



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 25, 2026 – 02:47 PM UTC

PDB ID : 5J3C / pdb_00005j3c
Title : Thermus thermophilus 70S termination complex containing E. coli RF1
Authors : Hoffer, E.D.; Dunham, C.M.
Deposited on : 2016-03-30
Resolution : 3.04 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

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

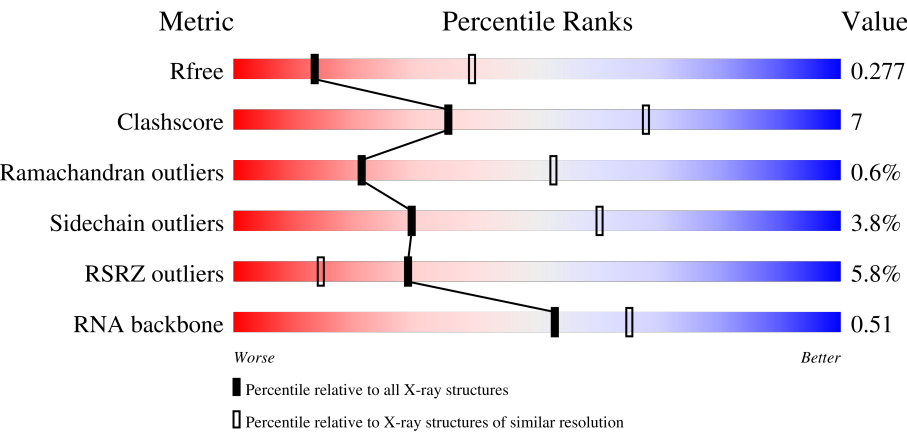
1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.04 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.



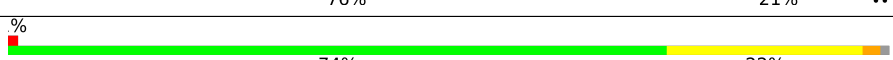
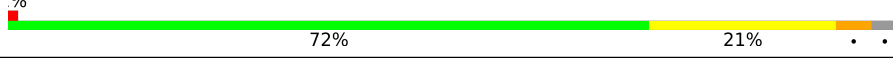
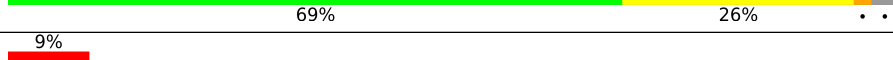
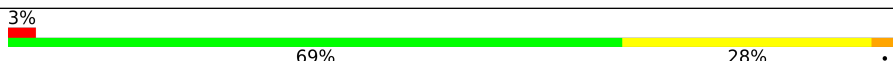
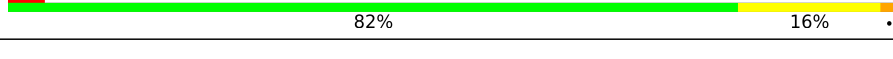
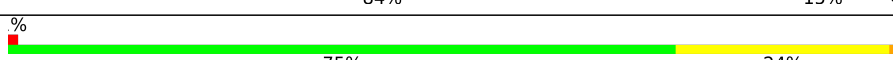
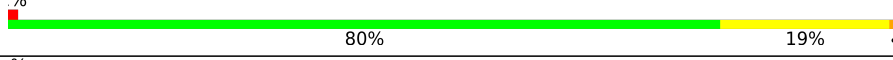
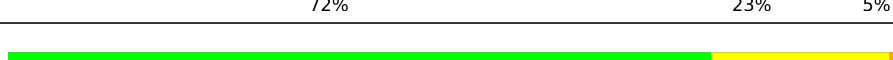
Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R _{free}	180053	3685 (3.08-3.00)
Clashscore	190562	4007 (3.08-3.00)
Ramachandran outliers	187476	3834 (3.08-3.00)
Sidechain outliers	187428	3836 (3.08-3.00)
RSRZ outliers	180081	3684 (3.08-3.00)
RNA backbone	3983	1163 (3.28-2.80)

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	2% 61%31%7%
1	YA	2915	3% 62%30%6%
2	RB	122	2% 77%18%
2	YB	122	% 77%19%

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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	71% 19% 10%
16	RU	118	81% 15% ..
16	YU	118	2% 83% 14% ..
17	RV	101	81% 17% .
17	YV	101	80% 18% ..
18	RW	113	3% 82% 16% ..
18	YW	113	79% 19% ..
19	RX	96	2% 75% 24% .
19	YX	96	88% 11% .
20	RY	110	13% 76% 18% ..
20	YY	110	3% 73% 23% ..
21	RZ	206	10% 83% 14% ..
21	YZ	206	8% 83% 14% .
22	R0	85	4% 74% 14% . 9%
22	Y0	85	2% 72% 19% 9%
23	R1	98	5% 82% 16% ..
23	Y1	98	77% 20% ..
24	R2	72	3% 75% 22% .
24	Y2	72	6% 75% 21% ..
25	R3	60	5% 88% 10% .
25	Y3	60	77% 22% .
26	R4	71	8% 54% 39%
26	Y4	71	14% 59% 34%
27	R5	60	73% 23% ..
27	Y5	60	5% 83% 15% .

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Mol	Chain	Length	Quality of chain
28	R6	54	54% 78% 20% .
28	Y6	54	61% 80% 19% .
29	R7	49	6% 71% 27% .
29	Y7	49	2% 69% 29% .
30	R8	65	3% 71% 26% ..
30	Y8	65	72% 26% .
31	R9	37	89% 59% 41%
31	Y9	37	95% 68% 32%
32	QA	1521	3% 60% 32% 6% .
32	XA	1521	% 60% 32% 6% .
33	QB	256	12% 59% 27% 10%
33	XB	256	10% 55% 31% 10%
34	QC	239	10% 67% 18% 14%
34	XC	239	8% 67% 19% 14%
35	QD	209	10% 64% 34% .
35	XD	209	14% 72% 26% .
36	QE	162	4% 64% 27% 9%
36	XE	162	5% 70% 20% 9%
37	QF	101	4% 71% 28% .
37	XF	101	85% 14% .
38	QG	156	14% 81% 17% ..
38	XG	156	7% 82% 15% ..
39	QH	138	6% 78% 20% ..
39	XH	138	4% 78% 21% ..
40	QI	128	38% 70% 27% ..

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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	1711	-	-	-	X
56	MG	QA	1755	-	-	-	X
56	MG	QA	1828	-	-	-	X
56	MG	QA	1855	-	-	-	X
56	MG	R1	103	-	-	-	X
56	MG	R3	102	-	-	-	X
56	MG	RA	3026	-	-	-	X
56	MG	RA	3049	-	-	-	X
56	MG	RA	3051	-	-	-	X
56	MG	RA	3057	-	-	-	X
56	MG	RA	3064	-	-	-	X
56	MG	RA	3067	-	-	-	X
56	MG	RA	3080	-	-	-	X
56	MG	RA	3082	-	-	-	X
56	MG	RA	3083	-	-	-	X
56	MG	RA	3087	-	-	-	X
56	MG	RA	3100	-	-	-	X
56	MG	RA	3106	-	-	-	X
56	MG	RA	3116	-	-	-	X
56	MG	RA	3163	-	-	-	X
56	MG	RA	3176	-	-	-	X
56	MG	RA	3184	-	-	-	X
56	MG	RA	3189	-	-	-	X
56	MG	RA	3192	-	-	-	X
56	MG	RA	3207	-	-	-	X
56	MG	RA	3226	-	-	-	X
56	MG	RA	3232	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	RA	3244	-	-	-	X
56	MG	RA	3247	-	-	-	X
56	MG	RA	3249	-	-	-	X
56	MG	RA	3251	-	-	-	X
56	MG	RA	3257	-	-	-	X
56	MG	RA	3289	-	-	-	X
56	MG	RA	3295	-	-	-	X
56	MG	RA	3355	-	-	-	X
56	MG	RA	3430	-	-	-	X
56	MG	RA	3462	-	-	-	X
56	MG	RA	3514	-	-	-	X
56	MG	RA	3516	-	-	-	X
56	MG	RA	3525	-	-	-	X
56	MG	RA	3535	-	-	-	X
56	MG	RA	3559	-	-	-	X
56	MG	RA	3580	-	-	-	X
56	MG	RA	3587	-	-	-	X
56	MG	RA	3597	-	-	-	X
56	MG	RA	3616	-	-	-	X
56	MG	RA	3618	-	-	-	X
56	MG	RA	3633	-	-	-	X
56	MG	RA	3637	-	-	-	X
56	MG	RA	3676	-	-	-	X
56	MG	RA	3677	-	-	-	X
56	MG	RA	3682	-	-	-	X
56	MG	RA	3690	-	-	-	X
56	MG	RA	3757	-	-	-	X
56	MG	RA	3793	-	-	-	X
56	MG	RA	3820	-	-	-	X
56	MG	RA	3821	-	-	-	X
56	MG	RA	3829	-	-	-	X
56	MG	RA	3861	-	-	-	X
56	MG	RA	3875	-	-	-	X
56	MG	RA	3916	-	-	-	X
56	MG	RA	3966	-	-	-	X
56	MG	RA	3977	-	-	-	X
56	MG	RA	3998	-	-	-	X
56	MG	RA	4018	-	-	-	X
56	MG	RA	4024	-	-	-	X
56	MG	RA	4026	-	-	-	X
56	MG	RA	4029	-	-	-	X
56	MG	RD	307	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	RF	303	-	-	-	X
56	MG	RW	202	-	-	-	X
56	MG	XA	1601	-	-	-	X
56	MG	XA	1675	-	-	-	X
56	MG	XA	1694	-	-	-	X
56	MG	XA	1704	-	-	-	X
56	MG	XA	1713	-	-	-	X
56	MG	XA	1749	-	-	-	X
56	MG	XY	401	-	-	-	X
56	MG	YA	3016	-	-	-	X
56	MG	YA	3018	-	-	-	X
56	MG	YA	3068	-	-	-	X
56	MG	YA	3080	-	-	-	X
56	MG	YA	3100	-	-	-	X
56	MG	YA	3104	-	-	-	X
56	MG	YA	3128	-	-	-	X
56	MG	YA	3151	-	-	-	X
56	MG	YA	3166	-	-	-	X
56	MG	YA	3183	-	-	-	X
56	MG	YA	3240	-	-	-	X
56	MG	YA	3241	-	-	-	X
56	MG	YA	3249	-	-	-	X
56	MG	YA	3252	-	-	-	X
56	MG	YA	3421	-	-	-	X
56	MG	YA	3455	-	-	-	X
56	MG	YA	3456	-	-	-	X
56	MG	YA	3473	-	-	-	X
56	MG	YA	3500	-	-	-	X
56	MG	YA	3509	-	-	-	X
56	MG	YA	3517	-	-	-	X
56	MG	YA	3626	-	-	-	X
56	MG	YA	3661	-	-	-	X
56	MG	YA	3709	-	-	-	X
56	MG	YA	3717	-	-	-	X
56	MG	YA	3720	-	-	-	X
56	MG	YA	3727	-	-	-	X
56	MG	YA	3747	-	-	-	X
57	ZN	R9	102	-	-	-	X

2 Entry composition [i](#)

There are 58 unique types of molecules in this entry. The entry contains 294929 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	203	Total	C	N	O	S	0	0	0
			1587	1011	282	292	2			
21	YZ	201	Total	C	N	O	S	0	0	0
			1557	995	274	286	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
			1640	732	297	535	76			
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	9	Total	C	N	O	P	0	0	0
			193	87	37	60	9			
54	XX	10	Total	C	N	O	P	0	0	0
			215	97	42	66	10			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	QY	259	Total	C	N	O	S	0	0	0
			2014	1235	382	389	8			
55	XY	260	Total	C	N	O	S	0	0	0
			2022	1241	383	390	8			

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	RA	1032	Total	Mg	0	0
			1032	1032		
56	RB	22	Total	Mg	0	0
			22	22		
56	RD	15	Total	Mg	0	0
			15	15		
56	RE	7	Total	Mg	0	0
			7	7		
56	RF	11	Total	Mg	0	0
			11	11		
56	RG	4	Total	Mg	0	0
			4	4		
56	RN	2	Total	Mg	0	0
			2	2		
56	RO	1	Total	Mg	0	0
			1	1		
56	RP	2	Total	Mg	0	0
			2	2		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	RQ	5	Total 5	Mg 5	0	0
56	RR	4	Total 4	Mg 4	0	0
56	RS	1	Total 1	Mg 1	0	0
56	RT	3	Total 3	Mg 3	0	0
56	RU	3	Total 3	Mg 3	0	0
56	RV	3	Total 3	Mg 3	0	0
56	RW	2	Total 2	Mg 2	0	0
56	RX	1	Total 1	Mg 1	0	0
56	RY	1	Total 1	Mg 1	0	0
56	R0	7	Total 7	Mg 7	0	0
56	R1	5	Total 5	Mg 5	0	0
56	R3	2	Total 2	Mg 2	0	0
56	R5	1	Total 1	Mg 1	0	0
56	R7	3	Total 3	Mg 3	0	0
56	R9	1	Total 1	Mg 1	0	0
56	QA	262	Total 262	Mg 262	0	0
56	QB	1	Total 1	Mg 1	0	0
56	QD	2	Total 2	Mg 2	0	0
56	QE	2	Total 2	Mg 2	0	0
56	QF	1	Total 1	Mg 1	0	0
56	QG	3	Total 3	Mg 3	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	QH	1	Total 1	Mg 1	0	0
56	QI	1	Total 1	Mg 1	0	0
56	QJ	1	Total 1	Mg 1	0	0
56	QL	2	Total 2	Mg 2	0	0
56	QN	1	Total 1	Mg 1	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	1	Total 1	Mg 1	0	0
56	QV	6	Total 6	Mg 6	0	0
56	YA	749	Total 749	Mg 749	0	0
56	YB	20	Total 20	Mg 20	0	0
56	YD	9	Total 9	Mg 9	0	0
56	YE	6	Total 6	Mg 6	0	0
56	YF	2	Total 2	Mg 2	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	1	Total 1	Mg 1	0	0
56	YP	1	Total 1	Mg 1	0	0
56	YQ	3	Total 3	Mg 3	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	YR	1	Total Mg 1 1	0	0
56	YT	3	Total Mg 3 3	0	0
56	YV	1	Total Mg 1 1	0	0
56	YW	2	Total Mg 2 2	0	0
56	YX	1	Total Mg 1 1	0	0
56	Y0	1	Total Mg 1 1	0	0
56	Y1	1	Total Mg 1 1	0	0
56	Y5	2	Total Mg 2 2	0	0
56	Y7	1	Total Mg 1 1	0	0
56	Y8	2	Total Mg 2 2	0	0
56	XA	187	Total Mg 187 187	0	0
56	XE	2	Total Mg 2 2	0	0
56	XF	4	Total Mg 4 4	0	0
56	XJ	1	Total Mg 1 1	0	0
56	XL	1	Total Mg 1 1	0	0
56	XT	1	Total Mg 1 1	0	0
56	XV	4	Total Mg 4 4	0	0
56	XY	1	Total Mg 1 1	0	0

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

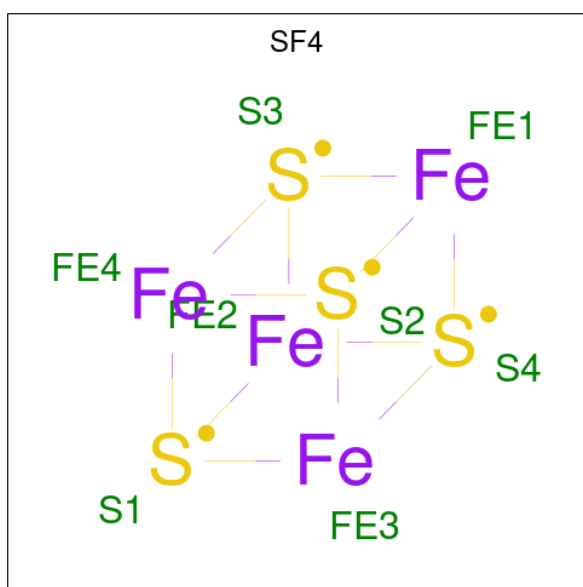
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	RY	1	Total Zn 1 1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
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: Fe_4S_4).

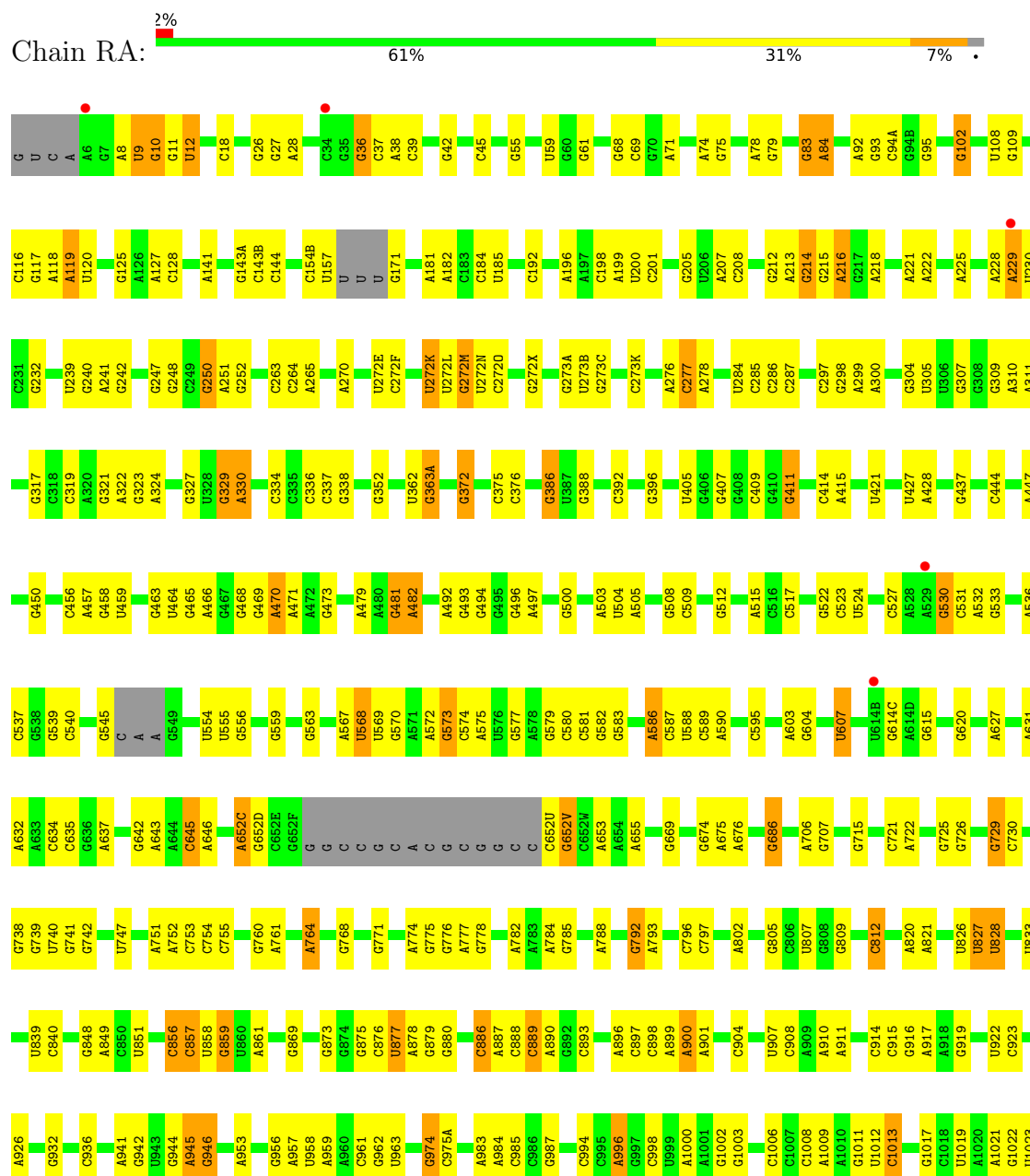


Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
58	QD	1	Total 8	Fe 4	S 4	0	0
58	XD	1	Total 8	Fe 4	S 4	0	0

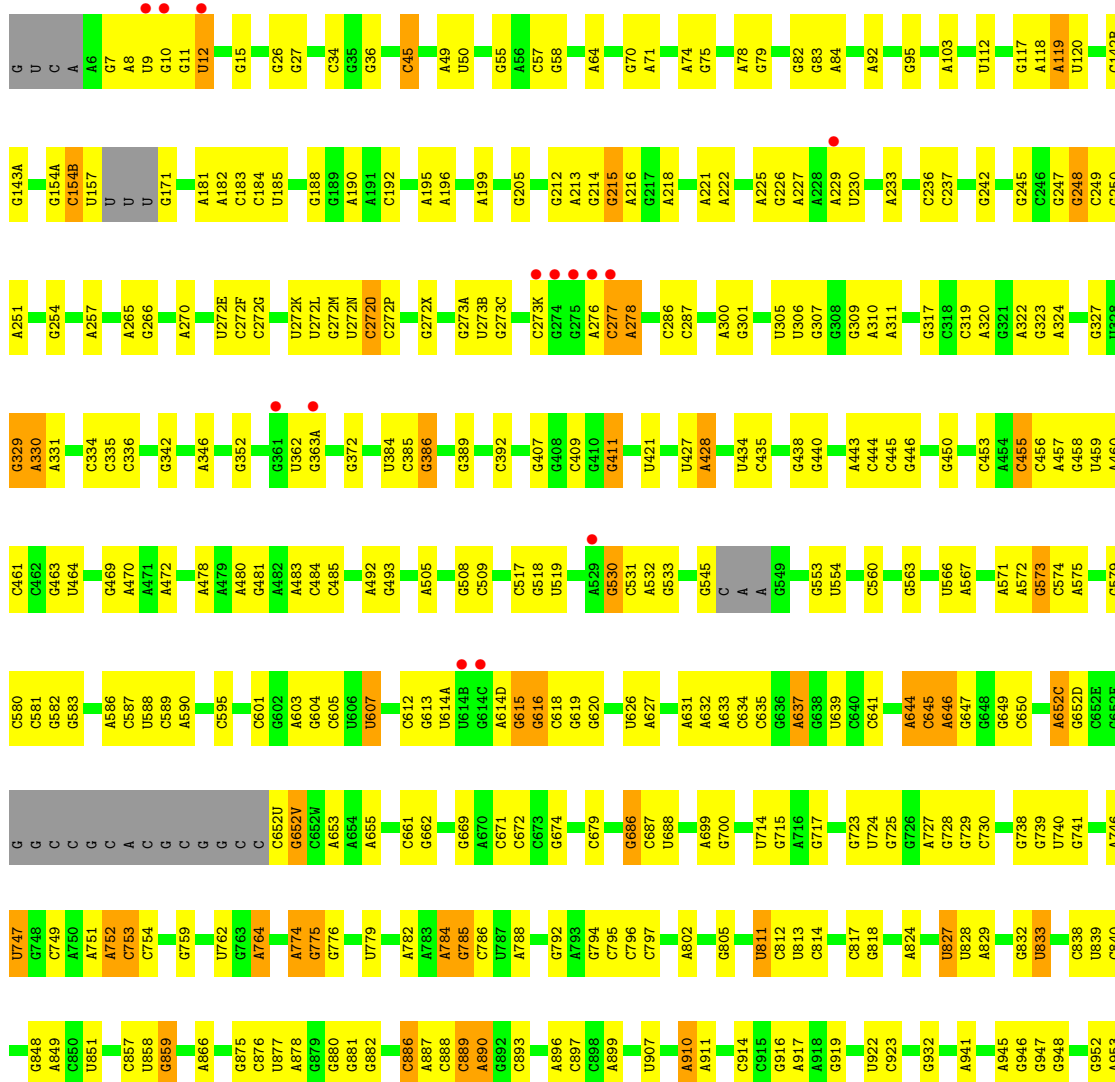
3 Residue-property plots

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.

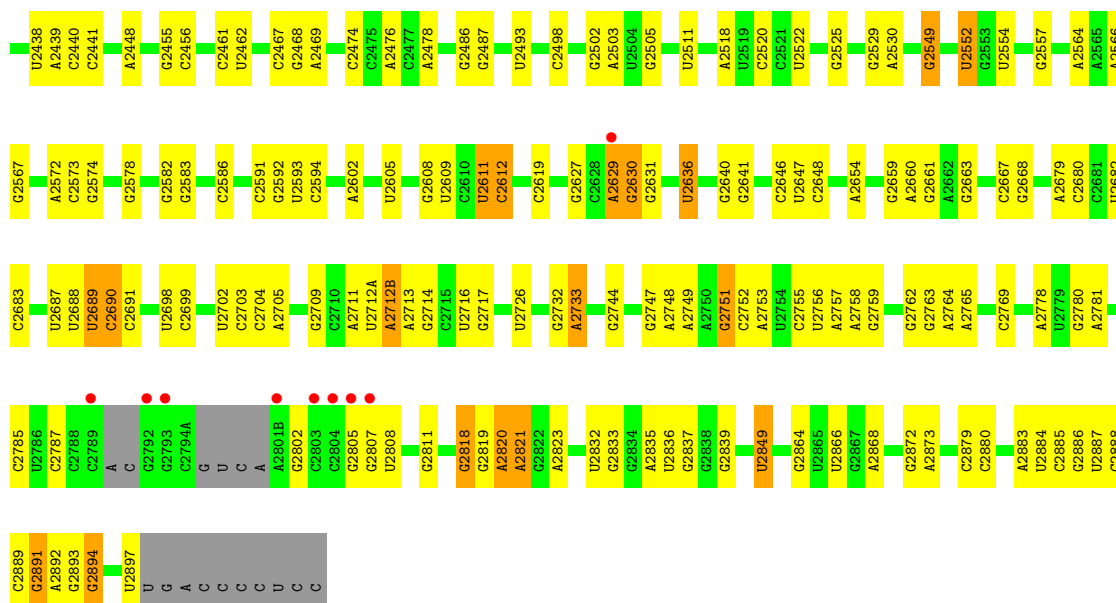
• Molecule 1: 23S rRNA



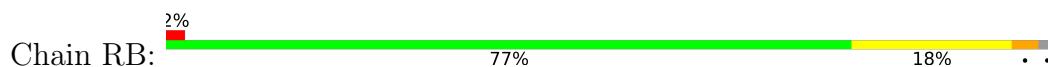
U2406	G2319	A2227	G2137	C2055	U1955	A1812	U1688	G1538	A1419	C1289	G	G1087	G1024
G2410	A2320	G2228	C2138	G2056	U1960	A1815	A1689	G1539	U1420	C1290	A	A1088	G1025
G2414	A2321	U2232	C2139	A2060	A1961	A1816	U1693	A1542	G1421	C1291	U	G1089	U1026
A2418	A2322	U2233	G2140	G2061	C1962	G1817	G1695	C1543	G1422	C1292	G	U1090	A1027
U2419	G2325	G2234	G2141	A2062	U1963	U1818	G1697	A1554	G1424	C1293	A	G1091	A1028
C2420	C2326	G2238	C2142	C2063	G1964	G1826	A1698	A1567	G1425	U1300	C1178	C1092	A1029
A2422	A2327	G2239	U2144	G2069	C1967	U1826	G1699	C1557	G1426	A1301	C1179	G1093	G1030
G2424	A2328	G2240	C2143	A2070	C1968	G1828	A1700	A1558	A1427	U1094	U1095	U1094	U1033
C2425	A2329	G2241	C2144	U2074	A1969	U1833	G1702	A1566	G1428	C1306	G1187	A1096	G1034
U2429	C2342	G2242	U2145	U2075	A1970	U1834	G1703	A1567	G1429	U1097	U1188	U1097	G1035
A2430	C2343	G2243	G2151	U2076	A1972	U1835	G1721	A1569	U1431	G1309	A1189	G1098	G1036
G2434	U2344	G2244	G2152	C2077	G1975	A1847	U1739	A1570	A1448	U1313	U1205	C1100	G1038
A2435	G2345	G2245	G2153	C2078	G1976	A1848	G1740	A1570	G1449	C1314	A1210	C1101	G1039
U2438	A2346	U2262	G2154	G2087	U1991	U1864	G1746	A1580	G1450A	U1320	U1211	C1102	G1040
A2439	C2347	G2267	G2155	G2088	U1992	G1865	U1757	A1580	G1455	C1321	U1212	G1103	G1041
U2440	G2350	A2268	G2156	G2094	U1993	C1866	G1758	A1583	G1459	U1341	G1219	G1104	G1042
C2441	G2351	A2269	G2157	U2095	G1997	A1876	A1762	C1584	U1460	G1351	G1223	G1105	C1043
G2442	A2352	G2270	C2160	U2096	G1998	A1877	G1763	A1586	G1467	U1357	C1224	G1106	G1044
C2443	G2353	G2271	G2161	U2099	G2000	G1878	U1764	C1588	U1490	G1358	G1226	G1107	A1045
G2444	C2354	A2274	G2162	C2103	A2001	A1889	G1775	C1589	A1471	U1359	A1236	U1108	A1046
G2445	U2344	G2275	U2167	G2104	G2002	C1895	A1778	A1593	A1494	A1360	G1237	U1109	G1047
A2448	G2365	G2276	G2168	C2105	C2006	G1899	U1779	G1594	A1495	G1376	G1238	G1115	G1055
C2452	C2366	A2277	G2169	G2106	G2012	A1900	G1764	G1594	A1496	U1372	G1239	G1116	G1056
G2455	G2367	G2282	U2171	C2107	A2013	G1903	A1773	C1607	A1497	U1377	U1240	G1117	A1057
U2462	C2372	C2283	C2172	U2108	A2014	G1906	U1777	A1608	C1504	G1377	A1241	C1118	G1058
C2463	G2373	C2284	C2173	U2109	A2015	G1907	U1778	A1610	C1505	A1378	G1248	C1119	G1059
C2464	C2374	C2285	C2174	G2110	A2016	G1908	U1779	A1618	C1506	G1377	U1249	C1123	U
C2466	G2375	A2286	A2175	C2111	G2018	C1908	U1779	A1625	C1507	A1379	G1250	G1127	G1062
A2469	A2376	A2287	G2176	U2112	G2019	G1911	A1780	G1626	A1508	G1380	G1251	A1128	C1064
C2474	C2377	U2291	U2180	A2114	U2022	A1912	G1781	C1626	C1509A	U1384	G1252	U1129	U1066
A2478	G2378	C2292	G2181	G2115	G2023	C1913	A1782	C1626	A1509C	G1385	U1253	G1136	A1067
G2485	C2379	U2296	G2186	G2116	C2026	C1914	U1785	C1640	C1509B	U1388	U1254	U1133	A1069
C2486	G2382	C2297	U2189	A2117	U2027	C1915	A1786	C1649	A1509C	U1394	G1255	G1135	A1070
G2487	C2383	A2298	G2190	U2118	U2028	A1916	U1789	G1649	A1509C	U1263	G1256	G1137	G1071
A2488	G2384	G2299	G2191	G2120	G2029	U1917	A1790	A1654	A1509C	U1264	U1267	U1142A	C1072
C2498	C2385	G2304	G2192	U2121	A2031	A1918	C1790	A1654	A1509C	U1265	U1267	A1143	A1077
U2502	U2390	C2306	G2193	G2122	G2032	A1936	A1801	C1657	C1528	C1404	U1268	A1143	C1078
A2503	G2391	G2307	U2194	G2123	A2033	A1937	G1802	C1658	C1529	U1405	A1269	A1155	C1079
U2504	A2392	G2308	G2206	A2126	U2034	U1938	G1803	C1658	C1530	C1412	G1271	U1165	U1082
	G2393	A2309	G2207	G2127	G2035	A1939	A1801	C1658	C1531	G1413	A1272	C1166	U1083
	C2394	U2218	U2218	U2130	G2037	G1935	G1802	C1658	C1532	G1416	A1278	G1170	A1084
	G2397	G2219	G2219	G2131	C2043	A1936	G1803	C1658	C1533	G1418		G1171	A1086
	G2400	G2223	G2223	G2133	G2046	A1937	A1801	C1658	C1534				
	U2401	G2224	G2224	A2134	A2051	U1939	A1801	C1658	C1535				
	C2402	G2225	G2225	A2135	A2051	A1939	A1801	C1658	C1536				
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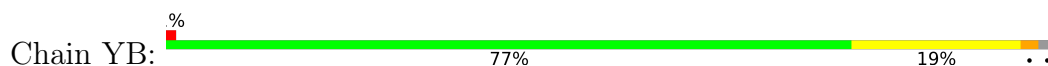




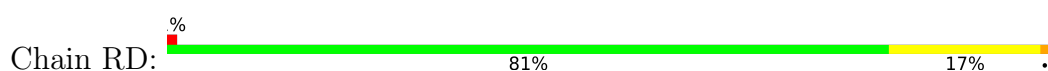
- Molecule 2: 5S rRNA



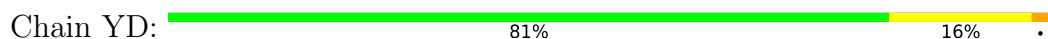
- Molecule 2: 5S rRNA



- Molecule 3: 50S ribosomal protein L2

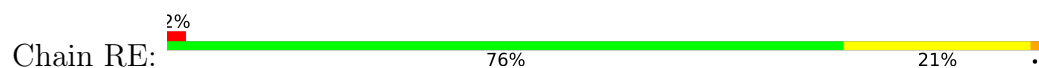


- Molecule 3: 50S ribosomal protein L2

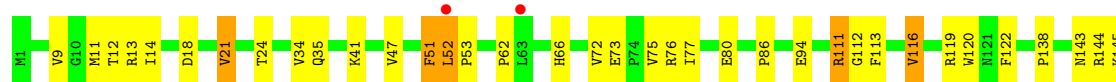
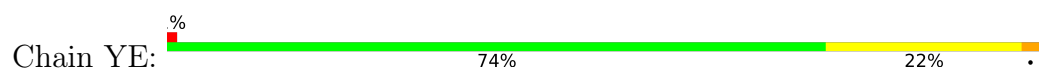




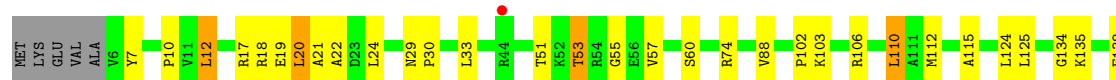
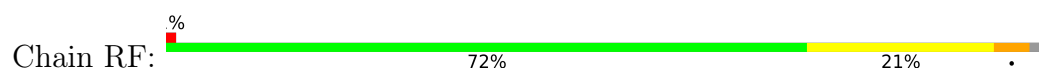
- Molecule 4: 50S ribosomal protein L3



