	0.23	0.38	70,70,70,70	0
56	MG	QA	1757	1/1	0.24	0.25	110,110,110,110	0
56	MG	QA	1827	1/1	0.24	0.20	123,123,123,123	0
56	MG	RA	3843	1/1	0.24	0.17	139,139,139,139	0
57	ZN	R6	101	1/1	0.24	0.23	321,321,321,321	0
56	MG	RA	3950	1/1	0.25	0.36	130,130,130,130	0
56	MG	YB	208	1/1	0.25	0.31	97,97,97,97	0
56	MG	YA	3300	1/1	0.26	0.55	117,117,117,117	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3065	1/1	0.26	0.28	82,82,82,82	0
56	MG	QA	1656	1/1	0.26	0.36	135,135,135,135	0
56	MG	RA	3406	1/1	0.27	0.16	111,111,111,111	0
56	MG	YB	213	1/1	0.27	0.26	101,101,101,101	0
56	MG	YF	301	1/1	0.27	0.40	88,88,88,88	0
56	MG	YA	3508	1/1	0.27	0.21	146,146,146,146	0
56	MG	RA	3545	1/1	0.27	0.23	133,133,133,133	0
56	MG	RA	3908	1/1	0.28	0.39	86,86,86,86	0
56	MG	QA	1644	1/1	0.28	0.30	162,162,162,162	0
56	MG	XA	1769	1/1	0.28	0.50	117,117,117,117	0
56	MG	RA	3565	1/1	0.28	0.35	97,97,97,97	0
56	MG	QA	1736	1/1	0.28	0.37	104,104,104,104	0
56	MG	RA	3968	1/1	0.29	0.12	235,235,235,235	0
56	MG	YA	3486	1/1	0.29	0.30	97,97,97,97	0
56	MG	RA	3314	1/1	0.29	0.29	84,84,84,84	0
56	MG	YA	3612	1/1	0.29	0.30	123,123,123,123	0
56	MG	QA	1770	1/1	0.30	0.24	110,110,110,110	0
56	MG	RA	3244	1/1	0.30	0.27	93,93,93,93	0
56	MG	RA	3676	1/1	0.30	0.31	92,92,92,92	0
56	MG	YA	3454	1/1	0.30	0.53	108,108,108,108	0
56	MG	RA	3292	1/1	0.30	0.20	143,143,143,143	0
57	ZN	R9	101	1/1	0.30	0.36	309,309,309,309	0
56	MG	YA	3490	1/1	0.31	0.37	112,112,112,112	0
56	MG	RA	3743	1/1	0.31	0.37	123,123,123,123	0
56	MG	RB	211	1/1	0.31	0.16	129,129,129,129	0
56	MG	QA	1663	1/1	0.31	0.28	118,118,118,118	0
56	MG	RA	3245	1/1	0.32	0.31	95,95,95,95	0
56	MG	XA	1666	1/1	0.32	0.10	129,129,129,129	0
56	MG	RA	3151	1/1	0.33	0.23	114,114,114,114	0
56	MG	QA	1693	1/1	0.33	0.24	119,119,119,119	0
56	MG	RA	3713	1/1	0.33	0.17	96,96,96,96	0
56	MG	QA	1852	1/1	0.33	0.19	124,124,124,124	0
56	MG	RA	3929	1/1	0.34	0.18	137,137,137,137	0
56	MG	YA	3350	1/1	0.34	0.20	98,98,98,98	0
56	MG	YA	3312	1/1	0.34	0.22	88,88,88,88	0
56	MG	RA	3957	1/1	0.34	0.17	108,108,108,108	0
56	MG	YA	3424	1/1	0.34	0.33	101,101,101,101	0
56	MG	YA	3055	1/1	0.35	0.25	107,107,107,107	0
56	MG	QA	1681	1/1	0.35	0.15	155,155,155,155	0
56	MG	QA	1689	1/1	0.35	0.25	117,117,117,117	0
56	MG	RA	3357	1/1	0.35	0.20	113,113,113,113	0
56	MG	QA	1605	1/1	0.35	0.32	142,142,142,142	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3364	1/1	0.35	0.44	105,105,105,105	0
56	MG	RA	3825	1/1	0.36	0.25	127,127,127,127	0
56	MG	QA	1848	1/1	0.36	0.35	122,122,122,122	0
56	MG	RA	3937	1/1	0.36	0.11	149,149,149,149	0
56	MG	XA	1743	1/1	0.36	0.40	113,113,113,113	0
56	MG	YA	3075	1/1	0.36	0.33	93,93,93,93	0
56	MG	YA	3452	1/1	0.36	0.46	119,119,119,119	0
56	MG	YA	3257	1/1	0.36	0.46	130,130,130,130	0
56	MG	XA	1656	1/1	0.36	0.16	118,118,118,118	0
56	MG	RA	3609	1/1	0.37	0.28	118,118,118,118	0
56	MG	RA	3446	1/1	0.37	0.37	67,67,67,67	0
56	MG	QA	1710	1/1	0.37	0.20	115,115,115,115	0
56	MG	RA	3840	1/1	0.37	0.33	105,105,105,105	0
56	MG	RA	3841	1/1	0.37	0.26	101,101,101,101	0
56	MG	YA	3062	1/1	0.37	0.22	103,103,103,103	0
56	MG	RA	3459	1/1	0.37	0.20	73,73,73,73	0
56	MG	RA	3649	1/1	0.37	0.40	103,103,103,103	0
56	MG	YA	3455	1/1	0.38	0.41	74,74,74,74	0
56	MG	RA	3268	1/1	0.38	0.18	132,132,132,132	0
56	MG	RA	3673	1/1	0.38	0.20	114,114,114,114	0
56	MG	YA	3646	1/1	0.38	0.38	110,110,110,110	0
56	MG	QA	1752	1/1	0.39	0.39	106,106,106,106	0
56	MG	YA	3091	1/1	0.39	0.16	102,102,102,102	0
56	MG	YA	3226	1/1	0.39	0.31	111,111,111,111	0
56	MG	YA	3616	1/1	0.39	0.24	83,83,83,83	0
56	MG	RA	3749	1/1	0.39	0.15	102,102,102,102	0
56	MG	RA	3007	1/1	0.39	0.12	128,128,128,128	0
56	MG	RA	3711	1/1	0.39	0.20	90,90,90,90	0
56	MG	RA	3277	1/1	0.39	0.26	97,97,97,97	0
56	MG	YB	217	1/1	0.39	0.19	107,107,107,107	0
56	MG	RB	203	1/1	0.39	0.23	121,121,121,121	0
56	MG	RA	3630	1/1	0.39	0.37	106,106,106,106	0
56	MG	RA	3672	1/1	0.40	0.26	119,119,119,119	0
56	MG	QE	202	1/1	0.40	0.16	103,103,103,103	0
56	MG	RB	219	1/1	0.40	0.25	108,108,108,108	0
56	MG	RA	3808	1/1	0.40	0.27	121,121,121,121	0
56	MG	RA	3665	1/1	0.40	0.20	110,110,110,110	0
56	MG	QA	1802	1/1	0.41	0.35	109,109,109,109	0
56	MG	QA	1755	1/1	0.41	0.23	123,123,123,123	0
56	MG	QD	303	1/1	0.41	0.21	136,136,136,136	0
56	MG	QA	1825	1/1	0.41	0.30	125,125,125,125	0
56	MG	RF	302	1/1	0.41	0.21	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	QA	1832	1/1	0.41	0.40	98,98,98,98	0
56	MG	YA	3514	1/1	0.41	0.33	78,78,78,78	0
56	MG	QA	1732	1/1	0.41	0.37	95,95,95,95	0
56	MG	YA	3302	1/1	0.41	0.51	87,87,87,87	0
56	MG	YA	3621	1/1	0.42	0.59	138,138,138,138	0
56	MG	YE	301	1/1	0.42	0.63	122,122,122,122	0
56	MG	RA	3917	1/1	0.42	0.26	108,108,108,108	0
56	MG	XA	1707	1/1	0.42	0.23	108,108,108,108	0
56	MG	YA	3711	1/1	0.42	0.49	119,119,119,119	0
56	MG	RA	3581	1/1	0.42	0.18	108,108,108,108	0
56	MG	XA	1633	1/1	0.42	0.19	94,94,94,94	0
56	MG	QA	1809	1/1	0.42	0.26	90,90,90,90	0
56	MG	YA	3507	1/1	0.42	0.20	97,97,97,97	0
56	MG	RA	3348	1/1	0.43	0.28	124,124,124,124	0
56	MG	YA	3160	1/1	0.43	0.34	104,104,104,104	0
56	MG	RA	3487	1/1	0.43	0.30	98,98,98,98	0
56	MG	QA	1642	1/1	0.43	0.27	148,148,148,148	0
56	MG	QM	201	1/1	0.43	0.28	133,133,133,133	0
56	MG	YA	3299	1/1	0.43	0.30	54,54,54,54	0
56	MG	XA	1684	1/1	0.43	0.53	109,109,109,109	0
56	MG	YA	3054	1/1	0.44	0.31	95,95,95,95	0
56	MG	QA	1695	1/1	0.44	0.25	96,96,96,96	0
56	MG	YA	3725	1/1	0.44	0.20	79,79,79,79	0
56	MG	RA	3116	1/1	0.44	0.29	103,103,103,103	0
56	MG	QA	1716	1/1	0.44	0.42	101,101,101,101	0
56	MG	QA	1612	1/1	0.44	0.19	118,118,118,118	0
56	MG	XA	1779	1/1	0.44	0.47	102,102,102,102	0
56	MG	YA	3477	1/1	0.44	0.31	82,82,82,82	0
56	MG	QA	1683	1/1	0.44	0.25	122,122,122,122	0
56	MG	RA	3440	1/1	0.45	0.73	117,117,117,117	0
56	MG	QA	1614	1/1	0.45	0.25	87,87,87,87	0
56	MG	QA	1621	1/1	0.45	0.17	160,160,160,160	0
56	MG	QG	202	1/1	0.45	0.06	122,122,122,122	0
56	MG	YA	3234	1/1	0.45	0.53	96,96,96,96	0
56	MG	RA	3546	1/1	0.45	0.37	120,120,120,120	0
56	MG	RA	3812	1/1	0.45	0.23	104,104,104,104	0
56	MG	RA	3289	1/1	0.45	0.14	99,99,99,99	0
56	MG	XA	1775	1/1	0.45	0.41	124,124,124,124	0
56	MG	QA	1608	1/1	0.45	0.17	90,90,90,90	0
56	MG	QA	1805	1/1	0.45	0.25	107,107,107,107	0
56	MG	YA	3457	1/1	0.45	0.25	79,79,79,79	0
56	MG	YA	3695	1/1	0.45	0.29	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3518	1/1	0.46	0.22	84,84,84,84	0
56	MG	QA	1777	1/1	0.46	0.21	112,112,112,112	0
56	MG	QA	1712	1/1	0.46	0.23	117,117,117,117	0
56	MG	RA	3647	1/1	0.46	0.35	113,113,113,113	0
56	MG	RA	3515	1/1	0.46	0.20	62,62,62,62	0
56	MG	RA	3822	1/1	0.46	0.34	107,107,107,107	0
56	MG	YA	3522	1/1	0.46	0.23	71,71,71,71	0
56	MG	XA	1686	1/1	0.46	0.21	102,102,102,102	0
56	MG	XA	1703	1/1	0.46	0.17	110,110,110,110	0
56	MG	QA	1836	1/1	0.47	0.29	116,116,116,116	0
56	MG	RE	304	1/1	0.47	0.52	109,109,109,109	0
56	MG	YA	3292	1/1	0.47	0.22	148,148,148,148	0
56	MG	XA	1695	1/1	0.47	0.20	76,76,76,76	0
56	MG	YA	3433	1/1	0.47	0.47	118,118,118,118	0
56	MG	YA	3435	1/1	0.47	0.25	106,106,106,106	0
56	MG	RA	3965	1/1	0.47	0.20	124,124,124,124	0
56	MG	XA	1615	1/1	0.47	0.15	99,99,99,99	0
56	MG	QA	1775	1/1	0.47	0.51	131,131,131,131	0
56	MG	RA	3172	1/1	0.47	0.44	125,125,125,125	0
56	MG	RA	3030	1/1	0.47	0.40	108,108,108,108	0
56	MG	RA	3898	1/1	0.47	0.23	74,74,74,74	0
56	MG	RA	3557	1/1	0.47	0.37	117,117,117,117	0
56	MG	RA	3619	1/1	0.47	0.36	103,103,103,103	0
56	MG	YA	3192	1/1	0.48	0.20	103,103,103,103	0
56	MG	YA	3199	1/1	0.48	0.31	115,115,115,115	0
56	MG	XA	1689	1/1	0.48	0.26	102,102,102,102	0
56	MG	XA	1691	1/1	0.48	0.30	84,84,84,84	0
56	MG	YA	3330	1/1	0.48	0.31	110,110,110,110	0
56	MG	QA	1817	1/1	0.48	0.15	100,100,100,100	0
56	MG	RA	3250	1/1	0.48	0.39	118,118,118,118	0
56	MG	RA	3764	1/1	0.48	0.79	127,127,127,127	0
56	MG	RA	3616	1/1	0.48	0.33	109,109,109,109	0
56	MG	YA	3698	1/1	0.48	0.47	76,76,76,76	0
56	MG	RA	3061	1/1	0.48	0.16	116,116,116,116	0
56	MG	YA	3391	1/1	0.48	0.23	91,91,91,91	0
56	MG	XA	1663	1/1	0.48	0.13	117,117,117,117	0
56	MG	RA	3147	1/1	0.48	0.13	121,121,121,121	0
56	MG	RA	3444	1/1	0.48	0.27	92,92,92,92	0
56	MG	QV	104	1/1	0.49	0.13	109,109,109,109	0
56	MG	RA	3793	1/1	0.49	0.24	97,97,97,97	0
56	MG	QA	1841	1/1	0.49	0.34	124,124,124,124	0
56	MG	RA	3360	1/1	0.49	0.17	114,114,114,114	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3325	1/1	0.49	0.33	111,111,111,111	0
56	MG	QA	1768	1/1	0.49	0.14	114,114,114,114	0
56	MG	YA	3089	1/1	0.49	0.14	118,118,118,118	0
56	MG	QA	1820	1/1	0.49	0.41	118,118,118,118	0
56	MG	QA	1793	1/1	0.49	0.17	117,117,117,117	0
56	MG	RA	3750	1/1	0.49	0.22	85,85,85,85	0
56	MG	RA	3631	1/1	0.49	0.35	86,86,86,86	0
56	MG	QI	201	1/1	0.49	0.32	151,151,151,151	0
56	MG	XA	1624	1/1	0.49	0.14	122,122,122,122	0
56	MG	RA	3556	1/1	0.49	0.25	76,76,76,76	0
56	MG	RA	3424	1/1	0.49	0.27	115,115,115,115	0
56	MG	QV	101	1/1	0.49	0.13	124,124,124,124	0
56	MG	QV	103	1/1	0.49	0.25	119,119,119,119	0
56	MG	YA	3097	1/1	0.50	0.14	115,115,115,115	0
56	MG	QA	1822	1/1	0.50	0.18	96,96,96,96	0
56	MG	YA	3172	1/1	0.50	0.19	92,92,92,92	0
56	MG	YA	3185	1/1	0.50	0.12	135,135,135,135	0
56	MG	RA	3395	1/1	0.50	0.16	106,106,106,106	0
56	MG	XA	1713	1/1	0.50	0.39	96,96,96,96	0
56	MG	QR	101	1/1	0.50	0.14	116,116,116,116	0
56	MG	YA	3067	1/1	0.50	0.18	94,94,94,94	0
56	MG	RA	3222	1/1	0.50	0.38	116,116,116,116	0
56	MG	YA	3581	1/1	0.50	0.22	104,104,104,104	0
56	MG	RA	3627	1/1	0.50	0.13	124,124,124,124	0
56	MG	QA	1739	1/1	0.50	0.27	71,71,71,71	0
56	MG	YA	3462	1/1	0.50	0.27	78,78,78,78	0
56	MG	QA	1673	1/1	0.51	0.25	123,123,123,123	0
56	MG	YA	3159	1/1	0.51	0.21	86,86,86,86	0
56	MG	QA	1602	1/1	0.51	0.26	105,105,105,105	0
56	MG	QA	1718	1/1	0.51	0.37	120,120,120,120	0
56	MG	RA	3852	1/1	0.51	0.29	100,100,100,100	0
56	MG	QA	1643	1/1	0.51	0.28	126,126,126,126	0
56	MG	RA	3309	1/1	0.51	0.35	88,88,88,88	0
56	MG	XA	1621	1/1	0.51	0.34	90,90,90,90	0
56	MG	QA	1737	1/1	0.51	0.18	126,126,126,126	0
56	MG	YA	3644	1/1	0.51	0.26	73,73,73,73	0
56	MG	QA	1609	1/1	0.51	0.24	84,84,84,84	0
56	MG	XA	1718	1/1	0.51	0.25	95,95,95,95	0
56	MG	RA	3101	1/1	0.51	0.62	122,122,122,122	0
56	MG	RA	3146	1/1	0.51	0.20	82,82,82,82	0
56	MG	XA	1638	1/1	0.51	0.19	115,115,115,115	0
56	MG	XA	1652	1/1	0.51	0.24	105,105,105,105	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3362	1/1	0.51	0.30	78,78,78,78	0
56	MG	XA	1661	1/1	0.51	0.15	88,88,88,88	0
56	MG	YA	3283	1/1	0.51	0.30	99,99,99,99	0
56	MG	RA	3247	1/1	0.52	0.82	108,108,108,108	0
56	MG	RA	3129	1/1	0.52	0.15	100,100,100,100	0
56	MG	QA	1756	1/1	0.52	0.28	102,102,102,102	0
56	MG	RA	3113	1/1	0.52	0.45	96,96,96,96	0
56	MG	RB	209	1/1	0.52	0.15	141,141,141,141	0
56	MG	RA	3794	1/1	0.52	0.24	90,90,90,90	0
56	MG	QA	1670	1/1	0.52	0.45	93,93,93,93	0
56	MG	RA	3636	1/1	0.53	0.41	109,109,109,109	0
56	MG	QA	1708	1/1	0.53	0.31	112,112,112,112	0
56	MG	RA	3527	1/1	0.53	0.14	97,97,97,97	0
56	MG	RA	3334	1/1	0.53	0.26	77,77,77,77	0
56	MG	RA	3215	1/1	0.53	0.16	104,104,104,104	0
56	MG	RA	3300	1/1	0.53	0.17	136,136,136,136	0
56	MG	YA	3626	1/1	0.53	0.38	80,80,80,80	0
56	MG	YA	3641	1/1	0.53	0.35	80,80,80,80	0
56	MG	R0	102	1/1	0.53	0.21	99,99,99,99	0
56	MG	YA	3214	1/1	0.53	0.34	105,105,105,105	0
56	MG	YA	3658	1/1	0.53	0.20	78,78,78,78	0
56	MG	RA	3514	1/1	0.53	0.24	92,92,92,92	0
56	MG	XA	1650	1/1	0.53	0.17	99,99,99,99	0
56	MG	QA	1794	1/1	0.53	0.29	117,117,117,117	0
56	MG	YA	3250	1/1	0.53	0.42	100,100,100,100	0
56	MG	RA	3038	1/1	0.53	0.26	99,99,99,99	0
56	MG	RA	3290	1/1	0.53	0.37	89,89,89,89	0
56	MG	QN	102	1/1	0.53	0.18	129,129,129,129	0
56	MG	QA	1638	1/1	0.54	0.27	87,87,87,87	0
56	MG	RA	3035	1/1	0.54	0.14	84,84,84,84	0
56	MG	YA	3541	1/1	0.54	0.32	88,88,88,88	0
56	MG	QA	1743	1/1	0.54	0.32	113,113,113,113	0
56	MG	RB	222	1/1	0.54	0.28	120,120,120,120	0
56	MG	XA	1611	1/1	0.54	0.25	89,89,89,89	0
56	MG	RA	4038	1/1	0.54	0.23	141,141,141,141	0
56	MG	RA	3579	1/1	0.54	0.56	106,106,106,106	0
56	MG	RF	309	1/1	0.54	0.36	98,98,98,98	0
56	MG	QA	1660	1/1	0.54	0.43	118,118,118,118	0
56	MG	YA	3181	1/1	0.54	0.26	74,74,74,74	0
56	MG	RA	3696	1/1	0.54	0.46	93,93,93,93	0
56	MG	RA	3008	1/1	0.54	0.23	94,94,94,94	0
56	MG	RA	3564	1/1	0.54	0.32	124,124,124,124	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	QA	1626	1/1	0.54	0.29	97,97,97,97	0
56	MG	QA	1636	1/1	0.54	0.14	88,88,88,88	0
56	MG	YA	3712	1/1	0.54	0.23	78,78,78,78	0
57	ZN	RY	202	1/1	0.54	0.18	317,317,317,317	0
56	MG	YA	3227	1/1	0.54	0.26	101,101,101,101	0
56	MG	QA	1806	1/1	0.54	0.13	101,101,101,101	0
56	MG	QA	1646	1/1	0.55	0.26	90,90,90,90	0
56	MG	RA	3836	1/1	0.55	0.26	127,127,127,127	0
56	MG	YA	3210	1/1	0.55	0.29	107,107,107,107	0
56	MG	YO	201	1/1	0.55	0.35	126,126,126,126	0
56	MG	RA	3269	1/1	0.55	0.16	135,135,135,135	0
56	MG	RA	3027	1/1	0.55	0.22	116,116,116,116	0
56	MG	RA	3604	1/1	0.55	0.40	95,95,95,95	0
56	MG	QA	1640	1/1	0.55	0.25	112,112,112,112	0
56	MG	YA	3645	1/1	0.55	0.30	83,83,83,83	0
56	MG	RA	3530	1/1	0.55	0.29	74,74,74,74	0
56	MG	XA	1715	1/1	0.55	0.14	121,121,121,121	0
56	MG	QA	1675	1/1	0.55	0.25	115,115,115,115	0
56	MG	YA	3268	1/1	0.55	0.15	96,96,96,96	0
56	MG	XA	1764	1/1	0.55	0.42	79,79,79,79	0
56	MG	YA	3489	1/1	0.55	0.14	66,66,66,66	0
56	MG	QA	1676	1/1	0.55	0.17	92,92,92,92	0
56	MG	RA	3770	1/1	0.55	0.17	122,122,122,122	0
56	MG	RA	3644	1/1	0.55	0.33	101,101,101,101	0
56	MG	YA	3406	1/1	0.55	0.37	74,74,74,74	0
56	MG	YA	3419	1/1	0.55	0.47	107,107,107,107	0
56	MG	YA	3298	1/1	0.55	0.27	98,98,98,98	0
57	ZN	YY	201	1/1	0.55	0.22	329,329,329,329	0
56	MG	RA	3534	1/1	0.56	0.19	76,76,76,76	0
56	MG	YA	3637	1/1	0.56	0.28	78,78,78,78	0
56	MG	RA	3235	1/1	0.56	0.66	106,106,106,106	0
56	MG	YA	3149	1/1	0.56	0.10	124,124,124,124	0
56	MG	QA	1604	1/1	0.56	0.14	175,175,175,175	0