- Molecule 4: 50S ribosomal protein L3



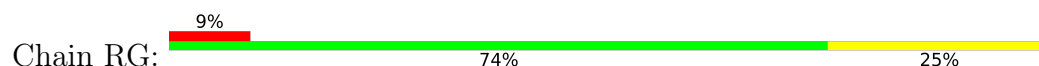
- Molecule 5: 50S ribosomal protein L4

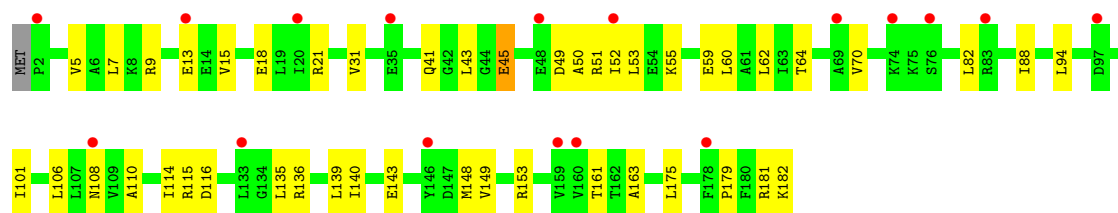


- Molecule 5: 50S ribosomal protein L4

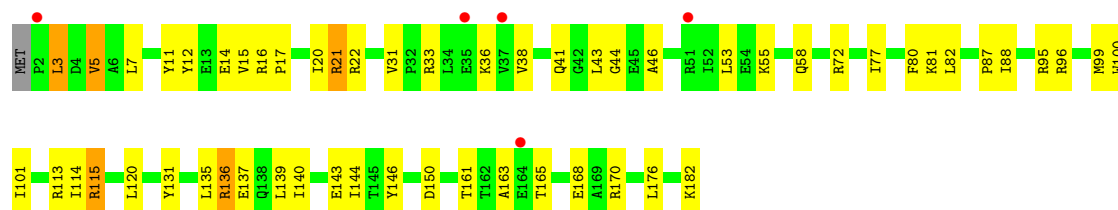


- Molecule 6: 50S ribosomal protein L5

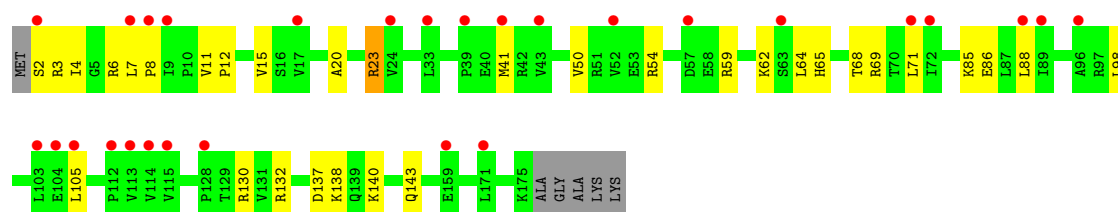
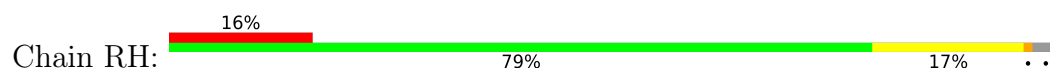




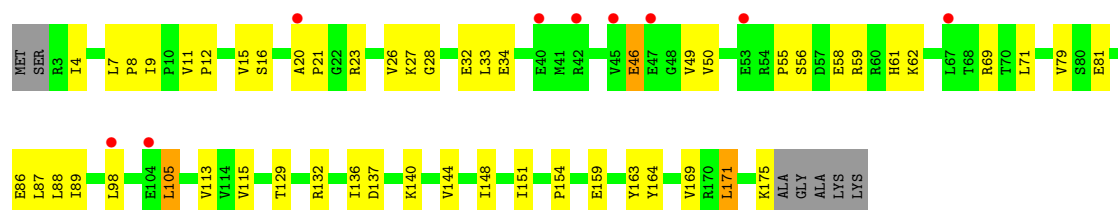
• Molecule 6: 50S ribosomal protein L5



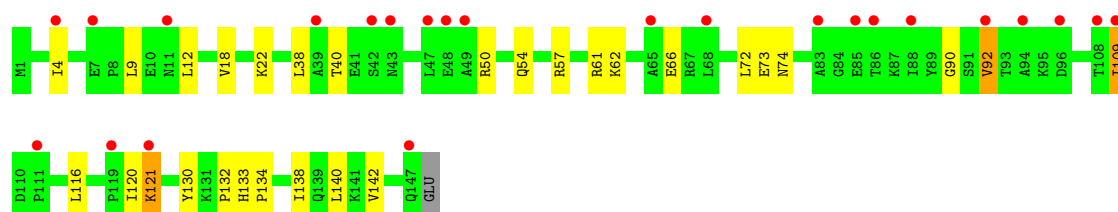
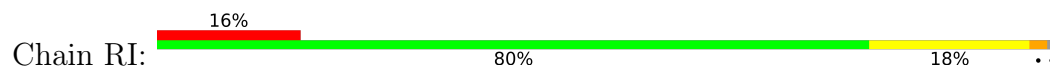
• Molecule 7: 50S ribosomal protein L6



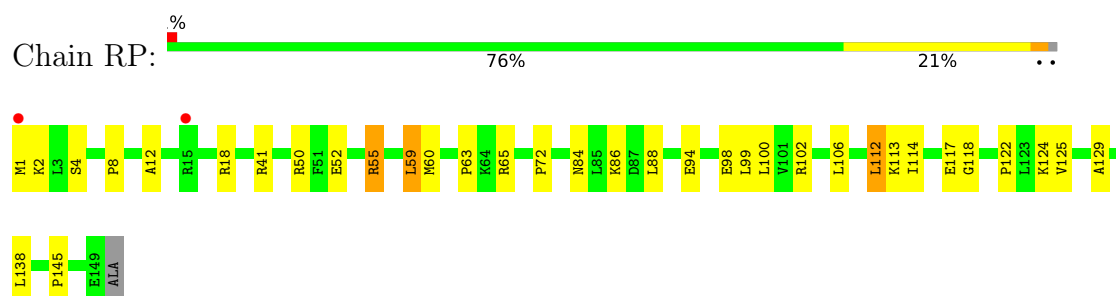
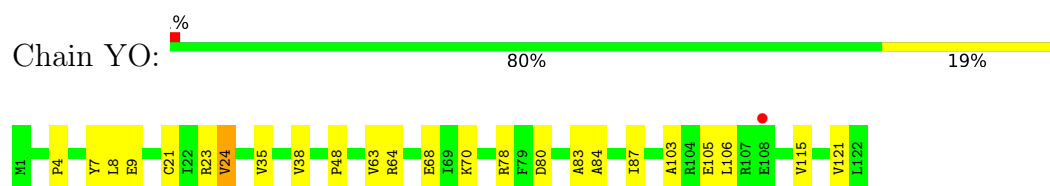
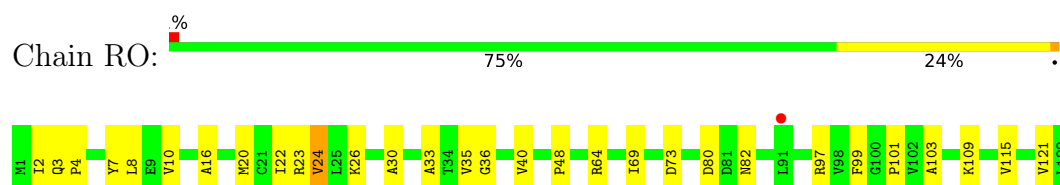
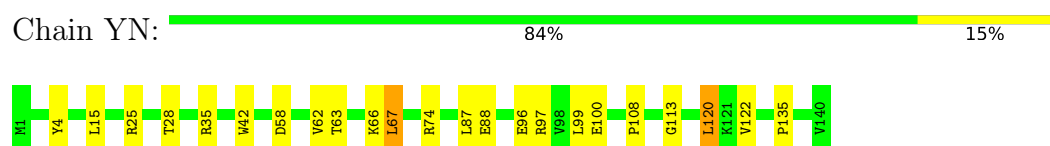
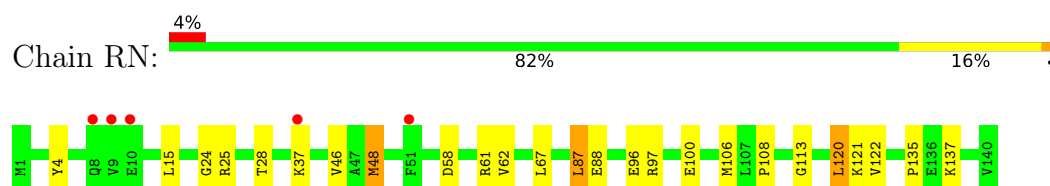
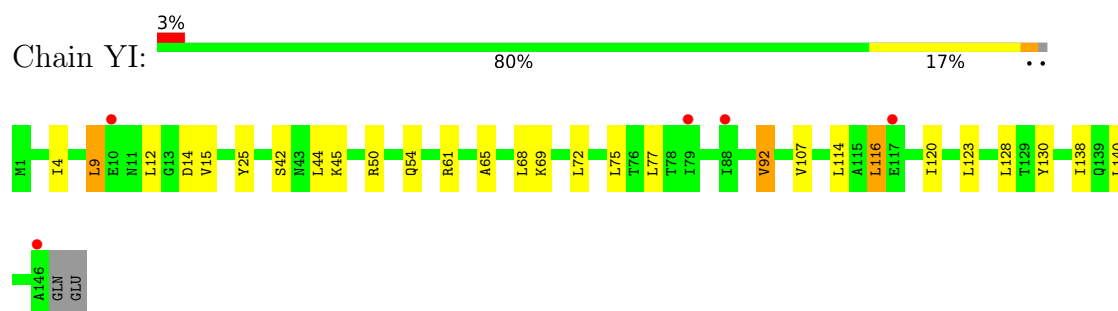
• Molecule 7: 50S ribosomal protein L6



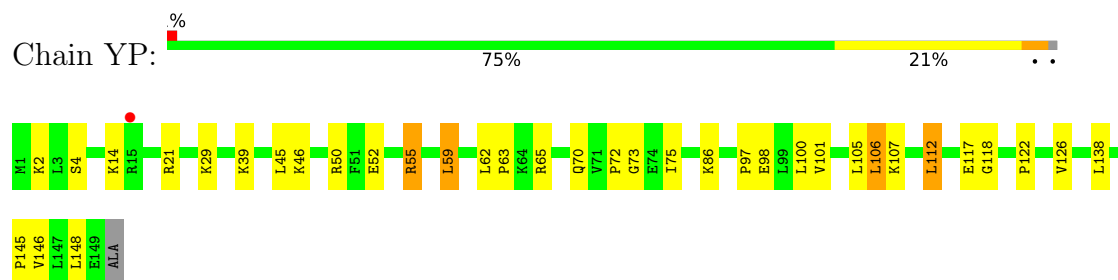
• Molecule 8: 50S ribosomal protein L9



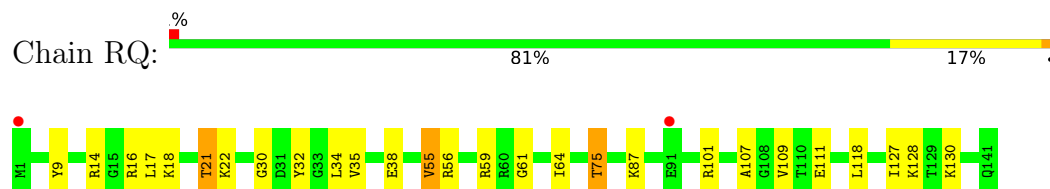
- Molecule 8: 50S ribosomal protein L9



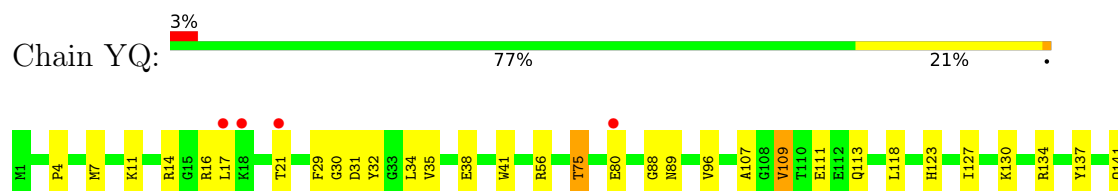
- Molecule 11: 50S ribosomal protein L15



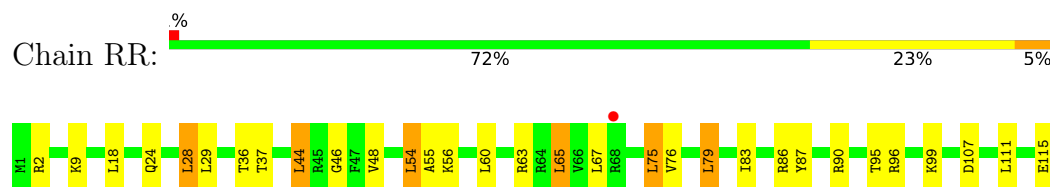
- Molecule 12: 50S ribosomal protein L16



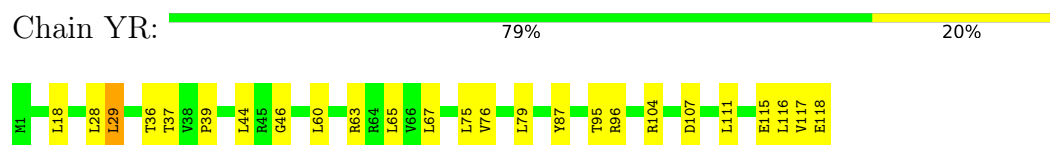
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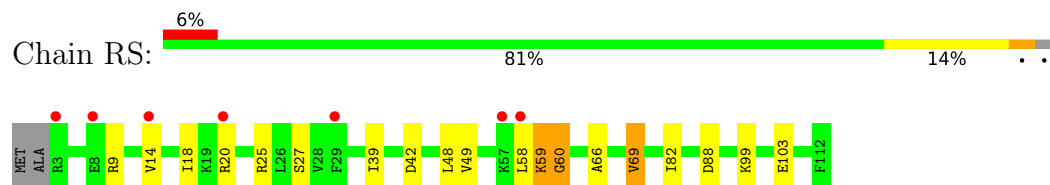
- Molecule 13: 50S ribosomal protein L17



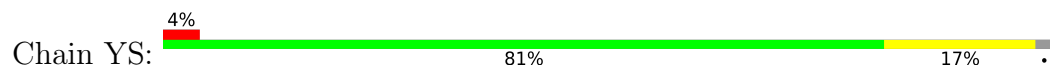
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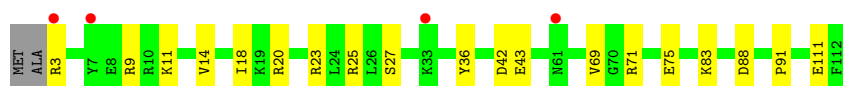


- Molecule 14: 50S ribosomal protein L18

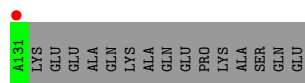


- Molecule 14: 50S ribosomal protein L18

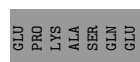
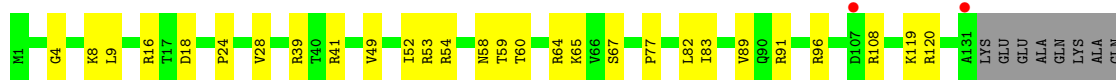
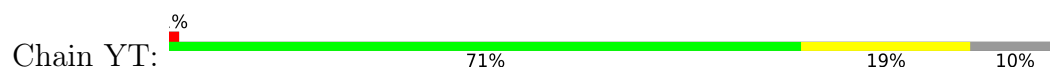




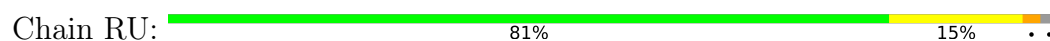
- Molecule 15: 50S ribosomal protein L19



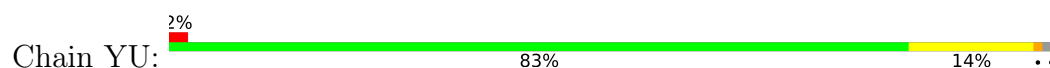
- Molecule 15: 50S ribosomal protein L19



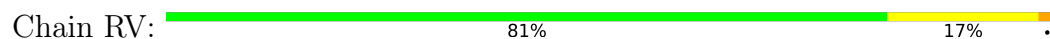
- Molecule 16: 50S ribosomal protein L20



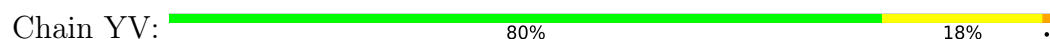
- Molecule 16: 50S ribosomal protein L20



- Molecule 17: 50S ribosomal protein L21

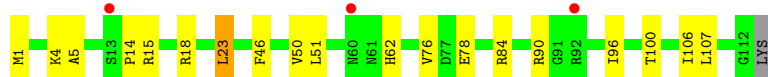
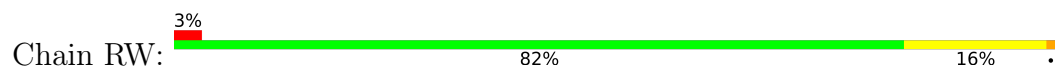


- Molecule 17: 50S ribosomal protein L21

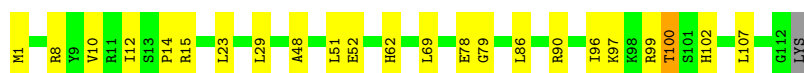
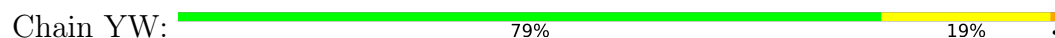




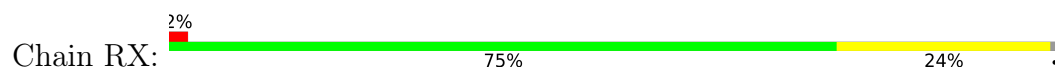
- Molecule 18: 50S ribosomal protein L22



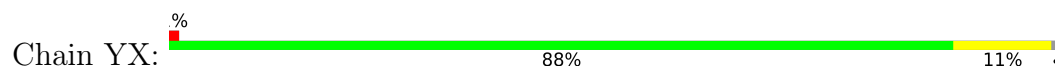
- Molecule 18: 50S ribosomal protein L22



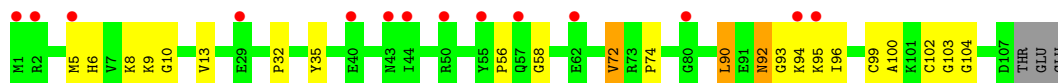
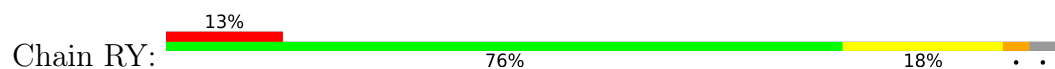
- Molecule 19: 50S ribosomal protein L23



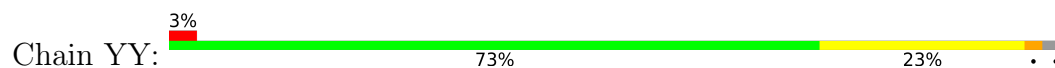
- Molecule 19: 50S ribosomal protein L23



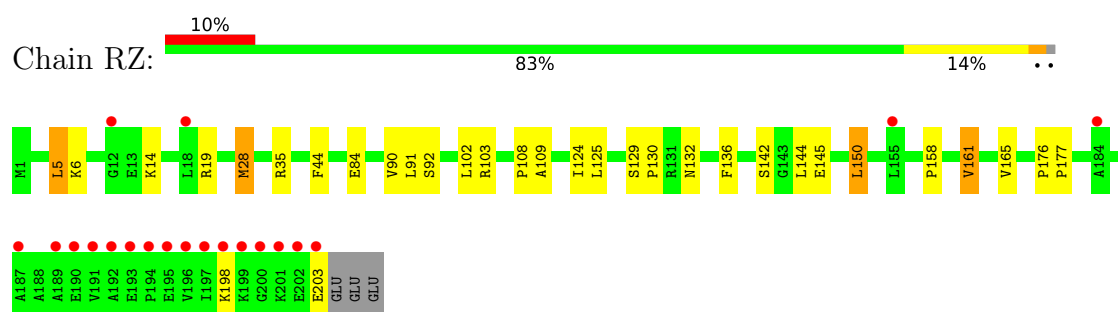
- Molecule 20: 50S ribosomal protein L24



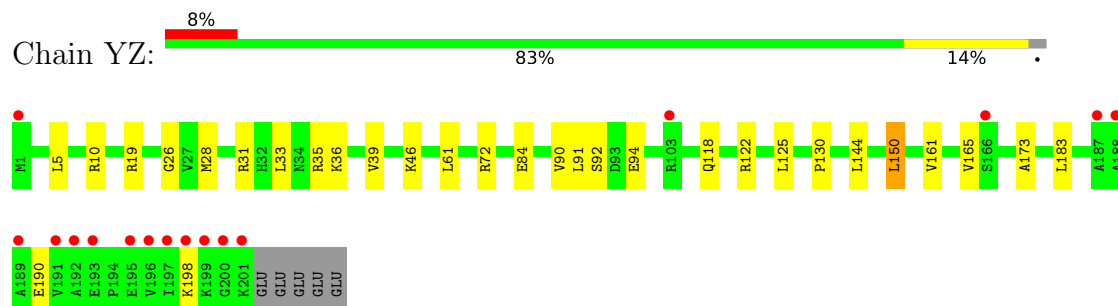
- Molecule 20: 50S ribosomal protein L24



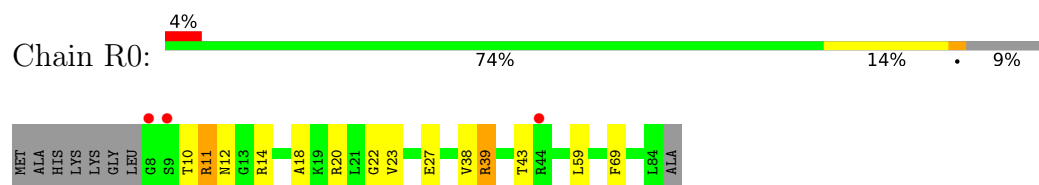
- Molecule 21: 50S ribosomal protein L25



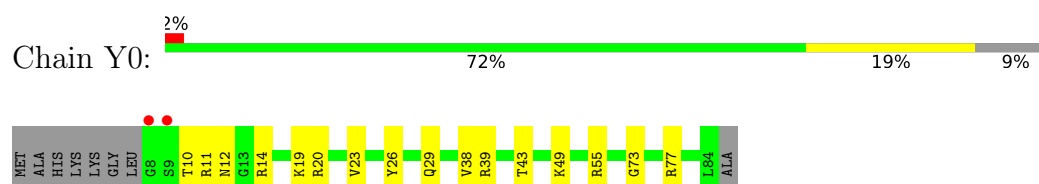
- Molecule 21: 50S ribosomal protein L25



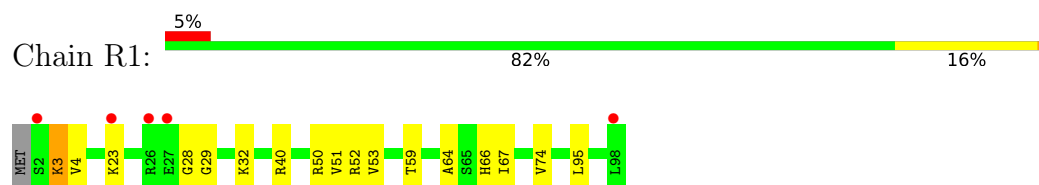
- Molecule 22: 50S ribosomal protein L27



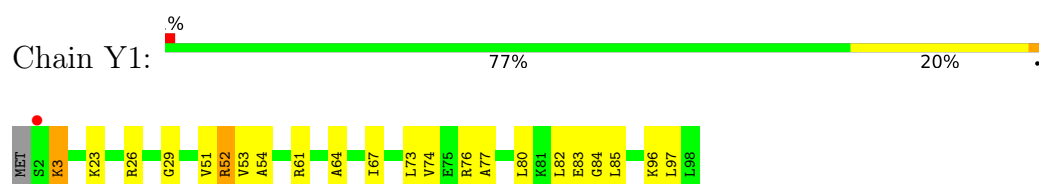
- Molecule 22: 50S ribosomal protein L27



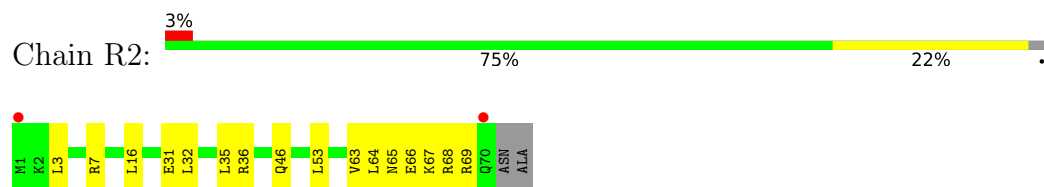
- Molecule 23: 50S ribosomal protein L28



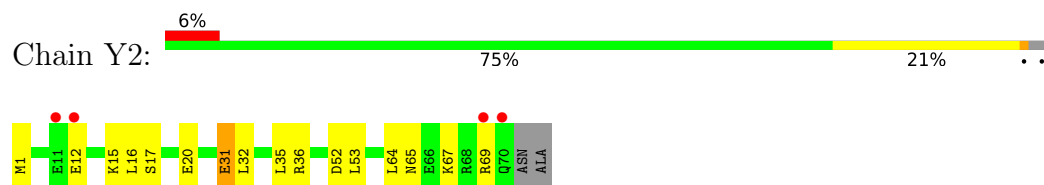
- Molecule 23: 50S ribosomal protein L28



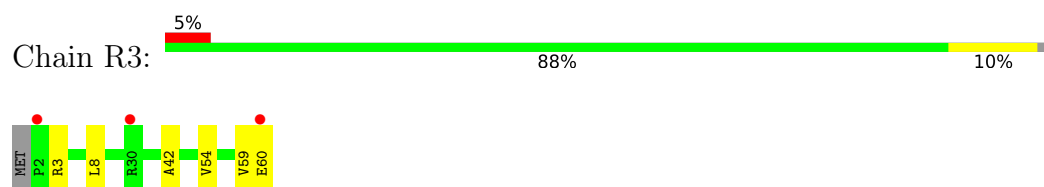
- Molecule 24: 50S ribosomal protein L29



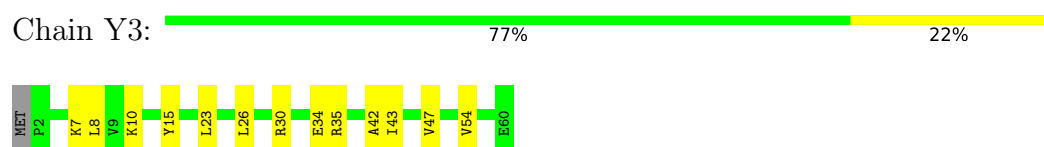
- Molecule 24: 50S ribosomal protein L29



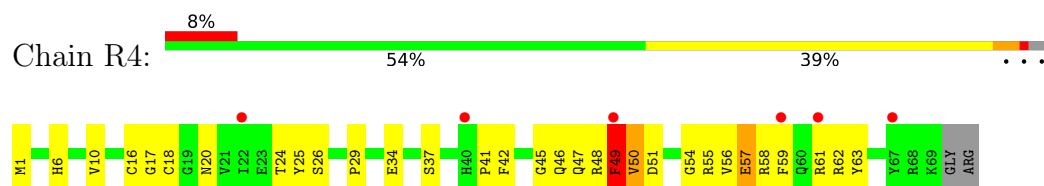
- Molecule 25: 50S ribosomal protein L30



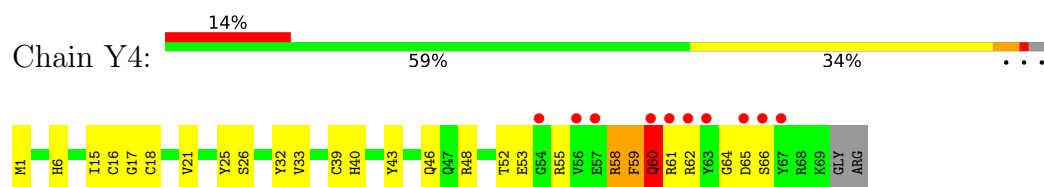
- Molecule 25: 50S ribosomal protein L30



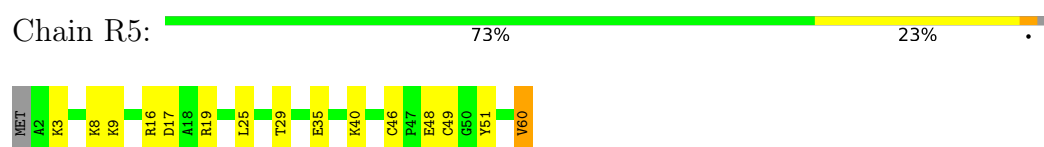
- Molecule 26: 50S ribosomal protein L31



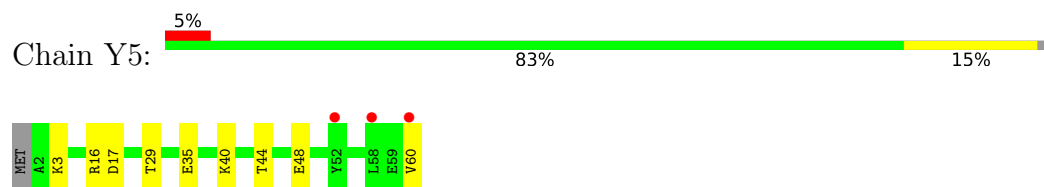
- Molecule 26: 50S ribosomal protein L31



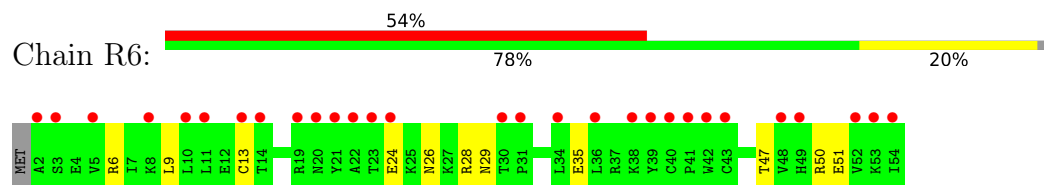
- Molecule 27: 50S ribosomal protein L32



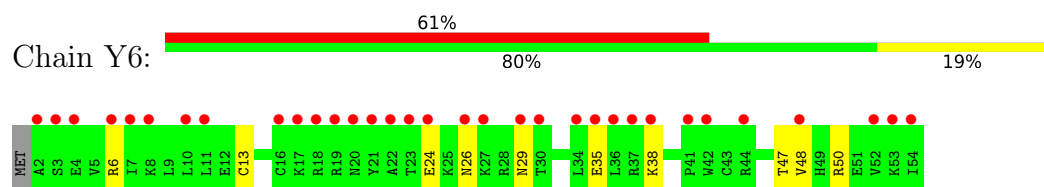
• Molecule 27: 50S ribosomal protein L32



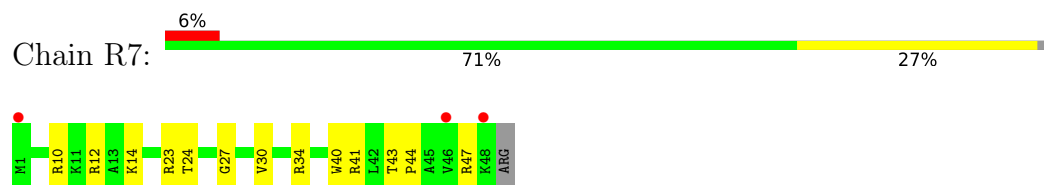
• Molecule 28: 50S ribosomal protein L33



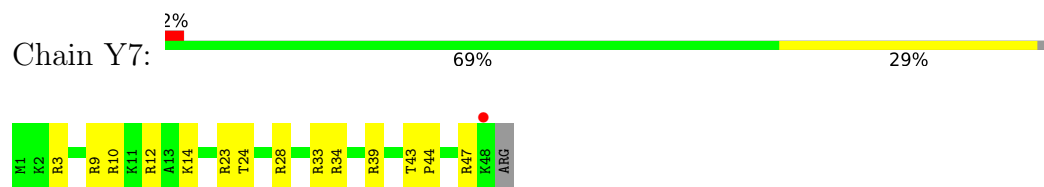
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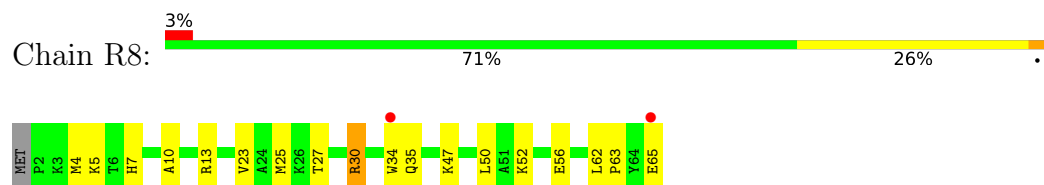
• Molecule 29: 50S ribosomal protein L34



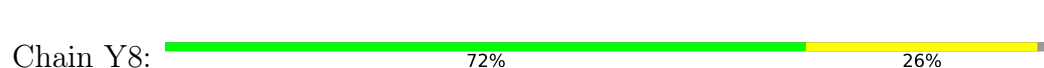
• Molecule 29: 50S ribosomal protein L34



• Molecule 30: 50S ribosomal protein L35

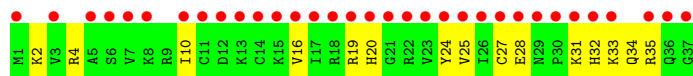


• Molecule 30: 50S ribosomal protein L35

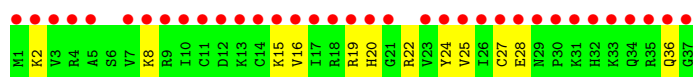




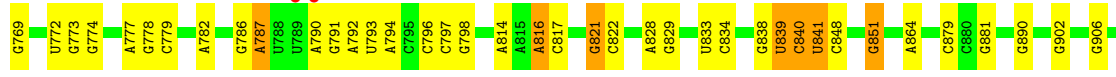
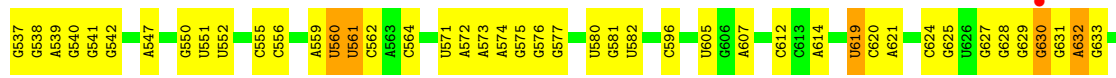
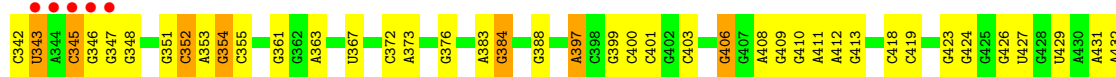
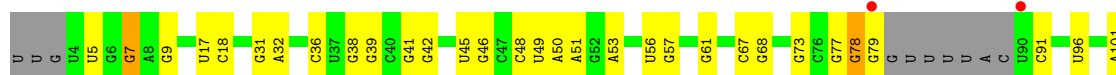
- Molecule 31: 50S ribosomal protein L36