56	MG	RA	3520	1/1	0.56	0.31	102,102,102,102	0
56	MG	YA	3535	1/1	0.56	0.30	86,86,86,86	0
56	MG	XA	1744	1/1	0.56	0.28	80,80,80,80	0
56	MG	XA	1746	1/1	0.56	0.60	113,113,113,113	0
56	MG	YQ	202	1/1	0.56	0.21	76,76,76,76	0
56	MG	XA	1606	1/1	0.56	0.20	116,116,116,116	0
56	MG	YA	3692	1/1	0.56	0.25	103,103,103,103	0
56	MG	XA	1682	1/1	0.56	0.14	81,81,81,81	0
56	MG	QA	1849	1/1	0.56	0.29	101,101,101,101	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3477	1/1	0.56	0.14	100,100,100,100	0
56	MG	YA	3182	1/1	0.56	0.31	74,74,74,74	0
56	MG	RA	3206	1/1	0.56	0.32	101,101,101,101	0
56	MG	QA	1796	1/1	0.56	0.14	100,100,100,100	0
56	MG	QA	1672	1/1	0.57	0.17	92,92,92,92	0
56	MG	RA	3550	1/1	0.57	0.20	64,64,64,64	0
56	MG	RA	3417	1/1	0.57	0.48	108,108,108,108	0
56	MG	YA	3682	1/1	0.57	0.42	60,60,60,60	0
56	MG	YA	3201	1/1	0.57	0.38	92,92,92,92	0
56	MG	YA	3095	1/1	0.57	0.16	84,84,84,84	0
56	MG	QA	1707	1/1	0.57	0.16	122,122,122,122	0
56	MG	YA	3220	1/1	0.57	0.18	83,83,83,83	0
56	MG	XA	1717	1/1	0.57	0.23	80,80,80,80	0
56	MG	YA	3099	1/1	0.57	0.22	85,85,85,85	0
56	MG	XA	1720	1/1	0.57	0.15	89,89,89,89	0
56	MG	YA	3714	1/1	0.57	0.28	83,83,83,83	0
56	MG	YA	3544	1/1	0.57	0.24	53,53,53,53	0
56	MG	RA	3730	1/1	0.57	0.20	100,100,100,100	0
56	MG	RA	3539	1/1	0.57	0.42	110,110,110,110	0
56	MG	XA	1659	1/1	0.57	0.25	110,110,110,110	0
56	MG	RA	3310	1/1	0.57	0.26	65,65,65,65	0
56	MG	RA	3408	1/1	0.57	0.19	82,82,82,82	0
56	MG	YA	3357	1/1	0.57	0.41	123,123,123,123	0
56	MG	YE	303	1/1	0.57	0.52	109,109,109,109	0
56	MG	QA	1807	1/1	0.57	0.17	122,122,122,122	0
56	MG	YA	3484	1/1	0.57	0.26	78,78,78,78	0
56	MG	QA	1808	1/1	0.57	0.33	113,113,113,113	0
56	MG	RA	3393	1/1	0.58	0.43	97,97,97,97	0
56	MG	RA	3441	1/1	0.58	0.39	92,92,92,92	0
56	MG	QA	1613	1/1	0.58	0.29	103,103,103,103	0
56	MG	YA	3412	1/1	0.58	0.19	86,86,86,86	0
56	MG	RA	3203	1/1	0.58	0.27	104,104,104,104	0
56	MG	RA	3163	1/1	0.58	0.27	98,98,98,98	0
56	MG	RA	3857	1/1	0.58	0.23	82,82,82,82	0
56	MG	YA	3678	1/1	0.58	0.17	96,96,96,96	0
56	MG	YA	3034	1/1	0.58	0.25	93,93,93,93	0
56	MG	YA	3446	1/1	0.58	0.22	105,105,105,105	0
56	MG	RA	3896	1/1	0.58	0.35	72,72,72,72	0
56	MG	YA	3251	1/1	0.58	0.21	83,83,83,83	0
56	MG	QA	1766	1/1	0.58	0.26	118,118,118,118	0
56	MG	RB	220	1/1	0.58	0.15	117,117,117,117	0
56	MG	QA	1696	1/1	0.58	0.23	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3586	1/1	0.58	0.27	87,87,87,87	0
56	MG	YA	3289	1/1	0.58	0.32	66,66,66,66	0
56	MG	YA	3291	1/1	0.58	0.23	97,97,97,97	0
56	MG	QA	1828	1/1	0.58	0.18	107,107,107,107	0
56	MG	RA	3659	1/1	0.58	0.20	119,119,119,119	0
56	MG	RA	3307	1/1	0.58	0.22	243,243,243,243	0
56	MG	YA	3494	1/1	0.58	0.22	84,84,84,84	0
56	MG	RA	3060	1/1	0.58	0.09	122,122,122,122	0
56	MG	RA	3363	1/1	0.58	0.30	84,84,84,84	0
56	MG	RA	3932	1/1	0.58	0.46	122,122,122,122	0
56	MG	RA	3005	1/1	0.58	0.15	94,94,94,94	0
56	MG	RA	3427	1/1	0.58	0.34	108,108,108,108	0
56	MG	XA	1614	1/1	0.58	0.18	89,89,89,89	0
56	MG	QA	1795	1/1	0.58	0.28	102,102,102,102	0
56	MG	RA	3433	1/1	0.58	0.21	96,96,96,96	0
56	MG	QA	1665	1/1	0.58	0.10	128,128,128,128	0
56	MG	YA	3608	1/1	0.58	0.36	88,88,88,88	0
56	MG	RA	3130	1/1	0.58	0.11	90,90,90,90	0
56	MG	RA	3559	1/1	0.58	0.26	96,96,96,96	0
56	MG	RA	4035	1/1	0.58	0.27	120,120,120,120	0
56	MG	YA	3088	1/1	0.59	0.17	72,72,72,72	0
56	MG	YA	3673	1/1	0.59	0.43	114,114,114,114	0
56	MG	RA	3910	1/1	0.59	0.14	111,111,111,111	0
56	MG	QA	1671	1/1	0.59	0.22	105,105,105,105	0
56	MG	RQ	201	1/1	0.59	0.13	87,87,87,87	0
56	MG	RA	3894	1/1	0.59	0.46	94,94,94,94	0
56	MG	R0	103	1/1	0.59	0.47	99,99,99,99	0
56	MG	YA	3313	1/1	0.59	0.31	61,61,61,61	0
56	MG	YA	3131	1/1	0.59	0.27	89,89,89,89	0
56	MG	YA	3546	1/1	0.59	0.34	80,80,80,80	0
56	MG	RA	3366	1/1	0.59	0.53	110,110,110,110	0
56	MG	YA	3727	1/1	0.59	0.32	87,87,87,87	0
56	MG	YA	3024	1/1	0.59	0.59	139,139,139,139	0
56	MG	RB	208	1/1	0.59	0.12	114,114,114,114	0
56	MG	XA	1765	1/1	0.59	0.63	130,130,130,130	0
56	MG	YA	3170	1/1	0.59	0.12	116,116,116,116	0
56	MG	YA	3464	1/1	0.59	0.21	83,83,83,83	0
56	MG	RA	3960	1/1	0.59	0.33	83,83,83,83	0
56	MG	QA	1799	1/1	0.59	0.28	123,123,123,123	0
56	MG	RA	3051	1/1	0.59	0.40	126,126,126,126	0
56	MG	RA	3287	1/1	0.59	0.29	103,103,103,103	0
56	MG	YA	3381	1/1	0.59	0.23	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	QA	1779	1/1	0.59	0.29	90,90,90,90	0
56	MG	XA	1674	1/1	0.60	0.23	114,114,114,114	0
56	MG	YA	3414	1/1	0.60	0.14	117,117,117,117	0
56	MG	YA	3353	1/1	0.60	0.26	74,74,74,74	0
56	MG	QA	1816	1/1	0.60	0.26	89,89,89,89	0
56	MG	RA	3098	1/1	0.60	0.19	132,132,132,132	0
56	MG	RA	3771	1/1	0.60	0.09	90,90,90,90	0
56	MG	YA	3016	1/1	0.60	0.34	106,106,106,106	0
56	MG	QA	1653	1/1	0.60	0.21	101,101,101,101	0
56	MG	RA	3955	1/1	0.60	0.11	88,88,88,88	0
56	MG	YA	3402	1/1	0.60	0.39	94,94,94,94	0
56	MG	YA	3043	1/1	0.60	0.27	108,108,108,108	0
56	MG	YA	3407	1/1	0.60	0.34	111,111,111,111	0
56	MG	YA	3408	1/1	0.60	0.17	77,77,77,77	0
56	MG	QA	1713	1/1	0.60	0.30	73,73,73,73	0
56	MG	RA	3705	1/1	0.61	0.22	68,68,68,68	0
56	MG	RA	3558	1/1	0.61	0.34	93,93,93,93	0
56	MG	YA	3632	1/1	0.61	0.28	89,89,89,89	0
56	MG	YA	3033	1/1	0.61	0.48	87,87,87,87	0
56	MG	RQ	202	1/1	0.61	0.18	87,87,87,87	0
56	MG	RA	3930	1/1	0.61	0.18	88,88,88,88	0
56	MG	RA	3155	1/1	0.61	0.20	91,91,91,91	0
56	MG	RA	3560	1/1	0.61	0.17	90,90,90,90	0
56	MG	XA	1705	1/1	0.61	0.29	89,89,89,89	0
56	MG	YA	3651	1/1	0.61	0.09	118,118,118,118	0
56	MG	R8	101	1/1	0.61	0.25	118,118,118,118	0
56	MG	RA	3883	1/1	0.61	0.61	116,116,116,116	0
56	MG	RA	3540	1/1	0.61	0.16	108,108,108,108	0
56	MG	RA	3056	1/1	0.61	0.16	101,101,101,101	0
56	MG	QA	1606	1/1	0.61	0.11	124,124,124,124	0
56	MG	XA	1742	1/1	0.61	0.49	109,109,109,109	0
56	MG	RA	3281	1/1	0.61	0.50	126,126,126,126	0
56	MG	QA	1703	1/1	0.61	0.24	90,90,90,90	0
56	MG	XA	1646	1/1	0.61	0.21	119,119,119,119	0
56	MG	XA	1756	1/1	0.61	0.27	91,91,91,91	0
56	MG	YA	3534	1/1	0.61	0.44	104,104,104,104	0
56	MG	RA	3120	1/1	0.61	0.45	128,128,128,128	0
56	MG	YA	3436	1/1	0.61	0.32	127,127,127,127	0
56	MG	XA	1658	1/1	0.61	0.17	141,141,141,141	0
56	MG	RA	3513	1/1	0.61	0.32	106,106,106,106	0
56	MG	YA	3449	1/1	0.61	0.32	105,105,105,105	0
56	MG	YA	3450	1/1	0.61	0.16	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	RA	3974	1/1	0.61	0.45	109,109,109,109	0
56	MG	YA	3133	1/1	0.61	0.16	83,83,83,83	0
56	MG	RA	3145	1/1	0.61	0.32	105,105,105,105	0
56	MG	RA	3354	1/1	0.62	0.18	116,116,116,116	0
56	MG	RA	3715	1/1	0.62	0.27	77,77,77,77	0
56	MG	RA	3369	1/1	0.62	0.33	85,85,85,85	0
56	MG	YA	3418	1/1	0.62	0.27	84,84,84,84	0
56	MG	QA	1688	1/1	0.62	0.17	109,109,109,109	0
56	MG	QA	1717	1/1	0.62	0.31	102,102,102,102	0
56	MG	YA	3426	1/1	0.62	0.25	119,119,119,119	0
56	MG	RA	3587	1/1	0.62	0.21	104,104,104,104	0
56	MG	RA	3544	1/1	0.62	0.26	93,93,93,93	0
56	MG	RA	3863	1/1	0.62	0.36	87,87,87,87	0
56	MG	QA	1733	1/1	0.62	0.19	119,119,119,119	0
56	MG	RA	3109	1/1	0.62	0.58	143,143,143,143	0
56	MG	RA	3131	1/1	0.62	0.26	138,138,138,138	0
56	MG	RA	3946	1/1	0.62	0.26	98,98,98,98	0
56	MG	XA	1609	1/1	0.62	0.20	100,100,100,100	0
56	MG	QA	1704	1/1	0.62	0.19	79,79,79,79	0
56	MG	RA	3076	1/1	0.62	0.15	79,79,79,79	0
56	MG	XA	1778	1/1	0.62	0.11	114,114,114,114	0
56	MG	YA	3456	1/1	0.62	0.46	115,115,115,115	0
56	MG	YA	3223	1/1	0.62	0.41	100,100,100,100	0
56	MG	YA	3704	1/1	0.62	0.44	117,117,117,117	0
56	MG	YA	3710	1/1	0.62	0.26	113,113,113,113	0
56	MG	RA	3103	1/1	0.62	0.15	130,130,130,130	0
56	MG	RA	3494	1/1	0.63	0.31	81,81,81,81	0
56	MG	QA	1679	1/1	0.63	0.25	141,141,141,141	0
56	MG	RA	3503	1/1	0.63	0.23	147,147,147,147	0
56	MG	RA	3816	1/1	0.63	0.28	69,69,69,69	0
56	MG	RA	3504	1/1	0.63	0.29	88,88,88,88	0
56	MG	QA	1750	1/1	0.63	0.21	92,92,92,92	0
56	MG	YA	3467	1/1	0.63	0.40	114,114,114,114	0
56	MG	QA	1804	1/1	0.63	0.17	92,92,92,92	0
56	MG	RA	3542	1/1	0.63	0.31	101,101,101,101	0
56	MG	RA	3429	1/1	0.63	0.17	71,71,71,71	0
56	MG	RA	3633	1/1	0.63	0.11	96,96,96,96	0
56	MG	RA	3164	1/1	0.63	0.15	117,117,117,117	0
56	MG	RA	3362	1/1	0.63	0.24	71,71,71,71	0
56	MG	RN	202	1/1	0.63	0.12	88,88,88,88	0
56	MG	YA	3499	1/1	0.63	0.34	78,78,78,78	0
56	MG	YA	3022	1/1	0.63	0.52	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3639	1/1	0.63	0.25	97,97,97,97	0
56	MG	RA	3471	1/1	0.63	0.43	69,69,69,69	0
56	MG	YA	3516	1/1	0.63	0.31	86,86,86,86	0
56	MG	YA	3518	1/1	0.63	0.29	100,100,100,100	0
56	MG	RA	3762	1/1	0.63	0.29	91,91,91,91	0
56	MG	QA	1771	1/1	0.63	0.11	119,119,119,119	0
56	MG	RA	3591	1/1	0.63	0.24	102,102,102,102	0
56	MG	YA	3231	1/1	0.63	0.28	98,98,98,98	0
56	MG	XA	1733	1/1	0.63	0.25	84,84,84,84	0
56	MG	RA	3999	1/1	0.63	0.41	112,112,112,112	0
56	MG	Y0	101	1/1	0.63	0.31	78,78,78,78	0
56	MG	RA	3603	1/1	0.63	0.16	101,101,101,101	0
56	MG	YA	3063	1/1	0.63	0.22	82,82,82,82	0
56	MG	RA	3242	1/1	0.63	0.12	141,141,141,141	0
56	MG	YA	3261	1/1	0.63	0.26	60,60,60,60	0
56	MG	RA	3127	1/1	0.63	0.20	74,74,74,74	0
56	MG	RB	207	1/1	0.63	0.12	128,128,128,128	0
56	MG	YA	3622	1/1	0.63	0.23	86,86,86,86	0
56	MG	RA	3611	1/1	0.63	0.28	55,55,55,55	0
56	MG	QA	1843	1/1	0.63	0.16	101,101,101,101	0
56	MG	RA	3358	1/1	0.63	0.34	111,111,111,111	0
56	MG	YA	3096	1/1	0.63	0.19	124,124,124,124	0
56	MG	YA	3643	1/1	0.63	0.29	70,70,70,70	0
56	MG	RA	3675	1/1	0.63	0.22	105,105,105,105	0
56	MG	QA	1610	1/1	0.63	0.19	163,163,163,163	0
56	MG	RA	3341	1/1	0.64	0.33	96,96,96,96	0
56	MG	RA	3533	1/1	0.64	0.34	92,92,92,92	0
56	MG	RV	202	1/1	0.64	0.18	126,126,126,126	0
56	MG	QA	1764	1/1	0.64	0.23	108,108,108,108	0
56	MG	QA	1821	1/1	0.64	0.50	117,117,117,117	0
56	MG	XA	1673	1/1	0.64	0.19	106,106,106,106	0
56	MG	RA	3344	1/1	0.64	0.23	60,60,60,60	0
56	MG	RA	3443	1/1	0.64	0.20	127,127,127,127	0
56	MG	RA	3900	1/1	0.64	0.44	132,132,132,132	0
56	MG	RA	3801	1/1	0.64	0.26	114,114,114,114	0
56	MG	YA	3520	1/1	0.64	0.10	73,73,73,73	0
56	MG	YA	3239	1/1	0.64	0.27	100,100,100,100	0
56	MG	RA	3132	1/1	0.64	0.31	110,110,110,110	0
56	MG	XA	1699	1/1	0.64	0.26	90,90,90,90	0
56	MG	RA	3507	1/1	0.64	0.25	87,87,87,87	0
56	MG	RA	3220	1/1	0.64	0.14	96,96,96,96	0
56	MG	RA	3928	1/1	0.64	0.22	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3205	1/1	0.64	0.21	131,131,131,131	0
56	MG	YA	3430	1/1	0.64	0.29	100,100,100,100	0
56	MG	YA	3583	1/1	0.64	0.42	104,104,104,104	0
56	MG	QA	1726	1/1	0.64	0.17	72,72,72,72	0
56	MG	QA	1847	1/1	0.64	0.25	102,102,102,102	0
56	MG	QA	1729	1/1	0.64	0.21	117,117,117,117	0
56	MG	XA	1721	1/1	0.64	0.40	138,138,138,138	0
56	MG	XA	1723	1/1	0.64	0.19	110,110,110,110	0
56	MG	RA	3370	1/1	0.64	0.66	105,105,105,105	0
56	MG	XA	1741	1/1	0.64	0.12	91,91,91,91	0
56	MG	RA	3324	1/1	0.64	0.17	107,107,107,107	0
56	MG	RA	3519	1/1	0.64	0.22	104,104,104,104	0
56	MG	YA	3630	1/1	0.64	0.22	80,80,80,80	0
56	MG	RD	312	1/1	0.64	0.14	133,133,133,133	0
56	MG	QA	1680	1/1	0.64	0.22	105,105,105,105	0
56	MG	QA	1742	1/1	0.64	0.30	120,120,120,120	0
56	MG	RA	3359	1/1	0.64	0.35	84,84,84,84	0
56	MG	YA	3168	1/1	0.64	0.30	93,93,93,93	0
56	MG	RF	301	1/1	0.64	0.45	93,93,93,93	0
56	MG	XA	1776	1/1	0.64	0.33	98,98,98,98	0
56	MG	RA	3143	1/1	0.64	0.14	82,82,82,82	0
56	MG	XA	1641	1/1	0.64	0.15	86,86,86,86	0
56	MG	RA	3844	1/1	0.64	0.20	85,85,85,85	0
56	MG	XA	1782	1/1	0.64	0.10	105,105,105,105	0
56	MG	RA	3529	1/1	0.64	0.18	70,70,70,70	0
56	MG	QA	1754	1/1	0.64	0.18	111,111,111,111	0
56	MG	RA	3769	1/1	0.64	0.12	77,77,77,77	0
56	MG	RA	3620	1/1	0.64	0.21	53,53,53,53	0
56	MG	QA	1666	1/1	0.65	0.17	125,125,125,125	0
56	MG	YA	3396	1/1	0.65	0.25	44,44,44,44	0
56	MG	RB	223	1/1	0.65	0.12	89,89,89,89	0
56	MG	XA	1701	1/1	0.65	0.28	89,89,89,89	0
56	MG	RA	3327	1/1	0.65	0.14	92,92,92,92	0
56	MG	RA	3628	1/1	0.65	0.55	109,109,109,109	0
56	MG	YA	3642	1/1	0.65	0.21	87,87,87,87	0
56	MG	YA	3176	1/1	0.65	0.29	67,67,67,67	0
56	MG	YA	3048	1/1	0.65	0.20	76,76,76,76	0
56	MG	RA	3481	1/1	0.65	0.32	67,67,67,67	0
56	MG	QA	1851	1/1	0.65	0.12	105,105,105,105	0
56	MG	RA	3744	1/1	0.65	0.26	87,87,87,87	0
56	MG	RA	3522	1/1	0.65	0.45	97,97,97,97	0
56	MG	RA	3322	1/1	0.65	0.25	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3759	1/1	0.65	0.18	82,82,82,82	0
56	MG	YA	3213	1/1	0.65	0.38	131,131,131,131	0
56	MG	YA	3689	1/1	0.65	0.34	59,59,59,59	0
56	MG	RG	204	1/1	0.65	0.28	104,104,104,104	0
56	MG	YA	3329	1/1	0.65	0.19	97,97,97,97	0
56	MG	RA	3807	1/1	0.65	0.25	94,94,94,94	0
56	MG	RA	3653	1/1	0.65	0.27	99,99,99,99	0
56	MG	QA	1725	1/1	0.65	0.28	78,78,78,78	0
56	MG	XA	1657	1/1	0.65	0.14	116,116,116,116	0
56	MG	YA	3545	1/1	0.65	0.53	92,92,92,92	0
56	MG	YA	3340	1/1	0.65	0.32	73,73,73,73	0
56	MG	YA	3547	1/1	0.65	0.44	84,84,84,84	0
56	MG	YA	3572	1/1	0.65	0.17	96,96,96,96	0
56	MG	QA	1659	1/1	0.65	0.18	107,107,107,107	0
56	MG	QA	1727	1/1	0.65	0.24	110,110,110,110	0
56	MG	QA	1831	1/1	0.65	0.34	75,75,75,75	0
56	MG	RA	3634	1/1	0.65	0.31	98,98,98,98	0
56	MG	QA	1835	1/1	0.65	0.15	93,93,93,93	0
56	MG	YD	305	1/1	0.65	0.80	133,133,133,133	0
56	MG	RB	221	1/1	0.65	0.34	103,103,103,103	0
56	MG	RA	3254	1/1	0.65	0.59	147,147,147,147	0
56	MG	YA	3221	1/1	0.66	0.14	107,107,107,107	0
56	MG	RA	3402	1/1	0.66	0.14	103,103,103,103	0
56	MG	YA	3105	1/1	0.66	0.41	118,118,118,118	0
56	MG	YA	3124	1/1	0.66	0.15	96,96,96,96	0
56	MG	YA	3655	1/1	0.66	0.25	66,66,66,66	0
56	MG	RA	3335	1/1	0.66	0.31	74,74,74,74	0
56	MG	RA	3226	1/1	0.66	0.35	151,151,151,151	0
56	MG	XA	1616	1/1	0.66	0.13	88,88,88,88	0
56	MG	RA	3066	1/1	0.66	0.21	103,103,103,103	0
56	MG	RA	3909	1/1	0.66	0.19	89,89,89,89	0
56	MG	RA	3805	1/1	0.66	0.14	72,72,72,72	0
56	MG	RA	3430	1/1	0.66	0.28	82,82,82,82	0
56	MG	XA	1631	1/1	0.66	0.29	87,87,87,87	0
56	MG	RA	3918	1/1	0.66	0.26	119,119,119,119	0
56	MG	YA	3559	1/1	0.66	0.24	51,51,51,51	0