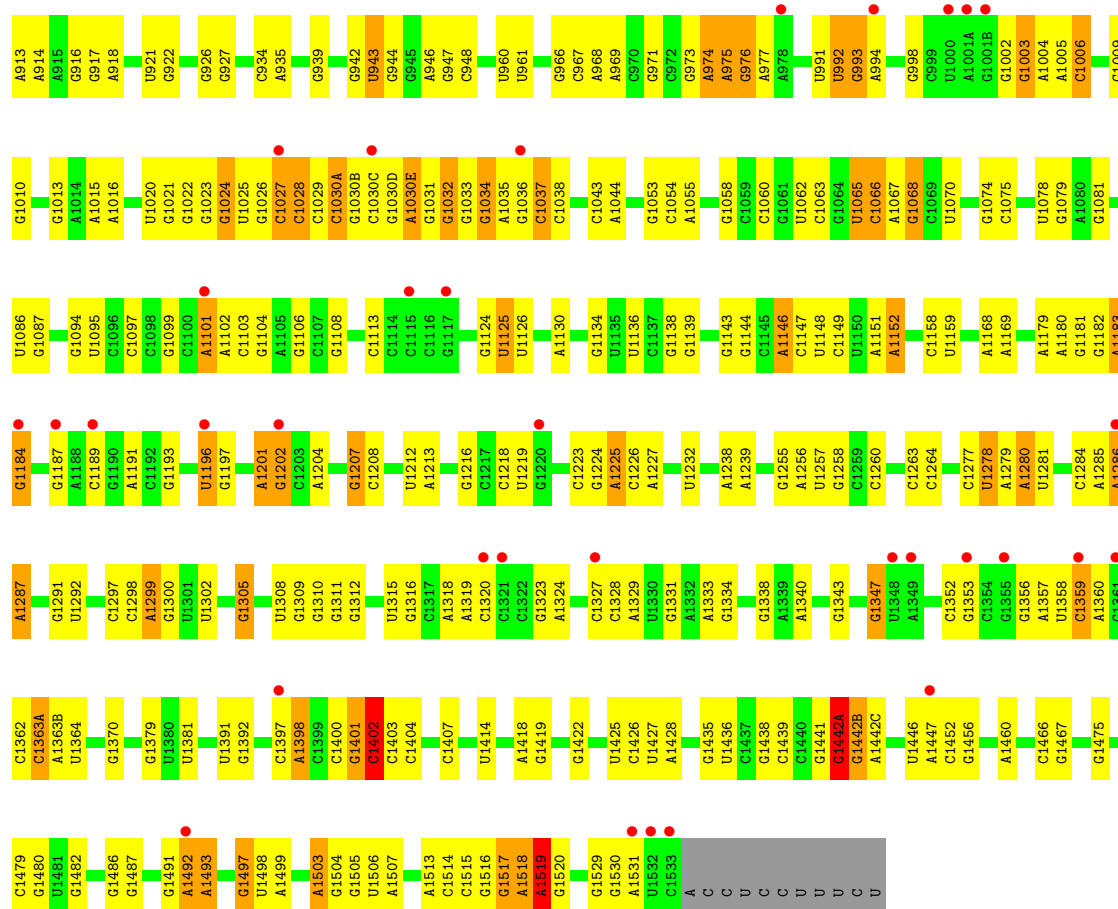


- Molecule 31: 50S ribosomal protein L36

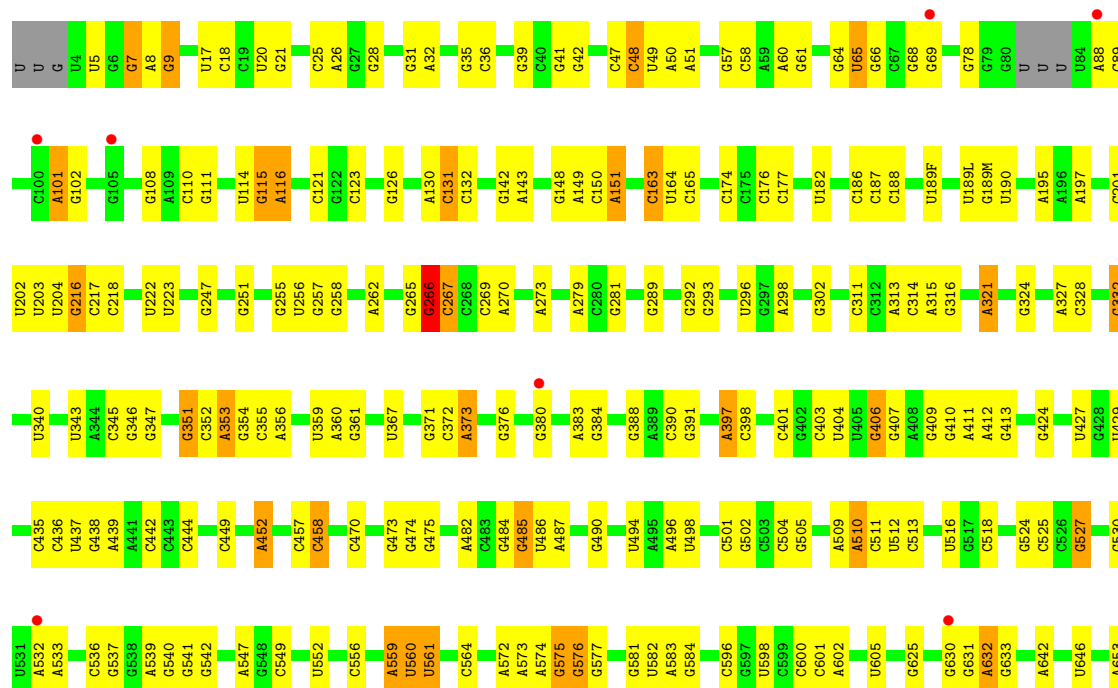


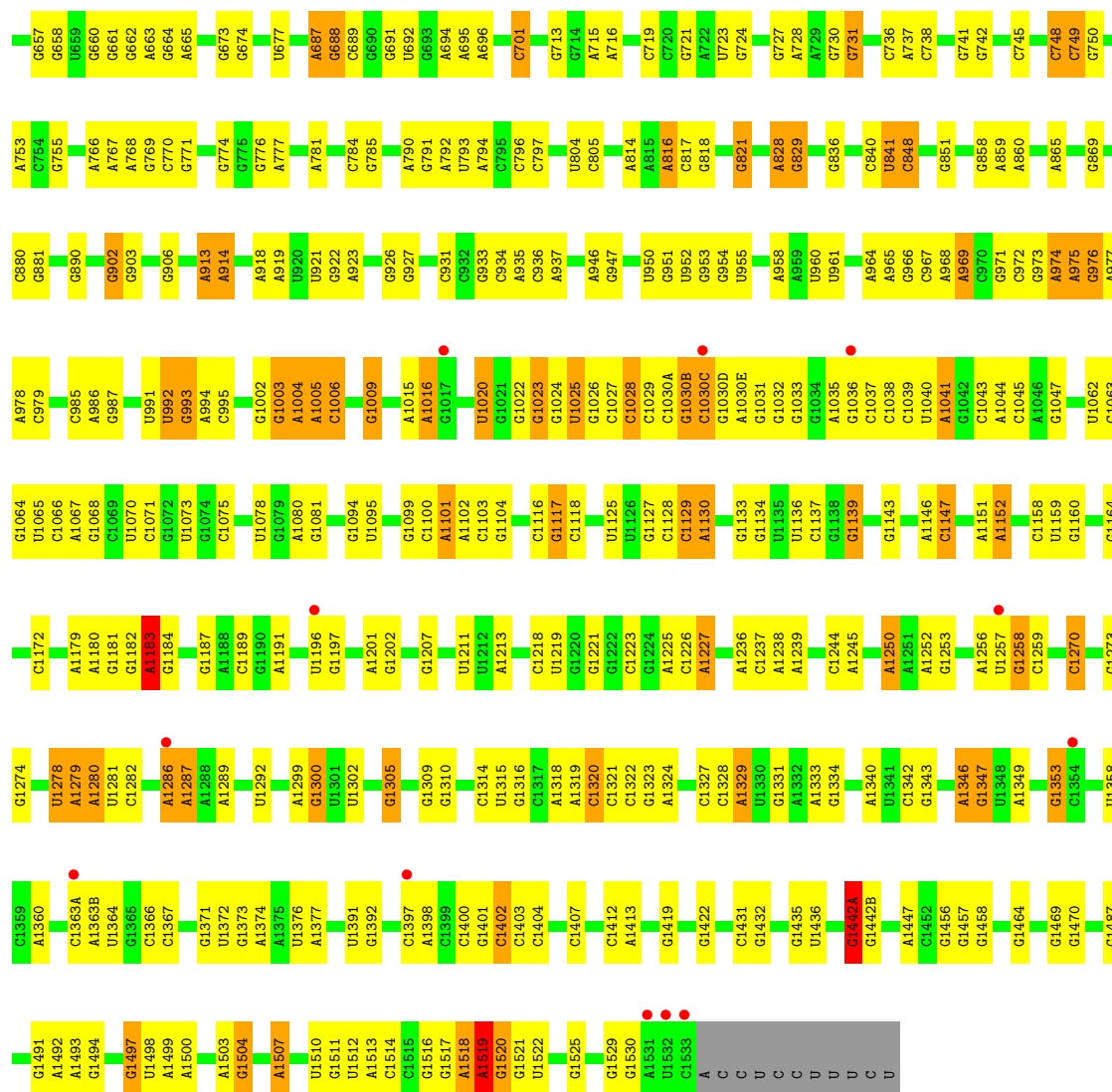
- Molecule 32: 16S rRNA



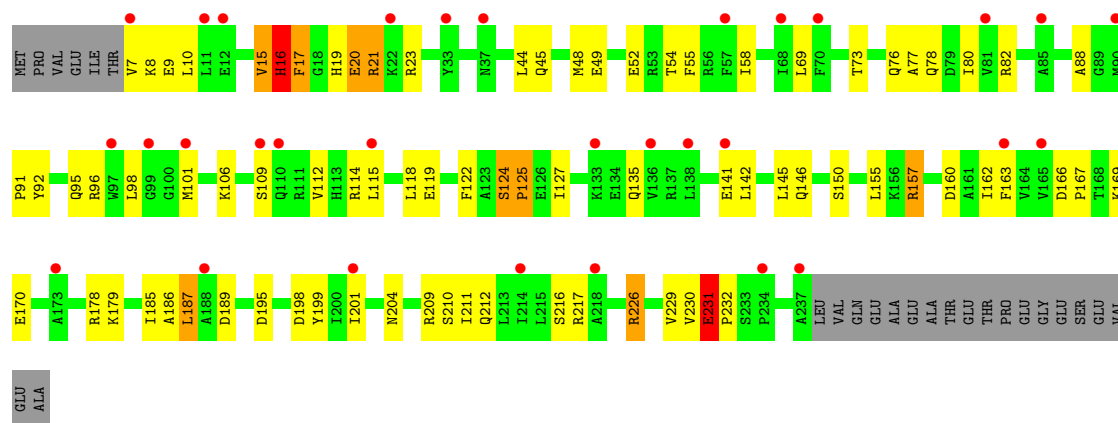


● Molecule 32: 16S rRNA

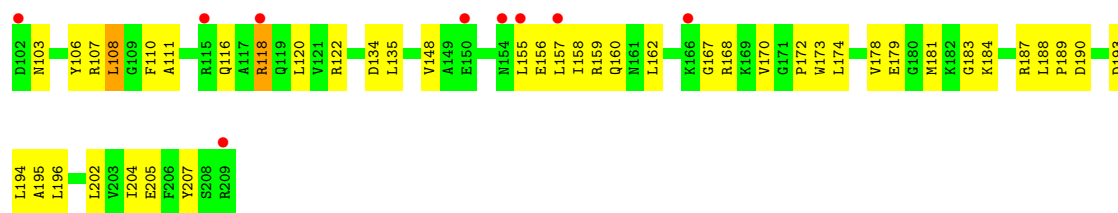




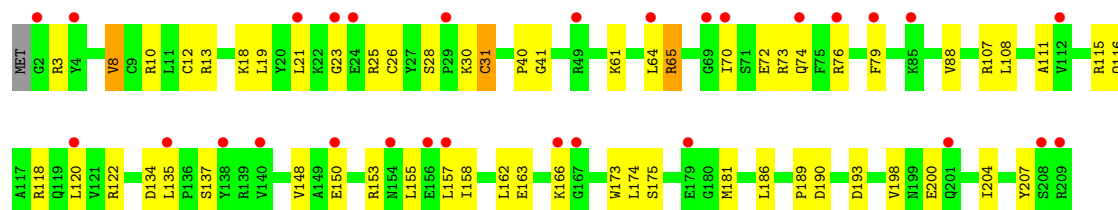
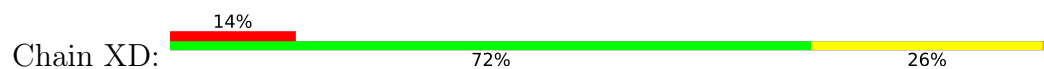
• Molecule 33: 30S ribosomal protein S2



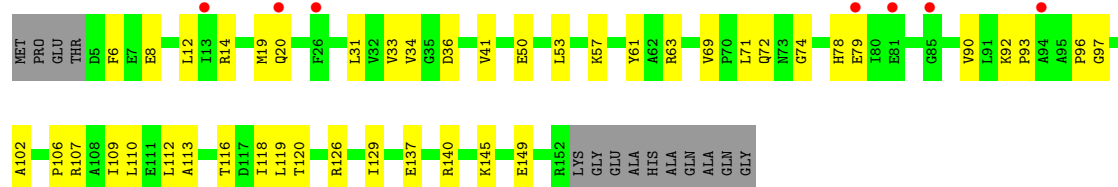
• Molecule 33: 30S ribosomal protein S2



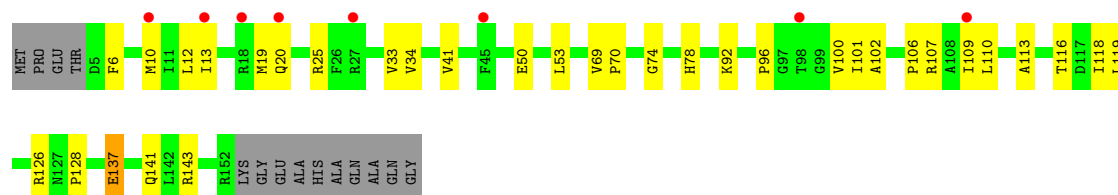
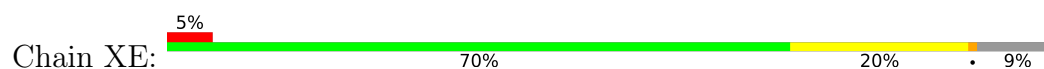
- Molecule 35: 30S ribosomal protein S4



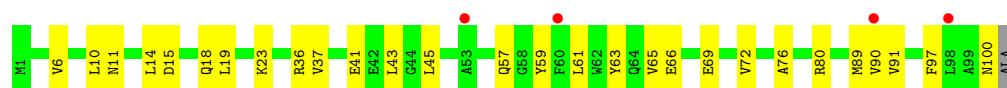
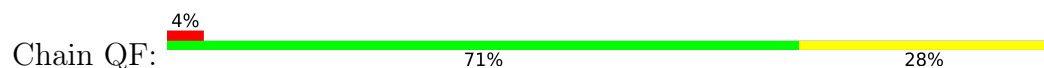
- Molecule 36: 30S ribosomal protein S5



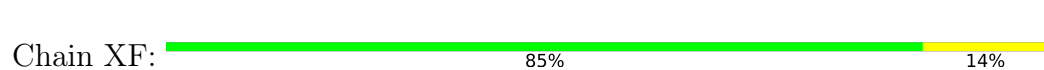
- Molecule 36: 30S ribosomal protein S5

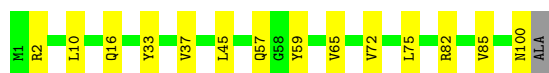


- Molecule 37: 30S ribosomal protein S6

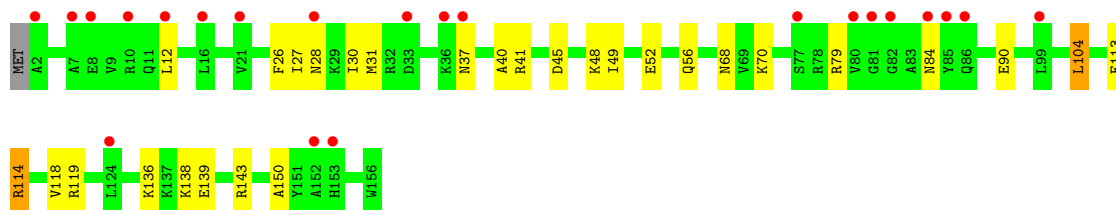


- Molecule 37: 30S ribosomal protein S6



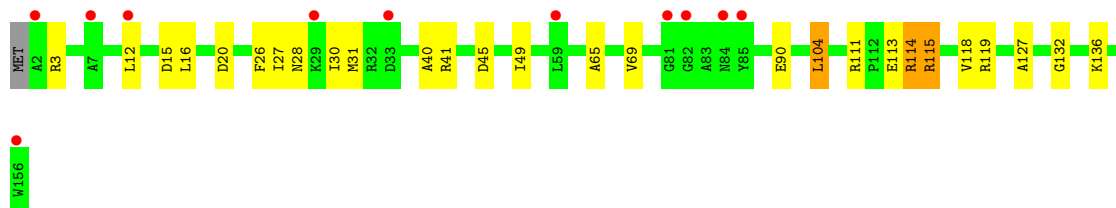
- 
- Molecule 38: 30S ribosomal protein S7

Chain QG: 



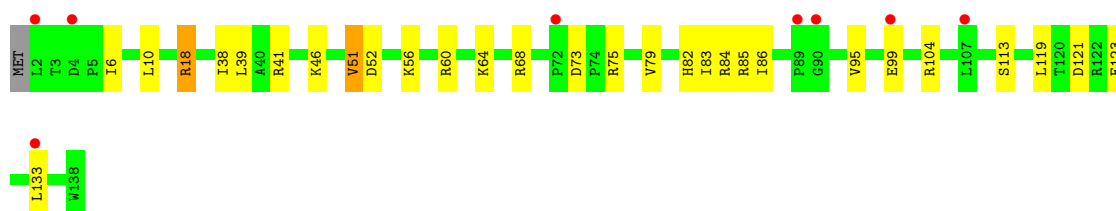
- Molecule 38: 30S ribosomal protein S7

Chain XG: 



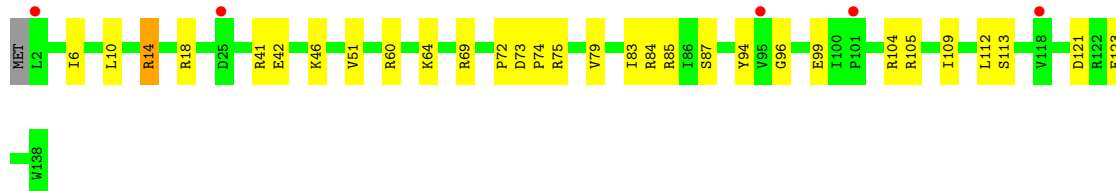
- Molecule 39: 30S ribosomal protein S8

Chain QH: 



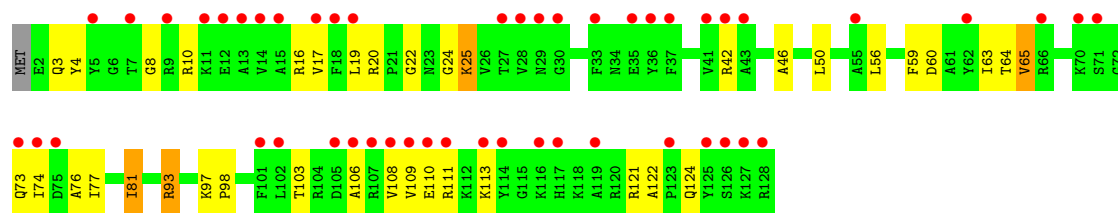
- Molecule 39: 30S ribosomal protein S8

Chain XH: 

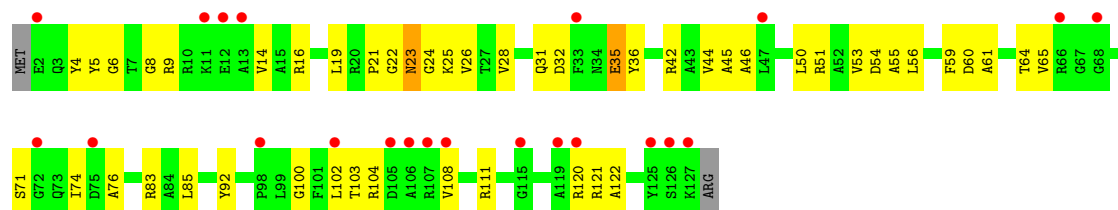


- Molecule 40: 30S ribosomal protein S9

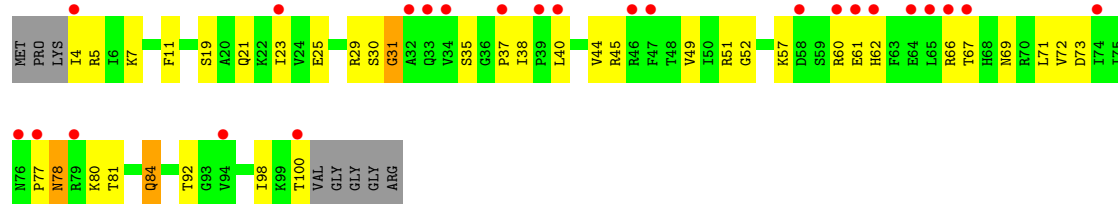
Chain QI: 



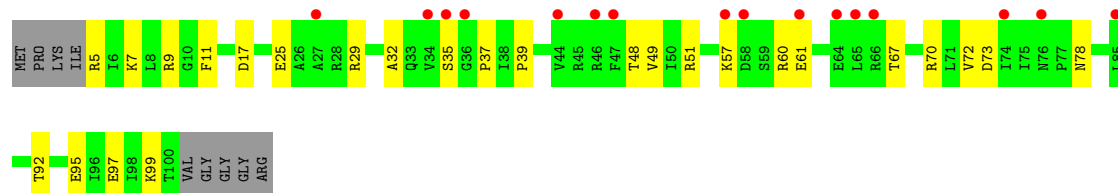
- Molecule 40: 30S ribosomal protein S9



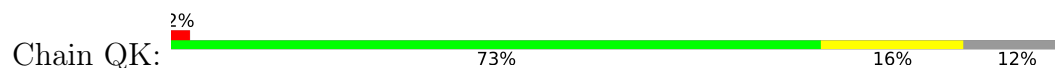
- Molecule 41: 30S ribosomal protein S10



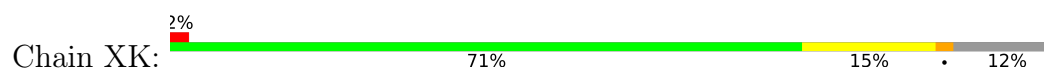
- Molecule 41: 30S ribosomal protein S10

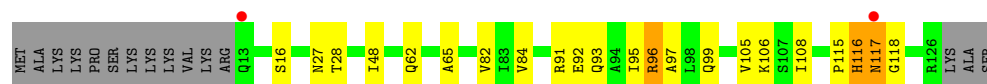


- Molecule 42: 30S ribosomal protein S11

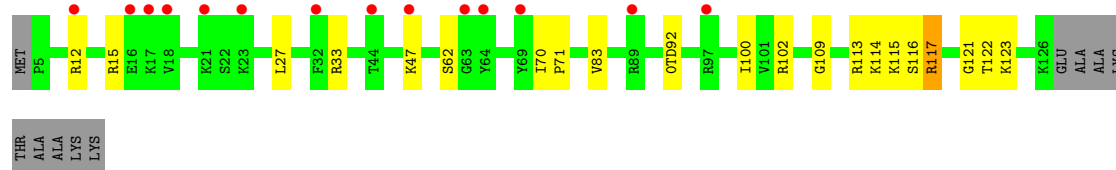
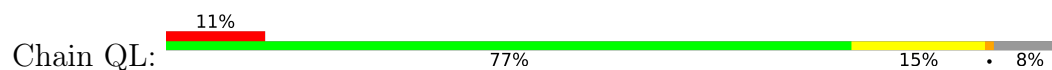


- Molecule 42: 30S ribosomal protein S11

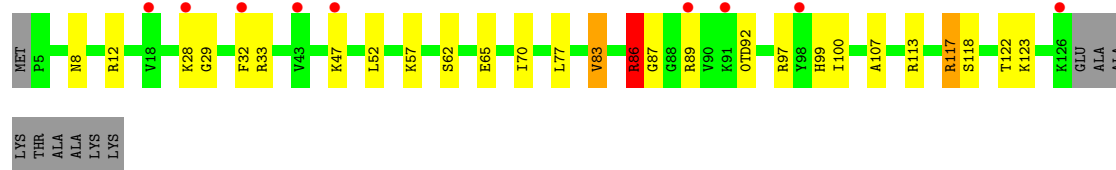
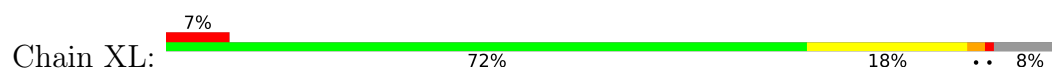




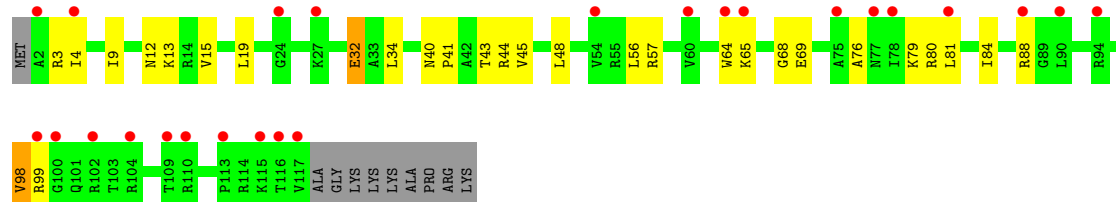
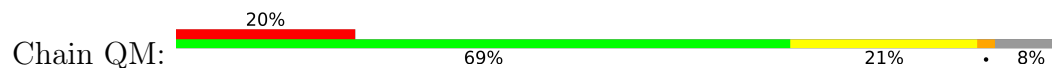
- Molecule 43: 30S ribosomal protein S12



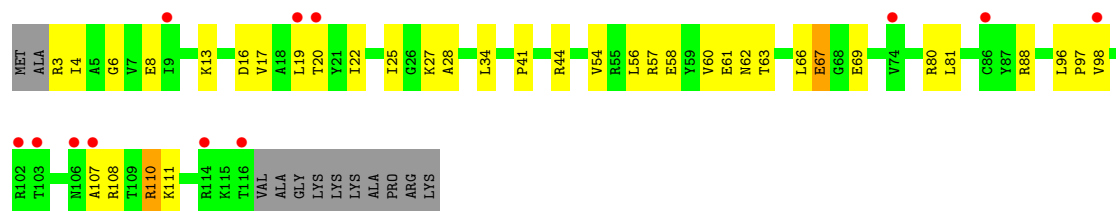
- Molecule 43: 30S ribosomal protein S12



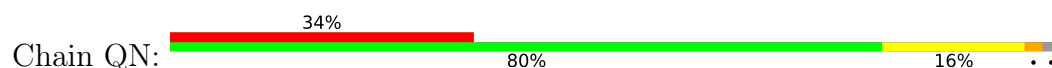
- Molecule 44: 30S ribosomal protein S13

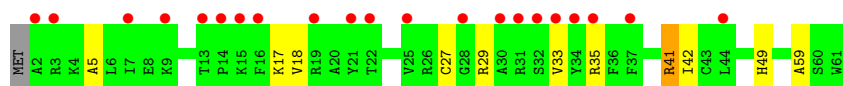


- Molecule 44: 30S ribosomal protein S13

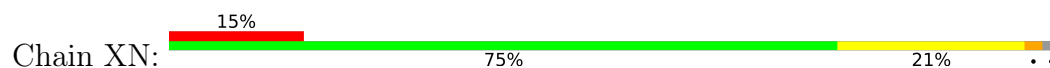


- Molecule 45: 30S ribosomal protein S14 type Z

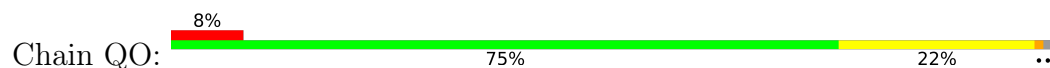




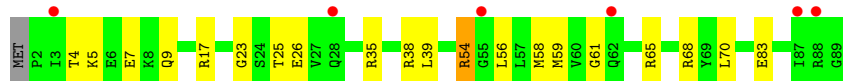
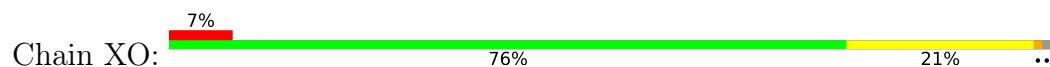
- Molecule 45: 30S ribosomal protein S14 type Z



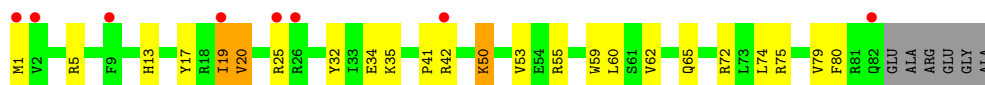
- Molecule 46: 30S ribosomal protein S15



- Molecule 46: 30S ribosomal protein S15



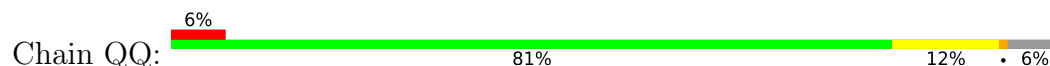
- Molecule 47: 30S ribosomal protein S16



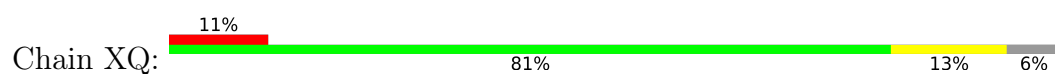
- Molecule 47: 30S ribosomal protein S16



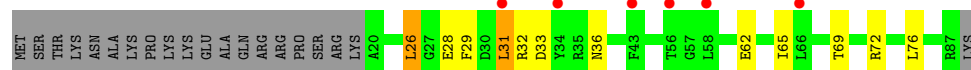
- Molecule 48: 30S ribosomal protein S17



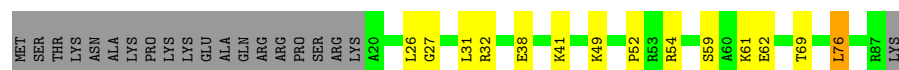
- Molecule 48: 30S ribosomal protein S17



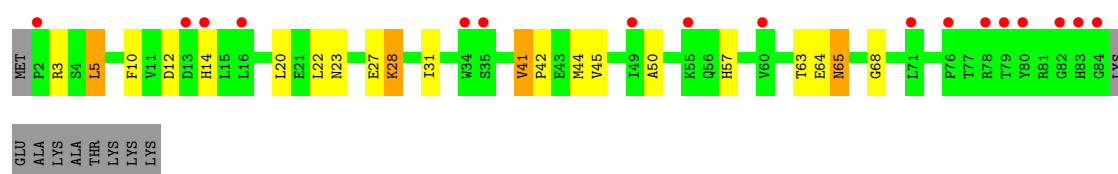
- Molecule 49: 30S ribosomal protein S18



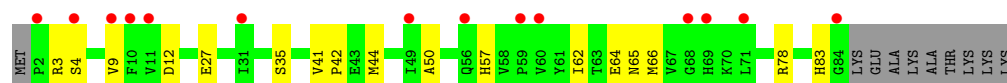
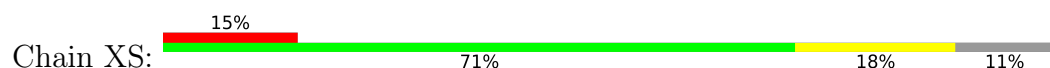
- Molecule 49: 30S ribosomal protein S18



- Molecule 50: 30S ribosomal protein S19



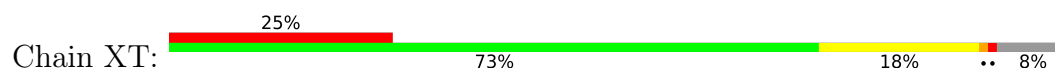
- Molecule 50: 30S ribosomal protein S19

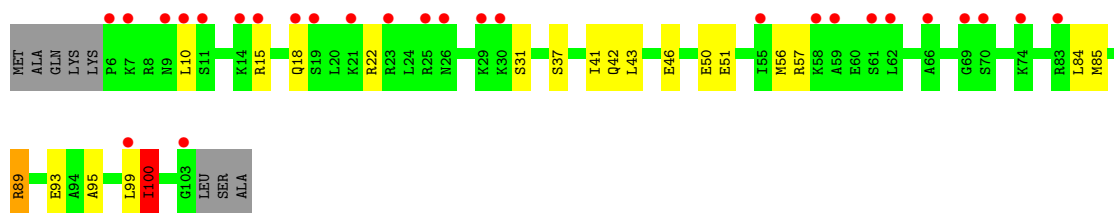


- Molecule 51: 30S ribosomal protein S20

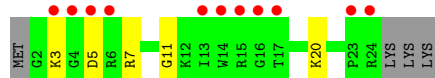
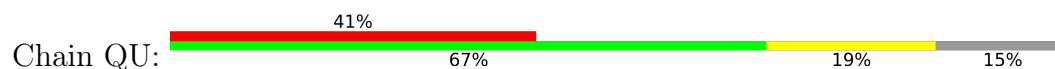


- Molecule 51: 30S ribosomal protein S20

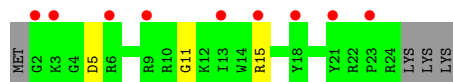
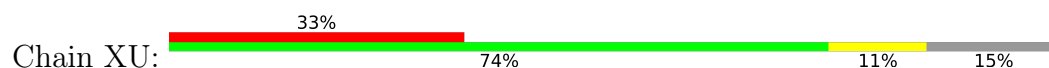




- Molecule 52: 30S ribosomal protein Thx



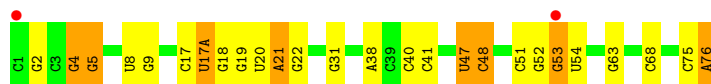
- Molecule 52: 30S ribosomal protein Thx



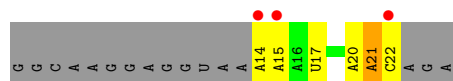
- Molecule 53: P-site tRNA fMet



- Molecule 53: P-site tRNA fMet

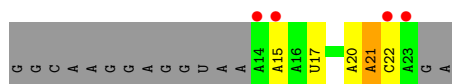


- Molecule 54: messenger RNA

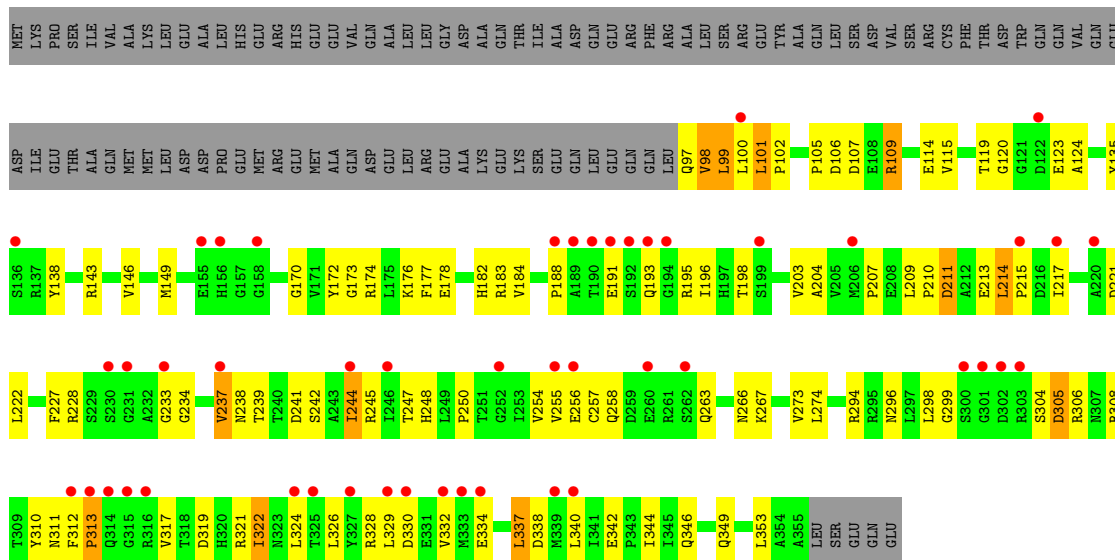
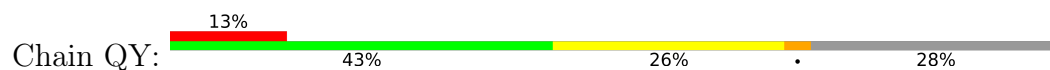