56	MG	YA	3703	1/1	0.66	0.13	95,95,95,95	0
56	MG	RB	227	1/1	0.66	0.10	140,140,140,140	0
56	MG	YA	3388	1/1	0.66	0.22	83,83,83,83	0
56	MG	RD	309	1/1	0.66	0.34	107,107,107,107	0
56	MG	YA	3606	1/1	0.66	0.30	91,91,91,91	0
56	MG	RA	3485	1/1	0.66	0.36	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3400	1/1	0.66	0.47	101,101,101,101	0
56	MG	RA	3739	1/1	0.66	0.19	86,86,86,86	0
56	MG	RA	3418	1/1	0.66	0.26	91,91,91,91	0
56	MG	YA	3187	1/1	0.66	0.21	122,122,122,122	0
56	MG	QA	1652	1/1	0.66	0.22	98,98,98,98	0
56	MG	RA	3867	1/1	0.66	0.16	79,79,79,79	0
56	MG	YD	302	1/1	0.66	0.25	74,74,74,74	0
56	MG	RF	304	1/1	0.66	0.23	67,67,67,67	0
56	MG	RA	3817	1/1	0.66	0.43	114,114,114,114	0
56	MG	RA	3692	1/1	0.66	0.22	91,91,91,91	0
56	MG	XA	1683	1/1	0.66	0.22	68,68,68,68	0
56	MG	QV	102	1/1	0.66	0.07	136,136,136,136	0
56	MG	XA	1685	1/1	0.66	0.37	106,106,106,106	0
56	MG	QA	1803	1/1	0.66	0.16	93,93,93,93	0
56	MG	XA	1688	1/1	0.66	0.40	87,87,87,87	0
57	ZN	Y6	101	1/1	0.66	0.28	307,307,307,307	0
56	MG	YA	3073	1/1	0.67	0.24	34,34,34,34	0
56	MG	YA	3560	1/1	0.67	0.25	67,67,67,67	0
56	MG	RA	3756	1/1	0.67	0.38	63,63,63,63	0
56	MG	YA	3174	1/1	0.67	0.32	91,91,91,91	0
56	MG	RA	3392	1/1	0.67	0.27	71,71,71,71	0
56	MG	YA	3600	1/1	0.67	0.38	75,75,75,75	0
56	MG	RA	3398	1/1	0.67	0.25	108,108,108,108	0
56	MG	YA	3007	1/1	0.67	0.20	69,69,69,69	0
56	MG	YA	3492	1/1	0.67	0.23	79,79,79,79	0
56	MG	YA	3092	1/1	0.67	0.17	123,123,123,123	0
56	MG	YA	3355	1/1	0.67	0.24	72,72,72,72	0
56	MG	YA	3502	1/1	0.67	0.39	95,95,95,95	0
56	MG	RA	3899	1/1	0.67	0.41	110,110,110,110	0
56	MG	RA	3681	1/1	0.67	0.37	124,124,124,124	0
56	MG	RB	215	1/1	0.67	0.11	95,95,95,95	0
56	MG	QA	1789	1/1	0.67	0.16	101,101,101,101	0
56	MG	YB	214	1/1	0.67	0.34	130,130,130,130	0
56	MG	YA	3639	1/1	0.67	0.36	83,83,83,83	0
56	MG	YA	3202	1/1	0.67	0.18	79,79,79,79	0
56	MG	RA	3552	1/1	0.67	0.41	120,120,120,120	0
56	MG	QA	1765	1/1	0.67	0.10	117,117,117,117	0
56	MG	QA	1633	1/1	0.67	0.15	136,136,136,136	0
56	MG	XA	1680	1/1	0.67	0.15	119,119,119,119	0
56	MG	RO	201	1/1	0.67	0.19	91,91,91,91	0
56	MG	QA	1813	1/1	0.67	0.18	88,88,88,88	0
56	MG	YA	3648	1/1	0.67	0.27	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RE	306	1/1	0.67	0.40	98,98,98,98	0
56	MG	XA	1781	1/1	0.67	0.33	76,76,76,76	0
56	MG	RA	3095	1/1	0.67	0.19	92,92,92,92	0
56	MG	QA	1846	1/1	0.67	0.14	127,127,127,127	0
56	MG	YA	3662	1/1	0.67	0.17	60,60,60,60	0
56	MG	YA	3664	1/1	0.67	0.28	56,56,56,56	0
56	MG	YA	3475	1/1	0.67	0.33	83,83,83,83	0
56	MG	YA	3550	1/1	0.67	0.28	93,93,93,93	0
56	MG	RA	3704	1/1	0.68	0.16	83,83,83,83	0
56	MG	YA	3057	1/1	0.68	0.20	78,78,78,78	0
56	MG	RA	3096	1/1	0.68	0.19	46,46,46,46	0
56	MG	XA	1709	1/1	0.68	0.26	73,73,73,73	0
56	MG	QL	201	1/1	0.68	0.11	89,89,89,89	0
56	MG	RA	3278	1/1	0.68	0.25	141,141,141,141	0
56	MG	YA	3633	1/1	0.68	0.28	99,99,99,99	0
56	MG	RA	3482	1/1	0.68	0.43	111,111,111,111	0
56	MG	RA	3049	1/1	0.68	0.60	122,122,122,122	0
56	MG	RA	3725	1/1	0.68	0.27	108,108,108,108	0
56	MG	RA	3365	1/1	0.68	0.23	61,61,61,61	0
56	MG	RA	3192	1/1	0.68	0.48	149,149,149,149	0
56	MG	RA	3784	1/1	0.68	0.27	108,108,108,108	0
56	MG	RB	225	1/1	0.68	0.11	131,131,131,131	0
56	MG	YD	307	1/1	0.68	0.32	83,83,83,83	0
56	MG	RA	3979	1/1	0.68	0.30	91,91,91,91	0
56	MG	RA	3983	1/1	0.68	0.23	130,130,130,130	0
56	MG	RA	3642	1/1	0.68	0.40	145,145,145,145	0
56	MG	XA	1761	1/1	0.68	0.31	85,85,85,85	0
56	MG	QA	1790	1/1	0.68	0.30	103,103,103,103	0
56	MG	YA	3551	1/1	0.68	0.20	73,73,73,73	0
56	MG	YA	3112	1/1	0.68	0.18	71,71,71,71	0
56	MG	YA	3482	1/1	0.68	0.27	90,90,90,90	0
56	MG	RA	3677	1/1	0.68	0.26	83,83,83,83	0
56	MG	YA	3324	1/1	0.68	0.24	55,55,55,55	0
56	MG	RA	3746	1/1	0.68	0.30	108,108,108,108	0
56	MG	RA	3493	1/1	0.68	0.23	122,122,122,122	0
56	MG	RA	3423	1/1	0.68	0.41	96,96,96,96	0
56	MG	XA	1617	1/1	0.68	0.26	72,72,72,72	0
56	MG	XJ	201	1/1	0.68	0.22	115,115,115,115	0
56	MG	YA	3154	1/1	0.68	0.34	88,88,88,88	0
56	MG	XA	1696	1/1	0.68	0.23	87,87,87,87	0
56	MG	YA	3611	1/1	0.68	0.22	65,65,65,65	0
56	MG	YA	3495	1/1	0.68	0.34	111,111,111,111	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
57	ZN	Y4	101	1/1	0.68	0.10	318,318,318,318	0
56	MG	RA	3350	1/1	0.68	0.13	76,76,76,76	0
56	MG	RA	3432	1/1	0.69	0.26	67,67,67,67	0
56	MG	YA	3697	1/1	0.69	0.31	57,57,57,57	0
56	MG	RA	3001	1/1	0.69	0.22	80,80,80,80	0
56	MG	RA	3735	1/1	0.69	0.26	93,93,93,93	0
56	MG	YA	3027	1/1	0.69	0.19	70,70,70,70	0
56	MG	RA	3873	1/1	0.69	0.20	86,86,86,86	0
56	MG	RA	3039	1/1	0.69	0.37	96,96,96,96	0
56	MG	RA	3741	1/1	0.69	0.30	59,59,59,59	0
56	MG	RA	3934	1/1	0.69	0.22	86,86,86,86	0
56	MG	YA	3722	1/1	0.69	0.25	84,84,84,84	0
56	MG	RB	205	1/1	0.69	0.12	102,102,102,102	0
56	MG	YA	3451	1/1	0.69	0.31	74,74,74,74	0
56	MG	YB	205	1/1	0.69	0.20	117,117,117,117	0
56	MG	XA	1737	1/1	0.69	0.32	74,74,74,74	0
56	MG	RA	3180	1/1	0.69	0.74	112,112,112,112	0
56	MG	QA	1740	1/1	0.69	0.15	92,92,92,92	0
56	MG	YB	212	1/1	0.69	0.32	89,89,89,89	0
56	MG	QA	1776	1/1	0.69	0.12	92,92,92,92	0
56	MG	RF	303	1/1	0.69	0.47	120,120,120,120	0
56	MG	YB	215	1/1	0.69	0.16	53,53,53,53	0
56	MG	RA	3195	1/1	0.69	0.14	148,148,148,148	0
56	MG	YD	301	1/1	0.69	0.29	95,95,95,95	0
56	MG	QA	1783	1/1	0.69	0.17	74,74,74,74	0
56	MG	QA	1744	1/1	0.69	0.16	104,104,104,104	0
56	MG	RA	3442	1/1	0.69	0.28	87,87,87,87	0
56	MG	RA	3951	1/1	0.69	0.25	77,77,77,77	0
56	MG	YA	3403	1/1	0.69	0.24	91,91,91,91	0
56	MG	YE	305	1/1	0.69	0.12	97,97,97,97	0
56	MG	RA	3706	1/1	0.69	0.37	68,68,68,68	0
56	MG	YG	202	1/1	0.69	0.13	99,99,99,99	0
56	MG	RA	3588	1/1	0.69	0.21	113,113,113,113	0
56	MG	YA	3562	1/1	0.69	0.27	107,107,107,107	0
56	MG	RB	216	1/1	0.69	0.14	95,95,95,95	0
56	MG	RA	3798	1/1	0.69	0.20	81,81,81,81	0
56	MG	RA	3196	1/1	0.69	0.24	123,123,123,123	0
56	MG	YA	3593	1/1	0.69	0.17	79,79,79,79	0
56	MG	RA	3421	1/1	0.69	0.28	123,123,123,123	0
56	MG	RA	3972	1/1	0.69	0.44	108,108,108,108	0
56	MG	RA	3050	1/1	0.70	0.39	115,115,115,115	0
56	MG	QA	1641	1/1	0.70	0.43	151,151,151,151	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3465	1/1	0.70	0.18	66,66,66,66	0
56	MG	YA	3023	1/1	0.70	0.13	87,87,87,87	0
56	MG	RA	3053	1/1	0.70	0.55	128,128,128,128	0
56	MG	YA	3098	1/1	0.70	0.26	85,85,85,85	0
56	MG	RA	3712	1/1	0.70	0.19	105,105,105,105	0
56	MG	RA	3125	1/1	0.70	0.15	91,91,91,91	0
56	MG	RN	201	1/1	0.70	0.44	130,130,130,130	0
56	MG	RA	3582	1/1	0.70	0.11	100,100,100,100	0
56	MG	YA	3215	1/1	0.70	0.32	84,84,84,84	0
56	MG	YA	3671	1/1	0.70	0.12	68,68,68,68	0
56	MG	YA	3127	1/1	0.70	0.32	94,94,94,94	0
56	MG	YA	3045	1/1	0.70	0.31	107,107,107,107	0
56	MG	YA	3680	1/1	0.70	0.26	66,66,66,66	0
56	MG	RA	3720	1/1	0.70	0.12	72,72,72,72	0
56	MG	YA	3687	1/1	0.70	0.21	87,87,87,87	0
56	MG	RA	3218	1/1	0.70	0.40	135,135,135,135	0
56	MG	RA	3727	1/1	0.70	0.24	109,109,109,109	0
56	MG	RB	212	1/1	0.70	0.46	95,95,95,95	0
56	MG	Y8	101	1/1	0.70	0.29	99,99,99,99	0
56	MG	XA	1772	1/1	0.70	0.23	49,49,49,49	0
56	MG	XA	1603	1/1	0.70	0.32	134,134,134,134	0
56	MG	RA	3655	1/1	0.70	0.22	95,95,95,95	0
56	MG	YA	3164	1/1	0.70	0.49	149,149,149,149	0
56	MG	YA	3242	1/1	0.70	0.28	115,115,115,115	0
56	MG	QA	1781	1/1	0.70	0.28	108,108,108,108	0
56	MG	RA	3912	1/1	0.70	0.23	79,79,79,79	0
56	MG	R5	103	1/1	0.70	0.24	75,75,75,75	0
56	MG	XF	201	1/1	0.70	0.12	107,107,107,107	0
56	MG	RA	3732	1/1	0.70	0.28	62,62,62,62	0
56	MG	XA	1697	1/1	0.70	0.16	100,100,100,100	0
56	MG	XA	1618	1/1	0.70	0.26	70,70,70,70	0
56	MG	YA	3530	1/1	0.70	0.27	67,67,67,67	0
56	MG	RA	4037	1/1	0.70	0.44	144,144,144,144	0
56	MG	YA	3001	1/1	0.70	0.35	142,142,142,142	0
56	MG	QA	1735	1/1	0.70	0.31	82,82,82,82	0
56	MG	YA	3281	1/1	0.71	0.54	97,97,97,97	0
56	MG	YA	3587	1/1	0.71	0.56	114,114,114,114	0
56	MG	QA	1826	1/1	0.71	0.25	79,79,79,79	0
56	MG	YA	3441	1/1	0.71	0.39	60,60,60,60	0
56	MG	QA	1759	1/1	0.71	0.24	113,113,113,113	0
56	MG	YA	3679	1/1	0.71	0.43	103,103,103,103	0
56	MG	YA	3448	1/1	0.71	0.23	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3367	1/1	0.71	0.23	80,80,80,80	0
56	MG	RA	3002	1/1	0.71	0.23	108,108,108,108	0
56	MG	YA	3613	1/1	0.71	0.30	92,92,92,92	0
56	MG	QA	1761	1/1	0.71	0.29	99,99,99,99	0
56	MG	YA	3694	1/1	0.71	0.28	76,76,76,76	0
56	MG	YA	3617	1/1	0.71	0.35	72,72,72,72	0
56	MG	RA	3651	1/1	0.71	0.20	109,109,109,109	0
56	MG	RA	3821	1/1	0.71	0.27	85,85,85,85	0
56	MG	RA	3669	1/1	0.71	0.24	70,70,70,70	0
56	MG	YA	3301	1/1	0.71	0.22	83,83,83,83	0
56	MG	RA	3924	1/1	0.71	0.20	84,84,84,84	0
56	MG	RA	3227	1/1	0.71	0.46	111,111,111,111	0
56	MG	YA	3175	1/1	0.71	0.22	77,77,77,77	0
56	MG	YA	3047	1/1	0.71	0.17	118,118,118,118	0
56	MG	XA	1690	1/1	0.71	0.33	89,89,89,89	0
56	MG	YA	3238	1/1	0.71	0.24	134,134,134,134	0
56	MG	RA	3738	1/1	0.71	0.32	68,68,68,68	0
56	MG	YA	3413	1/1	0.71	0.23	88,88,88,88	0
56	MG	YB	203	1/1	0.71	0.21	111,111,111,111	0
56	MG	RA	3839	1/1	0.71	0.19	113,113,113,113	0
56	MG	RA	3568	1/1	0.71	0.27	79,79,79,79	0
56	MG	XA	1625	1/1	0.71	0.51	92,92,92,92	0
56	MG	YA	3120	1/1	0.71	0.11	105,105,105,105	0
56	MG	RA	3963	1/1	0.71	0.24	159,159,159,159	0
56	MG	QA	1684	1/1	0.71	0.17	105,105,105,105	0
56	MG	QA	1687	1/1	0.71	0.18	131,131,131,131	0
56	MG	QA	1667	1/1	0.71	0.27	104,104,104,104	0
56	MG	YA	3684	1/1	0.72	0.29	76,76,76,76	0
56	MG	YA	3685	1/1	0.72	0.33	102,102,102,102	0
56	MG	YA	3280	1/1	0.72	0.30	51,51,51,51	0
56	MG	R0	104	1/1	0.72	0.32	105,105,105,105	0
56	MG	RA	3662	1/1	0.72	0.22	107,107,107,107	0
56	MG	RA	3407	1/1	0.72	0.23	61,61,61,61	0
56	MG	RA	3959	1/1	0.72	0.38	110,110,110,110	0
56	MG	QA	1690	1/1	0.72	0.23	126,126,126,126	0
56	MG	XA	1712	1/1	0.72	0.30	114,114,114,114	0
56	MG	YA	3082	1/1	0.72	0.13	111,111,111,111	0
56	MG	RA	3549	1/1	0.72	0.29	102,102,102,102	0
56	MG	RA	3853	1/1	0.72	0.39	63,63,63,63	0
56	MG	RA	3562	1/1	0.72	0.20	86,86,86,86	0
56	MG	RA	3815	1/1	0.72	0.12	78,78,78,78	0
56	MG	YA	3423	1/1	0.72	0.21	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	RF	311	1/1	0.72	0.26	93,93,93,93	0
56	MG	YA	3504	1/1	0.72	0.43	86,86,86,86	0
56	MG	RA	3199	1/1	0.72	0.24	114,114,114,114	0
56	MG	RA	3276	1/1	0.72	0.37	134,134,134,134	0
56	MG	YA	3509	1/1	0.72	0.41	132,132,132,132	0
56	MG	RA	3781	1/1	0.72	0.38	106,106,106,106	0
56	MG	QA	1830	1/1	0.72	0.39	80,80,80,80	0
56	MG	RH	201	1/1	0.72	0.12	157,157,157,157	0
56	MG	XA	1754	1/1	0.72	0.10	82,82,82,82	0
56	MG	RA	3893	1/1	0.72	0.30	85,85,85,85	0
56	MG	RA	3517	1/1	0.72	0.18	72,72,72,72	0
56	MG	RA	3574	1/1	0.72	0.27	94,94,94,94	0
56	MG	QA	1839	1/1	0.72	0.22	106,106,106,106	0
56	MG	QA	1630	1/1	0.72	0.30	74,74,74,74	0
56	MG	RA	3576	1/1	0.72	0.11	82,82,82,82	0
56	MG	XA	1773	1/1	0.72	0.48	133,133,133,133	0
56	MG	YA	3145	1/1	0.72	0.21	86,86,86,86	0
56	MG	RA	3726	1/1	0.72	0.20	64,64,64,64	0
56	MG	QA	1677	1/1	0.72	0.22	99,99,99,99	0
56	MG	RT	202	1/1	0.72	0.26	94,94,94,94	0
56	MG	RD	306	1/1	0.72	0.26	115,115,115,115	0
56	MG	YA	3460	1/1	0.72	0.30	99,99,99,99	0
56	MG	RA	3466	1/1	0.72	0.29	77,77,77,77	0
56	MG	QA	1767	1/1	0.72	0.16	149,149,149,149	0
56	MG	YN	201	1/1	0.72	0.16	106,106,106,106	0
56	MG	XV	101	1/1	0.72	0.18	89,89,89,89	0
56	MG	YA	3674	1/1	0.72	0.20	73,73,73,73	0
57	ZN	R5	102	1/1	0.72	0.10	305,305,305,305	0
56	MG	QA	1730	1/1	0.72	0.17	102,102,102,102	0
56	MG	YA	3564	1/1	0.72	0.28	52,52,52,52	0
56	MG	Y1	101	1/1	0.72	0.26	65,65,65,65	0
56	MG	YA	3568	1/1	0.72	0.21	85,85,85,85	0
56	MG	RA	3488	1/1	0.72	0.26	88,88,88,88	0
56	MG	YA	3180	1/1	0.73	0.24	89,89,89,89	0
56	MG	RA	3941	1/1	0.73	0.32	87,87,87,87	0
56	MG	QA	1782	1/1	0.73	0.31	82,82,82,82	0
56	MG	XA	1645	1/1	0.73	0.26	124,124,124,124	0
56	MG	YA	3380	1/1	0.73	0.27	43,43,43,43	0
56	MG	QA	1648	1/1	0.73	0.12	112,112,112,112	0
56	MG	RA	3986	1/1	0.73	0.46	124,124,124,124	0
56	MG	YA	3282	1/1	0.73	0.39	88,88,88,88	0
56	MG	RA	3943	1/1	0.73	0.40	113,113,113,113	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3818	1/1	0.73	0.14	86,86,86,86	0
56	MG	YA	3401	1/1	0.73	0.35	68,68,68,68	0
56	MG	RA	3859	1/1	0.73	0.19	107,107,107,107	0
56	MG	RA	3457	1/1	0.73	0.29	92,92,92,92	0
56	MG	RA	3036	1/1	0.73	0.20	105,105,105,105	0
56	MG	YA	3580	1/1	0.73	0.13	50,50,50,50	0
56	MG	XA	1670	1/1	0.73	0.27	90,90,90,90	0
56	MG	RA	3956	1/1	0.73	0.19	86,86,86,86	0
56	MG	YA	3049	1/1	0.73	0.30	82,82,82,82	0
56	MG	RA	3201	1/1	0.73	0.25	104,104,104,104	0
56	MG	RW	202	1/1	0.73	0.31	101,101,101,101	0
56	MG	QA	1698	1/1	0.73	0.16	81,81,81,81	0
56	MG	YA	3152	1/1	0.73	0.21	76,76,76,76	0
56	MG	XA	1774	1/1	0.73	0.21	74,74,74,74	0
56	MG	RA	3372	1/1	0.73	0.11	48,48,48,48	0
56	MG	RA	3697	1/1	0.73	0.38	84,84,84,84	0
56	MG	QT	201	1/1	0.73	0.21	89,89,89,89	0
56	MG	RA	3650	1/1	0.73	0.25	88,88,88,88	0
56	MG	RA	3373	1/1	0.73	0.30	66,66,66,66	0
56	MG	YA	3336	1/1	0.73	0.23	99,99,99,99	0
56	MG	RA	3772	1/1	0.73	0.47	122,122,122,122	0
56	MG	RA	3728	1/1	0.73	0.18	98,98,98,98	0
56	MG	YA	3349	1/1	0.73	0.36	77,77,77,77	0
56	MG	XR	101	1/1	0.73	0.27	107,107,107,107	0
56	MG	YA	3442	1/1	0.73	0.40	92,92,92,92	0
56	MG	YA	3443	1/1	0.73	0.40	80,80,80,80	0
56	MG	YA	3243	1/1	0.73	0.18	120,120,120,120	0
56	MG	RA	3973	1/1	0.73	0.44	82,82,82,82	0
56	MG	YA	3528	1/1	0.73	0.21	67,67,67,67	0
56	MG	RA	3512	1/1	0.73	0.59	117,117,117,117	0
56	MG	RA	3241	1/1	0.73	0.55	117,117,117,117	0
56	MG	YA	3260	1/1	0.73	0.57	92,92,92,92	0
56	MG	RA	4002	1/1	0.74	0.25	102,102,102,102	0
56	MG	QA	1818	1/1	0.74	0.28	119,119,119,119	0
56	MG	YA	3118	1/1	0.74	0.25	48,48,48,48	0
56	MG	QA	1662	1/1	0.74	0.18	123,123,123,123	0
56	MG	RA	4010	1/1	0.74	0.24	127,127,127,127	0
56	MG	RA	3594	1/1	0.74	0.92	112,112,112,112	0
56	MG	RA	3179	1/1	0.74	0.58	133,133,133,133	0
56	MG	YA	3468	1/1	0.74	0.19	73,73,73,73	0
56	MG	RA	3022	1/1	0.74	0.11	83,83,83,83	0