- Molecule 54: messenger RNA

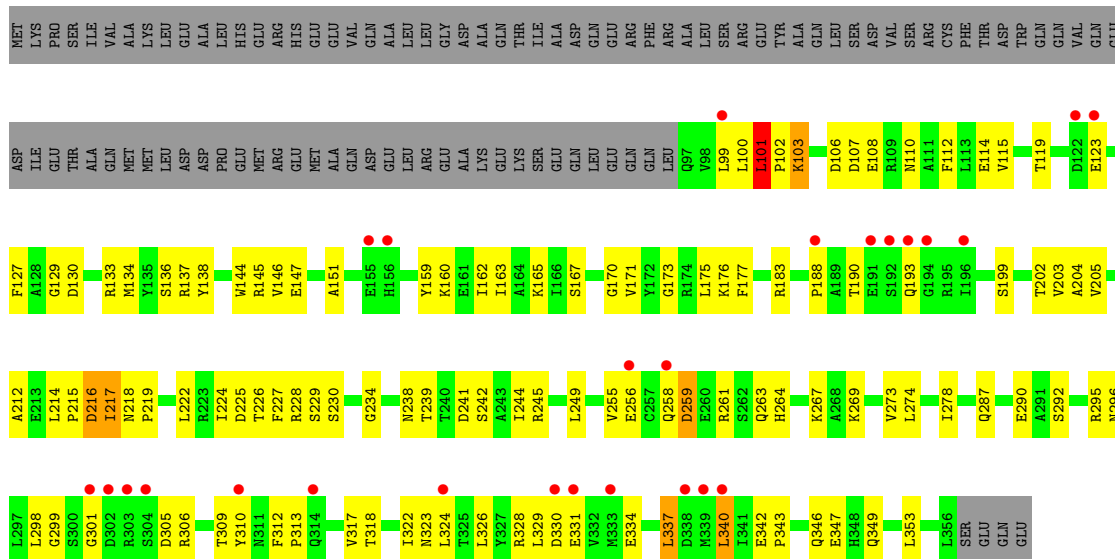




• Molecule 55: Peptide chain release factor 1



• 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	209.51Å 450.89Å 622.07Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.86 – 3.04 49.86 – 3.04	Depositor EDS
% Data completeness (in resolution range)	99.3 (49.86-3.04) 99.3 (49.86-3.04)	Depositor EDS
R_{merge}	0.35	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.65 (at 3.07Å)	Xtriage
Refinement program	PHENIX, PHENIX	Depositor
R, R_{free}	0.246 , 0.279 0.246 , 0.277	Depositor DCC
R_{free} test set	52117 reflections (4.67%)	wwPDB-VP
Wilson B-factor (Å ²)	65.2	Xtriage
Anisotropy	0.225	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.29 , 65.1	EDS
L-test for twinning ²	$\langle L \rangle = 0.37$, $\langle L^2 \rangle = 0.20$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.90	EDS
Total number of atoms	294929	wwPDB-VP
Average B, all atoms (Å ²)	82.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.69% 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: OMG, 0TD, 5MU, M2G, ZN, MA6, 2MG, 5MC, MG, 7MG, UR3, PSU, 2MA, 2MU, 4OC, SF4

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z > 5$	RMSZ	# $ Z > 5$
1	RA	0.24	0/68901	0.42	1/107544 (0.0%)
1	YA	0.28	0/68901	0.47	1/107544 (0.0%)
2	RB	0.19	0/2876	0.35	0/4486
2	YB	0.24	0/2878	0.41	0/4490
3	RD	0.31	0/2181	0.57	0/2940
3	YD	0.34	0/2186	0.62	1/2944 (0.0%)
4	RE	0.30	0/1592	0.55	0/2149
4	YE	0.33	0/1592	0.60	2/2149 (0.1%)
5	RF	0.27	0/1619	0.53	0/2193
5	YF	0.36	0/1615	0.59	0/2188
6	RG	0.23	0/1451	0.49	0/1961
6	YG	0.27	0/1449	0.56	0/1957
7	RH	0.23	0/1356	0.44	0/1834
7	YH	0.29	0/1350	0.53	0/1826
8	RI	0.23	0/1109	0.49	0/1512
8	YI	0.29	0/1091	0.49	0/1490
9	RN	0.28	0/1148	0.51	0/1547
9	YN	0.29	0/1144	0.50	0/1543
10	RO	0.27	0/943	0.51	0/1269
10	YO	0.32	0/943	0.54	0/1269
11	RP	0.29	0/1152	0.56	0/1533
11	YP	0.35	0/1152	0.61	0/1533
12	RQ	0.27	0/1143	0.53	0/1527
12	YQ	0.34	0/1143	0.58	0/1527
13	RR	0.33	0/982	0.56	0/1312
13	YR	0.33	0/982	0.55	0/1312
14	RS	0.27	0/887	0.58	0/1180
14	YS	0.30	0/880	0.59	0/1172
15	RT	0.31	0/1105	0.57	0/1477
15	YT	0.29	0/1097	0.54	0/1468
16	RU	0.26	0/977	0.51	0/1301
16	YU	0.31	0/977	0.52	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
17	RV	0.27	0/786	0.49	0/1053
17	YV	0.30	0/782	0.53	0/1049
18	RW	0.28	0/897	0.52	0/1205
18	YW	0.30	0/897	0.53	0/1205
19	RX	0.30	0/764	0.53	0/1025
19	YX	0.33	0/764	0.57	0/1025
20	RY	0.28	0/823	0.57	1/1099 (0.1%)
20	YY	0.32	0/823	0.58	0/1100
21	RZ	0.30	1/1620 (0.1%)	0.48	1/2200 (0.0%)
21	YZ	0.28	0/1590	0.51	0/2162
22	R0	0.33	0/616	0.60	1/821 (0.1%)
22	Y0	0.37	0/616	0.69	1/821 (0.1%)
23	R1	0.30	0/761	0.52	0/1013
23	Y1	0.31	0/766	0.53	0/1018
24	R2	0.23	0/590	0.48	0/781
24	Y2	0.30	0/594	0.51	0/785
25	R3	0.28	0/474	0.52	0/635
25	Y3	0.30	0/469	0.57	0/630
26	R4	0.37	0/559	0.80	1/754 (0.1%)
26	Y4	0.34	0/549	0.79	5/741 (0.7%)
27	R5	0.37	0/473	0.57	0/639
27	Y5	0.37	0/469	0.57	0/635
28	R6	0.23	0/460	0.43	0/613
28	Y6	0.23	0/456	0.44	0/608
29	R7	0.38	0/426	0.65	0/561
29	Y7	0.38	0/426	0.69	0/561
30	R8	0.31	0/525	0.53	0/691
30	Y8	0.34	0/525	0.55	0/691
31	R9	0.30	0/310	0.58	0/407
31	Y9	0.29	0/310	0.54	0/407
32	QA	0.19	0/35795	0.36	1/55864 (0.0%)
32	XA	0.20	2/35890 (0.0%)	0.37	4/56012 (0.0%)
33	QB	0.29	0/1876	0.56	1/2533 (0.0%)
33	XB	0.28	0/1860	0.58	0/2518
34	QC	0.22	0/1582	0.48	0/2137
34	XC	0.30	1/1566 (0.1%)	0.53	0/2119
35	QD	0.26	0/1695	0.54	0/2274
35	XD	0.25	0/1698	0.51	0/2277
36	QE	0.26	0/1149	0.48	0/1548
36	XE	0.26	0/1149	0.47	0/1548
37	QF	0.24	0/827	0.44	0/1120
37	XF	0.26	0/829	0.51	0/1123
38	QG	0.22	0/1254	0.44	0/1683

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	XG	0.23	0/1248	0.45	0/1676
39	QH	0.22	0/1118	0.47	0/1506
39	XH	0.26	0/1108	0.52	0/1494
40	QI	0.27	0/1005	0.57	0/1351
40	XI	0.24	0/985	0.51	0/1329
41	QJ	0.23	0/732	0.47	0/993
41	XJ	0.24	0/723	0.52	1/984 (0.1%)
42	QK	0.24	0/849	0.46	0/1150
42	XK	0.25	0/848	0.53	1/1149 (0.1%)
43	QL	0.30	0/937	0.51	0/1260
43	XL	0.29	0/937	0.60	0/1260
44	QM	0.24	0/924	0.54	0/1242
44	XM	0.25	0/905	0.53	0/1217
45	QN	0.27	0/501	0.50	0/664
45	XN	0.27	0/501	0.54	0/664
46	QO	0.25	0/739	0.49	0/985
46	XO	0.28	0/739	0.57	0/985
47	QP	0.24	0/697	0.49	0/939
47	XP	0.24	0/693	0.48	0/935
48	QQ	0.25	0/836	0.48	0/1117
48	XQ	0.23	0/836	0.48	0/1117
49	QR	0.25	0/560	0.48	0/746
49	XR	0.25	0/560	0.49	0/746
50	QS	0.23	0/663	0.54	1/895 (0.1%)
50	XS	0.20	0/660	0.45	0/893
51	QT	0.27	0/734	0.55	0/969
51	XT	0.25	0/736	0.48	0/976
52	QU	0.25	0/203	0.58	0/266
52	XU	0.23	0/203	0.67	0/266
53	QV	0.19	0/1832	0.39	0/2855
53	XV	0.20	0/1836	0.39	0/2859
54	QX	0.24	0/216	0.40	0/334
54	XX	0.27	0/241	0.51	0/373
55	QY	0.33	0/2046	0.65	0/2759
55	XY	0.39	0/2054	0.68	0/2770
All	All	0.26	4/316497 (0.0%)	0.46	24/472893 (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
33	QB	0	1
43	XL	0	1
55	QY	0	1
All	All	0	4

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	RZ	176	PRO	CA-C	6.72	1.56	1.52
34	XC	173	VAL	C-N	5.43	1.46	1.33
32	XA	1498	UR3	O3'-P	5.36	1.61	1.56
32	XA	68	G	O3'-P	-5.23	1.53	1.61

All (24) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
20	RY	92	ASN	N-CA-C	7.26	120.11	111.33
41	XJ	32	ALA	N-CA-C	-6.14	101.38	110.46
21	RZ	176	PRO	O-C-N	6.10	124.02	121.15
32	QA	1442(A)	G	P-O3'-C3'	5.95	126.83	119.70
42	XK	116	HIS	N-CA-C	5.81	120.75	111.81
26	Y4	59	PHE	N-CA-C	5.75	120.65	107.48
32	XA	266	G	C2'-C3'-O3'	5.73	118.10	109.50
26	R4	63	TYR	N-CA-C	5.61	117.23	109.54
22	Y0	20	ARG	CA-CB-CG	-5.60	102.90	114.10
1	RA	1992	G	C2'-C3'-O3'	5.52	117.78	109.50
26	Y4	60	GLN	N-CA-C	5.48	126.33	111.00
50	QS	28	LYS	CB-CA-C	-5.47	99.71	110.10
32	XA	266	G	P-O3'-C3'	5.40	128.30	120.20
3	YD	242	ARG	CG-CD-NE	5.33	123.74	112.00
4	YE	51	PHE	CA-C-N	5.27	131.19	121.70
4	YE	51	PHE	C-N-CA	5.27	131.19	121.70
26	Y4	65	ASP	N-CA-C	-5.26	107.23	113.38
32	XA	1442(A)	G	P-O3'-C3'	5.25	126.00	119.70
32	XA	1183	A	P-O3'-C3'	5.25	128.07	120.20
26	Y4	59	PHE	CA-C-N	5.21	131.09	121.70
26	Y4	59	PHE	C-N-CA	5.21	131.09	121.70
1	YA	1992	G	C2'-C3'-O3'	5.18	117.28	109.50
22	R0	11	ARG	NE-CZ-NH1	-5.09	116.41	121.50
33	QB	157	ARG	CB-CA-C	5.08	118.17	109.99

There are no chirality outliers.

All (4) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
33	QB	231	GLU	Peptide
55	QY	305	ASP	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	31144	594	0
1	YA	61758	0	31147	611	1
2	RB	2572	0	1305	12	0
2	YB	2573	0	1306	13	0
3	RD	2131	0	2207	52	0
3	YD	2136	0	2218	52	0
4	RE	1559	0	1618	36	0
4	YE	1559	0	1618	41	0
5	RF	1584	0	1625	38	0
5	YF	1580	0	1619	48	0
6	RG	1426	0	1445	31	0
6	YG	1424	0	1441	42	0
7	RH	1330	0	1407	25	0
7	YH	1324	0	1402	33	0
8	RI	1094	0	1127	22	0
8	YI	1076	0	1093	14	0
9	RN	1121	0	1195	16	0
9	YN	1117	0	1184	16	0
10	RO	933	0	996	18	0
10	YO	933	0	996	15	0
11	RP	1135	0	1212	23	0
11	YP	1135	0	1212	33	0
12	RQ	1122	0	1179	20	0
12	YQ	1122	0	1179	21	0
13	RR	968	0	1033	22	0
13	YR	968	0	1033	14	0
14	RS	877	0	938	12	0
14	YS	870	0	923	13	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
15	RT	1091	0	1151	26	0
15	YT	1083	0	1136	19	0
16	RU	959	0	1019	16	0
16	YU	959	0	1019	18	0
17	RV	775	0	841	14	0
17	YV	771	0	830	13	0
18	RW	886	0	940	13	0
18	YW	886	0	940	13	0
19	RX	750	0	814	16	0
19	YX	750	0	814	6	0
20	RY	810	0	894	16	0
20	YY	810	0	891	19	0
21	RZ	1587	0	1598	24	0
21	YZ	1557	0	1564	25	0
22	R0	608	0	622	12	0
22	Y0	608	0	622	15	0
23	R1	754	0	823	10	0
23	Y1	759	0	837	18	0
24	R2	588	0	643	11	1
24	Y2	592	0	654	8	0
25	R3	469	0	518	5	0
25	Y3	464	0	514	6	0
26	R4	546	0	523	29	0
26	Y4	536	0	516	27	0
27	R5	459	0	477	12	0
27	Y5	455	0	467	5	0
28	R6	453	0	475	7	0
28	Y6	449	0	471	7	0
29	R7	418	0	467	11	0
29	Y7	418	0	467	8	0
30	R8	517	0	582	18	0
30	Y8	517	0	582	20	0
31	R9	307	0	336	13	0
31	Y9	307	0	336	11	0
32	QA	32246	0	16294	308	0
32	XA	32331	0	16338	348	0
33	QB	1842	0	1862	56	0
33	XB	1825	0	1828	64	0
34	QC	1558	0	1557	33	0
34	XC	1542	0	1517	32	0
35	QD	1665	0	1690	61	0
35	XD	1668	0	1706	42	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
36	QE	1133	0	1191	29	0
36	XE	1133	0	1191	25	0
37	QF	814	0	808	19	0
37	XF	816	0	807	8	0
38	QG	1235	0	1249	20	0
38	XG	1229	0	1238	16	0
39	QH	1098	0	1143	20	0
39	XH	1088	0	1126	21	0
40	QI	986	0	990	28	0
40	XI	966	0	953	35	0
41	QJ	719	0	672	28	0
41	XJ	710	0	661	20	0
42	QK	834	0	838	12	0
42	XK	833	0	836	13	0
43	QL	932	0	981	17	0
43	XL	932	0	981	25	0
44	QM	914	0	954	23	0
44	XM	895	0	920	25	0
45	QN	492	0	529	11	0
45	XN	492	0	529	14	0
46	QO	728	0	760	13	0
46	XO	728	0	760	14	0
47	QP	681	0	697	19	0
47	XP	677	0	686	19	0
48	QQ	823	0	891	9	0
48	XQ	823	0	891	10	0
49	QR	555	0	618	11	0
49	XR	555	0	618	10	0
50	QS	648	0	658	17	0
50	XS	645	0	635	19	0
51	QT	732	0	809	15	0
51	XT	733	0	795	14	0
52	QU	199	0	208	4	0
52	XU	199	0	208	1	0
53	QV	1640	0	837	15	0
53	XV	1644	0	836	15	0
54	QX	193	0	98	5	0
54	XX	215	0	108	2	0
55	QY	2014	0	1980	74	0
55	XY	2022	0	1991	86	0
56	QA	262	0	0	0	0
56	QB	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	QD	2	0	0	0	0
56	QE	2	0	0	0	0
56	QF	1	0	0	0	0
56	QG	3	0	0	0	0
56	QH	1	0	0	0	0
56	QI	1	0	0	0	0
56	QJ	1	0	0	0	0
56	QL	2	0	0	0	0
56	QN	1	0	0	0	0
56	QO	1	0	0	0	0
56	QQ	1	0	0	0	0
56	QR	1	0	0	0	0
56	QT	1	0	0	0	0
56	QV	6	0	0	0	0
56	R0	7	0	0	0	0
56	R1	5	0	0	0	0
56	R3	2	0	0	0	0
56	R5	1	0	0	0	0
56	R7	3	0	0	0	0
56	R9	1	0	0	0	0
56	RA	1032	0	0	0	0
56	RB	22	0	0	0	0
56	RD	15	0	0	0	0
56	RE	7	0	0	0	0
56	RF	11	0	0	0	0
56	RG	4	0	0	0	0
56	RN	2	0	0	0	0
56	RO	1	0	0	0	0
56	RP	2	0	0	0	0
56	RQ	5	0	0	0	0
56	RR	4	0	0	0	0
56	RS	1	0	0	0	0
56	RT	3	0	0	0	0
56	RU	3	0	0	0	0
56	RV	3	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	XA	187	0	0	0	0
56	XE	2	0	0	0	0
56	XF	4	0	0	0	0
56	XJ	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	XL	1	0	0	0	0
56	XT	1	0	0	0	0
56	XV	4	0	0	0	0
56	XY	1	0	0	0	0
56	Y0	1	0	0	0	0
56	Y1	1	0	0	0	0
56	Y5	2	0	0	0	0
56	Y7	1	0	0	0	0
56	Y8	2	0	0	0	0
56	YA	749	0	0	0	0
56	YB	20	0	0	0	0
56	YD	9	0	0	0	0
56	YE	6	0	0	0	0
56	YF	2	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	1	0	0	0	0
56	YP	1	0	0	0	0
56	YQ	3	0	0	0	0
56	YR	1	0	0	0	0
56	YT	3	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	294929	0	198658	3486	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 (3486) 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:RA:2552:2MU:C5	1:RA:2552:2MU:C4	1.74	1.65
1:YA:2552:2MU:C4	1:YA:2552:2MU:C5	1.75	1.56
32:XA:1003:G:H2'	32:XA:1004:A:H4'	1.40	1.03
1:YA:2131:G:H5''	1:YA:2132:U:H5'	1.46	0.98
26:Y4:59:PHE:HA	26:Y4:61:ARG:H	1.26	0.97
1:RA:2131:G:H5''	1:RA:2132:U:H5'	1.45	0.96
15:RT:55:ASN:H	15:RT:59:THR:HG22	1.30	0.96
26:Y4:59:PHE:HA	26:Y4:61:ARG:N	1.80	0.96
33:QB:82:ARG:NH1	33:QB:92:TYR:OH	2.01	0.93
12:RQ:21:THR:HG21	12:RQ:101:ARG:HB2	1.52	0.92
55:XY:242:SER:HA	55:XY:263:GLN:HB3	1.53	0.90
35:QD:3:ARG:HD3	35:QD:118:ARG:HE	1.37	0.89
29:Y7:34:ARG:HG2	29:Y7:39:ARG:HG3	1.53	0.89
14:RS:59:LYS:HD2	14:RS:60:GLY:H	1.37	0.89
1:YA:2552:2MU:C4	1:YA:2552:2MU:C6	2.48	0.88
8:YI:92:VAL:HG23	8:YI:120:ILE:HB	1.56	0.88
1:YA:2785:C:OP1	4:YE:41:LYS:NZ	2.08	0.87
10:YO:48:PRO:HB3	32:XA:1422:G:H5''	1.57	0.86
7:RH:7:LEU:O	7:RH:69:ARG:NH1	2.09	0.85
55:XY:212:ALA:HB1	55:XY:214:LEU:HG	1.59	0.85
55:QY:242:SER:HA	55:QY:263:GLN:HB3	1.59	0.84
40:QI:17:VAL:HG21	40:QI:81:ILE:HG22	1.60	0.84
33:QB:231:GLU:HB3	33:QB:232:PRO:HD3	1.58	0.83
33:XB:15:VAL:HB	33:XB:209:ARG:HB3	1.60	0.83
10:RO:35:VAL:HG11	10:RO:103:ALA:HB3	1.62	0.82
21:YZ:198:LYS:HE3	53:XV:52:G:H2'	1.61	0.82
55:QY:123:GLU:HG3	55:QY:188:PRO:HB3	1.59	0.82
1:YA:301:G:OP2	20:YY:84:ARG:NH2	2.13	0.82
32:XA:664:G:H22	32:XA:741:G:H1	1.27	0.82
1:RA:143(A):G:H4'	19:RX:35:THR:HG21	1.60	0.81
32:QA:1103:C:OP1	33:QB:96:ARG:NH2	2.12	0.81
5:YF:10:PRO:HB3	5:YF:17:ARG:HE	1.45	0.81
15:YT:65:LYS:HE3	15:YT:67:SER:HB2	1.62	0.81
32:QA:78:G:H1	32:QA:91:C:H42	1.27	0.81
3:YD:17:THR:O	3:YD:211:ARG:NH2	2.14	0.80
1:RA:2573:C:N4	55:QY:239:THR:HA	1.96	0.80
1:YA:2573:C:N4	55:XY:239:THR:O	2.13	0.80
32:QA:343:U:O2'	32:QA:346:G:O6	2.00	0.80
55:XY:101:LEU:HD11	55:XY:353:LEU:HD23	1.62	0.80
41:QJ:35:SER:HB3	41:QJ:73:ASP:HB2	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:2529:G:O6	31:R9:31:LYS:NZ	2.14	0.80
32:XA:582:U:OP1	46:XO:68:ARG:NH2	2.14	0.80
32:XA:1398:A:OP1	55:XY:193:GLN:NE2	2.15	0.80
32:XA:559:A:OP1	36:XE:126:ARG:NH2	2.14	0.79
1:YA:631:A:OP1	11:YP:65:ARG:NH1	2.14	0.79
41:XJ:49:VAL:HG23	45:XN:41:ARG:HB2	1.64	0.79
1:RA:987:G:O2'	1:RA:1000:A:N3	2.16	0.79
50:XS:50:ALA:HB1	50:XS:57:HIS:HB3	1.64	0.79
1:YA:1798:U:H5'	3:YD:259:THR:HG22	1.63	0.79
42:XK:99:GLN:HG2	42:XK:105:VAL:HG21	1.63	0.79
1:RA:833:U:O2	11:RP:55:ARG:NH2	2.15	0.78
29:R7:24:THR:HG23	29:R7:27:GLY:H	1.48	0.78
1:RA:2140:C:H2'	1:RA:2141:G:H8	1.49	0.78
10:RO:48:PRO:HB3	32:QA:1422:G:H5''	1.64	0.78
1:RA:1798:U:OP2	3:RD:274:ARG:NH2	2.17	0.78
1:RA:1048:A:N6	1:RA:2751:G:O6	2.17	0.78
1:YA:2128:C:H42	1:YA:2160:G:H1	1.32	0.77
40:XI:53:VAL:O	40:XI:55:ALA:N	2.17	0.77
10:YO:35:VAL:HG11	10:YO:103:ALA:HB3	1.65	0.77
55:XY:263:GLN:O	55:XY:267:LYS:N	2.17	0.77
6:RG:179:PRO:HB2	26:R4:42:PHE:HE2	1.49	0.77
1:RA:250:G:OP2	30:R8:13:ARG:NH2	2.18	0.77
1:RA:1057:A:N6	1:RA:1087:G:OP1	2.17	0.77
55:QY:102:PRO:HG3	55:QY:353:LEU:HD21	1.65	0.77
1:RA:2478:A:OP2	31:R9:2:LYS:NZ	2.17	0.77
1:YA:2469:A:O2'	12:YQ:56:ARG:NH1	2.17	0.77
1:RA:1041:C:H42	1:RA:1114:G:H1	1.31	0.77
1:RA:1141:U:OP1	9:RN:25:ARG:NH1	2.18	0.77
32:XA:390:C:O3'	47:XP:28:ARG:NH2	2.18	0.77
1:RA:2128:C:H42	1:RA:2160:G:H1	1.30	0.76
53:XV:75:C:OP2	55:XY:261:ARG:NH2	2.17	0.76
22:R0:10:THR:HG22	22:R0:12:ASN:H	1.50	0.76
11:YP:59:LEU:HD11	30:Y8:10:ALA:HB2	1.66	0.76
32:QA:1189:C:OP1	41:QJ:51:ARG:NH2	2.19	0.76
1:YA:1048:A:N6	1:YA:2751:G:O6	2.18	0.76
32:XA:975:A:H4'	32:XA:976:G:H5''	1.67	0.76
32:XA:401:C:OP2	35:XD:73:ARG:NH2	2.15	0.76
23:Y1:51:VAL:HG11	23:Y1:74:VAL:HG21	1.68	0.76
1:RA:1530:C:O2'	1:RA:1531:C:O5'	2.03	0.76
6:YG:113:ARG:HH21	26:Y4:33:VAL:HG12	1.51	0.76
1:RA:2552:2MU:C4	1:RA:2552:2MU:C6	2.49	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:XY:214:LEU:HB2	55:XY:215:PRO:HA	1.67	0.76
20:RY:92:ASN:HB2	20:RY:94:LYS:H	1.51	0.76
4:YE:47:VAL:HG11	4:YE:86:PRO:HD2	1.67	0.76
19:RX:60:ARG:HH22	29:R7:47:ARG:HH22	1.31	0.75
5:RF:53:THR:HG22	5:RF:55:GLY:H	1.51	0.75
11:RP:59:LEU:HD11	30:R8:10:ALA:HB2	1.68	0.75
55:QY:209:LEU:O	55:QY:211:ASP:N	2.19	0.75
29:R7:34:ARG:NH1	29:R7:41:ARG:O	2.19	0.75
33:QB:15:VAL:HG23	33:QB:209:ARG:HB3	1.68	0.75
1:YA:574:C:N3	4:YE:145:LYS:NZ	2.34	0.75
33:XB:17:PHE:HD1	33:XB:18:GLY:H	1.35	0.75
32:XA:1310:G:OP2	44:XM:88:ARG:NH1	2.19	0.75
1:RA:1038:C:H42	1:RA:1117:G:H1	1.34	0.75
4:RE:47:VAL:HG21	4:RE:86:PRO:HD2	1.67	0.75
32:XA:677:U:H3	32:XA:713:G:H22	1.33	0.75
20:RY:102:CYS:SG	20:RY:103:GLY:N	2.59	0.74
1:YA:250:G:OP2	30:Y8:13:ARG:NH2	2.21	0.74
1:RA:2285:C:OP1	28:R6:29:ASN:ND2	2.20	0.74
1:YA:587:C:OP2	11:YP:21:ARG:NH2	2.20	0.74
33:QB:21:ARG:HH22	33:QB:23:ARG:HE	1.35	0.74
1:YA:2285:C:OP2	28:Y6:26:ASN:ND2	2.18	0.74
26:Y4:59:PHE:CE1	50:XS:64:GLU:HB2	2.23	0.74
5:YF:178:PRO:HB2	5:YF:201:VAL:HG21	1.68	0.74
48:XQ:66:SER:O	48:XQ:70:ARG:NH1	2.21	0.74
6:RG:139:LEU:HD21	6:RG:149:VAL:HG11	1.70	0.73
3:RD:69:ARG:HG2	3:RD:69:ARG:HH11	1.53	0.73
21:YZ:144:LEU:HD21	21:YZ:150:LEU:HD13	1.69	0.73
33:XB:88:ALA:HB1	33:XB:222:ILE:HD11	1.70	0.73
1:YA:1971:A:OP2	3:YD:242:ARG:NH2	2.20	0.73
32:QA:201:C:H42	32:QA:216:G:H1	1.36	0.73
34:XC:40:ARG:NH2	34:XC:55:VAL:O	2.19	0.73
47:QP:53:VAL:HG13	47:QP:79:VAL:HG12	1.70	0.73
55:XY:217:ILE:HD12	55:XY:222:LEU:HD11	1.69	0.73
1:YA:2134:A:N6	1:YA:2156:G:O2'	2.22	0.73
1:RA:2746:U:OP1	7:RH:85:LYS:NZ	2.22	0.72
32:QA:677:U:H3	32:QA:713:G:H22	1.33	0.72
40:QI:121:ARG:NH1	40:QI:122:ALA:O	2.22	0.72
32:QA:975:A:H4'	32:QA:976:G:H5''	1.70	0.72
32:QA:1352:C:OP1	52:QU:3:LYS:NZ	2.21	0.72
35:QD:53:ASP:HB3	35:QD:57:ARG:HH12	1.54	0.72
31:Y9:16:VAL:HG22	31:Y9:25:VAL:HG22	1.72	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:1518:MA6:H93	32:XA:1519:MA6:H102	1.71	0.72
40:XI:16:ARG:HB2	40:XI:64:THR:HG22	1.71	0.72
1:RA:2206:G:H3'	1:RA:2207:G:C8	2.25	0.72
33:QB:88:ALA:O	33:QB:226:ARG:NH2	2.21	0.72
1:YA:270:A:OP2	1:YA:272(X):G:N1	2.20	0.72
6:RG:161:THR:HG22	6:RG:163:ALA:H	1.55	0.72
1:RA:463:G:N2	1:RA:466:A:OP2	2.20	0.72
44:XM:58:GLU:O	44:XM:62:ASN:ND2	2.21	0.72
1:YA:1359:A:H61	1:YA:1372:U:H3	1.38	0.72
1:YA:2140:C:H2'	1:YA:2141:G:H8	1.53	0.72
8:YI:9:LEU:HD12	8:YI:12:LEU:HD12	1.72	0.72
1:YA:1530:C:O2'	1:YA:1531:C:O5'	2.06	0.72
1:YA:1593:G:H2'	1:YA:1594:G:C8	2.25	0.72
20:YY:102:CYS:SG	20:YY:103:GLY:N	2.63	0.72
32:QA:38:G:H22	32:QA:397:A:H5'	1.55	0.72
1:RA:631:A:OP1	11:RP:65:ARG:NH1	2.23	0.71
5:YF:18:ARG:HG2	5:YF:19:GLU:H	1.54	0.71
44:XM:107:ALA:HB3	44:XM:111:LYS:HD2	1.71	0.71
34:XC:58:GLU:HB3	41:XJ:92:THR:HG21	1.70	0.71
44:QM:19:LEU:HD21	44:QM:56:LEU:HD21	1.73	0.71
11:YP:2:LYS:NZ	11:YP:4:SER:OG	2.23	0.71
55:XY:123:GLU:OE1	55:XY:199:SER:OG	2.07	0.71
22:R0:23:VAL:HG22	22:R0:38:VAL:HG22	1.70	0.71
1:YA:1815:A:OP2	3:YD:54:ARG:NH2	2.24	0.71
32:XA:642:A:N3	39:XH:113:SER:OG	2.23	0.71
33:XB:128:GLU:OE1	33:XB:135:GLN:NE2	2.21	0.70
55:XY:245:ARG:HG3	55:XY:256:GLU:HG2	1.71	0.70
1:YA:1064:C:H3'	1:YA:1065:U:H5'	1.72	0.70
21:RZ:158:PRO:HG2	21:RZ:161:VAL:HG11	1.74	0.70
36:QE:126:ARG:HH11	36:QE:126:ARG:HG3	1.57	0.70
32:XA:1360:A:OP2	45:YN:35:ARG:NH2	2.25	0.70
50:QS:50:ALA:HB1	50:QS:57:HIS:HB3	1.73	0.70
1:YA:1041:C:H42	1:YA:1114:G:H1	1.39	0.70
13:YR:96:ARG:NH1	13:YR:115:GLU:OE1	2.24	0.70
36:QE:79:GLU:HG3	36:QE:93:PRO:HD2	1.73	0.70
32:QA:538:G:H5''	43:QL:114:LYS:HB2	1.74	0.70
11:YP:86:LYS:HB3	11:YP:118:GLY:HA3	1.74	0.70
32:QA:1003:G:N2	32:QA:1004:A:N3	2.39	0.70
55:QY:328:ARG:HD2	55:QY:340:LEU:HD21	1.72	0.70
1:YA:1798:U:OP2	3:YD:274:ARG:NH2	2.24	0.70
1:YA:1914:C:C2	55:XY:295:ARG:HD3	2.27	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:1292:U:OP2	38:XG:41:ARG:NH2	2.24	0.70
55:XY:255:VAL:HG12	55:XY:274:LEU:HG	1.73	0.70
26:R4:57:GLU:HB2	26:R4:58:ARG:HA	1.72	0.70
32:QA:1360:A:OP2	45:QN:35:ARG:NH2	2.24	0.70
6:RG:41:GLN:HB3	6:RG:43:LEU:HD13	1.73	0.69
32:XA:696:A:N1	32:XA:797:C:O2'	2.22	0.69
1:RA:2785:C:OP1	4:RE:41:LYS:NZ	2.24	0.69
32:QA:189(B):C:H42	32:QA:189(K):G:H1	1.39	0.69
55:QY:114:GLU:HB2	55:QY:204:ALA:HB3	1.74	0.69
1:YA:2640:G:O3'	9:YN:74:ARG:NH2	2.19	0.69
32:XA:474:G:H2'	32:XA:475:G:H8	1.56	0.69
32:XA:427:U:OP1	35:XD:13:ARG:NH2	2.25	0.69
41:XJ:17:ASP:OD1	41:XJ:70:ARG:NH1	2.25	0.69
22:Y0:11:ARG:O	22:Y0:14:ARG:NH2	2.25	0.69
36:XE:50:GLU:HB2	36:XE:53:LEU:HD13	1.74	0.69
6:YG:161:THR:HG22	6:YG:163:ALA:H	1.56	0.69
1:RA:652(C):A:H61	1:RA:655:A:H1'	1.57	0.69
1:RA:1071:G:N2	1:RA:1089:G:O6	2.17	0.69
1:RA:1378:A:OP1	29:R7:10:ARG:NH2	2.26	0.69
40:QI:50:LEU:HD13	40:QI:56:LEU:HA	1.72	0.69
13:YR:67:LEU:HD13	13:YR:76:VAL:HG21	1.75	0.69
15:YT:16:ARG:NH2	15:YT:83:ILE:O	2.26	0.69
51:XT:56:MET:HE1	51:XT:85:MET:HG2	1.74	0.69
1:RA:1009:A:OP2	9:RN:37:LYS:NZ	2.24	0.69
1:RA:2748:A:H5'	7:RH:4:ILE:HD12	1.75	0.69
1:YA:2748:A:H5'	7:YH:4:ILE:HD12	1.74	0.69
44:QM:3:ARG:HD2	44:QM:9:ILE:HG12	1.75	0.68
4:YE:12:THR:HG23	15:YT:58:ASN:HD21	1.56	0.68
32:XA:486:U:H2'	32:XA:487:A:H8	1.57	0.68
50:XS:41:VAL:HG12	50:XS:44:MET:HG3	1.74	0.68
1:YA:1071:G:N2	1:YA:1089:G:O6	2.18	0.68
27:R5:16:ARG:NH1	27:R5:17:ASP:OD1	2.26	0.68
32:QA:571:U:O4	32:QA:864:A:N6	2.26	0.68
55:QY:245:ARG:HG3	55:QY:256:GLU:CD	2.17	0.68
36:XE:69:VAL:HG11	36:XE:113:ALA:HB1	1.75	0.68
55:XY:101:LEU:H	55:XY:103:LYS:HE3	1.57	0.68
35:QD:173:TRP:CD2	35:QD:189:PRO:HG3	2.28	0.68
33:XB:91:PRO:HG3	33:XB:155:LEU:HD23	1.76	0.68
40:XI:46:ALA:HB2	40:XI:74:ILE:HG23	1.76	0.68
47:QP:13:HIS:O	47:QP:42:ARG:NH1	2.27	0.68
1:RA:1817:G:OP1	3:RD:88:ARG:NH2	2.26	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:YG:41:GLN:HB3	6:YG:43:LEU:HD13	1.74	0.68
32:XA:1412:C:H2'	32:XA:1413:A:C8	2.29	0.68
33:QB:195:ASP:O	39:QH:68:ARG:NH2	2.27	0.68
33:QB:185:ILE:HG22	33:QB:199:TYR:HB2	1.75	0.68
38:QG:113:GLU:HG2	38:QG:119:ARG:HG2	1.76	0.68
46:QO:7:GLU:OE2	46:QO:38:ARG:NH2	2.26	0.68
4:YE:52:LEU:HB3	4:YE:53:PRO:HD2	1.74	0.68
32:XA:1278:U:H5''	32:XA:1279:A:H5'	1.74	0.68
5:RF:18:ARG:HG2	5:RF:19:GLU:H	1.58	0.67
1:YA:2206:G:H5''	1:YA:2207:G:C8	2.28	0.67
34:XC:152:ILE:HG12	34:XC:199:LYS:HB2	1.76	0.67
33:QB:19:HIS:NE2	33:QB:189:ASP:OD2	2.27	0.67
33:XB:187:LEU:HA	33:XB:201:ILE:HB	1.75	0.67
9:RN:46:VAL:HG23	9:RN:48:MET:HG2	1.77	0.67
1:YA:11:G:H2'	1:YA:12:U:H5'	1.76	0.67
1:YA:2206:G:H3'	1:YA:2207:G:H8	1.58	0.67
41:XJ:61:GLU:OE1	45:XN:58:LYS:NZ	2.27	0.67
5:RF:51:THR:HB	5:RF:88:VAL:HG11	1.77	0.67
15:RT:55:ASN:N	15:RT:59:THR:HG22	2.06	0.67
20:RY:5:MET:HE3	20:RY:32:PRO:HA	1.76	0.67
32:QA:664:G:H22	32:QA:741:G:H1	1.42	0.67
6:YG:143:GLU:OE2	26:Y4:26:SER:OG	2.10	0.67
22:Y0:10:THR:HG22	22:Y0:12:ASN:H	1.60	0.67
32:XA:978:A:O2'	32:XA:1322:C:N3	2.27	0.67
6:RG:143:GLU:OE2	26:R4:26:SER:OG	2.12	0.67
8:RI:109:ILE:HG13	8:RI:130:TYR:CZ	2.30	0.67
35:QD:23:GLY:N	35:QD:26:CYS:SG	2.68	0.67
1:YA:1639:U:H2'	1:YA:1640:C:H5''	1.76	0.67
32:XA:1223:C:OP1	50:XS:78:ARG:NH2	2.27	0.67
1:RA:956:G:OP2	12:RQ:14:ARG:NH2	2.27	0.67
26:R4:50:VAL:HG11	44:QM:65:LYS:HA	1.76	0.66
46:QO:54:ARG:HG2	46:QO:58:MET:HE2	1.77	0.66
1:RA:2206:G:H3'	1:RA:2207:G:H8	1.60	0.66
27:R5:40:LYS:HD3	27:R5:46:CYS:HA	1.77	0.66
37:QF:15:ASP:OD1	37:QF:18:GLN:N	2.25	0.66
1:YA:517:C:OP1	27:Y5:16:ARG:NH2	2.28	0.66
1:YA:987:G:O2'	1:YA:1000:A:N3	2.29	0.66
32:XA:559:A:H4'	32:XA:560:U:H3'	1.78	0.66
32:XA:64:G:H4'	32:XA:65:U:H3'	1.77	0.66
28:Y6:35:GLU:OE2	28:Y6:50:ARG:NH1	2.28	0.66
34:XC:152:ILE:HD11	34:XC:199:LYS:HD2	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:RD:71:ASP:HB3	3:RD:103:ARG:HH22	1.61	0.66
21:RZ:144:LEU:HD21	21:RZ:150:LEU:HD13	1.76	0.66
1:RA:1063:G:N2	1:RA:1075:C:N3	2.43	0.66
1:RA:2576:G:O2'	1:RA:2579:C:OP2	2.11	0.66
6:RG:18:GLU:OE1	6:RG:21:ARG:NH1	2.28	0.66
23:R1:3:LYS:HG3	23:R1:4:VAL:H	1.60	0.66
1:YA:714:U:N3	1:YA:717:G:OP2	2.27	0.66
1:YA:2753:A:N3	31:Y9:15:LYS:NZ	2.37	0.66
1:RA:2355:C:H1'	22:R0:39:ARG:HH21	1.61	0.66
34:QC:114:PRO:O	34:QC:118:GLN:HG3	1.96	0.66
6:YG:21:ARG:HD3	6:YG:22:ARG:N	2.11	0.66
27:Y5:16:ARG:NH1	27:Y5:17:ASP:OD1	2.29	0.66
1:RA:2469:A:O2'	12:RQ:56:ARG:NH1	2.29	0.66
5:RF:165:ARG:HA	5:RF:168:ARG:HD2	1.78	0.66
1:YA:2469:A:HO2'	12:YQ:56:ARG:HH11	1.43	0.66
43:QL:70:ILE:HG12	43:QL:100:ILE:HD12	1.77	0.66
3:YD:147:LEU:HD11	3:YD:183:ARG:HE	1.60	0.66
32:XA:976:G:H5'	32:XA:1358:U:O2'	1.96	0.66
35:XD:23:GLY:N	35:XD:26:CYS:SG	2.68	0.66
32:XA:9:G:O5'	36:XE:126:ARG:NH1	2.29	0.65
32:XA:954:G:H21	32:XA:1227:A:H62	1.44	0.65
1:YA:637:A:H5''	11:YP:117:GLU:HG2	1.79	0.65
29:Y7:9:ARG:HH21	29:Y7:47:ARG:HD2	1.61	0.65
1:RA:2134:A:N6	1:RA:2156:G:O2'	2.29	0.65
38:QG:27:ILE:HD12	38:QG:40:ALA:HA	1.77	0.65
32:XA:1128:C:H1'	32:XA:1147:C:H42	1.60	0.65
32:QA:532:A:H61	34:QC:193:TYR:HA	1.61	0.65
16:YU:89:GLU:OE1	17:YV:50:PRO:HB3	1.97	0.65
27:Y5:40:LYS:NZ	27:Y5:44:THR:O	2.28	0.65
32:XA:1518:MA6:H93	32:XA:1519:MA6:C10	2.27	0.65
1:RA:2781:A:H5''	1:RA:2782:G:H5'	1.78	0.65
32:XA:1510:U:H2'	32:XA:1511:G:C8	2.31	0.65
39:XH:64:LYS:HG2	39:XH:79:VAL:HG21	1.78	0.65
1:RA:1667:G:O2'	1:RA:1991:U:O4	2.10	0.65
6:YG:136:ARG:HG2	6:YG:137:GLU:HG3	1.78	0.65
32:XA:1005:A:OP2	32:XA:1024:G:N2	2.30	0.65
55:XY:292:SER:O	55:XY:296:ASN:ND2	2.30	0.65
1:YA:334:C:OP1	1:YA:335:C:N4	2.30	0.65
32:XA:552:U:O3'	43:XL:87:GLY:HA2	1.96	0.65
5:YF:51:THR:HB	5:YF:88:VAL:HG11	1.79	0.65
26:Y4:61:ARG:HH22	50:XS:9:VAL:HG21	1.62	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:1073:U:O2'	33:XB:104:ASN:OD1	2.13	0.65
1:RA:2357:U:OP1	22:R0:20:ARG:NH1	2.29	0.65
32:QA:922:G:H4'	36:QE:20:GLN:HA	1.78	0.65
34:QC:58:GLU:HB3	41:QJ:92:THR:HG21	1.77	0.65
41:QJ:52:GLY:O	45:QN:41:ARG:NH2	2.28	0.65
50:QS:41:VAL:HG12	50:QS:44:MET:HG3	1.78	0.65
26:Y4:59:PHE:HE1	50:XS:64:GLU:HB2	1.58	0.65
11:RP:63:PRO:HD3	30:R8:27:THR:HG22	1.78	0.64
55:QY:332:VAL:HG13	55:QY:337:LEU:HD22	1.79	0.64
32:XA:955:U:OP1	55:XY:137:ARG:NH2	2.30	0.64
1:RA:1069:A:H5'	1:RA:1096:A:H5'	1.79	0.64
32:QA:1030(A):C:N4	32:QA:1032:G:O6	2.30	0.64
3:YD:242:ARG:HD3	3:YD:242:ARG:H	1.62	0.64
1:RA:26:G:H1'	1:RA:515:A:H61	1.61	0.64
1:RA:309:G:N3	1:RA:329:G:O2'	2.29	0.64
32:QA:142:G:O2'	32:QA:196:A:N1	2.29	0.64
34:QC:40:ARG:O	34:QC:44:GLU:HB2	1.96	0.64
1:YA:307:G:N1	1:YA:310:A:OP2	2.31	0.64
32:XA:406:G:O2'	35:XD:3:ARG:NH2	2.31	0.64
41:QJ:61:GLU:OE2	45:QN:49:HIS:NE2	2.25	0.64
4:YE:11:MET:HG2	4:YE:24:THR:HG22	1.78	0.64
1:RA:1045:A:O2'	1:RA:1046:A:OP2	2.15	0.64
40:XI:32:ASP:HB3	40:XI:35:GLU:HB3	1.79	0.64
1:YA:143(A):G:H4'	19:YX:35:THR:HG21	1.80	0.64
9:YN:15:LEU:HB2	9:YN:135:PRO:HB2	1.79	0.64
32:XA:1070:U:OP1	36:XE:20:GLN:NE2	2.26	0.64
1:RA:582:G:H2'	1:RA:583:G:C8	2.33	0.64
32:QA:560:U:O2'	32:QA:561:U:OP2	2.14	0.64
1:YA:1786:A:H1'	1:YA:1938:A:N6	2.12	0.64
32:XA:974:A:OP2	45:YN:29:ARG:NH2	2.31	0.64
44:XM:96:LEU:O	44:XM:110:ARG:NH1	2.31	0.64
15:RT:56:GLY:O	15:RT:59:THR:HG23	1.98	0.63
32:QA:707:C:OP1	42:QK:85:ARG:NH1	2.30	0.63
1:YA:997:G:OP1	16:YU:92:ARG:HG2	1.98	0.63
1:YA:2206:G:H3'	1:YA:2207:G:C8	2.33	0.63
35:XD:18:LYS:NZ	35:XD:31:CYS:SG	2.71	0.63
44:XM:17:VAL:O	44:XM:20:THR:OG1	2.11	0.63
51:XT:56:MET:CE	51:XT:85:MET:HG2	2.27	0.63
1:RA:102:G:OP1	24:R2:7:ARG:NH2	2.31	0.63
1:RA:1786:A:H1'	1:RA:1938:A:N6	2.13	0.63
32:QA:159:G:N2	32:QA:162:A:OP2	2.19	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:316:G:OP2	32:QA:351:G:O2'	2.16	0.63
1:YA:2572:A:C8	4:YE:144:ARG:HD3	2.32	0.63
39:XH:10:LEU:HD22	39:XH:83:ILE:HD11	1.79	0.63
1:RA:321:G:OP1	5:RF:135:LYS:NZ	2.27	0.63
24:R2:16:LEU:O	24:R2:67:LYS:NZ	2.31	0.63
1:YA:652(C):A:H61	1:YA:655:A:H1'	1.64	0.63
1:YA:1500:G:O2'	3:YD:100:GLY:O	2.14	0.63
1:YA:1721:G:H8	1:YA:1741:A:H62	1.44	0.63
35:XD:175:SER:HB3	35:XD:186:LEU:HD11	1.80	0.63
35:QD:108:LEU:HD21	35:QD:183:GLY:HA3	1.80	0.63
41:QJ:49:VAL:HG23	45:QN:41:ARG:HB2	1.79	0.63
32:XA:687:A:O2'	32:XA:701:C:N4	2.30	0.63
31:R9:16:VAL:HG22	31:R9:25:VAL:HG22	1.79	0.63
36:QE:8:GLU:HG2	36:QE:34:VAL:HG22	1.80	0.63
1:RA:2223:G:OP1	3:RD:172:TYR:OH	2.16	0.63
1:RA:2343:C:O2'	1:RA:2373:G:O2'	2.14	0.63
18:RW:14:PRO:HG2	18:RW:78:GLU:HG3	1.81	0.63
6:YG:16:ARG:HE	6:YG:31:VAL:HG21	1.64	0.63
11:YP:138:LEU:HD23	11:YP:145:PRO:HB3	1.80	0.63
32:XA:316:G:OP2	32:XA:351:G:O2'	2.15	0.63
32:QA:673:G:H2'	32:QA:674:G:C8	2.34	0.63
1:YA:851:U:O2'	25:Y3:42:ALA:O	2.14	0.63
1:YA:956:G:OP2	12:YQ:14:ARG:NH2	2.32	0.63
32:XA:501:C:OP1	43:XL:117:ARG:NH2	2.32	0.63
15:RT:24:PRO:HA	15:RT:49:VAL:HG23	1.80	0.63
32:QA:791:G:N2	32:QA:1497:G:O3'	2.31	0.63
1:RA:1064:C:H3'	1:RA:1065:U:H5'	1.80	0.63
1:YA:2156:G:N7	1:YA:2157:G:N2	2.47	0.63
55:XY:108:GLU:HA	55:XY:170:GLY:HA2	1.81	0.63
55:XY:136:SER:HA	55:XY:146:VAL:HG21	1.81	0.63
1:RA:1087:G:N2	1:RA:1102:C:N3	2.37	0.62
1:YA:1491:G:O2'	3:YD:101:GLU:HB2	1.99	0.62
11:YP:63:PRO:HG2	30:Y8:25:MET:HB2	1.81	0.62
32:QA:1310:G:OP2	44:QM:88:ARG:NH1	2.31	0.62
33:QB:118:LEU:HB3	33:QB:142:LEU:HD13	1.81	0.62
36:QE:69:VAL:HG11	36:QE:113:ALA:HB1	1.80	0.62
55:QY:296:ASN:O	55:QY:306:ARG:NH1	2.32	0.62
1:YA:637:A:H8	11:YP:117:GLU:HG3	1.64	0.62
1:YA:1823:G:OP1	3:YD:54:ARG:NH1	2.32	0.62
21:RZ:203:GLU:CD	53:QV:54:U:H5''	2.24	0.62
1:RA:1064:C:H3'	1:RA:1065:U:C5'	2.30	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:2285:C:OP2	28:R6:26:ASN:ND2	2.31	0.62
1:YA:192:C:O2'	1:YA:802:A:N3	2.31	0.62
1:YA:1063:G:N2	1:YA:1075:C:N3	2.48	0.62
1:YA:2807:G:N1	1:YA:2893:G:O6	2.31	0.62
4:YE:12:THR:HG22	4:YE:13:ARG:H	1.63	0.62
32:QA:78:G:H1	32:QA:91:C:N4	1.96	0.62
1:RA:1019:U:OP1	1:RA:1035:U:O2'	2.17	0.62
7:YH:7:LEU:O	7:YH:69:ARG:NH1	2.33	0.62
1:RA:2424:C:O2	1:RA:2429:G:O2'	2.13	0.62
32:QA:1239:A:O2'	38:QG:114:ARG:O	2.13	0.62
55:QY:138:TYR:CE1	55:QY:338:ASP:HB3	2.35	0.62
1:YA:1113:U:O2'	1:YA:1114:G:H8	1.82	0.62
32:QA:974:A:OP2	45:QN:29:ARG:NH2	2.33	0.62
43:QL:117:ARG:HG2	43:QL:122:THR:HB	1.81	0.62
32:XA:552:U:H4'	43:XL:86:ARG:HD3	1.81	0.62
32:XA:1492:A:H5'	43:XL:47:LYS:HE2	1.81	0.62
1:RA:2390:U:P	30:R8:35:GLN:HE22	2.22	0.62
1:RA:2572:A:N7	4:RE:144:ARG:HD2	2.15	0.62
12:RQ:32:TYR:OH	12:RQ:111:GLU:OE1	2.17	0.62
33:QB:16:HIS:HB2	33:QB:204:ASN:HB3	1.81	0.62