56	MG	RA	3405	1/1	0.74	0.15	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	YA	3147	1/1	0.74	0.26	49,49,49,49	0
56	MG	YA	3709	1/1	0.74	0.34	82,82,82,82	0
56	MG	RA	3062	1/1	0.74	0.14	75,75,75,75	0
56	MG	YA	3150	1/1	0.74	0.30	117,117,117,117	0
56	MG	RA	3954	1/1	0.74	0.18	84,84,84,84	0
56	MG	YA	3262	1/1	0.74	0.17	79,79,79,79	0
56	MG	RA	3776	1/1	0.74	0.22	63,63,63,63	0
56	MG	YA	3155	1/1	0.74	0.38	141,141,141,141	0
56	MG	QA	1618	1/1	0.74	0.17	130,130,130,130	0
56	MG	RA	3838	1/1	0.74	0.14	71,71,71,71	0
56	MG	RA	3455	1/1	0.74	0.21	65,65,65,65	0
56	MG	RA	3618	1/1	0.74	0.27	110,110,110,110	0
56	MG	XA	1759	1/1	0.74	0.21	61,61,61,61	0
56	MG	RA	3190	1/1	0.74	0.51	160,160,160,160	0
56	MG	YA	3505	1/1	0.74	0.31	99,99,99,99	0
56	MG	QA	1635	1/1	0.74	0.21	88,88,88,88	0
56	MG	XA	1767	1/1	0.74	0.28	84,84,84,84	0
56	MG	RA	3084	1/1	0.74	0.27	84,84,84,84	0
56	MG	RA	3377	1/1	0.74	0.21	75,75,75,75	0
56	MG	YA	3510	1/1	0.74	0.21	49,49,49,49	0
56	MG	QA	1639	1/1	0.74	0.15	113,113,113,113	0
56	MG	RA	3434	1/1	0.74	0.17	101,101,101,101	0
56	MG	RA	3553	1/1	0.74	0.38	55,55,55,55	0
56	MG	XA	1675	1/1	0.74	0.27	80,80,80,80	0
56	MG	YA	3519	1/1	0.74	0.32	89,89,89,89	0
56	MG	RA	3010	1/1	0.74	0.14	97,97,97,97	0
56	MG	RA	3246	1/1	0.74	0.31	111,111,111,111	0
56	MG	RA	3977	1/1	0.74	0.37	99,99,99,99	0
56	MG	QA	1645	1/1	0.74	0.17	90,90,90,90	0
56	MG	RA	3666	1/1	0.74	0.19	74,74,74,74	0
56	MG	QA	1697	1/1	0.74	0.35	94,94,94,94	0
56	MG	RA	3298	1/1	0.74	0.41	104,104,104,104	0
56	MG	QA	1699	1/1	0.74	0.13	118,118,118,118	0
56	MG	RA	3723	1/1	0.74	0.18	91,91,91,91	0
56	MG	QA	1651	1/1	0.74	0.16	109,109,109,109	0
56	MG	RA	3987	1/1	0.74	0.22	114,114,114,114	0
56	MG	RA	3538	1/1	0.74	0.28	102,102,102,102	0
56	MG	RD	313	1/1	0.74	0.39	109,109,109,109	0
56	MG	RD	314	1/1	0.74	0.24	120,120,120,120	0
57	ZN	Y9	101	1/1	0.74	0.28	276,276,276,276	0
56	MG	YA	3039	1/1	0.75	0.16	77,77,77,77	0
56	MG	RA	3874	1/1	0.75	0.14	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
56	MG	XA	1602	1/1	0.75	0.12	92,92,92,92	0
56	MG	RA	3187	1/1	0.75	0.14	64,64,64,64	0
56	MG	YA	3240	1/1	0.75	0.32	75,75,75,75	0
56	MG	RE	305	1/1	0.75	0.27	49,49,49,49	0
56	MG	RA	3892	1/1	0.75	0.21	91,91,91,91	0
56	MG	YA	3247	1/1	0.75	0.53	141,141,141,141	0
56	MG	QA	1720	1/1	0.75	0.30	105,105,105,105	0
56	MG	YA	3156	1/1	0.75	0.36	85,85,85,85	0
56	MG	RA	3238	1/1	0.75	0.27	102,102,102,102	0
56	MG	YA	3390	1/1	0.75	0.46	78,78,78,78	0
56	MG	XA	1619	1/1	0.75	0.13	139,139,139,139	0
56	MG	XA	1719	1/1	0.75	0.13	87,87,87,87	0
56	MG	RA	3286	1/1	0.75	0.22	131,131,131,131	0
56	MG	YA	3394	1/1	0.75	0.22	71,71,71,71	0
56	MG	YA	3582	1/1	0.75	0.17	71,71,71,71	0
56	MG	XA	1724	1/1	0.75	0.22	105,105,105,105	0
56	MG	RA	3623	1/1	0.75	0.52	170,170,170,170	0
56	MG	XA	1735	1/1	0.75	0.26	97,97,97,97	0
56	MG	QA	1603	1/1	0.75	0.28	125,125,125,125	0
56	MG	RA	3450	1/1	0.75	0.14	83,83,83,83	0
56	MG	QA	1812	1/1	0.75	0.13	90,90,90,90	0
56	MG	QA	1685	1/1	0.75	0.19	76,76,76,76	0
56	MG	RA	3451	1/1	0.75	0.21	79,79,79,79	0
56	MG	YA	3491	1/1	0.75	0.16	92,92,92,92	0
56	MG	XA	1642	1/1	0.75	0.11	108,108,108,108	0
56	MG	YA	3081	1/1	0.75	0.17	125,125,125,125	0
56	MG	RA	3510	1/1	0.75	0.29	70,70,70,70	0
56	MG	XA	1647	1/1	0.75	0.17	163,163,163,163	0
56	MG	RA	3901	1/1	0.75	0.15	79,79,79,79	0
56	MG	RA	3716	1/1	0.75	0.26	91,91,91,91	0
56	MG	YA	3726	1/1	0.75	0.39	105,105,105,105	0
56	MG	YA	3619	1/1	0.75	0.22	89,89,89,89	0
56	MG	QA	1692	1/1	0.75	0.11	135,135,135,135	0
56	MG	RA	3003	1/1	0.75	0.08	55,55,55,55	0
56	MG	YA	3190	1/1	0.75	0.35	130,130,130,130	0
56	MG	QA	1654	1/1	0.75	0.13	120,120,120,120	0
56	MG	YA	3631	1/1	0.75	0.34	71,71,71,71	0
56	MG	RA	4001	1/1	0.75	0.31	74,74,74,74	0
56	MG	RA	3274	1/1	0.75	0.12	90,90,90,90	0
56	MG	RA	3174	1/1	0.75	0.52	120,120,120,120	0
56	MG	YA	3208	1/1	0.75	0.12	78,78,78,78	0
56	MG	RA	3783	1/1	0.75	0.29	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	XA	1783	1/1	0.75	0.11	141,141,141,141	0
56	MG	RA	3232	1/1	0.75	0.17	98,98,98,98	0
56	MG	YA	3439	1/1	0.75	0.08	84,84,84,84	0
56	MG	QA	1749	1/1	0.75	0.31	111,111,111,111	0
56	MG	QA	1622	1/1	0.75	0.15	97,97,97,97	0
56	MG	RA	3921	1/1	0.75	0.28	49,49,49,49	0
56	MG	RQ	206	1/1	0.75	0.23	88,88,88,88	0
56	MG	RD	311	1/1	0.75	0.17	103,103,103,103	0
56	MG	YA	3028	1/1	0.75	0.16	51,51,51,51	0
56	MG	YA	3656	1/1	0.75	0.34	38,38,38,38	0
56	MG	RB	202	1/1	0.75	0.17	118,118,118,118	0
56	MG	YA	3543	1/1	0.75	0.24	84,84,84,84	0
56	MG	RA	3490	1/1	0.75	0.29	54,54,54,54	0
56	MG	XA	1708	1/1	0.76	0.38	89,89,89,89	0
56	MG	QE	201	1/1	0.76	0.26	105,105,105,105	0
56	MG	YA	3036	1/1	0.76	0.33	127,127,127,127	0
56	MG	YA	3038	1/1	0.76	0.09	73,73,73,73	0
56	MG	RA	3717	1/1	0.76	0.14	79,79,79,79	0
56	MG	RA	3976	1/1	0.76	0.34	101,101,101,101	0
56	MG	YA	3717	1/1	0.76	0.24	50,50,50,50	0
56	MG	RA	3097	1/1	0.76	0.15	92,92,92,92	0
56	MG	QA	1723	1/1	0.76	0.17	87,87,87,87	0
56	MG	YA	3196	1/1	0.76	0.36	114,114,114,114	0
56	MG	YA	3377	1/1	0.76	0.16	84,84,84,84	0
56	MG	RA	3243	1/1	0.76	0.13	106,106,106,106	0
56	MG	RA	3317	1/1	0.76	0.23	86,86,86,86	0
56	MG	YA	3382	1/1	0.76	0.12	112,112,112,112	0
56	MG	RA	3661	1/1	0.76	0.23	98,98,98,98	0
56	MG	RA	3707	1/1	0.76	0.18	94,94,94,94	0
56	MG	YA	3056	1/1	0.76	0.13	90,90,90,90	0
56	MG	RA	3256	1/1	0.76	0.24	132,132,132,132	0
56	MG	XA	1654	1/1	0.76	0.13	119,119,119,119	0
56	MG	YA	3461	1/1	0.76	0.26	84,84,84,84	0
56	MG	RA	3755	1/1	0.76	0.38	107,107,107,107	0
56	MG	YA	3399	1/1	0.76	0.23	108,108,108,108	0
56	MG	YA	3296	1/1	0.76	0.27	109,109,109,109	0
56	MG	QA	1706	1/1	0.76	0.15	100,100,100,100	0
56	MG	XA	1762	1/1	0.76	0.14	125,125,125,125	0
56	MG	YA	3216	1/1	0.76	0.28	132,132,132,132	0
56	MG	YA	3473	1/1	0.76	0.23	59,59,59,59	0
56	MG	YE	302	1/1	0.76	0.24	83,83,83,83	0
56	MG	RA	3166	1/1	0.76	0.13	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	XA	1770	1/1	0.76	0.35	86,86,86,86	0
56	MG	RB	218	1/1	0.76	0.30	64,64,64,64	0
56	MG	QA	1787	1/1	0.76	0.24	84,84,84,84	0
56	MG	YF	302	1/1	0.76	0.12	69,69,69,69	0
56	MG	YG	201	1/1	0.76	0.14	111,111,111,111	0
56	MG	YA	3478	1/1	0.76	0.21	115,115,115,115	0
56	MG	YA	3305	1/1	0.76	0.21	85,85,85,85	0
56	MG	RA	3854	1/1	0.76	0.24	55,55,55,55	0
56	MG	QA	1814	1/1	0.76	0.22	81,81,81,81	0
56	MG	YT	201	1/1	0.76	0.16	96,96,96,96	0
56	MG	YA	3083	1/1	0.76	0.42	85,85,85,85	0
56	MG	YA	3415	1/1	0.76	0.32	81,81,81,81	0
56	MG	YA	3084	1/1	0.76	0.14	85,85,85,85	0
56	MG	YA	3591	1/1	0.76	0.30	88,88,88,88	0
56	MG	XA	1694	1/1	0.76	0.31	66,66,66,66	0
56	MG	QA	1763	1/1	0.76	0.24	102,102,102,102	0
56	MG	YA	3493	1/1	0.76	0.20	89,89,89,89	0
56	MG	YA	3693	1/1	0.76	0.36	58,58,58,58	0
56	MG	QA	1791	1/1	0.76	0.30	111,111,111,111	0
56	MG	RA	3690	1/1	0.76	0.18	72,72,72,72	0
56	MG	RA	3458	1/1	0.76	0.28	87,87,87,87	0
56	MG	RA	3615	1/1	0.76	0.20	59,59,59,59	0
56	MG	YA	3246	1/1	0.76	0.46	100,100,100,100	0
56	MG	RA	3795	1/1	0.76	0.11	90,90,90,90	0
56	MG	YA	3343	1/1	0.77	0.33	64,64,64,64	0
56	MG	QA	1674	1/1	0.77	0.16	144,144,144,144	0
56	MG	YA	3142	1/1	0.77	0.35	106,106,106,106	0
56	MG	YA	3037	1/1	0.77	0.26	99,99,99,99	0
56	MG	RA	3869	1/1	0.77	0.32	56,56,56,56	0
56	MG	RA	3566	1/1	0.77	0.64	111,111,111,111	0
56	MG	RA	3810	1/1	0.77	0.14	145,145,145,145	0
56	MG	RA	3414	1/1	0.77	0.33	43,43,43,43	0
56	MG	QA	1850	1/1	0.77	0.41	96,96,96,96	0
56	MG	RA	3571	1/1	0.77	0.21	69,69,69,69	0
56	MG	RA	3719	1/1	0.77	0.25	109,109,109,109	0
56	MG	R3	101	1/1	0.77	0.33	97,97,97,97	0
56	MG	RA	3763	1/1	0.77	0.20	86,86,86,86	0
56	MG	RA	3017	1/1	0.77	0.29	103,103,103,103	0
56	MG	RA	3279	1/1	0.77	0.15	144,144,144,144	0
56	MG	RA	3339	1/1	0.77	0.26	69,69,69,69	0
56	MG	XA	1750	1/1	0.77	0.18	89,89,89,89	0
56	MG	QH	201	1/1	0.77	0.28	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3554	1/1	0.77	0.22	69,69,69,69	0
56	MG	RA	3691	1/1	0.77	0.33	80,80,80,80	0
56	MG	YA	3561	1/1	0.77	0.34	63,63,63,63	0
56	MG	RA	3456	1/1	0.77	0.30	58,58,58,58	0
56	MG	RA	3729	1/1	0.77	0.19	103,103,103,103	0
56	MG	RF	308	1/1	0.77	0.56	127,127,127,127	0
56	MG	YI	201	1/1	0.77	0.07	103,103,103,103	0
56	MG	XA	1678	1/1	0.77	0.22	117,117,117,117	0
56	MG	QA	1778	1/1	0.77	0.41	93,93,93,93	0
56	MG	RA	3693	1/1	0.77	0.26	86,86,86,86	0
56	MG	QA	1741	1/1	0.77	0.32	84,84,84,84	0
56	MG	RA	3169	1/1	0.77	0.19	72,72,72,72	0
56	MG	YX	101	1/1	0.77	0.28	60,60,60,60	0
56	MG	RA	3080	1/1	0.77	0.36	142,142,142,142	0
56	MG	QA	1661	1/1	0.77	0.26	121,121,121,121	0
56	MG	YA	3094	1/1	0.77	0.16	63,63,63,63	0
56	MG	RA	3184	1/1	0.77	0.41	142,142,142,142	0
56	MG	RA	3590	1/1	0.77	0.46	129,129,129,129	0
56	MG	RA	3267	1/1	0.77	0.56	144,144,144,144	0
56	MG	YA	3019	1/1	0.77	0.42	99,99,99,99	0
56	MG	YA	3421	1/1	0.77	0.33	100,100,100,100	0
56	MG	YA	3699	1/1	0.77	0.39	99,99,99,99	0
56	MG	RA	3428	1/1	0.77	0.14	71,71,71,71	0
56	MG	RA	3709	1/1	0.77	0.13	84,84,84,84	0
56	MG	YA	3110	1/1	0.77	0.18	109,109,109,109	0
56	MG	QA	1753	1/1	0.77	0.23	79,79,79,79	0
56	MG	RA	3501	1/1	0.77	0.14	83,83,83,83	0
56	MG	RA	3332	1/1	0.77	0.28	101,101,101,101	0
56	MG	YA	3030	1/1	0.77	0.46	115,115,115,115	0
56	MG	YA	3625	1/1	0.77	0.35	102,102,102,102	0
56	MG	RB	224	1/1	0.77	0.11	127,127,127,127	0
56	MG	RA	3670	1/1	0.77	0.24	78,78,78,78	0
56	MG	YA	3053	1/1	0.78	0.24	79,79,79,79	0
56	MG	YA	3667	1/1	0.78	0.24	54,54,54,54	0
56	MG	RA	3090	1/1	0.78	0.18	111,111,111,111	0
56	MG	RA	3617	1/1	0.78	0.18	105,105,105,105	0
56	MG	YA	3361	1/1	0.78	0.28	67,67,67,67	0
56	MG	Y7	101	1/1	0.78	0.29	79,79,79,79	0
56	MG	Y7	102	1/1	0.78	0.45	147,147,147,147	0
56	MG	RA	3397	1/1	0.78	0.14	61,61,61,61	0
56	MG	RA	3186	1/1	0.78	0.15	97,97,97,97	0
56	MG	RA	3137	1/1	0.78	0.12	108,108,108,108	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3842	1/1	0.78	0.19	76,76,76,76	0
56	MG	RA	3058	1/1	0.78	0.18	113,113,113,113	0
56	MG	RA	3167	1/1	0.78	0.12	96,96,96,96	0
56	MG	QA	1823	1/1	0.78	0.14	106,106,106,106	0
56	MG	YA	3566	1/1	0.78	0.40	147,147,147,147	0
56	MG	RA	3126	1/1	0.78	0.19	75,75,75,75	0
56	MG	YA	3571	1/1	0.78	0.14	70,70,70,70	0
56	MG	RA	3437	1/1	0.78	0.21	92,92,92,92	0
56	MG	QA	1788	1/1	0.78	0.18	102,102,102,102	0
56	MG	XA	1620	1/1	0.78	0.12	81,81,81,81	0
56	MG	YA	3277	1/1	0.78	0.17	72,72,72,72	0
56	MG	RA	3337	1/1	0.78	0.29	76,76,76,76	0
56	MG	RA	3171	1/1	0.78	0.21	83,83,83,83	0
56	MG	QV	106	1/1	0.78	0.13	112,112,112,112	0
56	MG	YA	3480	1/1	0.78	0.23	87,87,87,87	0
56	MG	YA	3706	1/1	0.78	0.11	105,105,105,105	0
56	MG	RA	3194	1/1	0.78	0.26	76,76,76,76	0
56	MG	RA	3753	1/1	0.78	0.30	63,63,63,63	0
56	MG	RA	3077	1/1	0.78	0.63	90,90,90,90	0
56	MG	RA	3420	1/1	0.78	0.29	90,90,90,90	0
56	MG	RQ	203	1/1	0.78	0.16	85,85,85,85	0
56	MG	XA	1758	1/1	0.78	0.36	65,65,65,65	0
56	MG	RA	3042	1/1	0.78	0.13	68,68,68,68	0
56	MG	RT	201	1/1	0.78	0.21	110,110,110,110	0
56	MG	YA	3723	1/1	0.78	0.14	92,92,92,92	0
56	MG	YA	3615	1/1	0.78	0.19	78,78,78,78	0
56	MG	RA	3175	1/1	0.78	0.58	120,120,120,120	0
56	MG	RA	3721	1/1	0.78	0.28	111,111,111,111	0
56	MG	YA	3106	1/1	0.78	0.15	66,66,66,66	0
56	MG	YA	3497	1/1	0.78	0.26	94,94,94,94	0
56	MG	YA	3303	1/1	0.78	0.21	55,55,55,55	0
56	MG	YA	3624	1/1	0.78	0.33	73,73,73,73	0
56	MG	YB	211	1/1	0.78	0.24	88,88,88,88	0
56	MG	QA	1845	1/1	0.78	0.14	124,124,124,124	0
56	MG	YA	3309	1/1	0.78	0.22	50,50,50,50	0
56	MG	YA	3422	1/1	0.78	0.31	58,58,58,58	0
56	MG	RA	3532	1/1	0.78	0.13	147,147,147,147	0
56	MG	RA	3682	1/1	0.78	0.41	114,114,114,114	0
56	MG	RA	3176	1/1	0.78	0.19	91,91,91,91	0
56	MG	YA	3123	1/1	0.78	0.11	84,84,84,84	0
56	MG	YA	3432	1/1	0.78	0.15	68,68,68,68	0
56	MG	YA	3219	1/1	0.78	0.21	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3018	1/1	0.78	0.44	150,150,150,150	0
56	MG	XK	201	1/1	0.78	0.11	82,82,82,82	0
56	MG	RE	302	1/1	0.78	0.50	105,105,105,105	0
56	MG	RA	3099	1/1	0.78	0.41	114,114,114,114	0
56	MG	RA	3828	1/1	0.78	0.16	115,115,115,115	0
56	MG	YA	3134	1/1	0.78	0.17	78,78,78,78	0
56	MG	QA	1854	1/1	0.78	0.09	97,97,97,97	0
56	MG	YA	3346	1/1	0.78	0.27	72,72,72,72	0
56	MG	R7	102	1/1	0.78	0.18	69,69,69,69	0
56	MG	YA	3536	1/1	0.78	0.29	72,72,72,72	0
56	MG	RB	206	1/1	0.78	0.13	123,123,123,123	0
56	MG	QA	1649	1/1	0.78	0.21	83,83,83,83	0
56	MG	RA	3239	1/1	0.79	0.56	155,155,155,155	0
56	MG	RA	3938	1/1	0.79	0.19	79,79,79,79	0
56	MG	RA	3280	1/1	0.79	0.19	98,98,98,98	0
56	MG	YA	3093	1/1	0.79	0.16	59,59,59,59	0
56	MG	RA	3860	1/1	0.79	0.23	87,87,87,87	0
56	MG	RA	3531	1/1	0.79	0.41	104,104,104,104	0
56	MG	QQ	201	1/1	0.79	0.10	103,103,103,103	0
56	MG	RA	3734	1/1	0.79	0.26	151,151,151,151	0
56	MG	RA	3596	1/1	0.79	0.48	137,137,137,137	0
56	MG	YA	3487	1/1	0.79	0.13	77,77,77,77	0
56	MG	QT	202	1/1	0.79	0.33	87,87,87,87	0
56	MG	QA	1811	1/1	0.79	0.18	93,93,93,93	0
56	MG	RA	3599	1/1	0.79	0.28	102,102,102,102	0
56	MG	RA	3011	1/1	0.79	0.18	107,107,107,107	0
56	MG	RA	3882	1/1	0.79	0.18	41,41,41,41	0
56	MG	QA	1700	1/1	0.79	0.28	73,73,73,73	0
56	MG	YA	3393	1/1	0.79	0.23	97,97,97,97	0
56	MG	YA	3241	1/1	0.79	0.18	107,107,107,107	0
56	MG	RA	3698	1/1	0.79	0.54	130,130,130,130	0
56	MG	YA	3006	1/1	0.79	0.15	72,72,72,72	0
56	MG	RA	3885	1/1	0.79	0.26	119,119,119,119	0
56	MG	XA	1714	1/1	0.79	0.33	99,99,99,99	0
56	MG	RA	3886	1/1	0.79	0.38	66,66,66,66	0
56	MG	RA	3887	1/1	0.79	0.21	80,80,80,80	0
56	MG	RA	3699	1/1	0.79	0.54	85,85,85,85	0
56	MG	RA	3967	1/1	0.79	0.42	109,109,109,109	0
56	MG	YA	3136	1/1	0.79	0.25	100,100,100,100	0
56	MG	YA	3512	1/1	0.79	0.47	141,141,141,141	0
56	MG	QA	1711	1/1	0.79	0.15	136,136,136,136	0
56	MG	YA	3515	1/1	0.79	0.30	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	QA	1655	1/1	0.79	0.21	87,87,87,87	0
56	MG	YA	3263	1/1	0.79	0.30	66,66,66,66	0
56	MG	XA	1610	1/1	0.79	0.42	85,85,85,85	0
56	MG	RA	3283	1/1	0.79	0.19	147,147,147,147	0
56	MG	RA	3608	1/1	0.79	0.23	61,61,61,61	0