4:YE:119:ARG:HG3	4:YE:160:TYR:HB2	1.82	0.62
40:XI:50:LEU:HD23	40:XI:85:LEU:HD11	1.80	0.62
1:RA:307:G:N1	1:RA:310:A:OP2	2.32	0.61
1:RA:1971:A:OP2	3:RD:242:ARG:NH2	2.32	0.61
10:RO:64:ARG:NE	10:RO:101:PRO:O	2.31	0.61
18:RW:4:LYS:HB2	18:RW:106:ILE:HG12	1.82	0.61
32:QA:1097:C:O2'	32:QA:1169:A:N3	2.27	0.61
46:QO:16:ALA:HB1	46:QO:21:ASP:HB3	1.81	0.61
1:RA:1568:G:H5''	3:RD:61:LEU:HD13	1.81	0.61
32:QA:126:G:OP1	32:QA:605:U:O2'	2.14	0.61
35:QD:55:ALA:O	35:QD:59:ARG:HG2	2.00	0.61
32:XA:662:G:H2'	32:XA:663:A:C8	2.36	0.61
32:XA:1103:C:OP1	33:XB:96:ARG:NH2	2.33	0.61
33:XB:101:MET:HA	33:XB:108:ILE:HG13	1.81	0.61
33:XB:118:LEU:HB3	33:XB:142:LEU:HD12	1.81	0.61
2:RB:66:A:H61	2:RB:109:C:H5''	1.65	0.61
42:QK:99:GLN:HG2	42:QK:105:VAL:HG21	1.83	0.61
35:XD:12:CYS:SG	35:XD:19:LEU:HB2	2.40	0.61
1:RA:1639:U:H2'	1:RA:1640:C:H5''	1.82	0.61
26:R4:59:PHE:HZ	50:QS:45:VAL:HG21	1.64	0.61
32:QA:1020:U:H2'	32:QA:1021:G:C8	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:1049:C:H42	1:YA:2751:G:N2	1.98	0.61
11:YP:59:LEU:HD21	30:Y8:10:ALA:HA	1.82	0.61
53:XV:4:G:HO2'	53:XV:5:G:H8	1.48	0.61
1:RA:764:A:H5'	3:RD:210:GLY:HA2	1.81	0.61
1:YA:1038:C:H42	1:YA:1117:G:H1	1.47	0.61
1:YA:1086:A:OP1	1:YA:1104:C:O2'	2.18	0.61
1:YA:1641:A:H2'	1:YA:1642:G:O4'	2.00	0.61
6:YG:80:PHE:O	6:YG:82:LEU:N	2.33	0.61
46:QO:25:THR:HG21	46:QO:70:LEU:HB2	1.82	0.61
1:YA:572:A:OP2	17:YV:78:LYS:NZ	2.34	0.61
32:XA:1221:G:OP1	32:XA:1320:C:N4	2.31	0.61
33:XB:78:GLN:O	33:XB:94:ASN:ND2	2.30	0.61
40:XI:42:ARG:NH1	40:XI:71:SER:O	2.33	0.61
55:XY:340:LEU:O	55:XY:343:PRO:HD2	2.00	0.61
11:RP:99:LEU:HD23	11:RP:102:ARG:HH21	1.65	0.61
33:QB:82:ARG:NH1	33:QB:92:TYR:HH	1.97	0.61
1:YA:1593:G:H2'	1:YA:1594:G:H8	1.66	0.61
1:YA:1889:A:N1	1:YA:2234:G:H1'	2.16	0.61
32:XA:1189:C:OP1	41:XJ:51:ARG:NH2	2.32	0.61
6:RG:101:ILE:HD13	26:R4:25:TYR:HB2	1.83	0.61
1:YA:2646:C:OP2	1:YA:2732:G:O2'	2.18	0.61
5:YF:164:ARG:HD2	5:YF:175:THR:HG23	1.83	0.61
24:R2:31:GLU:HB3	24:R2:53:LEU:HD11	1.82	0.61
33:QB:8:LYS:HZ1	33:QB:52:GLU:HG3	1.65	0.61
44:QM:81:LEU:HD13	44:QM:88:ARG:HD2	1.82	0.61
1:YA:265:A:N1	1:YA:427:U:O2'	2.28	0.61
1:YA:1266:G:O5'	18:YW:15:ARG:NH2	2.34	0.61
33:XB:98:LEU:O	33:XB:101:MET:HG3	2.01	0.61
35:XD:65:ARG:NH2	35:XD:72:GLU:HB2	2.16	0.61
55:XY:123:GLU:HG2	55:XY:188:PRO:HB3	1.83	0.61
1:RA:212:G:H2'	1:RA:213:A:O4'	2.00	0.61
1:RA:2126:A:H4'	1:RA:2127:G:O5'	2.01	0.61
1:RA:2206:G:H5''	1:RA:2207:G:N7	2.16	0.61
50:QS:12:ASP:HB3	50:QS:14:HIS:CE1	2.36	0.61
3:YD:108:PRO:HB3	3:YD:143:HIS:CE1	2.35	0.61
18:YW:14:PRO:HG2	18:YW:78:GLU:CG	2.31	0.61
44:XM:3:ARG:HG3	44:XM:8:GLU:HG3	1.83	0.61
49:XR:32:ARG:HA	49:XR:69:THR:HG21	1.83	0.61
13:RR:67:LEU:HD13	13:RR:76:VAL:HG21	1.83	0.60
32:XA:992:U:H4'	32:XA:993:G:O5'	2.00	0.60
51:XT:50:GLU:HG3	51:XT:100:ILE:HD11	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:2130:U:H2'	1:YA:2158:A:H61	1.66	0.60
1:YA:2327:A:H2'	1:YA:2328:A:C8	2.35	0.60
12:YQ:34:LEU:HB2	12:YQ:118:LEU:HD22	1.83	0.60
1:RA:577:G:O2'	1:RA:1254:A:OP1	2.19	0.60
1:YA:277:C:O2'	1:YA:278:A:OP1	2.19	0.60
1:YA:1651:G:H5'	13:YR:39:PRO:HG2	1.82	0.60
30:Y8:6:THR:HG22	30:Y8:63:PRO:HD2	1.84	0.60
38:XG:15:ASP:OD1	38:XG:20:ASP:N	2.29	0.60
55:QY:247:THR:HA	55:QY:254:VAL:HG12	1.83	0.60
7:YH:27:LYS:HD3	7:YH:32:GLU:HB2	1.82	0.60
1:RA:1053:C:H2'	1:RA:1054:A:H8	1.66	0.60
8:RI:54:GLN:HG3	8:RI:57:ARG:HH11	1.67	0.60
9:RN:67:LEU:HD12	9:RN:87:LEU:HD13	1.83	0.60
34:XC:57:ILE:HG12	34:XC:66:VAL:HG22	1.84	0.60
4:RE:78:LEU:O	4:RE:79:ARG:NH1	2.30	0.60
1:YA:1507:A:O2'	1:YA:1508:A:O5'	2.18	0.60
1:YA:1657:C:H2'	1:YA:1658:C:C6	2.37	0.60
5:YF:184:TYR:CE2	5:YF:188:ARG:HD2	2.37	0.60
11:YP:50:ARG:HD3	30:Y8:7:HIS:CD2	2.37	0.60
16:YU:89:GLU:O	17:YV:11:GLN:NE2	2.34	0.60
23:R1:50:ARG:HG2	23:R1:59:THR:HG22	1.83	0.60
35:QD:162:LEU:HD13	35:QD:181:MET:HG2	1.82	0.60
1:YA:83:G:N2	1:YA:103:A:OP2	2.35	0.60
1:YA:458:G:O2'	1:YA:469:G:O6	2.18	0.60
13:YR:36:THR:HG22	13:YR:37:THR:H	1.65	0.60
32:XA:359:U:H2'	32:XA:360:A:C8	2.37	0.60
36:XE:102:ALA:HB1	36:XE:106:PRO:HG2	1.82	0.60
37:QF:23:LYS:HG2	37:QF:61:LEU:HD21	1.84	0.60
1:YA:2218:U:O2	23:Y1:52:ARG:NH2	2.35	0.60
23:Y1:53:VAL:HG22	23:Y1:74:VAL:HG13	1.83	0.60
1:RA:2577:A:OP2	27:R5:3:LYS:NZ	2.29	0.60
5:RF:157:VAL:HB	5:RF:194:MET:HG2	1.82	0.60
25:Y3:10:LYS:NZ	25:Y3:15:TYR:OH	2.30	0.60
26:Y4:53:GLU:CD	26:Y4:53:GLU:H	2.09	0.60
55:XY:245:ARG:HG3	55:XY:256:GLU:CG	2.32	0.60
32:QA:269:C:H2'	32:QA:270:A:C8	2.37	0.60
32:XA:1316:G:N1	32:XA:1319:A:OP2	2.33	0.60
32:XA:1366:C:HO2'	41:XJ:60:ARG:HH22	1.50	0.60
33:XB:229:VAL:HG12	33:XB:230:VAL:H	1.67	0.60
34:XC:8:ILE:HG23	34:XC:16:ARG:HD3	1.82	0.60
20:RY:92:ASN:N	20:RY:93:GLY:HA2	2.16	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:YH:87:LEU:HD23	7:YH:164:TYR:HA	1.83	0.59
32:XA:537:G:H5'	43:XL:113:ARG:NH1	2.17	0.59
33:XB:18:GLY:HA2	33:XB:42:ILE:HD12	1.84	0.59
5:RF:29:ASN:H	5:RF:112:MET:HE3	1.67	0.59
7:RH:3:ARG:HD3	7:RH:54:ARG:HH12	1.66	0.59
21:RZ:19:ARG:NH1	21:RZ:84:GLU:O	2.35	0.59
28:R6:9:LEU:HD13	28:R6:51:GLU:HG3	1.83	0.59
44:QM:15:VAL:HG11	44:QM:48:LEU:HD21	1.84	0.59
1:YA:1935:G:H3'	1:YA:1962:5MC:HN41	1.66	0.59
32:XA:17:U:H2'	32:XA:18:C:C6	2.36	0.59
33:XB:73:THR:OG1	33:XB:170:GLU:OE1	2.19	0.59
39:QH:86:ILE:HG13	39:QH:133:LEU:HD22	1.84	0.59
1:YA:1073:A:H2'	1:YA:1074:G:C8	2.36	0.59
1:YA:2552:2MU:O5'	1:YA:2552:2MU:H6	2.02	0.59
2:YB:14:U:OP2	2:YB:70:C:O2'	2.19	0.59
32:XA:790:A:OP1	53:XV:38:A:O2'	2.18	0.59
33:XB:185:ILE:HG13	33:XB:199:TYR:HB2	1.85	0.59
32:QA:1004:A:O2'	32:QA:1038:C:O2	2.16	0.59
1:YA:1803:A:O2'	3:YD:259:THR:HG21	2.02	0.59
35:XD:122:ARG:NH1	35:XD:134:ASP:O	2.36	0.59
32:QA:1030(D):G:N7	32:QA:1031:G:N2	2.50	0.59
53:QV:15:G:N2	53:QV:21:A:N3	2.50	0.59
33:XB:47:THR:HA	33:XB:202:PRO:HG2	1.85	0.59
34:QC:8:ILE:HG23	34:QC:16:ARG:HD3	1.83	0.59
1:YA:2122:U:H3	1:YA:2176:A:H61	1.51	0.59
1:YA:2787:C:H1'	4:YE:62:PRO:HG3	1.85	0.59
21:YZ:198:LYS:NZ	53:XV:53:G:O4'	2.34	0.59
55:XY:151:ALA:HB2	55:XY:162:ILE:HD12	1.85	0.59
1:RA:2755:C:O2	31:R9:20:HIS:NE2	2.35	0.59
5:RF:167:ALA:HB1	5:RF:173:VAL:HG11	1.84	0.59
14:YS:27:SER:HA	14:YS:88:ASP:HB3	1.83	0.59
41:XJ:5:ARG:N	41:XJ:99:LYS:O	2.36	0.59
1:RA:1075:C:H2'	1:RA:1076:C:H5'	1.85	0.59
1:YA:1688:U:O2	1:YA:1700:A:H5'	2.03	0.59
23:Y1:76:ARG:HH22	23:Y1:97:LEU:HB3	1.66	0.59
36:XE:20:GLN:NE2	36:XE:25:ARG:HD2	2.17	0.59
8:RI:54:GLN:HG3	8:RI:57:ARG:NH1	2.18	0.59
32:QA:45:U:H2'	32:QA:46:G:C8	2.38	0.59
32:QA:524:G:H2'	32:QA:525:C:C6	2.37	0.59
43:QL:33:ARG:HH11	43:QL:62:SER:HB3	1.66	0.59
46:QO:39:LEU:HD13	46:QO:56:LEU:HB2	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:YD:71:ASP:HB3	3:YD:103:ARG:HH22	1.67	0.59
1:RA:2537:U:H2'	1:RA:2538:C:C6	2.38	0.59
35:QD:12:CYS:SG	35:QD:19:LEU:HB2	2.43	0.59
40:QI:16:ARG:HB2	40:QI:64:THR:HG22	1.83	0.59
1:YA:1794:U:H2'	1:YA:1795:C:H6	1.68	0.59
1:YA:2279:G:N7	22:Y0:14:ARG:NH1	2.51	0.59
26:Y4:16:CYS:SG	26:Y4:17:GLY:N	2.76	0.59
33:XB:166:ASP:HB3	33:XB:169:LYS:HB3	1.83	0.59
1:RA:994:C:OP1	16:RU:53:ARG:NH2	2.36	0.58
29:R7:12:ARG:NH2	29:R7:44:PRO:HB3	2.18	0.58
9:YN:96:GLU:HB2	9:YN:122:VAL:HG12	1.84	0.58
11:YP:100:LEU:HD12	11:YP:112:LEU:HD11	1.84	0.58
24:Y2:31:GLU:HB3	24:Y2:53:LEU:HD11	1.85	0.58
1:RA:812:C:HO2'	1:RA:1226:A:HO2'	1.47	0.58
39:QH:64:LYS:HG2	39:QH:79:VAL:HG21	1.84	0.58
1:YA:616:G:H5'	5:YF:205:ARG:HD3	1.84	0.58
1:YA:796:C:H2'	1:YA:797:C:C6	2.39	0.58
7:YH:55:PRO:HG2	7:YH:61:HIS:CE1	2.37	0.58
9:YN:67:LEU:O	9:YN:88:GLU:HG3	2.03	0.58
32:XA:1182:G:H4'	32:XA:1183:A:H3'	1.85	0.58
32:XA:1314:C:OP2	50:XS:4:SER:OG	2.12	0.58
38:XG:113:GLU:HG2	38:XG:119:ARG:HG2	1.85	0.58
1:RA:192:C:O2'	1:RA:802:A:N3	2.30	0.58
1:RA:2312:U:H5'	6:RG:88:ILE:HD11	1.85	0.58
1:RA:2619:C:OP1	4:RE:152:LYS:NZ	2.33	0.58
18:RW:14:PRO:HG2	18:RW:78:GLU:CG	2.32	0.58
35:QD:85:LYS:HD3	35:QD:86:LYS:H	1.68	0.58
1:YA:286:C:H2'	1:YA:287:C:C6	2.38	0.58
1:YA:601:C:O2'	1:YA:605:C:OP1	2.20	0.58
5:YF:167:ALA:HB1	5:YF:173:VAL:HG11	1.85	0.58
32:XA:1244:C:H2'	32:XA:1245:A:C8	2.39	0.58
20:RY:102:CYS:SG	20:RY:104:GLY:N	2.67	0.58
1:YA:1073:A:H2'	1:YA:1074:G:H8	1.68	0.58
32:XA:539:A:H2'	32:XA:540:G:C8	2.38	0.58
1:RA:1073:A:H2'	1:RA:1074:G:C8	2.38	0.58
1:RA:1798:U:H5'	3:RD:259:THR:HG22	1.86	0.58
18:YW:14:PRO:HG2	18:YW:78:GLU:HG2	1.85	0.58
32:XA:890:G:O2'	32:XA:906:G:O6	2.17	0.58
32:XA:1047:G:H5''	45:XN:4:LYS:HD3	1.83	0.58
55:XY:330:ASP:O	55:XY:334:GLU:HB3	2.02	0.58
10:RO:64:ARG:NH2	10:RO:99:PHE:O	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:RP:63:PRO:HG2	30:R8:25:MET:HB2	1.84	0.58
15:RT:60:THR:HG22	15:RT:77:PRO:HA	1.86	0.58
35:QD:15:GLU:OE2	35:QD:59:ARG:NH2	2.20	0.58
1:YA:2619:C:OP1	4:YE:152:LYS:NZ	2.28	0.58
13:YR:29:LEU:HB3	13:YR:75:LEU:HD21	1.86	0.58
32:XA:1116:C:H2'	32:XA:1117:G:H5''	1.86	0.58
32:XA:1318:A:H5''	50:XS:3:ARG:HH22	1.66	0.58
42:XK:115:PRO:C	42:XK:117:ASN:HA	2.27	0.58
1:RA:1165:U:H2'	1:RA:1166:C:C6	2.38	0.58
1:RA:1266:G:O4'	18:RW:15:ARG:NH2	2.34	0.58
5:RF:24:LEU:HD23	5:RF:115:ALA:HA	1.85	0.58
7:RH:8:PRO:C	7:RH:69:ARG:HH12	2.11	0.58
26:R4:59:PHE:CZ	50:QS:45:VAL:HG21	2.38	0.58
32:QA:1309:G:N7	44:QM:99:ARG:NH2	2.50	0.58
32:QA:1391:U:H2'	32:QA:1392:G:C8	2.39	0.58
33:XB:114:ARG:NH1	33:XB:141:GLU:OE1	2.37	0.58
32:QA:1402:4OC:HM22	32:QA:1403:C:H5'	1.84	0.58
55:QY:346:GLN:O	55:QY:349:GLN:HG2	2.03	0.58
1:YA:78:A:H2'	1:YA:79:G:H8	1.68	0.58
1:YA:2115:G:N1	1:YA:2119:A:OP2	2.37	0.58
2:YB:14:U:O3'	2:YB:108:U:O2'	2.22	0.58
6:YG:15:VAL:HG21	6:YG:176:LEU:HD23	1.86	0.58
42:XK:117:ASN:OD1	42:XK:117:ASN:N	2.36	0.58
1:RA:674:G:H1'	5:RF:74:ARG:HD3	1.86	0.58
19:RX:60:ARG:NH2	29:R7:47:ARG:HH22	2.01	0.58
5:YF:185:ASP:HA	5:YF:188:ARG:HD3	1.86	0.58
6:YG:77:ILE:HG21	6:YG:80:PHE:CD2	2.39	0.58
42:XK:62:GLN:HB2	42:XK:93:GLN:HG3	1.86	0.58
35:QD:167:GLY:H	35:QD:168:ARG:NH2	2.02	0.58
32:XA:1031:G:H2'	32:XA:1032:G:C8	2.39	0.58
46:XO:54:ARG:HD2	46:XO:58:MET:HE2	1.86	0.58
1:RA:198:C:H5'	1:RA:2244:U:OP1	2.04	0.57
15:RT:39:ARG:HH12	15:RT:41:ARG:HD3	1.67	0.57
44:QM:3:ARG:HG3	44:QM:4:ILE:H	1.69	0.57
1:YA:2115:G:H21	1:YA:2171:A:H61	1.53	0.57
20:YY:15:VAL:O	20:YY:22:GLY:N	2.26	0.57
32:XA:1343:G:H4'	40:XI:122:ALA:HB3	1.86	0.57
1:RA:1289:C:H2'	1:RA:1290:C:C6	2.39	0.57
32:QA:1298:C:C4	38:QG:114:ARG:HD2	2.39	0.57
37:QF:36:ARG:NH2	37:QF:66:GLU:OE1	2.36	0.57
55:QY:204:ALA:HB2	55:QY:298:LEU:HD21	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:1470:G:N2	1:YA:1520:G:OP2	2.32	0.57
41:XJ:35:SER:HB3	41:XJ:73:ASP:H	1.68	0.57
55:XY:226:THR:HG22	55:XY:244:ILE:HD12	1.86	0.57
1:RA:1936:A:OP2	1:RA:1962:5MC:N4	2.28	0.57
1:YA:36:G:N3	1:YA:450:G:O2'	2.35	0.57
1:YA:300:A:OP1	20:YY:86:ARG:NH2	2.36	0.57
32:XA:452:A:N3	47:XP:72:ARG:NH1	2.52	0.57
55:XY:214:LEU:HB2	55:XY:215:PRO:CA	2.35	0.57
1:RA:1507:A:O2'	1:RA:1508:A:O5'	2.19	0.57
1:RA:1800:C:OP1	3:RD:260:ARG:NH2	2.36	0.57
49:QR:32:ARG:HA	49:QR:69:THR:HG21	1.86	0.57
1:YA:2711:A:H5''	1:YA:2712(A):U:H5''	1.86	0.57
39:XH:14:ARG:O	39:XH:18:ARG:HG2	2.05	0.57
41:XJ:11:PHE:HE1	41:XJ:67:THR:HG22	1.69	0.57
1:RA:1289:C:H2'	1:RA:1290:C:H6	1.68	0.57
49:QR:29:PHE:HE1	49:QR:31:LEU:HD13	1.70	0.57
33:XB:77:ALA:HB2	33:XB:211:ILE:HD13	1.86	0.57
32:QA:1435:G:H2'	32:QA:1436:U:C6	2.40	0.57
53:XV:51:C:H2'	53:XV:52:G:O4'	2.04	0.57
1:RA:299:A:N1	1:RA:322:A:O2'	2.31	0.57
1:RA:1062:G:H5'	1:RA:1070:A:H5''	1.85	0.57
32:QA:103:C:O2'	32:QA:172:A:N1	2.31	0.57
1:YA:784:A:C6	3:YD:229:VAL:HG11	2.40	0.57
1:YA:2321:G:O2'	1:YA:2322:A:OP1	2.23	0.57
6:YG:11:TYR:HA	6:YG:15:VAL:HB	1.87	0.57
40:XI:53:VAL:C	40:XI:55:ALA:H	2.11	0.57
1:RA:482:A:O2'	1:RA:497:A:N1	2.35	0.57
1:RA:1252:G:N1	16:RU:37:GLU:OE1	2.37	0.57
3:RD:10:THR:OG1	3:RD:13:ARG:HG2	2.05	0.57
32:QA:1519:MA6:H8	32:QA:1519:MA6:O5'	2.04	0.57
32:XA:501:C:H2'	32:XA:502:G:C8	2.39	0.57
44:QM:32:GLU:HG2	44:QM:64:TRP:HZ2	1.70	0.57
44:QM:32:GLU:HG2	44:QM:64:TRP:CZ2	2.40	0.57
32:XA:201:C:H42	32:XA:216:G:H1	1.51	0.57
1:RA:2820:A:OP2	13:RR:2:ARG:NH2	2.38	0.57
7:RH:11:VAL:HG21	7:RH:50:VAL:HG23	1.86	0.57
32:QA:642:A:N3	39:QH:113:SER:OG	2.33	0.57
39:QH:6:ILE:HB	39:QH:85:ARG:NH1	2.20	0.57
55:QY:98:VAL:C	55:QY:100:LEU:H	2.13	0.57
1:YA:2233:U:H2'	1:YA:2234:G:C8	2.39	0.57
1:YA:2312:U:H5'	6:YG:88:ILE:HD11	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:380:G:N2	32:XA:383:A:OP2	2.37	0.57
55:XY:145:ARG:HB2	55:XY:167:SER:OG	2.05	0.57
1:RA:958:U:OP2	12:RQ:14:ARG:NH1	2.37	0.56
6:RG:50:ALA:C	6:RG:52:ILE:H	2.13	0.56
32:QA:403:C:O2'	35:QD:122:ARG:NH1	2.38	0.56
32:QA:814:A:H2'	32:QA:816:A:H5''	1.86	0.56
1:YA:1064:C:H5''	1:YA:1065:U:H3'	1.87	0.56
3:YD:242:ARG:HD3	3:YD:242:ARG:N	2.20	0.56
5:YF:53:THR:HG22	5:YF:56:GLU:HG3	1.87	0.56
7:YH:86:GLU:OE2	7:YH:132:ARG:NH2	2.38	0.56
26:Y4:18:CYS:SG	26:Y4:39:CYS:HB3	2.45	0.56
1:RA:1796:U:H2'	1:RA:1797:C:C6	2.40	0.56
36:QE:33:VAL:HG21	36:QE:109:ILE:HA	1.86	0.56
1:YA:2150:U:H2'	1:YA:2151:G:C8	2.40	0.56
4:YE:34:VAL:HG12	4:YE:72:VAL:HG21	1.87	0.56
12:YQ:80:GLU:OE2	55:XY:264:HIS:CD2	2.58	0.56
34:XC:109:PRO:HB3	34:XC:115:LEU:HD23	1.87	0.56
55:XY:115:VAL:HG22	55:XY:203:VAL:HG22	1.87	0.56
1:RA:729:G:C8	3:RD:208:LYS:HD2	2.40	0.56
1:RA:2115:G:H21	1:RA:2171:A:H61	1.54	0.56
1:RA:2452:C:H4'	55:QY:239:THR:HG21	1.86	0.56
8:RI:92:VAL:HG13	8:RI:120:ILE:HB	1.87	0.56
13:RR:28:LEU:HD12	13:RR:44:LEU:HD13	1.86	0.56
32:QA:426:G:OP1	35:QD:38:TYR:OH	2.24	0.56
32:QA:1013:G:N2	32:QA:1016:A:OP2	2.37	0.56
35:QD:168:ARG:HH21	3:YD:135:PHE:HE1	1.52	0.56
1:YA:566:U:H5''	11:YP:29:LYS:HE3	1.87	0.56
1:YA:1359:A:N6	1:YA:1372:U:H3	2.01	0.56
1:YA:1794:U:H2'	1:YA:1795:C:C6	2.40	0.56
3:YD:10:THR:OG1	3:YD:13:ARG:HG2	2.05	0.56
32:XA:411:A:OP1	35:XD:30:LYS:NZ	2.37	0.56
44:XM:19:LEU:HD21	44:XM:56:LEU:HD21	1.87	0.56
1:RA:1569:A:H5'	3:RD:61:LEU:HD11	1.86	0.56
6:RG:59:GLU:OE2	6:RG:153:ARG:NH2	2.38	0.56
6:RG:108:ASN:O	26:R4:37:SER:N	2.38	0.56
39:QH:10:LEU:HD22	39:QH:83:ILE:HD11	1.88	0.56
47:QP:75:ARG:HG3	47:QP:80:PHE:HD2	1.70	0.56
1:YA:749:C:O2	1:YA:1618:A:H2'	2.06	0.56
1:YA:1124:C:O2'	31:Y9:36:GLN:HG2	2.05	0.56
22:R0:11:ARG:O	22:R0:14:ARG:NH2	2.38	0.56
32:QA:194:C:H2'	32:QA:195:A:H5''	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:2206:G:H5''	1:YA:2207:G:N7	2.21	0.56
1:YA:2243:U:H2'	1:YA:2244:U:C6	2.41	0.56
21:YZ:28:MET:HE1	21:YZ:61:LEU:HD21	1.87	0.56
1:RA:530:G:N1	1:RA:2023:G:OP1	2.30	0.56
1:RA:768:G:O2'	1:RA:1379:A:N1	2.37	0.56
1:RA:2807:G:N1	1:RA:2893:G:O6	2.34	0.56
1:YA:740:U:H2'	1:YA:741:G:C8	2.41	0.56
34:XC:179:ARG:NH1	34:XC:206:GLU:OE1	2.38	0.56
40:X1:50:LEU:HB2	40:X1:56:LEU:HD23	1.87	0.56
1:RA:83:G:OP1	20:RY:95:LYS:NZ	2.30	0.56
1:RA:2115:G:N1	1:RA:2119:A:OP2	2.39	0.56
32:QA:109:A:C6	32:QA:326:G:C6	2.94	0.56
33:QB:229:VAL:HG12	33:QB:230:VAL:H	1.70	0.56
48:QQ:66:SER:O	48:QQ:70:ARG:NH1	2.39	0.56
1:YA:644:A:H4'	1:YA:645:C:H5	1.70	0.56
7:YH:89:ILE:O	7:YH:129:THR:HG23	2.06	0.56
14:YS:14:VAL:O	14:YS:18:ILE:HG12	2.06	0.56
15:YT:60:THR:HG22	15:YT:77:PRO:HA	1.88	0.56
55:XY:224:ILE:HD13	55:XY:267:LYS:HE3	1.86	0.56
1:RA:272(M):G:H21	8:RI:50:ARG:HD3	1.70	0.56
1:RA:539:G:H2'	1:RA:540:C:C6	2.40	0.56
1:RA:1065:U:H4'	1:RA:1066:U:H5'	1.87	0.56
1:RA:2698:U:H2'	1:RA:2699:C:C6	2.41	0.56
1:YA:184:C:H2'	1:YA:185:U:C6	2.40	0.56
1:YA:1143:A:OP1	9:YN:25:ARG:NH2	2.39	0.56
1:YA:1649:G:O2'	13:YR:107:ASP:OD2	2.16	0.56
1:YA:2785:C:O2'	4:YE:66:HIS:ND1	2.36	0.56
32:XA:35:G:O2'	43:XL:118:SER:O	2.21	0.56
35:XD:153:ARG:HH12	35:XD:181:MET:HB2	1.71	0.56
48:XQ:15:MET:HE1	48:XQ:43:LEU:HD22	1.88	0.56
55:XY:133:ARG:HG3	55:XY:134:MET:HE2	1.86	0.56
1:RA:2889:C:H3'	1:RA:2891:G:C8	2.41	0.56
7:RH:86:GLU:OE2	7:RH:132:ARG:NH2	2.39	0.56
1:YA:1050:A:H2'	1:YA:1051:G:H8	1.71	0.56
1:YA:1076:C:H4'	1:YA:1077:A:OP1	2.06	0.56
1:YA:2889:C:H3'	1:YA:2891:G:C8	2.40	0.56
23:Y1:3:LYS:HB2	23:Y1:61:ARG:NH1	2.21	0.56
8:RI:38:LEU:H	8:RI:38:LEU:HD12	1.71	0.56
32:QA:1427:U:H2'	32:QA:1428:A:C8	2.41	0.56
10:YO:23:ARG:HD3	10:YO:24:VAL:N	2.21	0.56
39:XH:6:ILE:HB	39:XH:85:ARG:NH1	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:XJ:37:PRO:HA	41:XJ:72:VAL:HG12	1.86	0.56
1:RA:336:C:O2'	20:RY:35:TYR:OH	2.16	0.55
1:RA:1062:G:N7	1:RA:1070:A:H1'	2.21	0.55
1:RA:1139:G:O2'	1:RA:1143:A:N1	2.31	0.55
32:QA:1003:G:H2'	32:QA:1004:A:H4'	1.87	0.55
6:YG:46:ALA:HB2	6:YG:53:LEU:HG	1.87	0.55
30:Y8:4:MET:HE2	30:Y8:63:PRO:HG3	1.88	0.55
32:XA:1075:C:OP1	33:XB:179:LYS:NZ	2.24	0.55
55:XY:110:ASN:OD1	55:XY:167:SER:HA	2.06	0.55
34:QC:155:GLY:HA3	34:QC:196:LEU:HD22	1.88	0.55
55:QY:312:PHE:N	55:QY:313:PRO:HD2	2.20	0.55
36:XE:10:MET:HB3	36:XE:13:ILE:HD11	1.88	0.55
55:XY:147:GLU:HB3	55:XY:165:LYS:HB3	1.88	0.55
1:RA:1057:A:N7	1:RA:1086:A:H2'	2.21	0.55
26:R4:59:PHE:HE1	50:QS:64:GLU:HA	1.71	0.55
32:QA:38:G:N2	32:QA:397:A:H5'	2.20	0.55
1:YA:588:U:H2'	1:YA:589:C:C6	2.41	0.55
1:YA:1308:A:H2'	1:YA:1309:G:O4'	2.06	0.55
1:YA:2355:C:H1'	22:Y0:39:ARG:HH21	1.71	0.55
43:XL:33:ARG:HD3	43:XL:62:SER:HB3	1.88	0.55
32:QA:406:G:H5'	35:QD:5:ILE:HD11	1.89	0.55
15:YT:54:ARG:HA	15:YT:59:THR:HG23	1.88	0.55
16:YU:76:TYR:OH	16:YU:92:ARG:NH1	2.39	0.55
1:RA:574:C:N3	4:RE:145:LYS:NZ	2.55	0.55
1:RA:1053:C:H2'	1:RA:1054:A:C8	2.42	0.55
1:RA:1935:G:H1'	1:RA:1964:G:N2	2.22	0.55
5:RF:185:ASP:HA	5:RF:188:ARG:HD3	1.88	0.55
34:QC:8:ILE:HD12	34:QC:16:ARG:HD3	1.88	0.55
38:QG:48:LYS:O	38:QG:52:GLU:HG2	2.06	0.55
55:QY:263:GLN:O	55:QY:267:LYS:N	2.40	0.55
55:QY:330:ASP:O	55:QY:334:GLU:HB3	2.05	0.55
1:YA:833:U:O2	11:YP:55:ARG:NH2	2.40	0.55
1:RA:2094:G:P	8:RI:22:LYS:HD2	2.47	0.55
10:RO:2:ILE:HB	10:RO:33:ALA:HB3	1.88	0.55
1:RA:1292:U:H2'	1:RA:1293:C:C6	2.42	0.55
35:QD:3:ARG:HD3	35:QD:118:ARG:NE	2.14	0.55
6:YG:5:VAL:HG12	26:Y4:25:TYR:CE1	2.42	0.55
34:XC:6:HIS:CE1	34:XC:8:ILE:HB	2.42	0.55
1:RA:2816:C:O3'	13:RR:99:LYS:NZ	2.39	0.55
32:QA:1503:A:OP1	32:QA:1531:A:O2'	2.25	0.55
41:QJ:38:ILE:HD11	41:QJ:71:LEU:HD23	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:QM:40:ASN:HB3	44:QM:43:THR:HG23	1.89	0.55
10:YO:115:VAL:HG13	10:YO:121:VAL:HG21	1.89	0.55
43:XL:32:PHE:CD2	43:XL:86:ARG:HB3	2.41	0.55
44:XM:6:GLY:HA3	44:XM:67:GLU:HG3	1.89	0.55
46:XO:4:THR:HG23	46:XO:7:GLU:H	1.72	0.55
1:RA:1076:C:H4'	1:RA:1077:A:OP1	2.07	0.55
1:RA:2156:G:N7	1:RA:2157:G:N2	2.54	0.55
15:RT:39:ARG:NH1	15:RT:41:ARG:HD3	2.22	0.55
33:QB:10:LEU:HA	33:QB:48:MET:HE1	1.89	0.55
12:YQ:16:ARG:HG3	12:YQ:17:LEU:H	1.72	0.55
1:RA:2171:A:H4'	1:RA:2172:U:OP1	2.07	0.55
1:RA:2648:C:H2'	1:RA:2649:U:C6	2.42	0.55
35:QD:173:TRP:CD1	35:QD:173:TRP:H	2.25	0.55
1:YA:212:G:H2'	1:YA:213:A:O4'	2.07	0.55
24:Y2:35:LEU:HD12	24:Y2:53:LEU:HD12	1.89	0.55
33:XB:88:ALA:HB2	33:XB:219:VAL:HG13	1.89	0.55
40:XI:51:ARG:HG2	40:XI:56:LEU:HD21	1.89	0.55
1:RA:2023:G:H5'	1:RA:2617:C:H4'	1.89	0.54
1:RA:2683:C:OP1	15:RT:53:ARG:NH2	2.40	0.54
13:RR:36:THR:HG22	13:RR:37:THR:H	1.72	0.54
14:RS:14:VAL:O	14:RS:18:ILE:HG12	2.07	0.54
30:R8:52:LYS:O	30:R8:56:GLU:HG3	2.07	0.54
32:QA:1441:G:H5''	32:QA:1442(A):G:H5'	1.88	0.54
55:QY:135:TYR:HE1	55:QY:178:GLU:HG3	1.72	0.54
1:YA:641:C:O2'	1:YA:2350:C:OP1	2.22	0.54
1:YA:1657:C:H2'	1:YA:1658:C:H6	1.71	0.54
32:XA:266:G:H3'	48:XQ:67:LYS:HB2	1.88	0.54
1:RA:372:G:H5'	23:R1:66:HIS:NE2	2.22	0.54
1:RA:589:C:H2'	1:RA:590:A:C8	2.42	0.54
1:RA:2206:G:H5''	1:RA:2207:G:C8	2.42	0.54
1:RA:2646:C:OP2	1:RA:2732:G:O2'	2.22	0.54
1:RA:2744:G:N2	7:RH:143:GLN:OE1	2.39	0.54
1:RA:2839:G:H5'	13:RR:46:GLY:HA2	1.89	0.54
15:RT:24:PRO:HD3	15:RT:52:ILE:HD12	1.89	0.54
32:QA:1020:U:H2'	32:QA:1021:G:H8	1.72	0.54
33:QB:21:ARG:H	33:QB:21:ARG:HD3	1.70	0.54
35:QD:98:GLU:OE1	35:QD:103:ASN:ND2	2.38	0.54
39:QH:51:VAL:HG12	39:QH:52:ASP:H	1.72	0.54
1:YA:829:A:N7	1:YA:2247:A:O2'	2.39	0.54
3:RD:183:ARG:HH11	3:RD:183:ARG:HG3	1.72	0.54
4:RE:178:GLU:H	4:RE:178:GLU:CD	2.15	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:RF:184:TYR:CE2	5:RF:188:ARG:HD2	2.43	0.54
12:RQ:16:ARG:HG2	12:RQ:18:LYS:HG3	1.89	0.54
26:R4:16:CYS:SG	26:R4:17:GLY:N	2.80	0.54
40:QI:77:ILE:O	40:QI:81:ILE:HG23	2.07	0.54
1:YA:1796:U:H2'	1:YA:1797:C:C6	2.42	0.54
4:YE:24:THR:HG23	4:YE:186:GLY:O	2.05	0.54
32:XA:474:G:H2'	32:XA:475:G:C8	2.41	0.54
32:XA:1118:C:H1'	32:XA:1179:A:C4	2.42	0.54
42:XK:116:HIS:N	42:XK:117:ASN:HA	2.22	0.54
55:XY:127:PHE:HA	55:XY:130:ASP:HB2	1.89	0.54
1:RA:265:A:N1	1:RA:427:U:O2'	2.39	0.54
1:RA:1530:C:H42	1:RA:1539:G:H1	1.54	0.54
27:R5:49:CYS:HA	27:R5:60:VAL:HG11	1.90	0.54
32:QA:341:C:H2'	32:QA:342:C:C6	2.43	0.54
37:QF:89:MET:HE1	49:QR:72:ARG:HB3	1.89	0.54
37:QF:100:ASN:ND2	49:QR:26:LEU:O	2.40	0.54
40:QI:46:ALA:HB2	40:QI:74:ILE:HG23	1.89	0.54
1:YA:250:G:P	30:Y8:13:ARG:HH22	2.30	0.54
1:YA:1087:G:N2	1:YA:1102:C:N3	2.41	0.54
1:YA:1364:G:OP2	23:Y1:3:LYS:HG3	2.08	0.54
36:XE:33:VAL:HG21	36:XE:109:ILE:HA	1.89	0.54
55:XY:229:SER:HA	55:XY:258:GLN:OE1	2.08	0.54
1:RA:1011:G:H1'	1:RA:1013:C:O4'	2.06	0.54
1:RA:1073:A:H2'	1:RA:1074:G:H8	1.71	0.54
1:RA:1385:G:O2'	1:RA:1396:U:O2	2.25	0.54
1:RA:1903:G:OP1	3:RD:241:PRO:HB2	2.07	0.54
3:RD:69:ARG:HG2	3:RD:69:ARG:NH1	2.21	0.54
32:QA:976:G:H5'	32:QA:1358:U:O2'	2.08	0.54
44:QM:80:ARG:O	44:QM:84:ILE:HG23	2.08	0.54
32:XA:1146:A:H3'	32:XA:1147:C:H5''	1.89	0.54
33:XB:178:ARG:NH2	39:XH:74:PRO:HB3	2.23	0.54
34:XC:150:LYS:HG3	34:XC:169:ALA:HB2	1.90	0.54
1:RA:2611:U:C4	27:R5:3:LYS:HG2	2.43	0.54
1:YA:958:U:O2'	1:YA:959:A:OP2	2.24	0.54
1:YA:1378:A:OP1	29:Y7:10:ARG:NH2	2.40	0.54
1:YA:1530:C:H42	1:YA:1539:G:H1	1.56	0.54
1:YA:2081:C:H2'	1:YA:2082:A:H8	1.72	0.54
1:YA:2206:G:H8	1:YA:2207:G:N7	2.05	0.54
1:YA:2336:A:H61	22:Y0:43:THR:CG2	2.21	0.54
7:YH:11:VAL:HG21	7:YH:50:VAL:HG23	1.90	0.54
32:XA:975:A:N1	41:XJ:48:THR:HB	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:XD:70:ILE:HD11	35:XD:74:GLN:HB3	1.90	0.54
1:RA:270:A:OP2	1:RA:272(X):G:N1	2.33	0.54
1:RA:2111:C:H42	1:RA:2147:G:H22	1.54	0.54
1:YA:1075:C:H2'	1:YA:1076:C:H5'	1.88	0.54
1:YA:2757:A:P	31:Y9:20:HIS:H	2.30	0.54
1:YA:2031:A:C6	1:YA:2498:C:H1'	2.43	0.54
32:XA:1305:G:N2	32:XA:1331:G:H1'	2.23	0.54
32:XA:1391:U:H2'	32:XA:1392:G:C8	2.43	0.54
33:XB:16:HIS:CG	33:XB:210:SER:HB3	2.42	0.54
1:RA:607:U:OP1	5:RF:102:PRO:HA	2.08	0.54
11:RP:52:GLU:OE1	11:RP:55:ARG:NH1	2.40	0.54
13:RR:83:ILE:O	13:RR:86:ARG:HG2	2.08	0.54
19:RX:11:PRO:HB3	19:RX:92:LEU:HD11	1.88	0.54
32:QA:1414:U:H3	32:QA:1486:G:H1	1.56	0.54
1:YA:1117:G:H2'	1:YA:1118:C:C6	2.42	0.54
33:XB:84:GLU:HB3	33:XB:219:VAL:HG21	1.90	0.54
44:XM:96:LEU:C	44:XM:110:ARG:HG2	2.33	0.54
32:QA:1492:A:H4'	43:QL:47:LYS:NZ	2.22	0.54
34:QC:6:HIS:CE1	34:QC:8:ILE:HB	2.43	0.54
1:YA:889:C:O2'	1:YA:890:A:O5'	2.24	0.54
1:YA:2345:G:N3	1:YA:2381:C:H2'	2.23	0.54
7:YH:46:GLU:HB2	7:YH:49:VAL:HG12	1.89	0.54
1:RA:1686:C:H2'	1:RA:1687:G:O4'	2.07	0.53
1:RA:1847:A:H3'	1:RA:1848:A:H5'	1.90	0.53
4:RE:119:ARG:HD2	4:RE:120:TRP:CE2	2.43	0.53
6:RG:179:PRO:HB2	26:R4:42:PHE:CE2	2.37	0.53
33:QB:54:THR:HG21	33:QB:201:ILE:HD11	1.89	0.53
1:YA:634:C:H2'	1:YA:635:C:C6	2.43	0.53
1:YA:1084:A:H3'	1:YA:1085:A:H4'	1.88	0.53
1:YA:1432:C:H2'	1:YA:1433:U:O4'	2.08	0.53
4:YE:14:ILE:HG13	4:YE:21:VAL:HG13	1.90	0.53
30:Y8:23:VAL:HG11	30:Y8:47:LYS:HD3	1.89	0.53
32:XA:486:U:H2'	32:XA:487:A:C8	2.40	0.53
32:XA:501:C:H2'	32:XA:502:G:H8	1.71	0.53
32:XA:1286:A:H2'	32:XA:1287:A:H4'	1.90	0.53
1:RA:1028:A:N3	1:RA:2486:G:O2'	2.33	0.53
15:RT:53:ARG:HB3	15:RT:53:ARG:HH11	1.73	0.53
32:QA:1187:G:H4'	40:QI:111:ARG:HH11	1.72	0.53
6:YG:113:ARG:HD2	6:YG:140:ILE:O	2.08	0.53
7:YH:115:VAL:HG11	7:YH:148:ILE:HD11	1.90	0.53
32:XA:859:A:H2'	32:XA:860:A:O4'	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:XG:132:GLY:O	38:XG:136:LYS:HG2	2.07	0.53
46:XO:25:THR:HG21	46:XO:70:LEU:HB2	1.91	0.53
47:XP:19:ILE:HG22	47:XP:36:ILE:HG13	1.90	0.53
1:RA:1057:A:O2'	1:RA:1058:G:OP1	2.25	0.53
1:RA:2122:U:H3	1:RA:2176:A:H61	1.55	0.53
17:RV:72:VAL:HG13	17:RV:85:LYS:HB3	1.90	0.53
32:QA:1260:C:H4'	32:QA:1284:C:H5'	1.89	0.53
1:YA:2478:A:OP2	31:Y9:2:LYS:NZ	2.27	0.53
32:XA:148:G:H2'	32:XA:149:A:H8	1.73	0.53
40:XI:16:ARG:HH11	40:XI:64:THR:HG21	1.73	0.53
4:RE:143:ASN:HD22	4:RE:147:PRO:HD3	1.72	0.53
17:RV:76:LYS:HB2	17:RV:81:TYR:HB3	1.90	0.53
19:RX:2:LYS:NZ	19:RX:38:GLU:OE2	2.38	0.53
32:QA:1003:G:N2	32:QA:1004:A:H1'	2.24	0.53
55:QY:177:PHE:O	55:QY:321:ARG:NH2	2.41	0.53
1:YA:1064:C:H3'	1:YA:1065:U:C5'	2.38	0.53
5:YF:24:LEU:HD23	5:YF:115:ALA:HA	1.89	0.53
7:YH:154:PRO:HB3	7:YH:163:TYR:CE2	2.43	0.53
1:RA:642:G:N2	1:RA:645:C:OP2	2.41	0.53
1:RA:2031:A:N3	1:RA:2455:G:O2'	2.30	0.53
12:RQ:16:ARG:HG3	12:RQ:17:LEU:H	1.73	0.53
43:QL:71:PRO:O	43:QL:102:ARG:NH1	2.41	0.53
1:YA:309:G:N3	1:YA:329:G:O2'	2.38	0.53
1:YA:2119:A:H61	1:YA:2168:G:H21	1.56	0.53
32:XA:600:C:H2'	32:XA:601:C:C6	2.44	0.53
43:XL:28:LYS:N	43:XL:29:GLY:HA2	2.24	0.53
1:RA:1266:G:O2'	1:RA:2012:G:O6	2.26	0.53
5:RF:197:ASP:N	5:RF:197:ASP:OD1	2.42	0.53
35:QD:61:LYS:NZ	35:QD:72:GLU:OE2	2.41	0.53
1:YA:1028:A:N3	1:YA:2486:G:O2'	2.39	0.53
1:YA:1062:G:N7	1:YA:1070:A:H1'	2.24	0.53
1:YA:1184:G:OP1	25:Y3:30:ARG:HD2	2.08	0.53
1:YA:2144:U:O2'	1:YA:2147:G:N1	2.40	0.53
32:XA:359:U:H2'	32:XA:360:A:H8	1.73	0.53
1:YA:1003:G:O2'	1:YA:1010:A:N1	2.39	0.53
1:YA:1057:A:O2'	1:YA:1058:G:OP1	2.27	0.53
1:YA:2171:A:H4'	1:YA:2172:U:OP1	2.07	0.53
1:YA:2698:U:H2'	1:YA:2699:C:C6	2.44	0.53
32:XA:437:U:H5'	35:XD:155:LEU:HD21	1.90	0.53
35:XD:173:TRP:CD1	35:XD:174:LEU:HG	2.44	0.53
1:RA:1049:C:H42	1:RA:2751:G:H1	1.56	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:1268:A:H2'	1:RA:1269:A:O4'	2.08	0.53
1:RA:1971:A:C4	3:RD:241:PRO:HD3	2.44	0.53
1:RA:2074:U:H2'	1:RA:2075:U:C6	2.44	0.53
3:RD:71:ASP:HB3	3:RD:103:ARG:NH2	2.22	0.53
32:QA:1034:G:H3'	32:QA:1035:A:C8	2.43	0.53
32:QA:1516:G:N1	32:QA:1519:MA6:OP2	2.41	0.53
33:QB:69:LEU:HB3	33:QB:162:ILE:HG22	1.91	0.53
41:QJ:37:PRO:HA	41:QJ:72:VAL:HG12	1.90	0.53
1:YA:1296:G:OP1	1:YA:2709:G:O2'	2.20	0.53
1:YA:1514:U:H2'	1:YA:1515:G:C8	2.43	0.53
15:YT:24:PRO:HD3	15:YT:52:ILE:HD12	1.91	0.53
38:XG:27:ILE:HD12	38:XG:40:ALA:HA	1.89	0.53
49:XR:31:LEU:HD21	49:XR:62:GLU:HB2	1.91	0.53
1:YA:1416:G:O2'	1:YA:1417:C:OP2	2.23	0.53
1:YA:2336:A:H61	22:Y0:43:THR:HG22	1.74	0.53
7:YH:137:ASP:HB3	7:YH:140:LYS:HB3	1.91	0.53
21:YZ:125:LEU:HB3	21:YZ:165:VAL:HG13	1.91	0.53
32:XA:142:G:H2'	32:XA:143:A:H8	1.74	0.53
32:XA:1347:G:N2	32:XA:1373:G:H2'	2.24	0.53
1:RA:11:G:H2'	1:RA:12:U:H5'	1.91	0.53
1:RA:876:C:H2'	1:RA:877:U:O4'	2.10	0.53
16:RU:108:GLU:HG2	17:RV:45:THR:HG21	1.90	0.53
32:QA:581:G:OP1	46:QO:61:GLY:HA3	2.09	0.53
32:QA:1492:A:H8	55:QY:119:THR:HG21	1.74	0.53
55:QY:257:CYS:O	55:QY:266:ASN:ND2	2.35	0.53
1:YA:78:A:H2'	1:YA:79:G:C8	2.43	0.53
6:YG:55:LYS:HA	6:YG:58:GLN:HB3	1.90	0.53
37:XF:37:VAL:HA	37:XF:65:VAL:HG12	1.91	0.53
43:XL:83:VAL:HG13	43:XL:100:ILE:HG23	1.91	0.53
1:RA:362:U:O2'	1:RA:363(A):G:H5'	2.09	0.52
1:RA:1991:U:H2'	1:RA:1992:G:H5''	1.92	0.52
32:QA:159:G:N2	32:QA:161:A:H3'	2.24	0.52
32:QA:921:U:O2'	36:QE:19:MET:O	2.18	0.52
38:QG:45:ASP:O	38:QG:49:ILE:HG13	2.08	0.52
1:YA:2189:U:H2'	1:YA:2190:G:C8	2.44	0.52
17:YV:29:PRO:HA	17:YV:61:VAL:HG23	1.89	0.52
21:YZ:33:LEU:HD11	21:YZ:90:VAL:HG21	1.90	0.52
32:XA:769:G:H4'	32:XA:1513:A:H4'	1.90	0.52
35:XD:173:TRP:CD1	35:XD:189:PRO:HG3	2.44	0.52
43:XL:70:ILE:HG12	43:XL:100:ILE:HD12	1.90	0.52
1:RA:247:G:H4'	1:RA:386:G:C5	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:2232:U:OP1	23:R1:40:ARG:NH1	2.39	0.52
32:QA:17:U:H2'	32:QA:18:C:C6	2.44	0.52
32:QA:186:C:O2'	51:QT:85:MET:SD	2.66	0.52
32:QA:188:C:O4'	51:QT:89:ARG:NH2	2.42	0.52
10:YO:80:ASP:OD1	15:YT:64:ARG:NH2	2.42	0.52
20:YY:5:MET:HE1	20:YY:35:TYR:HA	1.90	0.52
32:XA:1004:A:H5'	32:XA:1025:U:H5	1.73	0.52
35:XD:79:PHE:HE1	35:XD:204:ILE:HD13	1.74	0.52
40:X1:9:ARG:HG2	40:X1:14:VAL:HG12	1.91	0.52
4:RE:105:THR:OG1	4:RE:199:ARG:NH2	2.43	0.52
38:QG:150:ALA:HA	42:QK:59:TYR:HB3	1.92	0.52
41:QJ:11:PHE:HE1	41:QJ:67:THR:HG22	1.74	0.52
5:YF:178:PRO:HB2	5:YF:201:VAL:CG2	2.37	0.52
8:YI:14:ASP:OD1	8:YI:15:VAL:N	2.41	0.52
12:YQ:30:GLY:HA2	12:YQ:107:ALA:HB2	1.89	0.52
47:XP:23:ASP:OD1	47:XP:25:ARG:HD3	2.10	0.52
55:XY:212:ALA:CB	55:XY:214:LEU:HG	2.37	0.52
55:XY:312:PHE:N	55:XY:313:PRO:HD2	2.24	0.52
1:RA:1101:U:H2'	1:RA:1102:C:H6	1.75	0.52
1:RA:1756:G:H4'	1:RA:1758:G:O4'	2.10	0.52
9:RN:120:LEU:HD22	9:RN:122:VAL:HG23	1.91	0.52
32:QA:539:A:OP2	43:QL:115:LYS:NZ	2.43	0.52
38:QG:79:ARG:HA	38:QG:84:ASN:HA	1.91	0.52
1:YA:2438:U:O2'	1:YA:2440:C:OP1	2.23	0.52
24:Y2:17:SER:OG	24:Y2:20:GLU:HG3	2.09	0.52
32:XA:1117:G:H4'	40:X1:104:ARG:NH1	2.24	0.52
1:RA:856:C:O2'	1:RA:857:C:OP1	2.26	0.52
1:RA:1068:G:H3'	1:RA:1096:A:OP2	2.10	0.52
1:RA:1081:U:H3'	1:RA:1085:A:H61	1.74	0.52
1:RA:1750:G:O2'	1:RA:2860:A:N1	2.41	0.52
1:RA:2567:G:H2'	1:RA:2568:C:C6	2.45	0.52
7:RH:59:ARG:HH11	7:RH:59:ARG:HG2	1.75	0.52
32:QA:1292:U:OP2	38:QG:41:ARG:NH2	2.43	0.52
36:QE:102:ALA:HB1	36:QE:106:PRO:HG2	1.91	0.52
44:QM:34:LEU:HD13	44:QM:41:PRO:HA	1.90	0.52
1:YA:1019:U:OP1	1:YA:1035:U:O2'	2.25	0.52
1:YA:1057:A:N7	1:YA:1086:A:H2'	2.24	0.52
1:YA:1239:G:H2'	1:YA:1240:U:O4'	2.10	0.52
1:YA:1530:C:HO2'	1:YA:1531:C:P	2.30	0.52
1:YA:2128:C:N4	1:YA:2160:G:H1	2.04	0.52
1:RA:2032:G:H1'	4:RE:145:LYS:HD3	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:2110:G:H5''	1:RA:2111:C:H5	1.75	0.52
33:QB:16:HIS:HB3	33:QB:210:SER:HB2	1.92	0.52
44:QM:13:LYS:HA	44:QM:44:ARG:HH11	1.73	0.52
1:YA:1102:C:H2'	1:YA:1103:A:C8	2.45	0.52
6:YG:11:TYR:CZ	6:YG:16:ARG:HD2	2.45	0.52
20:YY:23:ARG:HG3	20:YY:42:VAL:HG22	1.92	0.52
1:RA:2130:U:H2'	1:RA:2158:A:H61	1.75	0.52
32:QA:519:C:OP1	55:QY:183:ARG:NH1	2.43	0.52
35:QD:116:GLN:NE2	35:QD:157:LEU:HD11	2.24	0.52
48:QQ:67:LYS:HA	48:QQ:70:ARG:HH12	1.74	0.52
1:YA:644:A:H4'	1:YA:645:C:C5	2.44	0.52
1:YA:1068:G:H3'	1:YA:1096:A:OP2	2.10	0.52
1:YA:2065:C:H2'	1:YA:2066:C:C6	2.45	0.52
1:YA:2334:G:H5'	14:YS:9:ARG:HG2	1.91	0.52
5:YF:165:ARG:HG2	5:YF:168:ARG:NH2	2.25	0.52
1:RA:922:U:H2'	1:RA:923:C:C6	2.45	0.52
1:RA:1259:G:H2'	1:RA:1260:G:C8	2.45	0.52
44:QM:76:ALA:HA	44:QM:79:LYS:HB3	1.91	0.52
1:YA:336:C:O2'	20:YY:35:TYR:OH	2.23	0.52
28:Y6:6:ARG:NE	28:Y6:24:GLU:OE1	2.35	0.52
32:XA:123:C:OP1	32:XA:311:C:O2'	2.25	0.52
32:XA:576:G:O6	32:XA:880:C:O2'	2.27	0.52
32:XA:660:G:H1	32:XA:745:C:H42	1.58	0.52
39:XH:51:VAL:HG11	39:XH:60:ARG:HH11	1.75	0.52
42:XK:82:VAL:HB	42:XK:108:ILE:HG12	1.91	0.52
44:XM:20:THR:HG21	44:XM:27:LYS:HD2	1.90	0.52
44:XM:81:LEU:HD13	44:XM:88:ARG:HD2	1.92	0.52
1:RA:55:G:O2'	1:RA:127:A:N1	2.43	0.52
1:RA:2119:A:H61	1:RA:2168:G:H21	1.58	0.52
1:RA:2390:U:OP2	30:R8:35:GLN:NE2	2.34	0.52
8:RI:130:TYR:CE2	8:RI:132:PRO:HB3	2.45	0.52
11:RP:50:ARG:HD3	30:R8:7:HIS:CD2	2.45	0.52
54:QX:21:A:H62	55:QY:198:THR:HG1	1.57	0.52
1:YA:2127:G:H2'	1:YA:2128:C:O4'	2.09	0.52
12:YQ:32:TYR:OH	12:YQ:111:GLU:OE1	2.24	0.52
23:Y1:54:ALA:HB1	23:Y1:83:GLU:HG3	1.92	0.52
32:XA:1223:C:P	50:XS:78:ARG:HH22	2.32	0.52
33:XB:115:LEU:O	33:XB:119:GLU:HG2	2.10	0.52
36:XE:12:LEU:HD12	36:XE:128:PRO:HB2	1.92	0.52
1:RA:458:G:O2'	1:RA:469:G:O6	2.25	0.52
1:RA:2018:G:O2'	16:RU:34:LYS:HE3	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:2152:G:H2'	1:RA:2153:G:C8	2.44	0.52
1:RA:2165:G:H2'	1:RA:2166:G:O4'	2.10	0.52
2:RB:89:G:OP2	2:RB:89:G:H8	1.93	0.52
10:RO:97:ARG:NH1	32:QA:339:C:OP2	2.43	0.52
20:RY:90:LEU:HD21	20:RY:96:ILE:HG12	1.90	0.52
23:R1:51:VAL:HG11	23:R1:74:VAL:HG21	1.92	0.52
39:QH:6:ILE:O	39:QH:10:LEU:HG	2.10	0.52
1:YA:1514:U:H2'	1:YA:1515:G:H8	1.75	0.52
1:YA:2065:C:H2'	1:YA:2066:C:H6	1.75	0.52
1:YA:2111:C:H42	1:YA:2147:G:H22	1.57	0.52
28:Y6:13:CYS:SG	28:Y6:47:THR:HG21	2.49	0.52
32:XA:390:C:H2'	32:XA:391:G:C8	2.45	0.52
35:XD:162:LEU:HD13	35:XD:181:MET:HG2	1.92	0.52
40:XI:4:TYR:HB2	40:XI:19:LEU:HB2	1.92	0.52
5:RF:20:LEU:HD23	5:RF:21:ALA:H	1.75	0.51
32:QA:337:C:H2'	32:QA:338:A:C8	2.45	0.51
32:QA:1086:U:H3	32:QA:1099:G:H22	1.58	0.51
40:QI:16:ARG:HD3	40:QI:64:THR:HG21	1.92	0.51
55:QY:221:ASP:HB3	55:QY:250:PRO:HD3	1.91	0.51
55:QY:338:ASP:N	55:QY:338:ASP:OD1	2.44	0.51
1:YA:455:C:N3	1:YA:472:A:H2'	2.25	0.51
1:YA:483:A:H5''	20:YY:50:ARG:HD3	1.92	0.51
32:XA:1127:G:H5'	32:XA:1280:A:O2'	2.10	0.51
32:XA:1201:A:H4'	32:XA:1202:G:H5''	1.92	0.51
32:QA:1279:A:H5''	41:QJ:7:LYS:NZ	2.26	0.51
33:QB:73:THR:OG1	33:QB:170:GLU:OE1	2.27	0.51
34:QC:47:LEU:HD13	34:QC:68:VAL:HG11	1.92	0.51
35:QD:76:ARG:HD3	35:QD:207:TYR:CE1	2.45	0.51
55:QY:115:VAL:HG22	55:QY:203:VAL:HG22	1.92	0.51
17:YV:35:LEU:HB2	17:YV:57:VAL:HG22	1.93	0.51
19:YX:57:LEU:HD11	19:YX:78:LYS:HE3	1.92	0.51
32:XA:1015:A:H2'	32:XA:1016:A:C8	2.45	0.51
1:RA:2274:A:O2'	1:RA:2276:G:OP1	2.22	0.51
21:RZ:92:SER:O	21:RZ:130:PRO:HG2	2.11	0.51
32:QA:833:U:H2'	32:QA:834:C:H6	1.74	0.51
35:QD:170:VAL:HG12	35:QD:174:LEU:HB2	1.91	0.51
37:QF:69:GLU:O	37:QF:72:VAL:HG12	2.10	0.51
1:YA:322:A:OP1	5:YF:168:ARG:HD2	2.11	0.51
1:YA:952:G:P	12:YQ:16:ARG:HH22	2.33	0.51
1:YA:1067:A:H4'	1:YA:1068:G:OP2	2.09	0.51
21:YZ:19:ARG:NH1	21:YZ:84:GLU:O	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:1002:G:H2'	32:XA:1003:G:C8	2.45	0.51
55:XY:342:GLU:O	55:XY:346:GLN:N	2.36	0.51
1:RA:272(E):U:H2'	1:RA:272(F):C:C6	2.45	0.51
1:RA:2128:C:N4	1:RA:2160:G:H1	2.06	0.51
6:RG:9:ARG:O	6:RG:13:GLU:HG3	2.09	0.51
32:QA:614:A:OP1	35:QD:85:LYS:NZ	2.43	0.51
1:YA:811:U:H2'	11:YP:21:ARG:HA	1.91	0.51
4:YE:111:ARG:HG2	4:YE:160:TYR:O	2.11	0.51
24:Y2:1:MET:N	24:Y2:52:ASP:OD1	2.34	0.51
32:XA:767:A:H2'	32:XA:768:A:O4'	2.09	0.51
32:XA:1158:C:O2	32:XA:1158:C:H2'	2.09	0.51
33:XB:179:LYS:HG2	39:XH:72:PRO:HG3	1.92	0.51
35:XD:8:VAL:HG22	35:XD:21:LEU:HD13	1.92	0.51
39:XH:41:ARG:NH2	39:XH:123:GLU:OE2	2.43	0.51
51:XT:37:SER:O	51:XT:41:ILE:HG12	2.10	0.51
1:RA:581:C:H2'	1:RA:582:G:C8	2.45	0.51
1:RA:944:G:H5''	1:RA:945:A:O5'	2.11	0.51
1:RA:2321:G:O2'	1:RA:2322:A:OP1	2.23	0.51
4:RE:36:ARG:HG2	4:RE:47:VAL:HG22	1.92	0.51
32:QA:102:G:O2'	32:QA:151:A:N3	2.36	0.51
1:YA:1866:C:H2'	1:YA:1876:A:O4'	2.10	0.51
1:YA:2033:A:O2'	1:YA:2035:G:OP2	2.24	0.51
1:YA:2430:A:H2'	1:YA:2430:A:N3	2.25	0.51
5:YF:21:ALA:HB3	5:YF:22:ALA:HA	1.91	0.51
32:XA:407:G:O2'	35:XD:116:GLN:HG3	2.10	0.51
35:XD:111:ALA:HB2	35:XD:120:LEU:HD12	1.92	0.51
55:XY:138:TYR:HD2	55:XY:337:LEU:H	1.59	0.51
1:RA:582:G:H2'	1:RA:583:G:H8	1.75	0.51
1:RA:1530:C:HO2'	1:RA:1531:C:P	2.34	0.51
1:RA:1791:A:N6	1:RA:1828:G:O2'	2.43	0.51
1:RA:2140:C:H2'	1:RA:2141:G:C8	2.37	0.51
10:RO:7:TYR:HE1	10:RO:20:MET:HE3	1.76	0.51
11:RP:113:LYS:HA	11:RP:129:ALA:O	2.11	0.51
32:QA:537:G:H5''	43:QL:113:ARG:NH1	2.26	0.51
32:QA:769:G:H4'	32:QA:1513:A:H4'	1.91	0.51
32:QA:1216:G:H5''	45:QN:5:ALA:HB2	1.91	0.51
3:YD:16:MET:HG3	3:YD:206:LEU:O	2.11	0.51
46:XO:39:LEU:HD13	46:XO:56:LEU:HB2	1.92	0.51
1:RA:851:U:O2'	25:R3:42:ALA:O	2.29	0.51
1:RA:1086:A:OP1	1:RA:1104:C:O2'	2.29	0.51
1:RA:1187:G:H5'	17:RV:81:TYR:CE1	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:RG:62:LEU:O	6:RG:143:GLU:HG2	2.11	0.51
32:QA:410:G:OP1	35:QD:30:LYS:NZ	2.29	0.51
32:QA:1278:U:H5'	32:QA:1279:A:O4'	2.10	0.51
55:QY:332:VAL:HG22	55:QY:337:LEU:HB3	1.92	0.51
1:YA:1032:A:OP1	31:Y9:8:LYS:HE3	2.11	0.51
1:YA:1108:U:H3'	1:YA:1109:C:C6	2.45	0.51
24:Y2:16:LEU:O	24:Y2:67:LYS:NZ	2.44	0.51
47:XP:1:MET:SD	47:XP:65:GLN:HG3	2.51	0.51
1:RA:861:A:N3	2:RB:79:C:O2'	2.39	0.51
32:QA:67:C:H2'	32:QA:68:G:C8	2.46	0.51
55:QY:342:GLU:O	55:QY:346:GLN:N	2.37	0.51
1:YA:729:G:C8	3:YD:208:LYS:HD2	2.46	0.51
1:YA:2183:C:H2'	1:YA:2184:G:C8	2.45	0.51
32:XA:736:C:H2'	32:XA:737:A:C8	2.46	0.51
33:XB:124:SER:HB2	33:XB:125:PRO:HD3	1.91	0.51
38:XG:26:PHE:O	38:XG:30:ILE:HG13	2.11	0.51
55:XY:133:ARG:NH2	55:XY:334:GLU:OE1	2.44	0.51
55:XY:202:THR:HB	55:XY:298:LEU:HD22	1.93	0.51
1:RA:9:U:O2'	1:RA:10:G:OP1	2.26	0.51
1:RA:263:C:H2'	1:RA:264:C:O4'	2.11	0.51
1:RA:1593:G:H2'	1:RA:1594:G:C8	2.46	0.51
9:RN:15:LEU:HB2	9:RN:135:PRO:HB2	1.93	0.51
21:RZ:203:GLU:C	53:QV:53:G:H4'	2.36	0.51
32:QA:1079:G:O3'	36:QE:14:ARG:NH2	2.44	0.51
33:QB:109:SER:O	33:QB:112:VAL:HG22	2.11	0.51
33:QB:231:GLU:HB3	33:QB:232:PRO:CD	2.35	0.51
49:XR:59:SER:OG	49:XR:62:GLU:HG2	2.11	0.51
1:RA:276:A:H5''	1:RA:277:C:H5'	1.92	0.51
1:RA:2689:U:OP2	1:RA:2719:G:N2	2.40	0.51
4:RE:1:MET:HE1	4:RE:199:ARG:HB3	1.93	0.51
6:RG:116:ASP:OD1	44:QM:68:GLY:HA3	2.11	0.51
9:RN:67:LEU:O	9:RN:88:GLU:HG3	2.11	0.51
10:RO:23:ARG:HD3	10:RO:24:VAL:N	2.25	0.51
14:RS:25:ARG:HD3	14:RS:42:ASP:OD2	2.10	0.51
30:R8:4:MET:HE2	30:R8:63:PRO:HG3	1.93	0.51
1:YA:2627:G:O2'	1:YA:2781:A:N1	2.38	0.51
10:YO:64:ARG:HB2	10:YO:83:ALA:HB3	1.93	0.51
51:XT:56:MET:HE1	51:XT:85:MET:HA	1.92	0.51
1:RA:873:G:H1	1:RA:904:C:H42	1.57	0.50
1:RA:1108:U:H3'	1:RA:1109:C:C6	2.46	0.50
6:RG:55:LYS:O	6:RG:59:GLU:HG3	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:262:A:H2'	32:QA:263:A:C8	2.46	0.50
32:QA:1103:C:H2'	32:QA:1104:G:O4'	2.10	0.50
32:QA:1442(A):G:H1'	32:QA:1442(B):G:OP1	2.12	0.50
3:YD:142:VAL:HG23	3:YD:193:VAL:HA	1.92	0.50
13:YR:87:TYR:OH	13:YR:117:VAL:O	2.20	0.50
46:XO:7:GLU:OE2	46:XO:38:ARG:NH2	2.44	0.50
1:RA:583:G:OP2	16:RU:10:ARG:HD2	2.12	0.50
3:RD:242:ARG:H	3:RD:242:ARG:HD3	1.76	0.50
1:YA:276:A:H5''	1:YA:277:C:H4'	1.93	0.50
1:YA:764:A:H5'	3:YD:210:GLY:HA2	1.94	0.50
1:YA:1385:G:O2'	1:YA:1396:U:O2	2.25	0.50
1:YA:1693:U:O2'	3:YD:14:ARG:NH2	2.44	0.50
1:YA:2820:A:O2'	1:YA:2821:A:OP1	2.29	0.50
3:YD:183:ARG:HH11	3:YD:183:ARG:HG3	1.75	0.50
32:XA:1512:U:H2'	32:XA:1513:A:C8	2.46	0.50
35:XD:61:LYS:HD2	35:XD:207:TYR:OH	2.11	0.50
7:RH:41:MET:HE2	7:RH:65:HIS:HA	1.93	0.50
11:RP:8:PRO:HB2	11:RP:12:ALA:HB3	1.94	0.50
13:RR:56:LYS:NZ	13:RR:90:ARG:O	2.43	0.50
29:R7:30:VAL:O	29:R7:34:ARG:HG3	2.11	0.50
32:QA:73:G:H1	32:QA:96:U:H3	1.57	0.50
32:QA:1074:G:O2'	32:QA:1101:A:N1	2.39	0.50
32:QA:1124:G:N2	32:QA:1125:U:O4	2.45	0.50
1:YA:686:G:N2	1:YA:788:A:H61	2.09	0.50
1:YA:1639:U:C2'	1:YA:1640:C:H5''	2.40	0.50
1:YA:2074:U:H2'	1:YA:2075:U:C6	2.46	0.50
1:YA:2168:G:H22	1:YA:2171:A:H2'	1.75	0.50
1:YA:2572:A:C4	4:YE:144:ARG:NH1	2.79	0.50
6:YG:16:ARG:O	6:YG:20:ILE:HG13	2.12	0.50
32:XA:748:C:H4'	32:XA:749:C:O5'	2.10	0.50
1:RA:1035:U:O5'	7:RH:59:ARG:NH1	2.44	0.50
1:RA:1278:A:OP1	13:RR:36:THR:HG23	2.11	0.50
6:RG:50:ALA:O	6:RG:52:ILE:N	2.45	0.50
9:RN:15:LEU:HD12	9:RN:137:LYS:HD3	1.92	0.50
32:QA:1343:G:H4'	40:QI:122:ALA:HB3	1.94	0.50
34:QC:70:VAL:HG22	34:QC:72:LYS:H	1.76	0.50
1:YA:384:U:H2'	1:YA:385:C:H6	1.76	0.50
1:YA:727:A:C6	1:YA:728:G:C6	3.00	0.50
1:YA:746:A:H2'	1:YA:2612:C:H5''	1.92	0.50
1:YA:2317:C:H2'	1:YA:2318:G:H5'	1.93	0.50
6:YG:3:LEU:H	6:YG:3:LEU:HD23	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:YH:8:PRO:C	7:YH:69:ARG:HH12	2.19	0.50
15:YT:108:ARG:NH1	32:XA:1464:G:OP1	2.45	0.50
32:XA:36:C:H5''	43:XL:123:LYS:HD3	1.92	0.50
32:XA:1327:C:H2'	32:XA:1328:C:C6	2.47	0.50
40:XI:21:PRO:HA	40:XI:59:PHE:HA	1.92	0.50
1:RA:900:A:H2'	1:RA:901:A:O4'	2.11	0.50
1:RA:1094:U:OP1	1:RA:1096:A:N6	2.45	0.50
10:RO:115:VAL:HG13	10:RO:121:VAL:HG21	1.93	0.50
19:RX:29:TRP:CE3	19:RX:78:LYS:HB3	2.47	0.50
19:RX:35:THR:HG22	19:RX:37:THR:H	1.76	0.50
1:YA:453:C:O2	1:YA:457:A:O2'	2.29	0.50
14:YS:25:ARG:HD3	14:YS:42:ASP:OD2	2.12	0.50
32:XA:719:C:O2'	49:XR:49:LYS:HB3	2.11	0.50
32:XA:1005:A:H5''	32:XA:1006:C:C5	2.47	0.50
32:XA:1015:A:N3	32:XA:1218:C:O2'	2.43	0.50
1:RA:643:A:N1	1:RA:2369:A:O2'	2.44	0.50
1:RA:729:G:C6	3:RD:208:LYS:HB2	2.47	0.50
1:RA:740:U:H2'	1:RA:741:G:C8	2.47	0.50
1:RA:2820:A:P	13:RR:2:ARG:HH22	2.35	0.50
3:RD:17:THR:O	3:RD:211:ARG:NH2	2.44	0.50
32:QA:328:C:H4'	32:QA:329:A:H5'	1.94	0.50
32:QA:1002:G:C6	32:QA:1003:G:C2	2.99	0.50
51:QT:89:ARG:O	51:QT:93:GLU:HG2	2.11	0.50
55:QY:255:VAL:HG12	55:QY:274:LEU:HG	1.93	0.50
1:YA:438:G:H2'	1:YA:440:G:H8	1.77	0.50
1:YA:1341:U:OP1	1:YA:1397:U:N3	2.40	0.50
1:YA:2115:G:N1	1:YA:2117:A:N7	2.59	0.50
1:YA:2267:A:H5''	1:YA:2268:A:H5'	1.93	0.50
6:YG:114:ILE:HG23	6:YG:136:ARG:NH2	2.27	0.50
11:YP:52:GLU:OE1	11:YP:55:ARG:NH1	2.43	0.50
32:XA:411:A:OP2	35:XD:25:ARG:NH2	2.44	0.50
33:XB:71:VAL:HG23	33:XB:164:VAL:HA	1.94	0.50
51:XT:18:GLN:O	51:XT:22:ARG:HG3	2.11	0.50
52:XU:5:ASP:O	52:XU:11:GLY:HA3	2.11	0.50
1:RA:848:G:H2'	1:RA:849:A:C8	2.47	0.50
1:RA:1224:C:O2'	17:RV:85:LYS:HA	2.11	0.50
1:RA:2820:A:O2'	1:RA:2821:A:OP1	2.29	0.50
7:RH:20:ALA:HB3	7:RH:23:ARG:HG2	1.93	0.50
11:RP:60:MET:SD	30:R8:13:ARG:NH2	2.84	0.50
25:R3:3:ARG:NH1	25:R3:60:GLU:OE2	2.42	0.50
26:R4:51:ASP:CB	44:QM:65:LYS:HD2	2.41	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:R6:13:CYS:SG	28:R6:47:THR:HG21	2.51	0.50
32:QA:56:U:H2'	32:QA:57:G:C8	2.46	0.50
35:QD:172:PRO:HB2	35:QD:187:ARG:HH21	1.76	0.50
46:QO:29:VAL:HG11	46:QO:67:LEU:HD21	1.94	0.50
54:QX:21:A:N6	55:QY:198:THR:OG1	2.36	0.50
1:YA:2134:A:H8	1:YA:2156:G:H21	1.60	0.50
1:YA:2152:G:H2'	1:YA:2153:G:C8	2.47	0.50
1:YA:2839:G:H5'	13:YR:46:GLY:HA2	1.94	0.50
8:YI:130:TYR:HB3	8:YI:138:ILE:HB	1.94	0.50
50:XS:12:ASP:OD2	50:XS:35:SER:HB3	2.11	0.50
1:RA:26:G:H1'	1:RA:515:A:N6	2.27	0.50
1:RA:517:C:OP1	27:R5:16:ARG:NH2	2.45	0.50
1:RA:581:C:H2'	1:RA:582:G:H8	1.75	0.50
1:RA:2327:A:H2'	1:RA:2328:A:C8	2.46	0.50
5:RF:18:ARG:HG2	5:RF:19:GLU:N	2.26	0.50
7:RH:3:ARG:HB3	7:RH:6:ARG:HG2	1.94	0.50
36:QE:78:HIS:ND1	39:QH:104:ARG:HD2	2.26	0.50
55:QY:182:HIS:HB3	55:QY:310:TYR:HE2	1.77	0.50
1:YA:1608:A:H1'	1:YA:1610:A:OP2	2.12	0.50
1:YA:2114:A:H3'	1:YA:2115:G:H8	1.77	0.50
20:YY:102:CYS:SG	20:YY:104:GLY:N	2.75	0.50
30:Y8:6:THR:HG23	30:Y8:64:TYR:HD2	1.77	0.50
32:XA:438:G:O2'	32:XA:494:U:O4	2.24	0.50
32:XA:600:C:H2'	32:XA:601:C:H6	1.76	0.50
32:XA:673:G:H2'	32:XA:674:G:C8	2.47	0.50
1:RA:1023:U:OP2	1:RA:1025:G:O2'	2.29	0.50
1:RA:1101:U:H2'	1:RA:1102:C:C6	2.46	0.50
1:RA:2189:U:H2'	1:RA:2190:G:C8	2.46	0.50
4:RE:12:THR:HG22	15:RT:58:ASN:HD21	1.77	0.50
8:RI:72:LEU:C	8:RI:74:ASN:H	2.20	0.50
51:QT:43:LEU:HD13	51:QT:51:GLU:HB3	1.93	0.50
1:YA:1301:A:C8	1:YA:1303:G:C8	3.00	0.50
1:YA:2304:G:H22	1:YA:2312:U:H3	1.58	0.50
1:YA:2636:U:OP1	4:YE:80:GLU:HB2	2.11	0.50
32:XA:662:G:H2'	32:XA:663:A:H8	1.76	0.50
32:XA:1002:G:N3	32:XA:1003:G:H8	2.10	0.50
32:XA:1129:C:N4	32:XA:1143:G:H1	2.09	0.50
40:XI:24:GLY:HA2	40:XI:59:PHE:O	2.12	0.50
44:XM:34:LEU:HD13	44:XM:41:PRO:HA	1.93	0.50
1:RA:479:A:N3	1:RA:481:G:H5''	2.27	0.49
5:RF:103:LYS:HA	5:RF:106:ARG:HD3	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:R4:54:GLY:O	26:R4:56:VAL:HA	2.12	0.49
32:QA:78:G:N2	32:QA:91:C:N3	2.55	0.49
32:QA:839:U:H1'	32:QA:840:C:OP1	2.12	0.49
39:QH:51:VAL:HG11	39:QH:60:ARG:HH12	1.77	0.49
47:QP:74:LEU:HD23	47:QP:79:VAL:HG21	1.93	0.49
1:YA:858:U:O2	1:YA:2268:A:H2'	2.12	0.49
1:YA:881:G:H2'	1:YA:882:G:C8	2.47	0.49
1:YA:2140:C:H2'	1:YA:2141:G:C8	2.41	0.49
32:XA:222:U:H2'	32:XA:223:U:C6	2.47	0.49
32:XA:343:U:H2'	32:XA:345:C:C5	2.47	0.49
32:QA:833:U:H2'	32:QA:834:C:C6	2.47	0.49
35:QD:85:LYS:HD3	35:QD:86:LYS:N	2.27	0.49
49:QR:31:LEU:HD21	49:QR:62:GLU:HB3	1.93	0.49
53:QV:1:C:H42	53:QV:72:A:H61	1.60	0.49
5:YF:132:VAL:HA	5:YF:138:GLU:HB3	1.94	0.49
7:YH:9:ILE:O	7:YH:49:VAL:HA	2.12	0.49
12:YQ:38:GLU:HG3	12:YQ:127:ILE:HB	1.94	0.49
32:XA:524:G:H2'	32:XA:525:C:C6	2.47	0.49
32:XA:1040:U:H2'	32:XA:1041:A:O4'	2.12	0.49
33:XB:127:ILE:HG12	33:XB:128:GLU:H	1.76	0.49
51:XT:89:ARG:O	51:XT:93:GLU:HG2	2.12	0.49
55:XY:227:PHE:HE2	55:XY:245:ARG:HD3	1.76	0.49
55:XY:322:ILE:HG21	55:XY:347:GLU:CD	2.36	0.49
1:RA:2526:G:H5'	1:RA:2742:C:O2'	2.11	0.49
8:RI:72:LEU:HD12	8:RI:138:ILE:HG21	1.93	0.49
13:RR:24:GLN:HE21	13:RR:44:LEU:HG	1.77	0.49
39:QH:18:ARG:N	39:QH:18:ARG:HD2	2.26	0.49
42:QK:85:ARG:HD3	42:QK:113:PRO:HD3	1.93	0.49
55:QY:173:GLY:HA2	55:QY:176:LYS:HE3	1.94	0.49
1:YA:848:G:H2'	1:YA:849:A:C8	2.46	0.49
2:YB:28:C:OP1	14:YS:36:TYR:OH	2.23	0.49
32:XA:102:G:O2'	32:XA:151:A:N3	2.35	0.49
33:XB:45:GLN:O	33:XB:49:GLU:HG2	2.12	0.49
47:XP:53:VAL:HG13	47:XP:79:VAL:HG22	1.94	0.49
1:RA:414:C:H2'	1:RA:415:A:C8	2.48	0.49
1:RA:754:C:H2'	1:RA:755:C:C6	2.47	0.49
1:RA:919:G:N2	1:RA:2269:A:OP2	2.45	0.49
1:RA:2001:A:H2'	1:RA:2002:G:C8	2.48	0.49
1:RA:2271:G:OP1	22:R0:18:ALA:HB1	2.12	0.49
6:RG:62:LEU:HD12	6:RG:148:MET:HE1	1.94	0.49