56	MG	YA	3416	1/1	0.79	0.31	83,83,83,83	0
56	MG	RA	3141	1/1	0.79	0.23	110,110,110,110	0
56	MG	RA	3225	1/1	0.79	0.31	137,137,137,137	0
56	MG	XA	1747	1/1	0.79	0.28	65,65,65,65	0
56	MG	RA	3752	1/1	0.79	0.40	76,76,76,76	0
56	MG	RA	3142	1/1	0.79	0.09	59,59,59,59	0
56	MG	RA	3379	1/1	0.79	0.41	62,62,62,62	0
56	MG	YA	3284	1/1	0.79	0.26	65,65,65,65	0
56	MG	RA	3567	1/1	0.79	0.33	97,97,97,97	0
56	MG	RA	3328	1/1	0.79	0.35	47,47,47,47	0
56	MG	YA	3161	1/1	0.79	0.29	110,110,110,110	0
56	MG	RA	3543	1/1	0.79	0.26	77,77,77,77	0
56	MG	QA	1728	1/1	0.79	0.14	72,72,72,72	0
56	MG	YA	3696	1/1	0.79	0.36	65,65,65,65	0
56	MG	RA	3154	1/1	0.79	0.19	106,106,106,106	0
56	MG	YA	3171	1/1	0.79	0.26	125,125,125,125	0
56	MG	QA	1844	1/1	0.79	0.31	94,94,94,94	0
56	MG	YA	3050	1/1	0.79	0.36	100,100,100,100	0
56	MG	RA	4000	1/1	0.79	0.26	77,77,77,77	0
56	MG	YA	3445	1/1	0.79	0.28	75,75,75,75	0
56	MG	YA	3707	1/1	0.79	0.15	109,109,109,109	0
56	MG	RA	3484	1/1	0.79	0.27	83,83,83,83	0
56	MG	YA	3178	1/1	0.79	0.17	89,89,89,89	0
56	MG	RA	3578	1/1	0.79	0.13	112,112,112,112	0
56	MG	QA	1734	1/1	0.79	0.25	89,89,89,89	0
56	MG	YA	3319	1/1	0.79	0.18	84,84,84,84	0
56	MG	QA	1615	1/1	0.79	0.12	123,123,123,123	0
56	MG	RA	3012	1/1	0.79	0.26	106,106,106,106	0
56	MG	RA	3162	1/1	0.79	0.51	132,132,132,132	0
56	MG	RA	3722	1/1	0.79	0.23	79,79,79,79	0
56	MG	QA	1623	1/1	0.79	0.08	172,172,172,172	0
56	MG	RA	3248	1/1	0.79	0.34	116,116,116,116	0
56	MG	XV	103	1/1	0.79	0.20	77,77,77,77	0
56	MG	YB	202	1/1	0.79	0.12	88,88,88,88	0
56	MG	YA	3197	1/1	0.79	0.17	65,65,65,65	0
56	MG	RA	3400	1/1	0.79	0.13	90,90,90,90	0
56	MG	YB	206	1/1	0.79	0.47	138,138,138,138	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3632	1/1	0.79	0.22	77,77,77,77	0
56	MG	QA	1634	1/1	0.79	0.08	110,110,110,110	0
56	MG	RA	3074	1/1	0.79	0.17	60,60,60,60	0
56	MG	RA	3491	1/1	0.79	0.36	65,65,65,65	0
56	MG	RA	3306	1/1	0.80	0.56	139,139,139,139	0
56	MG	RA	3465	1/1	0.80	0.38	60,60,60,60	0
56	MG	RA	3401	1/1	0.80	0.29	67,67,67,67	0
56	MG	RA	3104	1/1	0.80	0.41	134,134,134,134	0
56	MG	RA	3282	1/1	0.80	0.20	90,90,90,90	0
56	MG	XA	1698	1/1	0.80	0.20	90,90,90,90	0
56	MG	RA	3217	1/1	0.80	0.13	89,89,89,89	0
56	MG	R1	101	1/1	0.80	0.49	120,120,120,120	0
56	MG	RA	3436	1/1	0.80	0.28	85,85,85,85	0
56	MG	RA	3311	1/1	0.80	0.33	107,107,107,107	0
56	MG	RA	3820	1/1	0.80	0.14	106,106,106,106	0
56	MG	XA	1706	1/1	0.80	0.18	62,62,62,62	0
56	MG	QA	1715	1/1	0.80	0.35	60,60,60,60	0
56	MG	RA	3971	1/1	0.80	0.19	53,53,53,53	0
56	MG	RA	3313	1/1	0.80	0.17	48,48,48,48	0
56	MG	YA	3345	1/1	0.80	0.27	72,72,72,72	0
56	MG	QA	1601	1/1	0.80	0.22	136,136,136,136	0
56	MG	RA	3526	1/1	0.80	0.12	78,78,78,78	0
56	MG	RA	3823	1/1	0.80	0.25	116,116,116,116	0
56	MG	RA	3233	1/1	0.80	0.22	88,88,88,88	0
56	MG	RA	3612	1/1	0.80	0.14	71,71,71,71	0
56	MG	RA	3004	1/1	0.80	0.19	123,123,123,123	0
56	MG	RA	3375	1/1	0.80	0.28	54,54,54,54	0
56	MG	RA	3985	1/1	0.80	0.12	71,71,71,71	0
56	MG	YA	3700	1/1	0.80	0.34	100,100,100,100	0
56	MG	RA	3318	1/1	0.80	0.14	67,67,67,67	0
56	MG	RA	3445	1/1	0.80	0.19	63,63,63,63	0
56	MG	YA	3143	1/1	0.80	0.11	79,79,79,79	0
56	MG	RA	3919	1/1	0.80	0.30	98,98,98,98	0
56	MG	XA	1738	1/1	0.80	0.25	55,55,55,55	0
56	MG	YA	3146	1/1	0.80	0.43	101,101,101,101	0
56	MG	RA	3768	1/1	0.80	0.15	69,69,69,69	0
56	MG	XA	1626	1/1	0.80	0.10	93,93,93,93	0
56	MG	XA	1629	1/1	0.80	0.17	89,89,89,89	0
56	MG	YA	3041	1/1	0.80	0.17	71,71,71,71	0
56	MG	RA	3183	1/1	0.80	0.28	104,104,104,104	0
56	MG	XA	1635	1/1	0.80	0.14	98,98,98,98	0
56	MG	QA	1616	1/1	0.80	0.16	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	3255	1/1	0.80	0.17	77,77,77,77	0
56	MG	YA	3392	1/1	0.80	0.31	38,38,38,38	0
56	MG	RA	3492	1/1	0.80	0.27	50,50,50,50	0
56	MG	XA	1643	1/1	0.80	0.20	84,84,84,84	0
56	MG	RA	4009	1/1	0.80	0.25	73,73,73,73	0
56	MG	RA	3449	1/1	0.80	0.26	73,73,73,73	0
56	MG	RA	4014	1/1	0.80	0.16	83,83,83,83	0
56	MG	XA	1648	1/1	0.80	0.29	100,100,100,100	0
56	MG	XA	1649	1/1	0.80	0.29	105,105,105,105	0
56	MG	YA	3733	1/1	0.80	0.30	38,38,38,38	0
56	MG	RA	3625	1/1	0.80	0.72	98,98,98,98	0
56	MG	RA	3387	1/1	0.80	0.52	52,52,52,52	0
56	MG	QA	1853	1/1	0.80	0.12	133,133,133,133	0
56	MG	RA	3041	1/1	0.80	0.28	109,109,109,109	0
56	MG	YA	3169	1/1	0.80	0.15	112,112,112,112	0
56	MG	RA	3223	1/1	0.80	0.44	157,157,157,157	0
56	MG	YA	3058	1/1	0.80	0.20	83,83,83,83	0
56	MG	YA	3410	1/1	0.80	0.30	74,74,74,74	0
56	MG	QA	1746	1/1	0.80	0.32	95,95,95,95	0
56	MG	RA	3678	1/1	0.80	0.19	82,82,82,82	0
56	MG	RA	3157	1/1	0.80	0.32	119,119,119,119	0
56	MG	XA	1671	1/1	0.80	0.32	140,140,140,140	0
56	MG	RA	3506	1/1	0.80	0.18	76,76,76,76	0
56	MG	RA	3683	1/1	0.80	0.15	74,74,74,74	0
56	MG	RA	3685	1/1	0.80	0.22	72,72,72,72	0
56	MG	RA	3947	1/1	0.80	0.17	91,91,91,91	0
56	MG	YA	3513	1/1	0.80	0.32	76,76,76,76	0
56	MG	RA	3583	1/1	0.80	0.21	87,87,87,87	0
56	MG	YA	3184	1/1	0.80	0.53	133,133,133,133	0
56	MG	RA	3331	1/1	0.80	0.24	96,96,96,96	0
56	MG	RR	202	1/1	0.80	0.51	114,114,114,114	0
56	MG	RA	3082	1/1	0.80	0.47	140,140,140,140	0
56	MG	YA	3304	1/1	0.80	0.26	80,80,80,80	0
56	MG	YA	3191	1/1	0.80	0.16	105,105,105,105	0
56	MG	YA	3525	1/1	0.80	0.20	40,40,40,40	0
56	MG	RA	3903	1/1	0.81	0.24	78,78,78,78	0
56	MG	RA	3904	1/1	0.81	0.23	64,64,64,64	0
56	MG	YA	3629	1/1	0.81	0.33	103,103,103,103	0
56	MG	RA	3308	1/1	0.81	0.27	61,61,61,61	0
56	MG	YA	3521	1/1	0.81	0.25	90,90,90,90	0
56	MG	RA	3694	1/1	0.81	0.32	110,110,110,110	0
56	MG	YA	3741	1/1	0.81	0.28	101,101,101,101	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3285	1/1	0.81	0.34	59,59,59,59	0
56	MG	XA	1632	1/1	0.81	0.25	71,71,71,71	0
56	MG	YA	3140	1/1	0.81	0.15	94,94,94,94	0
56	MG	RA	3500	1/1	0.81	0.35	63,63,63,63	0
56	MG	RX	101	1/1	0.81	0.25	81,81,81,81	0
56	MG	RA	3229	1/1	0.81	0.46	146,146,146,146	0
56	MG	YA	3003	1/1	0.81	0.33	92,92,92,92	0
56	MG	RA	3778	1/1	0.81	0.28	101,101,101,101	0
56	MG	XA	1732	1/1	0.81	0.23	77,77,77,77	0
56	MG	RA	3645	1/1	0.81	0.19	75,75,75,75	0
56	MG	RA	3602	1/1	0.81	0.32	116,116,116,116	0
56	MG	QA	1774	1/1	0.81	0.10	101,101,101,101	0
56	MG	RA	3871	1/1	0.81	0.26	91,91,91,91	0
56	MG	YB	216	1/1	0.81	0.18	87,87,87,87	0
56	MG	RA	3751	1/1	0.81	0.18	56,56,56,56	0
56	MG	YA	3549	1/1	0.81	0.28	87,87,87,87	0
56	MG	YA	3087	1/1	0.81	0.23	97,97,97,97	0
56	MG	XA	1653	1/1	0.81	0.33	99,99,99,99	0
56	MG	YA	3158	1/1	0.81	0.18	54,54,54,54	0
56	MG	YA	3663	1/1	0.81	0.17	75,75,75,75	0
56	MG	RA	3701	1/1	0.81	0.28	97,97,97,97	0
56	MG	QA	1709	1/1	0.81	0.26	87,87,87,87	0
56	MG	RA	3881	1/1	0.81	0.31	73,73,73,73	0
56	MG	XA	1660	1/1	0.81	0.14	116,116,116,116	0
56	MG	QA	1780	1/1	0.81	0.35	85,85,85,85	0
56	MG	YA	3485	1/1	0.81	0.30	85,85,85,85	0
56	MG	RA	3789	1/1	0.81	0.19	89,89,89,89	0
56	MG	YF	303	1/1	0.81	0.26	104,104,104,104	0
56	MG	XA	1766	1/1	0.81	0.26	75,75,75,75	0
56	MG	RA	3831	1/1	0.81	0.20	78,78,78,78	0
56	MG	YA	3570	1/1	0.81	0.56	82,82,82,82	0
56	MG	RA	3390	1/1	0.81	0.21	40,40,40,40	0
56	MG	RB	217	1/1	0.81	0.15	107,107,107,107	0
56	MG	YA	3245	1/1	0.81	0.09	135,135,135,135	0
56	MG	XA	1676	1/1	0.81	0.21	90,90,90,90	0
56	MG	RA	3252	1/1	0.81	0.40	120,120,120,120	0
56	MG	RA	3521	1/1	0.81	0.34	83,83,83,83	0
56	MG	XA	1681	1/1	0.81	0.14	112,112,112,112	0
56	MG	YA	3040	1/1	0.81	0.39	103,103,103,103	0
56	MG	YA	3586	1/1	0.81	0.21	39,39,39,39	0
56	MG	XA	1780	1/1	0.81	0.12	86,86,86,86	0
56	MG	RA	3299	1/1	0.81	0.11	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3496	1/1	0.81	0.34	78,78,78,78	0
56	MG	YA	3428	1/1	0.81	0.26	69,69,69,69	0
56	MG	RA	3312	1/1	0.81	0.27	99,99,99,99	0
56	MG	YA	3108	1/1	0.81	0.24	76,76,76,76	0
56	MG	RA	3509	1/1	0.81	0.23	95,95,95,95	0
56	MG	YA	3046	1/1	0.81	0.45	119,119,119,119	0
56	MG	YA	3113	1/1	0.81	0.31	112,112,112,112	0
56	MG	RA	3262	1/1	0.81	0.06	181,181,181,181	0
56	MG	YA	3614	1/1	0.81	0.24	47,47,47,47	0
56	MG	YA	3267	1/1	0.81	0.26	68,68,68,68	0
56	MG	RA	3476	1/1	0.81	0.24	61,61,61,61	0
56	MG	RA	3851	1/1	0.81	0.29	47,47,47,47	0
56	MG	YA	3364	1/1	0.81	0.28	77,77,77,77	0
56	MG	YA	3274	1/1	0.81	0.30	68,68,68,68	0
57	ZN	Y5	102	1/1	0.81	0.14	277,277,277,277	0
56	MG	RA	3263	1/1	0.81	0.13	101,101,101,101	0
56	MG	RA	3023	1/1	0.81	0.38	110,110,110,110	0
56	MG	YA	3012	1/1	0.82	0.23	90,90,90,90	0
56	MG	QA	1627	1/1	0.82	0.48	126,126,126,126	0
56	MG	QA	1629	1/1	0.82	0.09	86,86,86,86	0
56	MG	RW	201	1/1	0.82	0.12	83,83,83,83	0
56	MG	YA	3327	1/1	0.82	0.39	30,30,30,30	0
56	MG	YA	3420	1/1	0.82	0.22	65,65,65,65	0
56	MG	RA	3872	1/1	0.82	0.42	78,78,78,78	0
56	MG	RA	3495	1/1	0.82	0.23	96,96,96,96	0
56	MG	RA	3773	1/1	0.82	0.14	91,91,91,91	0
56	MG	YA	3501	1/1	0.82	0.37	89,89,89,89	0
56	MG	RA	3774	1/1	0.82	0.12	89,89,89,89	0
56	MG	QA	1724	1/1	0.82	0.27	82,82,82,82	0
56	MG	RA	3075	1/1	0.82	0.47	112,112,112,112	0
56	MG	RA	3777	1/1	0.82	0.25	65,65,65,65	0
56	MG	RA	3119	1/1	0.82	0.27	103,103,103,103	0
56	MG	XA	1630	1/1	0.82	0.19	85,85,85,85	0
56	MG	YA	3101	1/1	0.82	0.56	167,167,167,167	0
56	MG	RA	3656	1/1	0.82	0.18	110,110,110,110	0
56	MG	QA	1855	1/1	0.82	0.12	152,152,152,152	0
56	MG	YA	3259	1/1	0.82	0.28	94,94,94,94	0
56	MG	RA	3333	1/1	0.82	0.33	48,48,48,48	0
56	MG	RA	3889	1/1	0.82	0.24	60,60,60,60	0
56	MG	RA	3410	1/1	0.82	0.19	47,47,47,47	0
56	MG	YA	3517	1/1	0.82	0.19	81,81,81,81	0
56	MG	RA	3641	1/1	0.82	0.10	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3148	1/1	0.82	0.31	107,107,107,107	0
56	MG	YB	209	1/1	0.82	0.26	76,76,76,76	0
56	MG	YA	3189	1/1	0.82	0.24	80,80,80,80	0
56	MG	RB	214	1/1	0.82	0.10	93,93,93,93	0
56	MG	RA	3855	1/1	0.82	0.35	90,90,90,90	0
56	MG	YA	3373	1/1	0.82	0.23	65,65,65,65	0
56	MG	RA	3936	1/1	0.82	0.32	89,89,89,89	0
56	MG	YA	3529	1/1	0.82	0.24	90,90,90,90	0
56	MG	YA	3453	1/1	0.82	0.25	70,70,70,70	0
56	MG	YA	3379	1/1	0.82	0.39	57,57,57,57	0
56	MG	XA	1760	1/1	0.82	0.18	74,74,74,74	0
56	MG	YA	3195	1/1	0.82	0.14	69,69,69,69	0
56	MG	RA	3897	1/1	0.82	0.14	79,79,79,79	0
56	MG	XA	1763	1/1	0.82	0.28	81,81,81,81	0
56	MG	QA	1607	1/1	0.82	0.15	98,98,98,98	0
56	MG	YA	3458	1/1	0.82	0.29	79,79,79,79	0
56	MG	YA	3198	1/1	0.82	0.24	91,91,91,91	0
56	MG	XA	1662	1/1	0.82	0.14	119,119,119,119	0
56	MG	RA	3161	1/1	0.82	0.24	114,114,114,114	0
56	MG	XA	1665	1/1	0.82	0.13	81,81,81,81	0
56	MG	RA	3940	1/1	0.82	0.31	85,85,85,85	0
56	MG	RA	3088	1/1	0.82	0.15	117,117,117,117	0
56	MG	XA	1668	1/1	0.82	0.24	72,72,72,72	0
56	MG	YA	3665	1/1	0.82	0.33	58,58,58,58	0
56	MG	RA	3480	1/1	0.82	0.18	47,47,47,47	0
56	MG	YA	3668	1/1	0.82	0.20	42,42,42,42	0
56	MG	RA	3826	1/1	0.82	0.32	78,78,78,78	0
56	MG	RA	3902	1/1	0.82	0.27	67,67,67,67	0
56	MG	YA	3471	1/1	0.82	0.40	69,69,69,69	0
56	MG	YA	3398	1/1	0.82	0.44	66,66,66,66	0
56	MG	RA	3170	1/1	0.82	0.21	80,80,80,80	0
56	MG	YQ	201	1/1	0.82	0.21	84,84,84,84	0
56	MG	RA	3198	1/1	0.82	0.34	118,118,118,118	0
56	MG	YR	201	1/1	0.82	0.25	93,93,93,93	0
56	MG	QA	1617	1/1	0.82	0.11	129,129,129,129	0
56	MG	XL	201	1/1	0.82	0.16	78,78,78,78	0
56	MG	YT	203	1/1	0.82	0.24	94,94,94,94	0
56	MG	XT	201	1/1	0.82	0.28	93,93,93,93	0
56	MG	YA	3683	1/1	0.82	0.46	123,123,123,123	0
56	MG	YA	3218	1/1	0.82	0.19	92,92,92,92	0
56	MG	RB	226	1/1	0.82	0.21	82,82,82,82	0
56	MG	RA	3906	1/1	0.82	0.37	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3483	1/1	0.82	0.18	65,65,65,65	0
56	MG	RD	302	1/1	0.82	0.38	90,90,90,90	0
56	MG	YA	3574	1/1	0.82	0.20	62,62,62,62	0
56	MG	RA	3803	1/1	0.82	0.13	50,50,50,50	0
56	MG	YA	3306	1/1	0.82	0.12	46,46,46,46	0
56	MG	RA	4017	1/1	0.82	0.23	110,110,110,110	0
56	MG	YA	3010	1/1	0.82	0.23	101,101,101,101	0
56	MG	YA	3387	1/1	0.83	0.24	70,70,70,70	0
56	MG	XA	1716	1/1	0.83	0.16	103,103,103,103	0
56	MG	YA	3537	1/1	0.83	0.36	94,94,94,94	0
56	MG	XA	1640	1/1	0.83	0.15	85,85,85,85	0
56	MG	RA	3057	1/1	0.83	0.41	97,97,97,97	0
56	MG	RA	3100	1/1	0.83	0.48	144,144,144,144	0
56	MG	YA	3203	1/1	0.83	0.15	78,78,78,78	0
56	MG	RA	3687	1/1	0.83	0.31	74,74,74,74	0
56	MG	YA	3005	1/1	0.83	0.29	115,115,115,115	0
56	MG	QA	1762	1/1	0.83	0.12	84,84,84,84	0
56	MG	YA	3293	1/1	0.83	0.13	56,56,56,56	0
56	MG	YA	3294	1/1	0.83	0.10	67,67,67,67	0
56	MG	RA	3523	1/1	0.83	0.26	91,91,91,91	0
56	MG	RA	3791	1/1	0.83	0.27	90,90,90,90	0
56	MG	RA	3302	1/1	0.83	0.17	107,107,107,107	0
56	MG	RA	3439	1/1	0.83	0.39	48,48,48,48	0
56	MG	QA	1691	1/1	0.83	0.32	87,87,87,87	0
56	MG	RA	3403	1/1	0.83	0.36	43,43,43,43	0
56	MG	XA	1745	1/1	0.83	0.17	67,67,67,67	0
56	MG	RA	3926	1/1	0.83	0.26	87,87,87,87	0
56	MG	RA	3660	1/1	0.83	0.13	104,104,104,104	0
56	MG	YA	3569	1/1	0.83	0.21	82,82,82,82	0
56	MG	QA	1657	1/1	0.83	0.07	159,159,159,159	0
56	MG	RE	303	1/1	0.83	0.41	112,112,112,112	0
56	MG	RA	3367	1/1	0.83	0.23	64,64,64,64	0
56	MG	RA	3577	1/1	0.83	0.33	76,76,76,76	0
56	MG	YA	3235	1/1	0.83	0.19	93,93,93,93	0
56	MG	YO	202	1/1	0.83	0.14	86,86,86,86	0
56	MG	YA	3686	1/1	0.83	0.41	72,72,72,72	0
56	MG	YA	3167	1/1	0.83	0.44	111,111,111,111	0
56	MG	RA	3153	1/1	0.83	0.46	159,159,159,159	0
56	MG	RA	3635	1/1	0.83	0.24	103,103,103,103	0
56	MG	RA	3391	1/1	0.83	0.15	52,52,52,52	0
56	MG	QA	1631	1/1	0.83	0.17	118,118,118,118	0
56	MG	RA	3009	1/1	0.83	0.28	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	3244	1/1	0.83	0.17	119,119,119,119	0
56	MG	XA	1679	1/1	0.83	0.13	95,95,95,95	0
56	MG	QA	1669	1/1	0.83	0.15	106,106,106,106	0
56	MG	RA	3638	1/1	0.83	0.45	130,130,130,130	0
56	MG	RA	3118	1/1	0.83	0.17	131,131,131,131	0
56	MG	YA	3429	1/1	0.83	0.26	77,77,77,77	0
56	MG	YA	3248	1/1	0.83	0.27	100,100,100,100	0
56	MG	RA	3535	1/1	0.83	0.13	85,85,85,85	0
56	MG	YA	3111	1/1	0.83	0.39	101,101,101,101	0
56	MG	YA	3252	1/1	0.83	0.27	108,108,108,108	0
56	MG	YA	3708	1/1	0.83	0.21	76,76,76,76	0
56	MG	RA	3584	1/1	0.83	0.18	56,56,56,56	0
56	MG	RA	3994	1/1	0.83	0.42	111,111,111,111	0
56	MG	QO	101	1/1	0.83	0.14	93,93,93,93	0
56	MG	YA	3119	1/1	0.83	0.25	98,98,98,98	0
56	MG	YA	3186	1/1	0.83	0.20	88,88,88,88	0
56	MG	RA	3284	1/1	0.83	0.31	114,114,114,114	0
56	MG	RA	3448	1/1	0.83	0.17	85,85,85,85	0
56	MG	RA	3349	1/1	0.83	0.21	62,62,62,62	0
56	MG	YA	3628	1/1	0.83	0.23	68,68,68,68	0
56	MG	RA	3905	1/1	0.83	0.22	91,91,91,91	0
56	MG	YA	3130	1/1	0.83	0.38	151,151,151,151	0
56	MG	RA	3374	1/1	0.83	0.22	44,44,44,44	0
56	MG	YA	3375	1/1	0.83	0.32	55,55,55,55	0
56	MG	YA	3275	1/1	0.83	0.12	74,74,74,74	0
56	MG	QA	1719	1/1	0.83	0.17	81,81,81,81	0
56	MG	RA	3747	1/1	0.83	0.15	84,84,84,84	0
56	MG	QA	1837	1/1	0.83	0.27	122,122,122,122	0
56	MG	YA	3137	1/1	0.83	0.33	75,75,75,75	0
56	MG	YA	3385	1/1	0.83	0.36	82,82,82,82	0
56	MG	RD	315	1/1	0.84	0.32	122,122,122,122	0
56	MG	RA	3462	1/1	0.84	0.32	84,84,84,84	0
56	MG	XA	1727	1/1	0.84	0.12	75,75,75,75	0
56	MG	XA	1731	1/1	0.84	0.24	84,84,84,84	0
56	MG	QF	201	1/1	0.84	0.10	101,101,101,101	0
56	MG	YA	3224	1/1	0.84	0.33	98,98,98,98	0
56	MG	RA	3346	1/1	0.84	0.29	128,128,128,128	0
56	MG	RA	3800	1/1	0.84	0.28	77,77,77,77	0
56	MG	RA	3419	1/1	0.84	0.30	59,59,59,59	0
56	MG	RA	3802	1/1	0.84	0.22	50,50,50,50	0
56	MG	RA	3525	1/1	0.84	0.17	76,76,76,76	0
56	MG	YW	202	1/1	0.84	0.15	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	3523	1/1	0.84	0.18	34,34,34,34	0
56	MG	YA	3107	1/1	0.84	0.24	83,83,83,83	0
56	MG	R7	101	1/1	0.84	0.24	111,111,111,111	0
56	MG	RA	3975	1/1	0.84	0.11	60,60,60,60	0
56	MG	RA	3467	1/1	0.84	0.16	67,67,67,67	0
56	MG	RA	3845	1/1	0.84	0.25	69,69,69,69	0
56	MG	XA	1755	1/1	0.84	0.29	71,71,71,71	0
56	MG	YA	3310	1/1	0.84	0.28	41,41,41,41	0
56	MG	RA	3394	1/1	0.84	0.37	47,47,47,47	0
56	MG	RA	3736	1/1	0.84	0.16	79,79,79,79	0
56	MG	XA	1607	1/1	0.84	0.07	119,119,119,119	0
56	MG	XA	1608	1/1	0.84	0.22	78,78,78,78	0
56	MG	RA	3984	1/1	0.84	0.13	86,86,86,86	0
56	MG	RA	3128	1/1	0.84	0.10	91,91,91,91	0
56	MG	RG	202	1/1	0.84	0.21	112,112,112,112	0
56	MG	RA	3177	1/1	0.84	0.29	106,106,106,106	0
56	MG	RA	3813	1/1	0.84	0.12	81,81,81,81	0
56	MG	YA	3128	1/1	0.84	0.19	98,98,98,98	0
56	MG	YA	3332	1/1	0.84	0.21	48,48,48,48	0
56	MG	YA	3188	1/1	0.84	0.25	87,87,87,87	0
56	MG	QV	105	1/1	0.84	0.07	120,120,120,120	0
56	MG	RA	3988	1/1	0.84	0.41	88,88,88,88	0
56	MG	YA	3061	1/1	0.84	0.13	85,85,85,85	0
56	MG	RA	3221	1/1	0.84	0.18	140,140,140,140	0
56	MG	XA	1693	1/1	0.84	0.17	67,67,67,67	0
56	MG	RA	3178	1/1	0.84	0.07	134,134,134,134	0
56	MG	RA	3173	1/1	0.84	0.17	79,79,79,79	0
56	MG	RA	3210	1/1	0.84	0.30	130,130,130,130	0
56	MG	YA	3141	1/1	0.84	0.26	86,86,86,86	0
56	MG	RA	3315	1/1	0.84	0.28	44,44,44,44	0
56	MG	RA	3303	1/1	0.84	0.19	98,98,98,98	0
56	MG	RA	3657	1/1	0.84	0.20	73,73,73,73	0
56	MG	XE	201	1/1	0.84	0.12	109,109,109,109	0
56	MG	RA	3213	1/1	0.84	0.33	111,111,111,111	0
56	MG	YA	3207	1/1	0.84	0.15	114,114,114,114	0
56	MG	RA	3383	1/1	0.84	0.22	85,85,85,85	0
56	MG	RA	3340	1/1	0.84	0.20	44,44,44,44	0
56	MG	RA	4036	1/1	0.84	0.42	78,78,78,78	0
56	MG	XA	1639	1/1	0.84	0.11	85,85,85,85	0
56	MG	RA	3026	1/1	0.84	0.46	128,128,128,128	0
56	MG	YA	3370	1/1	0.84	0.22	38,38,38,38	0
56	MG	QD	301	1/1	0.84	0.24	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3374	1/1	0.84	0.16	43,43,43,43	0
56	MG	RA	3025	1/1	0.84	0.53	98,98,98,98	0
56	MG	YA	3029	1/1	0.84	0.31	76,76,76,76	0
56	MG	YA	3603	1/1	0.84	0.23	75,75,75,75	0
56	MG	YA	3290	1/1	0.84	0.13	70,70,70,70	0
56	MG	YA	3607	1/1	0.84	0.21	69,69,69,69	0
56	MG	YA	3691	1/1	0.84	0.29	123,123,123,123	0
56	MG	RA	3345	1/1	0.84	0.18	97,97,97,97	0
56	MG	YA	3734	1/1	0.85	0.42	120,120,120,120	0
56	MG	YA	3735	1/1	0.85	0.20	64,64,64,64	0
56	MG	YA	3025	1/1	0.85	0.13	69,69,69,69	0
56	MG	YA	3026	1/1	0.85	0.17	52,52,52,52	0
56	MG	R3	102	1/1	0.85	0.71	131,131,131,131	0
56	MG	XA	1634	1/1	0.85	0.19	60,60,60,60	0
56	MG	YA	3638	1/1	0.85	0.31	62,62,62,62	0
56	MG	YA	3166	1/1	0.85	0.36	142,142,142,142	0
56	MG	YA	3531	1/1	0.85	0.08	68,68,68,68	0
56	MG	YA	3533	1/1	0.85	0.20	64,64,64,64	0
56	MG	R5	101	1/1	0.85	0.27	130,130,130,130	0
56	MG	YA	3459	1/1	0.85	0.23	41,41,41,41	0
56	MG	QB	301	1/1	0.85	0.14	146,146,146,146	0
56	MG	QA	1682	1/1	0.85	0.24	128,128,128,128	0
56	MG	RA	3742	1/1	0.85	0.21	77,77,77,77	0
56	MG	YA	3463	1/1	0.85	0.34	92,92,92,92	0
56	MG	RA	3338	1/1	0.85	0.23	88,88,88,88	0
56	MG	RA	3806	1/1	0.85	0.28	98,98,98,98	0
56	MG	YB	218	1/1	0.85	0.16	51,51,51,51	0
56	MG	RA	3258	1/1	0.85	0.17	96,96,96,96	0
56	MG	RA	3664	1/1	0.85	0.28	90,90,90,90	0
56	MG	YA	3470	1/1	0.85	0.21	35,35,35,35	0
56	MG	YA	3311	1/1	0.85	0.13	32,32,32,32	0
56	MG	XA	1655	1/1	0.85	0.18	89,89,89,89	0
56	MG	RA	3850	1/1	0.85	0.33	70,70,70,70	0
56	MG	YA	3666	1/1	0.85	0.22	84,84,84,84	0
56	MG	XA	1751	1/1	0.85	0.20	77,77,77,77	0
56	MG	XA	1752	1/1	0.85	0.20	98,98,98,98	0
56	MG	RA	3935	1/1	0.85	0.31	103,103,103,103	0
56	MG	RF	310	1/1	0.85	0.65	112,112,112,112	0
56	MG	YA	3405	1/1	0.85	0.32	110,110,110,110	0
56	MG	RA	3809	1/1	0.85	0.23	72,72,72,72	0
56	MG	YA	3117	1/1	0.85	0.13	99,99,99,99	0
56	MG	YA	3677	1/1	0.85	0.12	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3326	1/1	0.85	0.25	62,62,62,62	0
56	MG	QL	202	1/1	0.85	0.22	95,95,95,95	0
56	MG	RA	3775	1/1	0.85	0.26	90,90,90,90	0
56	MG	RA	3569	1/1	0.85	0.39	86,86,86,86	0
56	MG	RA	3593	1/1	0.85	0.60	91,91,91,91	0
56	MG	RA	3622	1/1	0.85	0.54	82,82,82,82	0
56	MG	RA	3989	1/1	0.85	0.24	112,112,112,112	0
56	MG	RA	3779	1/1	0.85	0.16	124,124,124,124	0
56	MG	RA	3475	1/1	0.85	0.17	37,37,37,37	0
56	MG	RA	3399	1/1	0.85	0.23	51,51,51,51	0
56	MG	YT	204	1/1	0.85	0.19	93,93,93,93	0
56	MG	YA	3344	1/1	0.85	0.20	94,94,94,94	0
56	MG	RA	3123	1/1	0.85	0.17	72,72,72,72	0
56	MG	RA	3384	1/1	0.85	0.27	72,72,72,72	0
56	MG	YA	3264	1/1	0.85	0.16	66,66,66,66	0
56	MG	RA	3032	1/1	0.85	0.24	86,86,86,86	0
56	MG	YA	3498	1/1	0.85	0.41	108,108,108,108	0
56	MG	YA	3427	1/1	0.85	0.24	70,70,70,70	0
56	MG	YA	3352	1/1	0.85	0.33	36,36,36,36	0
56	MG	RA	3388	1/1	0.85	0.23	58,58,58,58	0
56	MG	RA	3652	1/1	0.85	0.50	162,162,162,162	0
56	MG	YA	3431	1/1	0.85	0.29	50,50,50,50	0
56	MG	RA	3087	1/1	0.85	0.20	148,148,148,148	0
56	MG	RA	4029	1/1	0.85	0.43	150,150,150,150	0
56	MG	RA	3914	1/1	0.85	0.30	129,129,129,129	0
56	MG	YA	3204	1/1	0.85	0.29	132,132,132,132	0
56	MG	RA	3237	1/1	0.85	0.28	136,136,136,136	0
56	MG	YA	3366	1/1	0.85	0.22	50,50,50,50	0
56	MG	RA	3796	1/1	0.85	0.30	48,48,48,48	0
56	MG	RA	3361	1/1	0.85	0.23	76,76,76,76	0
56	MG	RB	201	1/1	0.85	0.11	88,88,88,88	0
56	MG	YA	3715	1/1	0.85	0.13	61,61,61,61	0
56	MG	RA	3016	1/1	0.85	0.41	76,76,76,76	0
56	MG	QA	1632	1/1	0.85	0.09	102,102,102,102	0
56	MG	YA	3018	1/1	0.85	0.35	146,146,146,146	0
56	MG	RA	3336	1/1	0.85	0.35	61,61,61,61	0
56	MG	RA	3925	1/1	0.85	0.24	100,100,100,100	0
56	MG	R1	104	1/1	0.85	0.21	74,74,74,74	0
56	MG	RA	3070	1/1	0.85	0.69	110,110,110,110	0
56	MG	RA	3766	1/1	0.86	0.26	92,92,92,92	0
56	MG	RA	3499	1/1	0.86	0.17	41,41,41,41	0
56	MG	RA	3848	1/1	0.86	0.14	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	3676	1/1	0.86	0.23	58,58,58,58	0
56	MG	RA	4016	1/1	0.86	0.56	115,115,115,115	0
56	MG	YA	3100	1/1	0.86	0.10	70,70,70,70	0
56	MG	XA	1700	1/1	0.86	0.20	86,86,86,86	0
56	MG	YA	3553	1/1	0.86	0.22	43,43,43,43	0
56	MG	XA	1702	1/1	0.86	0.20	67,67,67,67	0
56	MG	RA	3804	1/1	0.86	0.23	42,42,42,42	0
56	MG	YA	3013	1/1	0.86	0.09	35,35,35,35	0
56	MG	RA	4028	1/1	0.86	0.42	151,151,151,151	0
56	MG	RA	3953	1/1	0.86	0.14	49,49,49,49	0
56	MG	XA	1604	1/1	0.86	0.14	92,92,92,92	0
56	MG	RA	4031	1/1	0.86	0.22	79,79,79,79	0
56	MG	RA	3605	1/1	0.86	0.19	63,63,63,63	0
56	MG	XA	1711	1/1	0.86	0.20	90,90,90,90	0
56	MG	RE	307	1/1	0.86	0.17	67,67,67,67	0
56	MG	YA	3474	1/1	0.86	0.28	56,56,56,56	0
56	MG	RE	308	1/1	0.86	0.18	75,75,75,75	0
56	MG	QA	1838	1/1	0.86	0.20	96,96,96,96	0
56	MG	XA	1612	1/1	0.86	0.13	97,97,97,97	0
56	MG	RA	3404	1/1	0.86	0.16	36,36,36,36	0
56	MG	YA	3573	1/1	0.86	0.15	48,48,48,48	0
56	MG	RA	3396	1/1	0.86	0.26	34,34,34,34	0
56	MG	RA	3064	1/1	0.86	0.15	97,97,97,97	0
56	MG	QA	1664	1/1	0.86	0.14	148,148,148,148	0
56	MG	RA	3122	1/1	0.86	0.08	85,85,85,85	0
56	MG	YA	3032	1/1	0.86	0.22	102,102,102,102	0
56	MG	RA	3614	1/1	0.86	0.22	63,63,63,63	0
56	MG	XA	1728	1/1	0.86	0.28	86,86,86,86	0
56	MG	YA	3701	1/1	0.86	0.27	86,86,86,86	0
56	MG	RA	3962	1/1	0.86	0.12	88,88,88,88	0
56	MG	RA	3585	1/1	0.86	0.17	72,72,72,72	0
56	MG	QA	1786	1/1	0.86	0.22	93,93,93,93	0
56	MG	YA	3599	1/1	0.86	0.29	33,33,33,33	0
56	MG	QA	1611	1/1	0.86	0.10	132,132,132,132	0
56	MG	RA	3089	1/1	0.86	0.27	102,102,102,102	0
56	MG	RA	3966	1/1	0.86	0.14	62,62,62,62	0
56	MG	YA	3411	1/1	0.86	0.10	48,48,48,48	0
56	MG	RA	3409	1/1	0.86	0.15	37,37,37,37	0
56	MG	YA	3610	1/1	0.86	0.16	42,42,42,42	0
56	MG	RA	3508	1/1	0.86	0.15	52,52,52,52	0
56	MG	RA	3473	1/1	0.86	0.30	94,94,94,94	0
56	MG	YA	3718	1/1	0.86	0.20	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3271	1/1	0.86	0.33	148,148,148,148	0
56	MG	RA	3679	1/1	0.86	0.51	114,114,114,114	0
56	MG	YA	3320	1/1	0.86	0.37	29,29,29,29	0
56	MG	YA	3322	1/1	0.86	0.23	49,49,49,49	0
56	MG	QA	1620	1/1	0.86	0.10	171,171,171,171	0
56	MG	YA	3230	1/1	0.86	0.23	131,131,131,131	0
56	MG	RA	3621	1/1	0.86	0.40	112,112,112,112	0
56	MG	RA	3592	1/1	0.86	0.21	98,98,98,98	0
56	MG	YA	3737	1/1	0.86	0.23	51,51,51,51	0
56	MG	YA	3623	1/1	0.86	0.28	92,92,92,92	0
56	MG	RP	201	1/1	0.86	0.48	128,128,128,128	0
56	MG	RA	3879	1/1	0.86	0.25	69,69,69,69	0
56	MG	YB	204	1/1	0.86	0.15	154,154,154,154	0
56	MG	RA	3412	1/1	0.86	0.14	70,70,70,70	0
56	MG	RA	3786	1/1	0.86	0.44	137,137,137,137	0
56	MG	QA	1686	1/1	0.86	0.23	117,117,117,117	0
56	MG	RQ	205	1/1	0.86	0.23	118,118,118,118	0
56	MG	RA	3980	1/1	0.86	0.79	122,122,122,122	0
56	MG	RA	3156	1/1	0.86	0.41	153,153,153,153	0
56	MG	RR	203	1/1	0.86	0.16	70,70,70,70	0
56	MG	RA	3790	1/1	0.86	0.35	103,103,103,103	0
56	MG	RA	3686	1/1	0.86	0.27	119,119,119,119	0
56	MG	QA	1810	1/1	0.86	0.26	176,176,176,176	0
56	MG	YA	3640	1/1	0.86	0.24	76,76,76,76	0
56	MG	RU	201	1/1	0.86	0.16	79,79,79,79	0
56	MG	RA	3037	1/1	0.86	0.18	78,78,78,78	0
56	MG	RA	3837	1/1	0.86	0.22	46,46,46,46	0
56	MG	YA	3524	1/1	0.86	0.14	41,41,41,41	0
56	MG	YA	3444	1/1	0.86	0.17	69,69,69,69	0
56	MG	YA	3354	1/1	0.86	0.20	46,46,46,46	0
56	MG	RA	3291	1/1	0.86	0.09	113,113,113,113	0
56	MG	YA	3649	1/1	0.86	0.26	54,54,54,54	0
56	MG	YA	3650	1/1	0.86	0.27	55,55,55,55	0
56	MG	QA	1815	1/1	0.86	0.25	92,92,92,92	0
56	MG	YA	3653	1/1	0.86	0.19	46,46,46,46	0
56	MG	YA	3654	1/1	0.86	0.18	44,44,44,44	0
56	MG	RA	3600	1/1	0.86	0.13	103,103,103,103	0
56	MG	RA	3761	1/1	0.86	0.10	81,81,81,81	0
56	MG	XV	104	1/1	0.86	0.11	92,92,92,92	0
56	MG	YA	3090	1/1	0.86	0.12	43,43,43,43	0
56	MG	YA	3659	1/1	0.86	0.25	47,47,47,47	0
56	MG	RA	3629	1/1	0.86	0.25	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	YA	3365	1/1	0.86	0.24	87,87,87,87	0
56	MG	RA	3555	1/1	0.86	0.15	78,78,78,78	0
56	MG	RA	3942	1/1	0.86	0.34	84,84,84,84	0
56	MG	YA	3265	1/1	0.86	0.31	86,86,86,86	0
56	MG	R1	103	1/1	0.86	0.17	89,89,89,89	0
56	MG	RA	3498	1/1	0.86	0.17	30,30,30,30	0
56	MG	YA	3647	1/1	0.87	0.30	58,58,58,58	0
56	MG	RA	3536	1/1	0.87	0.24	119,119,119,119	0
56	MG	YA	3162	1/1	0.87	0.12	54,54,54,54	0
56	MG	RA	3537	1/1	0.87	0.19	71,71,71,71	0
56	MG	QA	1650	1/1	0.87	0.09	92,92,92,92	0
56	MG	YA	3554	1/1	0.87	0.27	65,65,65,65	0
56	MG	YA	3555	1/1	0.87	0.18	50,50,50,50	0
56	MG	XA	1722	1/1	0.87	0.23	81,81,81,81	0
56	MG	RA	3255	1/1	0.87	0.26	127,127,127,127	0
56	MG	RA	3452	1/1	0.87	0.15	92,92,92,92	0
56	MG	RA	3453	1/1	0.87	0.30	62,62,62,62	0
56	MG	QA	1751	1/1	0.87	0.39	91,91,91,91	0
56	MG	XA	1730	1/1	0.87	0.15	61,61,61,61	0
56	MG	YA	3661	1/1	0.87	0.27	62,62,62,62	0
56	MG	RA	3640	1/1	0.87	0.22	64,64,64,64	0
56	MG	YA	3565	1/1	0.87	0.25	38,38,38,38	0
56	MG	RA	3541	1/1	0.87	0.25	65,65,65,65	0
56	MG	RA	3200	1/1	0.87	0.30	108,108,108,108	0
56	MG	RA	3849	1/1	0.87	0.28	71,71,71,71	0
56	MG	XA	1740	1/1	0.87	0.27	81,81,81,81	0
56	MG	RA	3944	1/1	0.87	0.25	50,50,50,50	0
56	MG	RA	3740	1/1	0.87	0.21	103,103,103,103	0
56	MG	YA	3670	1/1	0.87	0.22	26,26,26,26	0
56	MG	YA	3254	1/1	0.87	0.26	122,122,122,122	0
56	MG	RA	3422	1/1	0.87	0.35	84,84,84,84	0
56	MG	YA	3256	1/1	0.87	0.24	100,100,100,100	0
56	MG	RA	3378	1/1	0.87	0.21	55,55,55,55	0
56	MG	YA	3425	1/1	0.87	0.23	72,72,72,72	0
56	MG	YA	3035	1/1	0.87	0.32	67,67,67,67	0
56	MG	RA	3189	1/1	0.87	0.30	135,135,135,135	0
56	MG	RA	3380	1/1	0.87	0.33	39,39,39,39	0
56	MG	RD	305	1/1	0.87	0.06	66,66,66,66	0
56	MG	RA	3680	1/1	0.87	0.62	140,140,140,140	0
56	MG	XA	1757	1/1	0.87	0.26	67,67,67,67	0
56	MG	RA	3240	1/1	0.87	0.28	118,118,118,118	0
56	MG	RA	3858	1/1	0.87	0.48	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	4023	1/1	0.87	0.36	106,106,106,106	0
56	MG	YA	3044	1/1	0.87	0.11	77,77,77,77	0
56	MG	YA	3688	1/1	0.87	0.14	50,50,50,50	0
56	MG	YA	3604	1/1	0.87	0.15	44,44,44,44	0
56	MG	RV	203	1/1	0.87	0.18	91,91,91,91	0
56	MG	YA	3437	1/1	0.87	0.23	87,87,87,87	0
56	MG	QA	1624	1/1	0.87	0.09	130,130,130,130	0
56	MG	QA	1769	1/1	0.87	0.22	94,94,94,94	0
56	MG	RA	3748	1/1	0.87	0.24	47,47,47,47	0
56	MG	YA	3279	1/1	0.87	0.27	80,80,80,80	0
56	MG	XA	1771	1/1	0.87	0.32	77,77,77,77	0
56	MG	QA	1722	1/1	0.87	0.20	70,70,70,70	0
56	MG	RA	3202	1/1	0.87	0.32	86,86,86,86	0
56	MG	RA	3601	1/1	0.87	0.21	125,125,125,125	0
56	MG	RY	201	1/1	0.87	0.28	119,119,119,119	0
56	MG	RZ	301	1/1	0.87	0.05	80,80,80,80	0
56	MG	RA	3961	1/1	0.87	0.21	74,74,74,74	0
56	MG	YA	3205	1/1	0.87	0.23	91,91,91,91	0
56	MG	RA	3684	1/1	0.87	0.80	160,160,160,160	0
56	MG	YA	3138	1/1	0.87	0.18	34,34,34,34	0
56	MG	RA	3916	1/1	0.87	0.15	121,121,121,121	0
56	MG	YA	3059	1/1	0.87	0.16	84,84,84,84	0
56	MG	RA	3165	1/1	0.87	0.17	72,72,72,72	0
56	MG	RA	3204	1/1	0.87	0.37	149,149,149,149	0
56	MG	YA	3144	1/1	0.87	0.27	94,94,94,94	0
56	MG	RA	3431	1/1	0.87	0.43	53,53,53,53	0
56	MG	RA	3389	1/1	0.87	0.29	47,47,47,47	0
56	MG	YA	3069	1/1	0.87	0.29	91,91,91,91	0
56	MG	RA	3606	1/1	0.87	0.28	51,51,51,51	0
56	MG	YA	3721	1/1	0.87	0.13	115,115,115,115	0
56	MG	RA	3876	1/1	0.87	0.14	50,50,50,50	0
56	MG	YA	3077	1/1	0.87	0.36	112,112,112,112	0
56	MG	YA	3538	1/1	0.87	0.23	83,83,83,83	0
56	MG	YA	3540	1/1	0.87	0.18	66,66,66,66	0
57	ZN	R4	101	1/1	0.87	0.12	297,297,297,297	0
56	MG	RA	3829	1/1	0.87	0.15	68,68,68,68	0
56	MG	YA	3729	1/1	0.87	0.17	156,156,156,156	0
56	MG	RA	3760	1/1	0.87	0.19	49,49,49,49	0
56	MG	RA	3835	1/1	0.87	0.20	93,93,93,93	0
56	MG	XA	1627	1/1	0.87	0.11	78,78,78,78	0
56	MG	RA	3158	1/1	0.87	0.13	82,82,82,82	0
56	MG	RA	3353	1/1	0.87	0.09	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3610	1/1	0.87	0.29	61,61,61,61	0
56	MG	RA	3870	1/1	0.88	0.42	59,59,59,59	0
56	MG	XA	1726	1/1	0.88	0.22	106,106,106,106	0
56	MG	RA	3570	1/1	0.88	0.11	71,71,71,71	0
56	MG	RA	3832	1/1	0.88	0.33	75,75,75,75	0
56	MG	RA	3295	1/1	0.88	0.51	148,148,148,148	0
56	MG	RA	3915	1/1	0.88	0.30	84,84,84,84	0
56	MG	RA	4013	1/1	0.88	0.32	115,115,115,115	0
56	MG	RA	3230	1/1	0.88	0.27	91,91,91,91	0
56	MG	YA	3690	1/1	0.88	0.32	62,62,62,62	0
56	MG	RA	3745	1/1	0.88	0.14	66,66,66,66	0
56	MG	YA	3177	1/1	0.88	0.18	109,109,109,109	0
56	MG	RD	301	1/1	0.88	0.21	91,91,91,91	0
56	MG	RA	3516	1/1	0.88	0.28	79,79,79,79	0
56	MG	RA	4018	1/1	0.88	0.34	153,153,153,153	0
56	MG	RA	4021	1/1	0.88	0.06	101,101,101,101	0
56	MG	RA	3880	1/1	0.88	0.17	55,55,55,55	0
56	MG	XA	1664	1/1	0.88	0.14	89,89,89,89	0
56	MG	YA	3469	1/1	0.88	0.21	37,37,37,37	0
56	MG	RA	3112	1/1	0.88	0.32	113,113,113,113	0
56	MG	RA	3922	1/1	0.88	0.09	59,59,59,59	0
56	MG	YA	3539	1/1	0.88	0.20	72,72,72,72	0
56	MG	YA	3472	1/1	0.88	0.26	45,45,45,45	0
56	MG	YA	3121	1/1	0.88	0.28	92,92,92,92	0
56	MG	XA	1672	1/1	0.88	0.17	78,78,78,78	0
56	MG	RA	3014	1/1	0.88	0.12	74,74,74,74	0
56	MG	RA	4032	1/1	0.88	0.20	100,100,100,100	0
56	MG	RA	3071	1/1	0.88	0.26	97,97,97,97	0
56	MG	RA	3351	1/1	0.88	0.26	42,42,42,42	0
56	MG	QA	1625	1/1	0.88	0.14	106,106,106,106	0
56	MG	RA	3106	1/1	0.88	0.40	124,124,124,124	0
56	MG	RA	3646	1/1	0.88	0.24	63,63,63,63	0
56	MG	XA	1605	1/1	0.88	0.18	104,104,104,104	0
56	MG	RA	3674	1/1	0.88	0.29	83,83,83,83	0
56	MG	RA	3052	1/1	0.88	0.31	142,142,142,142	0
56	MG	YA	3716	1/1	0.88	0.50	108,108,108,108	0
56	MG	YA	3347	1/1	0.88	0.31	38,38,38,38	0
56	MG	YA	3015	1/1	0.88	0.32	111,111,111,111	0
56	MG	YA	3200	1/1	0.88	0.33	99,99,99,99	0
56	MG	YA	3072	1/1	0.88	0.07	70,70,70,70	0
56	MG	XA	1613	1/1	0.88	0.07	73,73,73,73	0
56	MG	RA	3045	1/1	0.88	0.31	107,107,107,107	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3017	1/1	0.88	0.25	116,116,116,116	0
56	MG	RA	3702	1/1	0.88	0.26	74,74,74,74	0
56	MG	YA	3278	1/1	0.88	0.24	57,57,57,57	0
56	MG	YA	3078	1/1	0.88	0.34	92,92,92,92	0
56	MG	YA	3360	1/1	0.88	0.24	41,41,41,41	0
56	MG	YA	3079	1/1	0.88	0.09	78,78,78,78	0
56	MG	YA	3080	1/1	0.88	0.40	126,126,126,126	0
56	MG	RA	3785	1/1	0.88	0.08	102,102,102,102	0
56	MG	YA	3657	1/1	0.88	0.25	51,51,51,51	0
56	MG	RA	3607	1/1	0.88	0.27	42,42,42,42	0
56	MG	RA	3787	1/1	0.88	0.19	91,91,91,91	0
56	MG	RA	3150	1/1	0.88	0.17	84,84,84,84	0
56	MG	RF	305	1/1	0.88	0.32	79,79,79,79	0
56	MG	RA	3939	1/1	0.88	0.19	72,72,72,72	0
56	MG	RA	3185	1/1	0.88	0.43	164,164,164,164	0
56	MG	RA	3469	1/1	0.88	0.17	57,57,57,57	0
56	MG	RA	3294	1/1	0.88	0.12	36,36,36,36	0
56	MG	RA	3472	1/1	0.88	0.26	38,38,38,38	0
56	MG	XV	102	1/1	0.88	0.07	107,107,107,107	0
56	MG	YA	3588	1/1	0.88	0.27	28,28,28,28	0
56	MG	YA	3031	1/1	0.88	0.14	60,60,60,60	0
56	MG	YA	3592	1/1	0.88	0.21	52,52,52,52	0
56	MG	RA	3548	1/1	0.88	0.36	60,60,60,60	0
56	MG	YA	3594	1/1	0.88	0.20	53,53,53,53	0
56	MG	RA	3329	1/1	0.88	0.20	69,69,69,69	0
56	MG	YA	3228	1/1	0.88	0.31	150,150,150,150	0
56	MG	RA	3797	1/1	0.88	0.27	105,105,105,105	0
56	MG	QA	1819	1/1	0.88	0.23	92,92,92,92	0
56	MG	YA	3605	1/1	0.88	0.14	65,65,65,65	0
56	MG	YA	3681	1/1	0.88	0.20	40,40,40,40	0
56	MG	RA	3830	1/1	0.88	0.62	76,76,76,76	0
56	MG	YA	3225	1/1	0.89	0.21	100,100,100,100	0
56	MG	YA	3597	1/1	0.89	0.24	72,72,72,72	0
56	MG	RA	3489	1/1	0.89	0.34	98,98,98,98	0
56	MG	RA	3305	1/1	0.89	0.13	117,117,117,117	0
56	MG	RA	3325	1/1	0.89	0.15	68,68,68,68	0
56	MG	XA	1651	1/1	0.89	0.35	119,119,119,119	0
56	MG	YA	3447	1/1	0.89	0.21	74,74,74,74	0
56	MG	RD	303	1/1	0.89	0.35	79,79,79,79	0
56	MG	YA	3102	1/1	0.89	0.17	53,53,53,53	0
56	MG	YA	3233	1/1	0.89	0.28	114,114,114,114	0
56	MG	XA	1736	1/1	0.89	0.27	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3438	1/1	0.89	0.32	52,52,52,52	0
56	MG	RA	3249	1/1	0.89	0.26	101,101,101,101	0
56	MG	XA	1739	1/1	0.89	0.33	54,54,54,54	0
56	MG	YA	3383	1/1	0.89	0.29	44,44,44,44	0
56	MG	RA	3780	1/1	0.89	0.42	88,88,88,88	0
56	MG	YA	3386	1/1	0.89	0.11	31,31,31,31	0
56	MG	RA	3054	1/1	0.89	0.47	138,138,138,138	0
56	MG	QA	1738	1/1	0.89	0.14	108,108,108,108	0
56	MG	YA	3308	1/1	0.89	0.20	41,41,41,41	0
56	MG	RA	3102	1/1	0.89	0.28	123,123,123,123	0
56	MG	RA	3140	1/1	0.89	0.12	78,78,78,78	0
56	MG	YA	3532	1/1	0.89	0.22	53,53,53,53	0
56	MG	RA	3067	1/1	0.89	0.16	75,75,75,75	0
56	MG	RA	3068	1/1	0.89	0.19	89,89,89,89	0
56	MG	XA	1669	1/1	0.89	0.20	52,52,52,52	0
56	MG	RA	3933	1/1	0.89	0.46	115,115,115,115	0
56	MG	YA	3314	1/1	0.89	0.11	35,35,35,35	0
56	MG	RA	3046	1/1	0.89	0.09	42,42,42,42	0
56	MG	QA	1745	1/1	0.89	0.14	124,124,124,124	0
56	MG	YA	3321	1/1	0.89	0.18	45,45,45,45	0
56	MG	YA	3705	1/1	0.89	0.38	154,154,154,154	0
56	MG	QA	1619	1/1	0.89	0.08	145,145,145,145	0
56	MG	YA	3323	1/1	0.89	0.25	33,33,33,33	0
56	MG	RA	3502	1/1	0.89	0.13	49,49,49,49	0
56	MG	RA	3667	1/1	0.89	0.41	72,72,72,72	0
56	MG	YA	3126	1/1	0.89	0.12	56,56,56,56	0
56	MG	RA	3856	1/1	0.89	0.24	56,56,56,56	0
56	MG	YA	3409	1/1	0.89	0.20	57,57,57,57	0
56	MG	QA	1705	1/1	0.89	0.22	73,73,73,73	0
56	MG	YA	3008	1/1	0.89	0.14	68,68,68,68	0
56	MG	RA	3078	1/1	0.89	0.36	147,147,147,147	0
56	MG	RA	3168	1/1	0.89	0.34	124,124,124,124	0
56	MG	RA	3792	1/1	0.89	0.10	85,85,85,85	0
56	MG	YA	3719	1/1	0.89	0.28	72,72,72,72	0
56	MG	RA	3234	1/1	0.89	0.79	100,100,100,100	0
56	MG	YA	3339	1/1	0.89	0.18	44,44,44,44	0
56	MG	RA	3316	1/1	0.89	0.19	38,38,38,38	0
56	MG	QA	1668	1/1	0.89	0.23	107,107,107,107	0
56	MG	QA	1801	1/1	0.89	0.15	96,96,96,96	0
56	MG	RA	3865	1/1	0.89	0.22	73,73,73,73	0
56	MG	RA	3866	1/1	0.89	0.30	68,68,68,68	0
56	MG	RA	3945	1/1	0.89	0.24	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3907	1/1	0.89	0.25	107,107,107,107	0
56	MG	RA	3385	1/1	0.89	0.23	46,46,46,46	0
56	MG	YA	3206	1/1	0.89	0.17	82,82,82,82	0
56	MG	YA	3738	1/1	0.89	0.38	146,146,146,146	0
56	MG	RA	3949	1/1	0.89	0.25	105,105,105,105	0
56	MG	YA	3743	1/1	0.89	0.26	89,89,89,89	0
56	MG	YA	3085	1/1	0.89	0.22	105,105,105,105	0
56	MG	QA	1856	1/1	0.89	0.17	125,125,125,125	0
56	MG	YA	3660	1/1	0.89	0.15	47,47,47,47	0
56	MG	RA	3737	1/1	0.89	0.19	80,80,80,80	0
56	MG	YA	3575	1/1	0.89	0.20	55,55,55,55	0
56	MG	YA	3578	1/1	0.89	0.18	56,56,56,56	0
56	MG	RA	3121	1/1	0.89	0.12	64,64,64,64	0
56	MG	QA	1637	1/1	0.89	0.23	90,90,90,90	0
56	MG	QA	1678	1/1	0.89	0.30	98,98,98,98	0
56	MG	YA	3503	1/1	0.89	0.23	43,43,43,43	0
56	MG	RA	3013	1/1	0.89	0.10	57,57,57,57	0
56	MG	RA	3563	1/1	0.89	0.07	72,72,72,72	0
56	MG	RA	3319	1/1	0.89	0.25	37,37,37,37	0
56	MG	RA	3285	1/1	0.89	0.31	125,125,125,125	0
56	MG	RA	3323	1/1	0.89	0.22	81,81,81,81	0
56	MG	RA	3411	1/1	0.89	0.20	56,56,56,56	0
56	MG	YA	3652	1/1	0.90	0.12	49,49,49,49	0
56	MG	RF	307	1/1	0.90	0.16	72,72,72,72	0
56	MG	YA	3151	1/1	0.90	0.35	114,114,114,114	0
56	MG	XA	1601	1/1	0.90	0.60	109,109,109,109	0
56	MG	QA	1842	1/1	0.90	0.26	65,65,65,65	0
56	MG	RA	3668	1/1	0.90	0.23	66,66,66,66	0
56	MG	RA	3320	1/1	0.90	0.18	64,64,64,64	0
56	MG	QA	1658	1/1	0.90	0.22	106,106,106,106	0
56	MG	RA	3015	1/1	0.90	0.26	112,112,112,112	0
56	MG	YA	3589	1/1	0.90	0.22	47,47,47,47	0
56	MG	YA	3728	1/1	0.90	0.26	55,55,55,55	0
56	MG	YA	3271	1/1	0.90	0.21	28,28,28,28	0
56	MG	XA	1748	1/1	0.90	0.19	41,41,41,41	0
56	MG	QA	1731	1/1	0.90	0.23	63,63,63,63	0
56	MG	RA	3083	1/1	0.90	0.32	107,107,107,107	0
56	MG	YA	3276	1/1	0.90	0.31	38,38,38,38	0
56	MG	YA	3736	1/1	0.90	0.23	99,99,99,99	0
56	MG	RA	3913	1/1	0.90	0.06	67,67,67,67	0
56	MG	YA	3598	1/1	0.90	0.25	39,39,39,39	0
56	MG	YA	3342	1/1	0.90	0.11	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3111	1/1	0.90	0.27	74,74,74,74	0
56	MG	YA	3744	1/1	0.90	0.15	91,91,91,91	0
56	MG	RA	3765	1/1	0.90	0.34	65,65,65,65	0
56	MG	RA	3108	1/1	0.90	0.26	106,106,106,106	0
56	MG	RA	3474	1/1	0.90	0.15	44,44,44,44	0
56	MG	RA	3888	1/1	0.90	0.47	109,109,109,109	0
56	MG	QA	1702	1/1	0.90	0.29	66,66,66,66	0
56	MG	YA	3114	1/1	0.90	0.07	66,66,66,66	0
56	MG	RA	3454	1/1	0.90	0.17	96,96,96,96	0
56	MG	RA	3381	1/1	0.90	0.22	52,52,52,52	0
56	MG	YA	3173	1/1	0.90	0.26	128,128,128,128	0
56	MG	YA	3068	1/1	0.90	0.31	110,110,110,110	0
56	MG	YA	3356	1/1	0.90	0.16	74,74,74,74	0
56	MG	YA	3479	1/1	0.90	0.17	46,46,46,46	0
56	MG	RD	308	1/1	0.90	0.08	63,63,63,63	0
56	MG	YA	3542	1/1	0.90	0.14	62,62,62,62	0
56	MG	RA	3861	1/1	0.90	0.29	134,134,134,134	0
56	MG	RA	3426	1/1	0.90	0.21	40,40,40,40	0
56	MG	RA	3597	1/1	0.90	0.17	88,88,88,88	0
56	MG	YA	3125	1/1	0.90	0.12	55,55,55,55	0
56	MG	YA	3363	1/1	0.90	0.30	54,54,54,54	0
56	MG	YA	3548	1/1	0.90	0.19	50,50,50,50	0
56	MG	YA	3076	1/1	0.90	0.29	120,120,120,120	0
56	MG	RQ	204	1/1	0.90	0.19	78,78,78,78	0
56	MG	RA	3479	1/1	0.90	0.35	43,43,43,43	0
56	MG	RA	3304	1/1	0.90	0.14	97,97,97,97	0
56	MG	RA	3356	1/1	0.90	0.21	63,63,63,63	0
56	MG	RA	3997	1/1	0.90	0.24	96,96,96,96	0
56	MG	QA	1714	1/1	0.90	0.29	86,86,86,86	0
56	MG	YA	3634	1/1	0.90	0.22	62,62,62,62	0
56	MG	RA	3270	1/1	0.90	0.60	145,145,145,145	0
56	MG	RA	3134	1/1	0.90	0.27	104,104,104,104	0
56	MG	RA	3846	1/1	0.90	0.40	128,128,128,128	0
56	MG	RA	3273	1/1	0.90	0.17	116,116,116,116	0
56	MG	RA	4003	1/1	0.90	0.36	127,127,127,127	0
56	MG	QA	1833	1/1	0.90	0.30	78,78,78,78	0
56	MG	XX	101	1/1	0.90	0.22	129,129,129,129	0
56	MG	RA	4007	1/1	0.90	0.25	43,43,43,43	0
56	MG	RA	3216	1/1	0.90	0.52	104,104,104,104	0
56	MG	YA	3315	1/1	0.90	0.31	51,51,51,51	0
56	MG	YA	3318	1/1	0.90	0.23	39,39,39,39	0
56	MG	XA	1729	1/1	0.90	0.12	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3964	1/1	0.90	0.22	109,109,109,109	0
56	MG	RA	3875	1/1	0.90	0.28	91,91,91,91	0
56	MG	RA	3191	1/1	0.90	0.43	124,124,124,124	0
56	MG	YA	3148	1/1	0.90	0.31	91,91,91,91	0
56	MG	RA	3878	1/1	0.90	0.15	85,85,85,85	0
56	MG	RA	3718	1/1	0.91	0.14	52,52,52,52	0
56	MG	YT	202	1/1	0.91	0.12	88,88,88,88	0
56	MG	RA	3952	1/1	0.91	0.22	56,56,56,56	0
56	MG	RA	3688	1/1	0.91	0.12	79,79,79,79	0
56	MG	YA	3295	1/1	0.91	0.09	34,34,34,34	0
56	MG	YA	3065	1/1	0.91	0.35	83,83,83,83	0
56	MG	YA	3297	1/1	0.91	0.18	76,76,76,76	0
56	MG	YA	3116	1/1	0.91	0.15	106,106,106,106	0
56	MG	Y5	101	1/1	0.91	0.20	126,126,126,126	0
56	MG	YA	3066	1/1	0.91	0.13	79,79,79,79	0
56	MG	RA	3920	1/1	0.91	0.09	57,57,57,57	0
56	MG	RA	3352	1/1	0.91	0.07	47,47,47,47	0
56	MG	Y8	102	1/1	0.91	0.47	77,77,77,77	0
56	MG	YA	3438	1/1	0.91	0.19	79,79,79,79	0
56	MG	RA	3643	1/1	0.91	0.07	75,75,75,75	0
56	MG	YA	3071	1/1	0.91	0.29	100,100,100,100	0
56	MG	RA	3923	1/1	0.91	0.09	48,48,48,48	0
56	MG	RA	4004	1/1	0.91	0.16	146,146,146,146	0
56	MG	YA	3074	1/1	0.91	0.19	97,97,97,97	0
56	MG	YA	3378	1/1	0.91	0.25	87,87,87,87	0
56	MG	YA	3511	1/1	0.91	0.31	60,60,60,60	0
56	MG	RA	4005	1/1	0.91	0.18	93,93,93,93	0
56	MG	YA	3183	1/1	0.91	0.58	119,119,119,119	0
56	MG	QA	1785	1/1	0.91	0.06	85,85,85,85	0
56	MG	RA	3890	1/1	0.91	0.28	90,90,90,90	0
56	MG	YA	3129	1/1	0.91	0.34	140,140,140,140	0
56	MG	RA	3624	1/1	0.91	0.26	67,67,67,67	0
56	MG	RA	3464	1/1	0.91	0.15	53,53,53,53	0
56	MG	RA	3833	1/1	0.91	0.28	66,66,66,66	0
56	MG	RA	3862	1/1	0.91	0.36	83,83,83,83	0
56	MG	QA	1829	1/1	0.91	0.18	83,83,83,83	0
56	MG	YB	201	1/1	0.91	0.13	136,136,136,136	0
56	MG	XA	1768	1/1	0.91	0.36	85,85,85,85	0
56	MG	RA	3138	1/1	0.91	0.35	127,127,127,127	0
56	MG	YA	3194	1/1	0.91	0.13	73,73,73,73	0
56	MG	YA	3602	1/1	0.91	0.18	46,46,46,46	0
56	MG	RA	3671	1/1	0.91	0.09	121,121,121,121	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3139	1/1	0.91	0.09	72,72,72,72	0
56	MG	RA	3524	1/1	0.91	0.51	100,100,100,100	0
56	MG	RA	3149	1/1	0.91	0.09	122,122,122,122	0
56	MG	RA	3868	1/1	0.91	0.28	66,66,66,66	0
56	MG	RA	4026	1/1	0.91	0.21	122,122,122,122	0
56	MG	YA	3609	1/1	0.91	0.17	39,39,39,39	0
56	MG	RA	3447	1/1	0.91	0.30	55,55,55,55	0
56	MG	RA	3355	1/1	0.91	0.22	70,70,70,70	0
56	MG	RA	3047	1/1	0.91	0.17	75,75,75,75	0
56	MG	RA	3386	1/1	0.91	0.19	40,40,40,40	0
56	MG	YA	3334	1/1	0.91	0.22	53,53,53,53	0
56	MG	RA	3654	1/1	0.91	0.20	80,80,80,80	0
56	MG	RA	3814	1/1	0.91	0.29	64,64,64,64	0
56	MG	YA	3273	1/1	0.91	0.09	28,28,28,28	0
56	MG	RA	3124	1/1	0.91	0.29	131,131,131,131	0
56	MG	YA	3341	1/1	0.91	0.32	42,42,42,42	0
56	MG	RA	3275	1/1	0.91	0.13	101,101,101,101	0
56	MG	RA	3152	1/1	0.91	0.26	106,106,106,106	0
56	MG	XA	1644	1/1	0.91	0.10	81,81,81,81	0
56	MG	RA	3347	1/1	0.91	0.07	85,85,85,85	0
56	MG	YA	3051	1/1	0.91	0.08	62,62,62,62	0
56	MG	RA	3251	1/1	0.91	0.21	110,110,110,110	0
56	MG	YA	3627	1/1	0.91	0.23	42,42,42,42	0
56	MG	YA	3417	1/1	0.91	0.11	58,58,58,58	0
56	MG	RA	3376	1/1	0.91	0.18	58,58,58,58	0
56	MG	YA	3217	1/1	0.91	0.07	106,106,106,106	0
56	MG	YA	3103	1/1	0.91	0.07	53,53,53,53	0
56	MG	YA	3104	1/1	0.91	0.25	78,78,78,78	0
56	MG	RA	3159	1/1	0.91	0.31	88,88,88,88	0
56	MG	RA	3948	1/1	0.91	0.15	60,60,60,60	0
56	MG	RA	3253	1/1	0.91	0.34	120,120,120,120	0
56	MG	RA	3031	1/1	0.91	0.20	72,72,72,72	0
56	MG	RA	3991	1/1	0.91	0.30	135,135,135,135	0
56	MG	YA	3193	1/1	0.92	0.23	121,121,121,121	0
56	MG	RA	3708	1/1	0.92	0.07	59,59,59,59	0
56	MG	YA	3064	1/1	0.92	0.51	105,105,105,105	0
56	MG	RA	3330	1/1	0.92	0.08	67,67,67,67	0
56	MG	RA	3710	1/1	0.92	0.14	84,84,84,84	0
56	MG	RA	3824	1/1	0.92	0.28	119,119,119,119	0
56	MG	RA	3992	1/1	0.92	0.20	134,134,134,134	0
56	MG	RE	301	1/1	0.92	0.19	57,57,57,57	0
56	MG	XA	1628	1/1	0.92	0.06	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3070	1/1	0.92	0.22	85,85,85,85	0
56	MG	RA	3931	1/1	0.92	0.13	72,72,72,72	0
56	MG	YA	3157	1/1	0.92	0.13	80,80,80,80	0
56	MG	RA	3995	1/1	0.92	0.26	116,116,116,116	0
56	MG	RA	3733	1/1	0.92	0.12	51,51,51,51	0
56	MG	YA	3527	1/1	0.92	0.30	66,66,66,66	0
56	MG	YA	3115	1/1	0.92	0.12	153,153,153,153	0
56	MG	RA	3877	1/1	0.92	0.18	34,34,34,34	0
56	MG	RA	3754	1/1	0.92	0.28	54,54,54,54	0
56	MG	RA	3219	1/1	0.92	0.55	103,103,103,103	0
56	MG	RA	3029	1/1	0.92	0.60	144,144,144,144	0
56	MG	RA	3758	1/1	0.92	0.28	89,89,89,89	0
56	MG	YA	3372	1/1	0.92	0.17	110,110,110,110	0
56	MG	RA	3105	1/1	0.92	0.48	127,127,127,127	0
56	MG	YA	3601	1/1	0.92	0.15	46,46,46,46	0
56	MG	R0	101	1/1	0.92	0.15	106,106,106,106	0
56	MG	YA	3269	1/1	0.92	0.31	34,34,34,34	0
56	MG	RA	3085	1/1	0.92	0.50	130,130,130,130	0
56	MG	RA	3117	1/1	0.92	0.16	116,116,116,116	0
56	MG	XA	1710	1/1	0.92	0.22	56,56,56,56	0
56	MG	YV	201	1/1	0.92	0.23	92,92,92,92	0
56	MG	YW	201	1/1	0.92	0.26	116,116,116,116	0
56	MG	RA	3969	1/1	0.92	0.17	98,98,98,98	0
56	MG	RA	3834	1/1	0.92	0.17	56,56,56,56	0
56	MG	YA	3434	1/1	0.92	0.20	70,70,70,70	0
56	MG	RA	3224	1/1	0.92	0.56	142,142,142,142	0
56	MG	RA	3264	1/1	0.92	0.09	69,69,69,69	0
56	MG	RA	3107	1/1	0.92	0.20	89,89,89,89	0
56	MG	YA	3004	1/1	0.92	0.12	42,42,42,42	0
56	MG	YA	3132	1/1	0.92	0.20	92,92,92,92	0
56	MG	RA	3094	1/1	0.92	0.16	109,109,109,109	0
56	MG	YA	3675	1/1	0.92	0.20	49,49,49,49	0
56	MG	RA	3891	1/1	0.92	0.14	45,45,45,45	0
56	MG	RA	4020	1/1	0.92	0.28	88,88,88,88	0
56	MG	XA	1725	1/1	0.92	0.36	72,72,72,72	0
56	MG	RA	3296	1/1	0.92	0.41	113,113,113,113	0
56	MG	YA	3337	1/1	0.92	0.16	33,33,33,33	0
56	MG	RA	3978	1/1	0.92	0.13	91,91,91,91	0
56	MG	RA	3580	1/1	0.92	0.13	87,87,87,87	0
56	MG	YA	3558	1/1	0.92	0.22	41,41,41,41	0
56	MG	YA	3395	1/1	0.92	0.27	43,43,43,43	0
56	MG	YA	3287	1/1	0.92	0.14	33,33,33,33	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3703	1/1	0.92	0.20	53,53,53,53	0
56	MG	XA	1734	1/1	0.92	0.15	80,80,80,80	0
56	MG	RA	3982	1/1	0.92	0.18	74,74,74,74	0
56	MG	RA	3478	1/1	0.92	0.18	33,33,33,33	0
56	MG	RA	3086	1/1	0.92	0.50	130,130,130,130	0
56	MG	RA	4033	1/1	0.92	0.37	119,119,119,119	0
56	MG	YA	3567	1/1	0.92	0.19	40,40,40,40	0
56	MG	RA	3048	1/1	0.92	0.13	71,71,71,71	0
56	MG	RA	3063	1/1	0.92	0.09	67,67,67,67	0
56	MG	YA	3348	1/1	0.92	0.16	75,75,75,75	0
56	MG	RA	3970	1/1	0.93	0.12	37,37,37,37	0
56	MG	YA	3590	1/1	0.93	0.23	43,43,43,43	0
56	MG	RA	3595	1/1	0.93	0.35	126,126,126,126	0
56	MG	RA	4012	1/1	0.93	0.80	126,126,126,126	0
56	MG	RF	312	1/1	0.93	0.12	84,84,84,84	0
56	MG	YA	3222	1/1	0.93	0.17	89,89,89,89	0
56	MG	YA	3596	1/1	0.93	0.07	51,51,51,51	0
56	MG	YA	3731	1/1	0.93	0.19	104,104,104,104	0
56	MG	YA	3732	1/1	0.93	0.12	78,78,78,78	0
56	MG	RA	3069	1/1	0.93	0.21	98,98,98,98	0
56	MG	YA	3466	1/1	0.93	0.31	37,37,37,37	0
56	MG	RA	3757	1/1	0.93	0.22	44,44,44,44	0
56	MG	RA	3483	1/1	0.93	0.07	34,34,34,34	0
56	MG	RA	3911	1/1	0.93	0.23	59,59,59,59	0
56	MG	RA	3231	1/1	0.93	0.31	115,115,115,115	0
56	MG	RA	4019	1/1	0.93	0.25	136,136,136,136	0
56	MG	XA	1753	1/1	0.93	0.21	62,62,62,62	0
56	MG	RA	3788	1/1	0.93	0.23	145,145,145,145	0
56	MG	RA	3575	1/1	0.93	0.11	85,85,85,85	0
56	MG	RA	3505	1/1	0.93	0.26	57,57,57,57	0
56	MG	RA	4024	1/1	0.93	0.18	116,116,116,116	0
56	MG	RA	3884	1/1	0.93	0.20	43,43,43,43	0
56	MG	YA	3236	1/1	0.93	0.45	98,98,98,98	0
56	MG	RA	3293	1/1	0.93	0.12	76,76,76,76	0
56	MG	RA	3415	1/1	0.93	0.38	47,47,47,47	0
56	MG	RA	4030	1/1	0.93	0.26	115,115,115,115	0
56	MG	YA	3135	1/1	0.93	0.09	65,65,65,65	0
56	MG	RA	3257	1/1	0.93	0.40	87,87,87,87	0
56	MG	RA	3079	1/1	0.93	0.27	135,135,135,135	0
56	MG	YA	3042	1/1	0.93	0.10	33,33,33,33	0
56	MG	QA	1701	1/1	0.93	0.27	66,66,66,66	0
56	MG	RA	3272	1/1	0.93	0.34	116,116,116,116	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3135	1/1	0.93	0.29	112,112,112,112	0
56	MG	RA	3326	1/1	0.93	0.22	74,74,74,74	0
56	MG	YA	3249	1/1	0.93	0.30	100,100,100,100	0
56	MG	QA	1834	1/1	0.93	0.35	61,61,61,61	0
56	MG	RA	3114	1/1	0.93	0.23	162,162,162,162	0
56	MG	RA	3342	1/1	0.93	0.29	37,37,37,37	0
56	MG	YD	303	1/1	0.93	0.29	74,74,74,74	0
56	MG	YA	3556	1/1	0.93	0.07	37,37,37,37	0
56	MG	YD	306	1/1	0.93	0.12	85,85,85,85	0
56	MG	RA	4039	1/1	0.93	0.14	95,95,95,95	0
56	MG	RV	204	1/1	0.93	0.18	79,79,79,79	0
56	MG	RA	3714	1/1	0.93	0.09	74,74,74,74	0
56	MG	RA	3181	1/1	0.93	0.33	92,92,92,92	0
56	MG	YE	304	1/1	0.93	0.16	24,24,24,24	0
56	MG	YA	3440	1/1	0.93	0.13	59,59,59,59	0
56	MG	YA	3258	1/1	0.93	0.28	85,85,85,85	0
56	MG	RA	3301	1/1	0.93	0.19	144,144,144,144	0
56	MG	YA	3636	1/1	0.93	0.33	52,52,52,52	0
56	MG	RA	3996	1/1	0.93	0.31	122,122,122,122	0
56	MG	YA	3702	1/1	0.93	0.24	74,74,74,74	0
56	MG	RA	3663	1/1	0.93	0.32	66,66,66,66	0
56	MG	YA	3153	1/1	0.93	0.13	73,73,73,73	0
56	MG	YA	3506	1/1	0.93	0.28	146,146,146,146	0
56	MG	RA	3613	1/1	0.93	0.26	40,40,40,40	0
56	MG	RA	3496	1/1	0.93	0.29	43,43,43,43	0
56	MG	RA	3497	1/1	0.93	0.36	41,41,41,41	0
56	MG	RA	3115	1/1	0.93	0.25	112,112,112,112	0
56	MG	YA	3328	1/1	0.93	0.29	28,28,28,28	0
56	MG	RA	3266	1/1	0.93	0.18	103,103,103,103	0
56	MG	YA	3209	1/1	0.93	0.14	36,36,36,36	0
56	MG	RA	3695	1/1	0.93	0.24	58,58,58,58	0
56	MG	YA	3212	1/1	0.93	0.30	98,98,98,98	0
56	MG	RB	213	1/1	0.93	0.29	71,71,71,71	0
56	MG	RF	306	1/1	0.93	0.17	106,106,106,106	0
56	MG	RA	3460	1/1	0.93	0.14	73,73,73,73	0
56	MG	YA	3163	1/1	0.93	0.15	119,119,119,119	0
56	MG	RA	3214	1/1	0.93	0.25	122,122,122,122	0
56	MG	RA	3895	1/1	0.94	0.42	73,73,73,73	0
56	MG	XA	1687	1/1	0.94	0.28	67,67,67,67	0
56	MG	RA	3059	1/1	0.94	0.10	47,47,47,47	0
56	MG	RA	3136	1/1	0.94	0.29	83,83,83,83	0
56	MG	RA	3799	1/1	0.94	0.23	112,112,112,112	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3547	1/1	0.94	0.30	68,68,68,68	0
56	MG	RA	4006	1/1	0.94	0.15	81,81,81,81	0
56	MG	RA	3055	1/1	0.94	0.23	117,117,117,117	0
56	MG	YA	3060	1/1	0.94	0.07	59,59,59,59	0
56	MG	YA	3371	1/1	0.94	0.14	47,47,47,47	0
56	MG	RA	4008	1/1	0.94	0.28	109,109,109,109	0
56	MG	RA	3259	1/1	0.94	0.27	121,121,121,121	0
56	MG	YA	3672	1/1	0.94	0.23	53,53,53,53	0
56	MG	YP	201	1/1	0.94	0.18	86,86,86,86	0
56	MG	RA	3827	1/1	0.94	0.09	48,48,48,48	0
56	MG	RA	3040	1/1	0.94	0.18	76,76,76,76	0
56	MG	RA	3261	1/1	0.94	0.22	101,101,101,101	0
56	MG	YA	3730	1/1	0.94	0.42	82,82,82,82	0
56	MG	YA	3331	1/1	0.94	0.16	45,45,45,45	0
56	MG	QA	1628	1/1	0.94	0.05	123,123,123,123	0
56	MG	RA	3139	1/1	0.94	0.65	102,102,102,102	0
56	MG	YA	3211	1/1	0.94	0.29	96,96,96,96	0
56	MG	RA	3700	1/1	0.94	0.46	105,105,105,105	0
56	MG	RA	3589	1/1	0.94	0.15	42,42,42,42	0
56	MG	YA	3253	1/1	0.94	0.51	136,136,136,136	0
56	MG	RA	3958	1/1	0.94	0.22	53,53,53,53	0
56	MG	YA	3739	1/1	0.94	0.35	131,131,131,131	0
56	MG	YA	3740	1/1	0.94	0.12	70,70,70,70	0
56	MG	RA	3072	1/1	0.94	0.37	108,108,108,108	0
56	MG	RA	3073	1/1	0.94	0.09	69,69,69,69	0
56	MG	RA	3724	1/1	0.94	0.22	66,66,66,66	0
56	MG	YA	3635	1/1	0.94	0.37	38,38,38,38	0
56	MG	RA	3811	1/1	0.94	0.46	77,77,77,77	0
56	MG	YA	3584	1/1	0.94	0.38	77,77,77,77	0
56	MG	RA	3990	1/1	0.94	0.15	101,101,101,101	0
56	MG	RA	4025	1/1	0.94	0.41	150,150,150,150	0
56	MG	RA	3382	1/1	0.94	0.14	48,48,48,48	0
56	MG	YB	207	1/1	0.94	0.13	110,110,110,110	0
56	MG	RA	3265	1/1	0.94	0.14	116,116,116,116	0
56	MG	RA	3044	1/1	0.94	0.28	131,131,131,131	0
56	MG	YA	3488	1/1	0.94	0.11	39,39,39,39	0
56	MG	YA	3397	1/1	0.94	0.14	54,54,54,54	0
56	MG	RA	3024	1/1	0.94	0.05	63,63,63,63	0
56	MG	RA	3133	1/1	0.94	0.11	97,97,97,97	0
56	MG	YA	3595	1/1	0.94	0.09	46,46,46,46	0
56	MG	YA	3307	1/1	0.94	0.17	39,39,39,39	0
56	MG	YA	3266	1/1	0.94	0.17	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3689	1/1	0.94	0.19	141,141,141,141	0
56	MG	RA	3091	1/1	0.94	0.21	142,142,142,142	0
56	MG	YA	3404	1/1	0.94	0.61	67,67,67,67	0
56	MG	XA	1677	1/1	0.94	0.30	60,60,60,60	0
56	MG	RA	3598	1/1	0.94	0.38	89,89,89,89	0
56	MG	QG	201	1/1	0.94	0.09	96,96,96,96	0
56	MG	YA	3122	1/1	0.94	0.22	135,135,135,135	0
56	MG	YA	3500	1/1	0.94	0.14	39,39,39,39	0
56	MG	YA	3359	1/1	0.94	0.19	59,59,59,59	0
56	MG	YD	308	1/1	0.94	0.21	92,92,92,92	0
56	MG	YA	3272	1/1	0.94	0.21	71,71,71,71	0
56	MG	YA	3052	1/1	0.94	0.07	54,54,54,54	0
56	MG	RA	3321	1/1	0.95	0.12	38,38,38,38	0
56	MG	RA	4022	1/1	0.95	0.33	82,82,82,82	0
56	MG	RA	3416	1/1	0.95	0.07	50,50,50,50	0
56	MG	RA	3197	1/1	0.95	0.28	117,117,117,117	0
56	MG	RA	3368	1/1	0.95	0.29	76,76,76,76	0
56	MG	RA	3561	1/1	0.95	0.21	38,38,38,38	0
56	MG	RD	307	1/1	0.95	0.12	114,114,114,114	0
56	MG	RA	4027	1/1	0.95	0.14	105,105,105,105	0
56	MG	YA	3165	1/1	0.95	0.22	131,131,131,131	0
56	MG	YA	3086	1/1	0.95	0.21	95,95,95,95	0
56	MG	RV	201	1/1	0.95	0.10	90,90,90,90	0
56	MG	RA	3461	1/1	0.95	0.19	32,32,32,32	0
56	MG	YA	3316	1/1	0.95	0.30	30,30,30,30	0
56	MG	YA	3317	1/1	0.95	0.15	37,37,37,37	0
56	MG	YA	3669	1/1	0.95	0.26	37,37,37,37	0
56	MG	YA	3009	1/1	0.95	0.15	65,65,65,65	0
56	MG	YA	3286	1/1	0.95	0.22	40,40,40,40	0
56	MG	YA	3557	1/1	0.95	0.41	51,51,51,51	0
56	MG	YA	3389	1/1	0.95	0.23	32,32,32,32	0
56	MG	XF	202	1/1	0.95	0.04	90,90,90,90	0
56	MG	RA	3160	1/1	0.95	0.32	102,102,102,102	0
56	MG	RA	3463	1/1	0.95	0.12	39,39,39,39	0
56	MG	YA	3713	1/1	0.95	0.13	26,26,26,26	0
56	MG	RA	3020	1/1	0.95	0.40	145,145,145,145	0
56	MG	YA	3526	1/1	0.95	0.10	35,35,35,35	0
56	MG	YA	3563	1/1	0.95	0.32	60,60,60,60	0
56	MG	RA	3208	1/1	0.95	0.20	114,114,114,114	0
56	MG	RA	3093	1/1	0.95	0.33	117,117,117,117	0
56	MG	RA	3043	1/1	0.95	0.17	53,53,53,53	0
56	MG	RA	3551	1/1	0.95	0.17	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3297	1/1	0.95	0.28	86,86,86,86	0
56	MG	RA	3288	1/1	0.95	0.17	99,99,99,99	0
56	MG	YA	3237	1/1	0.95	0.32	127,127,127,127	0
56	MG	YA	3179	1/1	0.95	0.18	97,97,97,97	0
56	MG	RA	3033	1/1	0.95	0.19	135,135,135,135	0
56	MG	RA	3413	1/1	0.95	0.13	66,66,66,66	0
56	MG	RA	3648	1/1	0.95	0.28	127,127,127,127	0
56	MG	RA	3144	1/1	0.95	0.10	79,79,79,79	0
56	MG	YD	309	1/1	0.95	0.13	45,45,45,45	0
56	MG	RB	204	1/1	0.95	0.08	102,102,102,102	0
58	SF4	QD	302	8/8	0.95	0.06	107,119,141,144	0
56	MG	YA	3585	1/1	0.96	0.28	43,43,43,43	0
56	MG	YA	3369	1/1	0.96	0.08	22,22,22,22	0
56	MG	RA	3847	1/1	0.96	0.26	38,38,38,38	0
56	MG	YA	3618	1/1	0.96	0.44	63,63,63,63	0
56	MG	RA	3470	1/1	0.96	0.04	65,65,65,65	0
56	MG	YA	3620	1/1	0.96	0.06	55,55,55,55	0
56	MG	RD	304	1/1	0.96	0.36	92,92,92,92	0
56	MG	RA	3572	1/1	0.96	0.14	52,52,52,52	0
56	MG	RA	3182	1/1	0.96	0.24	118,118,118,118	0
56	MG	XA	1749	1/1	0.96	0.09	47,47,47,47	0
56	MG	RA	3864	1/1	0.96	0.35	51,51,51,51	0
56	MG	RA	3343	1/1	0.96	0.09	56,56,56,56	0
56	MG	RA	3993	1/1	0.96	0.23	102,102,102,102	0
56	MG	YA	3109	1/1	0.96	0.09	32,32,32,32	0
56	MG	RD	310	1/1	0.96	0.36	125,125,125,125	0
56	MG	RA	3207	1/1	0.96	0.28	153,153,153,153	0
56	MG	RA	3092	1/1	0.96	0.06	99,99,99,99	0
56	MG	RA	3209	1/1	0.96	0.08	106,106,106,106	0
56	MG	YA	3229	1/1	0.96	0.28	111,111,111,111	0
56	MG	RA	3021	1/1	0.96	0.23	109,109,109,109	0
56	MG	RR	201	1/1	0.96	0.44	72,72,72,72	0
56	MG	YA	3232	1/1	0.96	0.43	129,129,129,129	0
56	MG	R1	102	1/1	0.96	0.18	65,65,65,65	0
56	MG	YA	3002	1/1	0.96	0.04	54,54,54,54	0
56	MG	RA	3819	1/1	0.96	0.30	29,29,29,29	0
56	MG	YA	3576	1/1	0.96	0.20	39,39,39,39	0
56	MG	YA	3577	1/1	0.96	0.20	52,52,52,52	0
56	MG	RA	3731	1/1	0.96	0.08	46,46,46,46	0
56	MG	RA	3211	1/1	0.96	0.14	113,113,113,113	0
56	MG	RA	4034	1/1	0.96	0.15	96,96,96,96	0
56	MG	YA	3552	1/1	0.96	0.14	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	XA	1637	1/1	0.96	0.11	156,156,156,156	0
56	MG	RA	3028	1/1	0.96	0.27	118,118,118,118	0
56	MG	RU	202	1/1	0.96	0.60	104,104,104,104	0
56	MG	RA	3006	1/1	0.97	0.07	76,76,76,76	0
56	MG	YA	3481	1/1	0.97	0.25	34,34,34,34	0
56	MG	RA	3236	1/1	0.97	0.23	113,113,113,113	0
56	MG	YA	3351	1/1	0.97	0.25	36,36,36,36	0
56	MG	XA	1692	1/1	0.97	0.26	52,52,52,52	0
56	MG	RA	3658	1/1	0.97	0.22	54,54,54,54	0
56	MG	RA	3528	1/1	0.97	0.05	81,81,81,81	0
56	MG	YA	3288	1/1	0.97	0.33	38,38,38,38	0
56	MG	RA	3081	1/1	0.97	0.23	111,111,111,111	0
56	MG	RA	3981	1/1	0.97	0.06	106,106,106,106	0
56	MG	RA	3019	1/1	0.97	0.45	102,102,102,102	0
56	MG	YA	3021	1/1	0.97	0.10	49,49,49,49	0
56	MG	YA	3376	1/1	0.97	0.24	55,55,55,55	0
56	MG	YA	3742	1/1	0.97	0.48	105,105,105,105	0
56	MG	RA	3228	1/1	0.97	0.37	132,132,132,132	0
56	MG	YA	3720	1/1	0.97	0.23	112,112,112,112	0
56	MG	RA	3212	1/1	0.97	0.15	102,102,102,102	0
56	MG	RA	3573	1/1	0.97	0.27	77,77,77,77	0
56	MG	RA	3511	1/1	0.97	0.27	35,35,35,35	0
56	MG	RA	3998	1/1	0.97	0.14	134,134,134,134	0
56	MG	RA	4011	1/1	0.97	0.22	124,124,124,124	0
56	MG	YA	3011	1/1	0.97	0.09	68,68,68,68	0
56	MG	YA	3579	1/1	0.97	0.24	28,28,28,28	0
56	MG	YA	3384	1/1	0.97	0.18	28,28,28,28	0
56	MG	YD	304	1/1	0.98	0.16	118,118,118,118	0
56	MG	YA	3335	1/1	0.98	0.28	29,29,29,29	0
56	MG	RA	4015	1/1	0.98	0.37	117,117,117,117	0
56	MG	YA	3724	1/1	0.98	0.36	141,141,141,141	0
56	MG	YA	3020	1/1	0.98	0.22	134,134,134,134	0
57	ZN	QN	101	1/1	0.98	0.04	142,142,142,142	0
58	SF4	XD	301	8/8	0.98	0.04	97,108,130,131	0
56	MG	YA	3014	1/1	0.99	0.04	57,57,57,57	0
57	ZN	XN	101	1/1	0.99	0.04	114,114,114,114	0

6.5 Other polymers

There are no such residues in this entry.