6:RG:106:LEU:HA	6:RG:110:ALA:HB3	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:RP:2:LYS:HE2	11:RP:4:SER:OG	2.12	0.49
32:QA:110:C:O2'	47:QP:25:ARG:O	2.26	0.49
50:QS:63:THR:OG1	50:QS:65:ASN:ND2	2.45	0.49
1:YA:322:A:OP2	5:YF:169:ASN:HB2	2.12	0.49
1:YA:589:C:H2'	1:YA:590:A:C8	2.47	0.49
1:YA:2889:C:H3'	1:YA:2891:G:H8	1.77	0.49
5:YF:18:ARG:HG2	5:YF:19:GLU:N	2.26	0.49
19:YX:53:LYS:HB3	19:YX:82:GLN:HB3	1.93	0.49
32:XA:858:G:O6	32:XA:869:G:H3'	2.12	0.49
32:XA:1305:G:H22	32:XA:1331:G:H1'	1.77	0.49
1:RA:2243:U:H2'	1:RA:2244:U:C6	2.48	0.49
3:RD:106:ILE:HD11	3:RD:144:ALA:HB2	1.94	0.49
4:RE:170:LEU:HB3	4:RE:184:VAL:HG22	1.93	0.49
6:RG:5:VAL:HG12	26:R4:25:TYR:CE1	2.48	0.49
27:R5:48:GLU:O	27:R5:60:VAL:HG21	2.12	0.49
32:QA:171:A:H2'	32:QA:172:A:C8	2.47	0.49
33:QB:187:LEU:HA	33:QB:201:ILE:HB	1.93	0.49
40:QI:108:VAL:HG12	40:QI:109:VAL:H	1.76	0.49
50:QS:3:ARG:NH1	50:QS:10:PHE:HB2	2.26	0.49
1:YA:484:C:H2'	1:YA:485:C:C6	2.47	0.49
1:YA:1357:U:H2'	1:YA:1358:G:O4'	2.11	0.49
1:YA:1654:A:O2'	4:YE:113:PHE:O	2.26	0.49
17:YV:6:LYS:HB2	17:YV:38:LEU:HD21	1.94	0.49
32:XA:1028:C:H2'	32:XA:1033:G:H22	1.78	0.49
43:XL:86:ARG:HH11	43:XL:99:HIS:HB2	1.77	0.49
49:XR:52:PRO:HB2	49:XR:54:ARG:HG2	1.93	0.49
1:RA:2836:U:H2'	1:RA:2837:G:C8	2.48	0.49
32:QA:452:A:H4'	47:QP:72:ARG:NH1	2.28	0.49
32:QA:1065:U:H4'	32:QA:1066:C:O5'	2.11	0.49
32:QA:1148:U:H2'	32:QA:1149:C:O4'	2.11	0.49
1:YA:1055:G:H21	1:YA:1084:A:N6	2.11	0.49
1:YA:2126:A:H4'	1:YA:2127:G:O5'	2.13	0.49
32:XA:841:U:C5	32:XA:848:C:H1'	2.48	0.49
32:XA:973:G:H3'	32:XA:974:A:H5''	1.94	0.49
1:RA:706:A:H2'	1:RA:707:G:O4'	2.13	0.49
1:RA:774:A:H2'	1:RA:774:A:N3	2.27	0.49
1:RA:1689:A:H4'	32:QA:1475:G:H4'	1.94	0.49
1:RA:2889:C:H3'	1:RA:2891:G:H8	1.77	0.49
2:RB:96:U:OP2	21:RZ:14:LYS:NZ	2.46	0.49
7:RH:137:ASP:HB3	7:RH:140:LYS:HB3	1.94	0.49
16:RU:49:HIS:HA	16:RU:52:ARG:HB3	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:R3:3:ARG:HH11	25:R3:60:GLU:CD	2.20	0.49
32:QA:1239:A:C4	32:QA:1298:C:N4	2.81	0.49
1:YA:607:U:OP1	5:YF:102:PRO:HA	2.13	0.49
32:XA:1035:A:H2'	32:XA:1036:G:C8	2.47	0.49
1:RA:154(B):C:H42	1:RA:171:G:H1	1.61	0.49
1:RA:1266:G:O5'	18:RW:15:ARG:NH2	2.45	0.49
1:RA:2206:G:H8	1:RA:2207:G:N7	2.11	0.49
19:RX:53:LYS:HB3	19:RX:82:GLN:HB3	1.93	0.49
32:QA:542:G:H5'	35:QD:41:GLY:HA3	1.94	0.49
41:QJ:30:SER:OG	41:QJ:81:THR:HG22	2.11	0.49
41:QJ:40:LEU:HB2	41:QJ:69:ASN:HB2	1.95	0.49
1:YA:1069:A:O2'	1:YA:1072:C:OP1	2.27	0.49
1:YA:2119:A:N6	1:YA:2168:G:H21	2.10	0.49
1:YA:2162:G:O3'	1:YA:2172:U:O2'	2.28	0.49
1:YA:2864:G:OP1	15:YT:119:LYS:HE3	2.13	0.49
23:Y1:64:ALA:HA	23:Y1:67:ILE:HG13	1.94	0.49
26:Y4:59:PHE:CA	26:Y4:61:ARG:H	2.12	0.49
32:XA:995:C:H1'	45:XN:4:LYS:HE2	1.94	0.49
1:RA:721:C:H2'	1:RA:722:A:C8	2.48	0.49
1:RA:1693:U:O2'	3:RD:14:ARG:NH2	2.46	0.49
1:RA:1889:A:O2'	1:RA:2087:G:H5'	2.12	0.49
12:RQ:55:VAL:HG12	12:RQ:64:ILE:HD12	1.95	0.49
20:RY:6:HIS:HE1	20:RY:72:VAL:O	1.95	0.49
32:QA:1441:G:O2'	32:QA:1460:A:N6	2.46	0.49
33:QB:162:ILE:O	33:QB:185:ILE:HG12	2.13	0.49
40:QI:24:GLY:HA2	40:QI:59:PHE:O	2.13	0.49
1:YA:300:A:H2'	1:YA:334:C:H1'	1.93	0.49
8:YI:114:LEU:HD12	8:YI:116:LEU:HB2	1.95	0.49
32:XA:512:U:H2'	32:XA:513:C:C6	2.48	0.49
32:XA:1435:G:H2'	32:XA:1436:U:C6	2.48	0.49
35:XD:25:ARG:NH1	35:XD:30:LYS:O	2.45	0.49
36:XE:6:PHE:HB2	36:XE:34:VAL:HG13	1.94	0.49
55:XY:107:ASP:O	55:XY:173:GLY:N	2.35	0.49
55:XY:228:ARG:HD3	55:XY:238:ASN:O	2.12	0.49
1:RA:1569:A:H2'	1:RA:1570:A:C8	2.48	0.49
32:QA:1305:G:N2	32:QA:1331:G:H1'	2.28	0.49
36:QE:8:GLU:OE2	36:QE:63:ARG:NH2	2.46	0.49
1:YA:922:U:H2'	1:YA:923:C:C6	2.48	0.49
1:YA:2836:U:H2'	1:YA:2837:G:C8	2.48	0.49
16:YU:92:ARG:HA	16:YU:95:LEU:HB2	1.95	0.49
26:Y4:59:PHE:HA	26:Y4:60:GLN:C	2.38	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:36:C:OP1	43:XL:123:LYS:HE2	2.13	0.49
32:XA:189(M):G:H2'	32:XA:190:U:C6	2.48	0.49
32:XA:457:C:H2'	32:XA:458:C:H6	1.78	0.49
32:XA:1403:C:H1'	32:XA:1500:A:N1	2.28	0.49
32:XA:1494:G:O2'	55:XY:160:LYS:NZ	2.26	0.49
35:XD:116:GLN:NE2	35:XD:157:LEU:HD11	2.27	0.49
40:XI:31:GLN:HG3	40:XI:36:TYR:HB2	1.95	0.49
1:RA:826:U:H2'	1:RA:828:U:O4'	2.13	0.48
1:RA:1045:A:H4'	1:RA:1046:A:C5'	2.44	0.48
14:RS:48:LEU:HD23	14:RS:82:ILE:HD11	1.95	0.48
19:RX:5:TYR:O	24:R2:36:ARG:NH2	2.42	0.48
32:QA:890:G:O2'	32:QA:906:G:O6	2.28	0.48
33:QB:115:LEU:HD12	33:QB:142:LEU:HD12	1.94	0.48
35:QD:106:TYR:HE2	35:QD:107:ARG:HH11	1.61	0.48
36:QE:74:GLY:HA3	36:QE:116:THR:HG22	1.95	0.48
1:YA:1525:G:H2'	1:YA:1526:G:C8	2.48	0.48
1:YA:1971:A:C4	3:YD:241:PRO:HD3	2.48	0.48
1:YA:2389:G:H5''	1:YA:2390:U:O4'	2.13	0.48
4:YE:119:ARG:HD3	4:YE:120:TRP:NE1	2.28	0.48
6:YG:115:ARG:HG3	6:YG:136:ARG:HH21	1.78	0.48
9:YN:108:PRO:O	9:YN:113:GLY:HA3	2.13	0.48
26:Y4:40:HIS:HB3	26:Y4:43:TYR:CD1	2.48	0.48
32:XA:1129:C:H2'	32:XA:1139:G:N7	2.28	0.48
32:XA:1346:A:OP1	40:XI:120:ARG:NH1	2.34	0.48
55:XY:123:GLU:CG	55:XY:188:PRO:HB3	2.43	0.48
1:RA:214:G:H1'	1:RA:216:A:O2'	2.13	0.48
1:YA:272(E):U:H2'	1:YA:272(F):C:C6	2.48	0.48
1:YA:438:G:H2'	1:YA:440:G:C8	2.48	0.48
1:YA:1826:G:H4'	3:YD:242:ARG:CZ	2.43	0.48
26:Y4:48:ARG:HG3	26:Y4:52:THR:HG23	1.93	0.48
32:XA:149:A:H2'	32:XA:150:C:C6	2.48	0.48
34:XC:125:GLU:OE1	34:XC:190:ARG:NH1	2.46	0.48
1:RA:539:G:H2'	1:RA:540:C:H6	1.78	0.48
1:RA:2704:C:H2'	1:RA:2705:A:O4'	2.13	0.48
15:RT:35:LYS:HD3	15:RT:40:THR:HG22	1.94	0.48
32:QA:184:G:H2'	32:QA:185:A:H8	1.78	0.48
51:QT:63:ILE:HG21	51:QT:81:LYS:HG3	1.96	0.48
1:YA:1053:C:H2'	1:YA:1054:A:C8	2.49	0.48
5:YF:185:ASP:OD1	5:YF:188:ARG:NH1	2.46	0.48
10:YO:38:VAL:HG13	10:YO:87:ILE:HD11	1.94	0.48
40:XI:31:GLN:HB2	40:XI:35:GLU:HG2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:XL:117:ARG:HG2	43:XL:122:THR:HB	1.96	0.48
1:RA:856:C:H2'	1:RA:857:C:C6	2.49	0.48
1:RA:1259:G:H2'	1:RA:1260:G:H8	1.78	0.48
1:RA:2142:C:H2'	1:RA:2143:C:C6	2.48	0.48
1:RA:2466:C:OP1	31:R9:4:ARG:HB2	2.13	0.48
4:RE:73:GLU:H	4:RE:73:GLU:CD	2.21	0.48
4:RE:119:ARG:HH21	4:RE:158:GLY:N	2.11	0.48
11:RP:100:LEU:HD12	11:RP:112:LEU:HD11	1.95	0.48
14:RS:20:ARG:O	14:RS:20:ARG:HD3	2.12	0.48
21:RZ:198:LYS:HB2	21:RZ:203:GLU:HA	1.96	0.48
24:R2:65:ASN:OD1	24:R2:69:ARG:NH1	2.40	0.48
32:QA:115:G:H4'	32:QA:116:A:O5'	2.13	0.48
32:QA:184:G:H2'	32:QA:185:A:C8	2.49	0.48
35:QD:25:ARG:NH1	35:QD:30:LYS:O	2.47	0.48
51:QT:42:GLN:NE2	51:QT:46:GLU:OE2	2.47	0.48
1:YA:1404:C:H2'	1:YA:1405:U:H6	1.78	0.48
7:YH:56:SER:OG	7:YH:58:GLU:HG2	2.13	0.48
11:YP:98:GLU:OE1	11:YP:98:GLU:N	2.40	0.48
20:YY:99:CYS:SG	20:YY:100:ALA:N	2.87	0.48
21:YZ:10:ARG:NH2	21:YZ:26:GLY:O	2.43	0.48
32:XA:715:A:H2'	32:XA:716:A:C8	2.48	0.48
33:XB:145:LEU:HD12	33:XB:149:LEU:HD12	1.95	0.48
1:RA:764:A:O4'	3:RD:213:ARG:HG3	2.13	0.48
1:RA:1250:G:N7	11:RP:18:ARG:NH2	2.61	0.48
1:RA:2023:G:H4'	1:RA:2617:C:O3'	2.14	0.48
9:RN:58:ASP:N	9:RN:58:ASP:OD1	2.47	0.48
32:QA:49:U:C2	32:QA:361:G:N2	2.82	0.48
32:QA:1003:G:C2'	32:QA:1004:A:H4'	2.44	0.48
32:QA:1068:G:OP2	32:QA:1068:G:H8	1.96	0.48
32:QA:1359:C:H4'	32:QA:1362:C:H41	1.79	0.48
47:QP:17:TYR:HE2	47:QP:41:PRO:HG3	1.78	0.48
53:QV:16:C:O2'	53:QV:61:C:OP1	2.27	0.48
7:YH:159:GLU:HG3	7:YH:169:VAL:HG11	1.95	0.48
18:YW:29:LEU:HD22	18:YW:69:LEU:HD12	1.96	0.48
35:XD:64:LEU:HB2	35:XD:198:VAL:HG11	1.95	0.48
1:RA:1021:A:O2'	1:RA:1123:C:OP1	2.20	0.48
1:RA:1721:G:N1	1:RA:1739:U:OP2	2.46	0.48
4:RE:119:ARG:HG3	4:RE:160:TYR:HB2	1.94	0.48
11:RP:86:LYS:HB3	11:RP:118:GLY:HA3	1.95	0.48
14:RS:27:SER:HA	14:RS:88:ASP:HB3	1.94	0.48
32:QA:1187:G:H4'	40:QI:111:ARG:NH1	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:QF:97:PHE:HB2	49:QR:32:ARG:HH11	1.79	0.48
40:QI:3:GLN:OE1	40:QI:20:ARG:NH2	2.29	0.48
49:QR:33:ASP:OD2	49:QR:36:ASN:HB2	2.13	0.48
1:YA:626:U:O4	11:YP:107:LYS:HE2	2.13	0.48
8:YI:72:LEU:HD21	8:YI:107:VAL:HG11	1.95	0.48
18:YW:14:PRO:HG2	18:YW:78:GLU:HG3	1.95	0.48
21:YZ:198:LYS:CE	53:XV:52:G:H2'	2.37	0.48
32:XA:444:C:H42	32:XA:490:G:H1	1.61	0.48
32:XA:473:G:OP2	47:XP:75:ARG:HD3	2.14	0.48
32:XA:1003:G:H3'	32:XA:1003:G:N3	2.29	0.48
32:XA:1258:G:H2'	32:XA:1259:C:C6	2.48	0.48
32:XA:1442(A):G:H2'	32:XA:1442(A):G:N3	2.29	0.48
53:XV:17:C:H5	53:XV:17(A):U:C5	2.32	0.48
53:XV:20:U:H2'	53:XV:21:A:H5'	1.95	0.48
1:RA:464:U:H2'	1:RA:465:G:O4'	2.14	0.48
1:RA:796:C:H2'	1:RA:797:C:C6	2.48	0.48
32:QA:750:G:O2'	46:QO:22:THR:O	2.21	0.48
32:QA:1183:A:O2'	32:QA:1184:G:OP1	2.28	0.48
32:QA:1291:G:OP1	38:QG:37:ASN:ND2	2.47	0.48
1:YA:572:A:H2'	1:YA:573:G:O4'	2.14	0.48
1:YA:652(U):C:H2'	1:YA:652(V):G:C8	2.49	0.48
1:YA:1091:G:H2'	1:YA:1091:G:N3	2.28	0.48
1:YA:1364:G:N7	23:Y1:3:LYS:HD2	2.29	0.48
1:YA:1636:C:H2'	1:YA:1637:A:C8	2.48	0.48
1:YA:1669:A:O2'	1:YA:2549:G:H5'	2.12	0.48
32:XA:964:A:N3	32:XA:969:A:O2'	2.39	0.48
42:XK:27:ASN:OD1	42:XK:28:THR:N	2.46	0.48
1:RA:93:G:H2'	1:RA:94(A):C:C6	2.48	0.48
1:RA:2602:A:C5	55:QY:237:VAL:HG23	2.49	0.48
18:RW:4:LYS:HG2	18:RW:5:ALA:N	2.29	0.48
32:QA:186:C:H2'	32:QA:187:C:C6	2.49	0.48
32:QA:266:G:H2'	32:QA:266:G:N3	2.29	0.48
32:QA:1179:A:OP2	40:QI:93:ARG:NH2	2.47	0.48
55:QY:172:TYR:CE1	55:QY:207:PRO:HD3	2.49	0.48
1:YA:1645:G:H5''	1:YA:1646:C:H5'	1.94	0.48
1:YA:1991:U:H2'	1:YA:1992:G:H5''	1.95	0.48
32:XA:407:G:OP1	35:XD:115:ARG:NH2	2.37	0.48
1:RA:1022:G:C5	1:RA:1140:C:C4	3.01	0.48
1:RA:1639:U:C2'	1:RA:1640:C:H5''	2.43	0.48
1:RA:2296:U:OP2	14:RS:9:ARG:NH2	2.42	0.48
3:RD:2:ALA:N	3:RD:200:ASP:OD2	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:176:C:H2'	32:QA:177:C:C6	2.49	0.48
32:QA:520:A:N1	32:QA:536:C:H1'	2.29	0.48
32:QA:1479:C:H2'	32:QA:1480:G:H8	1.79	0.48
33:QB:96:ARG:HG2	33:QB:98:LEU:HD23	1.96	0.48
1:YA:272(P):C:H5''	8:YI:45:LYS:HD2	1.95	0.48
1:YA:751:A:H5'	18:YW:90:ARG:HA	1.95	0.48
1:YA:1411:C:H2'	1:YA:1412:A:C8	2.49	0.48
7:YH:55:PRO:HG2	7:YH:61:HIS:ND1	2.29	0.48
13:YR:63:ARG:O	13:YR:67:LEU:HB2	2.13	0.48
34:XC:22:TRP:CD1	34:XC:59:ARG:HD2	2.49	0.48
1:RA:721:C:H2'	1:RA:722:A:H8	1.79	0.48
1:RA:754:C:H2'	1:RA:755:C:H6	1.79	0.48
55:QY:191:GLU:OE2	55:QY:193:GLN:HB2	2.14	0.48
1:YA:614(A):U:H5'	1:YA:614(D):A:N6	2.28	0.48
1:YA:998:C:OP2	16:YU:92:ARG:NH2	2.46	0.48
1:YA:1493:C:C5	1:YA:2206:G:H2'	2.49	0.48
1:YA:2591:C:H2'	1:YA:2592:G:C8	2.48	0.48
4:YE:170:LEU:HD23	4:YE:184:VAL:HG11	1.96	0.48
9:YN:4:TYR:CD2	16:YU:100:VAL:HG11	2.48	0.48
29:Y7:10:ARG:HG2	29:Y7:14:LYS:HD3	1.96	0.48
32:XA:804:U:H5''	32:XA:805:C:OP2	2.13	0.48
32:XA:1250:A:H2	32:XA:1353:G:H21	1.62	0.48
46:XO:17:ARG:HD3	46:XO:26:GLU:OE2	2.14	0.48
1:RA:2572:A:C8	4:RE:144:ARG:HD2	2.49	0.47
10:RO:8:LEU:HD22	10:RO:82:ASN:HB3	1.96	0.47
26:R4:41:PRO:HG3	26:R4:49:PHE:CE1	2.49	0.47
32:QA:107:G:H2'	32:QA:108:G:O4'	2.14	0.47
32:QA:486:U:H2'	32:QA:487:A:H8	1.79	0.47
32:QA:744:C:O2'	32:QA:851:G:N2	2.47	0.47
1:YA:459:U:H2'	1:YA:460:A:H8	1.79	0.47
1:YA:1405:U:H2'	1:YA:1406:U:C6	2.49	0.47
1:YA:1833:U:O2'	1:YA:1969:A:N1	2.43	0.47
34:XC:137:ALA:HA	34:XC:140:ARG:HH11	1.79	0.47
40:XI:23:ASN:H	40:XI:23:ASN:HD22	1.62	0.47
40:XI:23:ASN:OD1	40:XI:25:LYS:HE2	2.14	0.47
46:XO:35:ARG:NH2	46:XO:59:MET:HE2	2.29	0.47
1:RA:1084:A:H3'	1:RA:1085:A:H4'	1.96	0.47
1:RA:2150:U:H2'	1:RA:2151:G:C8	2.49	0.47
2:RB:66:A:N6	2:RB:109:C:H5''	2.27	0.47
21:RZ:129:SER:HB3	21:RZ:132:ASN:HB2	1.95	0.47
31:R9:27:CYS:SG	31:R9:28:GLU:N	2.87	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:973:G:H3'	32:QA:974:A:H5''	1.95	0.47
32:QA:992:U:H4'	32:QA:993:G:H5'	1.95	0.47
39:QH:73:ASP:OD1	39:QH:75:ARG:HG3	2.15	0.47
1:YA:154(B):C:H42	1:YA:171:G:H1	1.62	0.47
1:YA:276:A:H5''	1:YA:277:C:H5'	1.96	0.47
1:YA:1053:C:H2'	1:YA:1054:A:H8	1.79	0.47
1:YA:1798:U:H5'	3:YD:259:THR:CG2	2.39	0.47
1:YA:2032:G:H1'	4:YE:145:LYS:HD3	1.97	0.47
3:YD:177:LEU:HD11	3:YD:183:ARG:HD3	1.96	0.47
5:YF:53:THR:HG22	5:YF:56:GLU:OE2	2.13	0.47
11:YP:62:LEU:O	30:Y8:13:ARG:HD3	2.14	0.47
32:XA:148:G:H2'	32:XA:149:A:C8	2.49	0.47
32:XA:741:G:H2'	32:XA:742:G:O4'	2.14	0.47
32:XA:1179:A:H2'	32:XA:1180:A:O4'	2.14	0.47
55:XY:215:PRO:O	55:XY:216:ASP:C	2.57	0.47
55:XY:258:GLN:HG3	55:XY:258:GLN:O	2.14	0.47
1:RA:273(A):G:N7	1:RA:421:U:H2'	2.29	0.47
1:RA:747:U:O2	1:RA:2014:A:H1'	2.14	0.47
1:RA:1313:U:H2'	1:RA:1610:A:C2	2.49	0.47
5:RF:184:TYR:O	5:RF:188:ARG:HG3	2.14	0.47
9:RN:96:GLU:HB2	9:RN:122:VAL:HG12	1.97	0.47
32:QA:262:A:C6	32:QA:263:A:C6	3.02	0.47
32:QA:1329:A:N7	52:QU:7:ARG:NH2	2.61	0.47
32:QA:1492:A:H8	55:QY:119:THR:CG2	2.27	0.47
33:QB:78:GLN:OE1	33:QB:95:GLN:NE2	2.47	0.47
35:QD:60:GLU:HG3	35:QD:202:LEU:HD12	1.96	0.47
42:QK:62:GLN:HB2	42:QK:93:GLN:HG3	1.96	0.47
50:QS:41:VAL:HG22	50:QS:42:PRO:HD2	1.96	0.47
55:QY:244:ILE:HD12	55:QY:267:LYS:HB2	1.96	0.47
1:YA:1165:U:H2'	1:YA:1166:C:C6	2.48	0.47
1:YA:1812:A:O2'	3:YD:45:ASN:N	2.44	0.47
18:YW:1:MET:HE2	18:YW:62:HIS:HB3	1.96	0.47
20:YY:6:HIS:HE1	20:YY:72:VAL:O	1.97	0.47
20:YY:56:PRO:C	20:YY:58:GLY:H	2.22	0.47
32:XA:116:A:N1	32:XA:313:A:O2'	2.46	0.47
32:XA:921:U:O2'	36:XE:19:MET:O	2.25	0.47
1:RA:251:A:C5	1:RA:252:G:H1'	2.50	0.47
1:RA:1091:G:H2'	1:RA:1091:G:N3	2.30	0.47
1:RA:2646:C:H2'	1:RA:2647:U:O4'	2.14	0.47
17:RV:81:TYR:C	17:RV:82:ARG:HD2	2.39	0.47
32:QA:1062:U:H2'	32:QA:1063:C:C6	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:1232:U:H5''	40:QI:124:GLN:O	2.13	0.47
34:QC:124:ILE:HD12	34:QC:196:LEU:HD12	1.96	0.47
40:QI:25:LYS:HD3	40:QI:25:LYS:HA	1.59	0.47
1:YA:11:G:C2'	1:YA:12:U:H5'	2.44	0.47
1:YA:1055:G:H2'	1:YA:1056:G:O4'	2.15	0.47
1:YA:1164:G:H2'	1:YA:1165:U:C6	2.50	0.47
5:YF:157:VAL:HB	5:YF:194:MET:HG2	1.96	0.47
26:Y4:15:ILE:HD12	26:Y4:21:VAL:HG22	1.97	0.47
32:XA:108:G:C6	51:XT:15:ARG:HG2	2.49	0.47
32:XA:750:G:N3	46:XO:23:GLY:HA3	2.29	0.47
34:XC:19:GLU:HB3	34:XC:40:ARG:NH2	2.29	0.47
38:XG:45:ASP:O	38:XG:49:ILE:HG13	2.14	0.47
1:RA:36:G:N3	1:RA:450:G:O2'	2.46	0.47
1:RA:725:G:C6	1:RA:726:G:N1	2.83	0.47
1:RA:1002:G:H2'	1:RA:1003:G:O4'	2.15	0.47
1:RA:2180:U:H2'	1:RA:2181:G:C8	2.50	0.47
1:RA:2648:C:H2'	1:RA:2649:U:H6	1.78	0.47
1:RA:2751:G:C8	7:RH:2:SER:HA	2.50	0.47
15:RT:108:ARG:HA	15:RT:111:ARG:NH1	2.29	0.47
30:R8:23:VAL:HG13	30:R8:47:LYS:HB3	1.96	0.47
32:QA:838:G:H5'	32:QA:839:U:OP2	2.14	0.47
32:QA:1347:G:O6	40:QI:10:ARG:NH2	2.47	0.47
37:QF:11:ASN:HB3	37:QF:14:LEU:HG	1.95	0.47
1:YA:774:A:H2'	1:YA:774:A:N3	2.30	0.47
1:YA:1065:U:H4'	1:YA:1066:U:C5'	2.45	0.47
1:YA:1101:U:H2'	1:YA:1102:C:C6	2.49	0.47
11:YP:63:PRO:HD3	30:Y8:27:THR:HG22	1.96	0.47
16:YU:46:ALA:O	16:YU:50:ARG:HG3	2.14	0.47
17:YV:52:VAL:HG23	17:YV:55:ALA:HB3	1.97	0.47
32:XA:1151:A:O2'	32:XA:1152:A:O5'	2.28	0.47
32:XA:1239:A:H62	32:XA:1299:A:H62	1.61	0.47
34:XC:6:HIS:HE1	34:XC:8:ILE:HB	1.79	0.47
35:XD:148:VAL:HG11	35:XD:158:ILE:HG21	1.96	0.47
36:XE:74:GLY:HA3	36:XE:116:THR:HG22	1.96	0.47
1:RA:330:A:N7	1:RA:1210:A:O2'	2.33	0.47
1:RA:1721:G:H8	1:RA:1741:A:H62	1.62	0.47
1:RA:2128:C:H5'	1:RA:2129:C:OP2	2.15	0.47
1:RA:2512:C:H2'	1:RA:2513:G:O4'	2.14	0.47
1:RA:2805:G:H2'	1:RA:2807:G:C8	2.49	0.47
32:QA:737:A:H2'	32:QA:738:C:C6	2.50	0.47
32:QA:974:A:H8	32:QA:974:A:OP1	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:QB:167:PRO:HG3	33:QB:186:ALA:HB1	1.96	0.47
36:QE:110:LEU:HD13	36:QE:118:ILE:HG21	1.97	0.47
1:YA:1899:G:H2'	1:YA:1899:G:N3	2.30	0.47
1:YA:2342:C:O2'	1:YA:2374:C:H5''	2.14	0.47
1:YA:2687:U:H2'	1:YA:2688:U:O4'	2.13	0.47
1:YA:2716:U:H2'	1:YA:2717:G:H8	1.80	0.47
32:XA:49:U:C2	32:XA:361:G:N2	2.83	0.47
32:XA:164:U:H2'	32:XA:165:C:C6	2.50	0.47
32:XA:784:C:H2'	32:XA:785:G:O4'	2.15	0.47
34:XC:137:ALA:HA	34:XC:140:ARG:NH1	2.30	0.47
55:XY:108:GLU:HA	55:XY:170:GLY:CA	2.44	0.47
55:XY:269:LYS:O	55:XY:273:VAL:HG23	2.15	0.47
1:RA:8:A:H2'	1:RA:9:U:C6	2.49	0.47
1:RA:588:U:H2'	1:RA:589:C:C6	2.50	0.47
1:RA:2051:A:H5'	1:RA:2578:G:O4'	2.14	0.47
1:RA:2153:G:H2'	1:RA:2154:G:C8	2.49	0.47
3:RD:61:LEU:O	3:RD:63:ARG:NH1	2.48	0.47
4:RE:101:ARG:HD2	4:RE:169:ASN:O	2.14	0.47
13:RR:95:THR:HG22	13:RR:116:LEU:HD23	1.97	0.47
32:QA:418:C:H2'	32:QA:419:C:C6	2.50	0.47
32:QA:555:C:H2'	32:QA:556:C:C6	2.50	0.47
32:QA:562:C:H1'	43:QL:15:ARG:HD2	1.96	0.47
32:QA:1333:A:H2'	32:QA:1334:G:O4'	2.15	0.47
44:QM:4:ILE:HD12	44:QM:57:ARG:HA	1.96	0.47
44:QM:15:VAL:HG12	44:QM:45:VAL:HG22	1.96	0.47
55:QY:228:ARG:HD3	55:QY:238:ASN:O	2.15	0.47
1:YA:662:G:H5'	11:YP:14:LYS:O	2.15	0.47
1:YA:975(B):G:H1'	1:YA:990:A:C2	2.50	0.47
1:YA:1070:A:H2'	1:YA:1071:G:C8	2.50	0.47
1:YA:1084:A:H3'	1:YA:1085:A:C4'	2.45	0.47
1:YA:1271:G:C2	1:YA:1617:C:H4'	2.50	0.47
1:YA:2298:A:H62	1:YA:2318:G:H8	1.57	0.47
3:YD:108:PRO:HD2	3:YD:111:LEU:HD12	1.96	0.47
3:YD:108:PRO:HG2	3:YD:111:LEU:HG	1.95	0.47
15:YT:39:ARG:NH2	32:XA:345:C:OP2	2.29	0.47
27:Y5:48:GLU:O	27:Y5:60:VAL:HG11	2.15	0.47
29:Y7:12:ARG:NH2	29:Y7:44:PRO:HB3	2.30	0.47
32:XA:691:G:H1'	32:XA:696:A:N6	2.30	0.47
32:XA:902:G:H2'	32:XA:903:G:H8	1.79	0.47
32:XA:1036:G:H2'	32:XA:1037:C:O4'	2.14	0.47
32:XA:1512:U:H2'	32:XA:1513:A:H8	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:XP:59:TRP:HA	47:XP:62:VAL:HG12	1.97	0.47
55:XY:287:GLN:HA	55:XY:290:GLU:HB2	1.95	0.47
1:RA:27:G:O2'	1:RA:28:A:OP2	2.30	0.47
1:RA:1796:U:H2'	1:RA:1797:C:H6	1.79	0.47
1:RA:2022:U:O2'	1:RA:2617:C:H5'	2.14	0.47
9:RN:97:ARG:HA	9:RN:100:GLU:HB2	1.97	0.47
23:R1:53:VAL:HG22	23:R1:74:VAL:HG13	1.97	0.47
32:QA:1151:A:O2'	32:QA:1152:A:H8	1.98	0.47
1:YA:248:G:H5'	1:YA:250:G:N7	2.29	0.47
4:YE:143:ASN:HD22	4:YE:147:PRO:HD3	1.80	0.47
6:YG:7:LEU:HD23	6:YG:100:TRP:HE3	1.78	0.47
8:YI:4:ILE:HD11	8:YI:44:LEU:HD12	1.97	0.47
26:Y4:48:ARG:HB3	26:Y4:52:THR:HA	1.96	0.47
32:XA:922:G:H4'	36:XE:20:GLN:HA	1.96	0.47
33:XB:178:ARG:HH22	39:XH:74:PRO:HB3	1.79	0.47
35:XD:79:PHE:CE1	35:XD:204:ILE:HD13	2.50	0.47
1:RA:447:A:O2'	1:RA:473:G:N7	2.45	0.47
1:RA:2742:C:OP1	31:R9:35:ARG:HD3	2.15	0.47
11:RP:138:LEU:HD23	11:RP:145:PRO:HB3	1.95	0.47
12:RQ:38:GLU:HG3	12:RQ:127:ILE:HB	1.96	0.47
14:RS:66:ALA:O	14:RS:69:VAL:HG22	2.15	0.47
15:RT:37:GLY:HA2	15:RT:38:ASN:HA	1.67	0.47
32:QA:632:A:H5'	32:QA:633:G:OP2	2.14	0.47
44:QM:80:ARG:HG2	44:QM:80:ARG:HH11	1.80	0.47
47:QP:50:LYS:HD3	47:QP:50:LYS:HA	1.64	0.47
1:YA:443:A:N7	5:YF:45:ARG:HG2	2.30	0.47
1:YA:723:G:H2'	1:YA:724:U:O4'	2.15	0.47
1:YA:1364:G:C8	23:Y1:3:LYS:HD2	2.49	0.47
1:YA:1814:G:H4'	3:YD:51:VAL:HG21	1.96	0.47
1:YA:2109:U:H2'	1:YA:2110:G:C8	2.50	0.47
1:YA:2119:A:H61	1:YA:2168:G:N2	2.12	0.47
1:YA:2272:U:H5''	1:YA:2273:A:OP1	2.14	0.47
6:YG:120:LEU:HB3	6:YG:131:TYR:OH	2.15	0.47
17:YV:14:VAL:HB	17:YV:96:ILE:HG13	1.96	0.47
21:YZ:198:LYS:HE2	53:XV:52:G:C2	2.50	0.47
32:XA:583:A:H2'	32:XA:584:G:O4'	2.15	0.47
1:RA:2128:C:N3	1:RA:2160:G:N2	2.59	0.47
1:RA:2712(A):U:H1'	1:RA:2712(B):A:C8	2.50	0.47
8:RI:38:LEU:HB2	8:RI:40:THR:HG23	1.96	0.47
15:RT:16:ARG:HD3	15:RT:19:LEU:HG	1.96	0.47
25:R3:3:ARG:HD3	25:R3:60:GLU:CD	2.40	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:77:G:H2'	32:QA:78:G:H5'	1.96	0.47
32:QA:164:U:H2'	32:QA:165:C:C6	2.50	0.47
32:QA:1255:G:P	41:QJ:45:ARG:HH22	2.38	0.47
41:QJ:57:LYS:HE2	41:QJ:60:ARG:NH2	2.29	0.47
55:QY:120:GLY:HA3	55:QY:124:ALA:HB2	1.97	0.47
1:YA:1316:U:H2'	1:YA:1317:A:C8	2.50	0.47
1:YA:1379:A:H4'	1:YA:1380:G:OP2	2.13	0.47
1:YA:1479:G:H1'	1:YA:1558:A:OP1	2.14	0.47
1:YA:1801:G:OP2	3:YD:154:LYS:NZ	2.43	0.47
1:YA:2641:G:P	9:YN:74:ARG:HH12	2.38	0.47
2:YB:13:A:N1	2:YB:69:G:O2'	2.45	0.47
33:XB:17:PHE:HD1	33:XB:18:GLY:N	2.07	0.47
33:XB:201:ILE:HG21	33:XB:214:ILE:HG21	1.97	0.47
36:XE:78:HIS:HA	39:XH:105:ARG:HG3	1.96	0.47
1:RA:1504:C:H2'	1:RA:1505:C:C6	2.50	0.46
20:RY:13:VAL:HG12	20:RY:74:PRO:HA	1.97	0.46
32:QA:1218:C:H2'	32:QA:1219:U:C6	2.50	0.46
33:QB:55:PHE:HD1	33:QB:58:ILE:HD12	1.80	0.46
37:QF:97:PHE:HB2	49:QR:32:ARG:NH1	2.31	0.46
1:YA:1338:G:O2'	1:YA:1393:A:N1	2.47	0.46
1:YA:2884:U:H2'	1:YA:2885:C:O4'	2.15	0.46
10:YO:63:VAL:HG12	10:YO:106:LEU:HD11	1.97	0.46
32:XA:110:C:H2'	32:XA:111:G:O4'	2.15	0.46
33:XB:9:GLU:HG3	33:XB:10:LEU:H	1.81	0.46
33:XB:16:HIS:O	33:XB:18:GLY:N	2.48	0.46
40:XI:8:GLY:HA3	40:XI:76:ALA:O	2.15	0.46
1:RA:956:G:H2'	1:RA:957:A:H2'	1.97	0.46
1:RA:1913:A:N7	32:QA:1493:A:O2'	2.45	0.46
24:R2:35:LEU:HD12	24:R2:53:LEU:HD12	1.97	0.46
33:QB:115:LEU:O	33:QB:119:GLU:HG2	2.15	0.46
33:QB:163:PHE:CD1	33:QB:185:ILE:HG13	2.50	0.46
1:YA:1021:A:H3'	1:YA:1021:A:N3	2.30	0.46
1:YA:1292:U:H2'	1:YA:1293:C:C6	2.50	0.46
1:YA:1423:G:OP1	1:YA:1492:G:O2'	2.31	0.46
1:YA:1637:A:H4'	1:YA:2711:A:O2'	2.16	0.46
1:YA:2849:U:H4'	1:YA:2868:A:C2	2.51	0.46
32:XA:1101:A:H4'	32:XA:1102:A:O5'	2.15	0.46
46:XO:5:LYS:O	46:XO:9:GLN:HG2	2.15	0.46
1:RA:26:G:C6	1:RA:27:G:N1	2.83	0.46
1:RA:686:G:N2	1:RA:788:A:H61	2.14	0.46
1:RA:1388:G:H4'	1:RA:1525:G:O2'	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:2134:A:C5	1:RA:2157:G:H5'	2.51	0.46
3:RD:132:PRO:HG3	3:RD:190:TYR:CE1	2.51	0.46
8:RI:130:TYR:HB3	8:RI:138:ILE:HB	1.96	0.46
12:RQ:75:THR:HG21	12:RQ:87:LYS:NZ	2.31	0.46
32:QA:1101:A:H4'	32:QA:1102:A:O5'	2.15	0.46
32:QA:1286:A:H2'	32:QA:1287:A:H4'	1.96	0.46
34:QC:188:LEU:HD23	34:QC:190:ARG:HH11	1.81	0.46
39:QH:82:HIS:NE2	39:QH:84:ARG:HG2	2.30	0.46
42:QK:20:TYR:HB2	42:QK:31:THR:HG23	1.97	0.46
43:QL:83:VAL:HG13	43:QL:100:ILE:HG23	1.97	0.46
1:YA:857:C:OP1	22:Y0:77:ARG:NH2	2.38	0.46
1:YA:919:G:N2	1:YA:2269:A:OP2	2.48	0.46
1:YA:1048:A:N6	1:YA:2751:G:H1	2.14	0.46
1:YA:1359:A:N1	1:YA:1372:U:O4	2.49	0.46
1:YA:1598:C:H2'	1:YA:1599:C:H6	1.81	0.46
1:YA:2142:C:H2'	1:YA:2143:C:C6	2.51	0.46
1:YA:2629:A:H1'	1:YA:2630:G:H5''	1.98	0.46
1:YA:2683:C:OP1	15:YT:53:ARG:NH2	2.47	0.46
4:YE:94:GLU:OE2	4:YE:177:PRO:HB3	2.16	0.46
32:XA:1342:C:H2'	32:XA:1343:G:H8	1.80	0.46
32:XA:1504:G:OP1	32:XA:1507:A:H4'	2.15	0.46
33:XB:163:PHE:CE1	33:XB:185:ILE:HG22	2.51	0.46
1:RA:143(B):C:H2'	1:RA:144:C:H6	1.81	0.46
1:RA:1430:C:H2'	1:RA:1431:U:C6	2.51	0.46
1:RA:1916:A:H2'	1:RA:1917:PSU:O4'	2.15	0.46
32:QA:1239:A:H62	32:QA:1299:A:N6	2.13	0.46
35:QD:190:ASP:HB2	35:QD:193:ASP:OD2	2.15	0.46
53:QV:51:C:H2'	53:QV:52:G:O4'	2.16	0.46
1:YA:273(A):G:N7	1:YA:421:U:H2'	2.29	0.46
1:YA:827:U:O2'	1:YA:2068:U:C2	2.67	0.46
1:YA:1378:A:O2'	1:YA:1380:G:N7	2.47	0.46
6:YG:96:ARG:N	6:YG:99:MET:HE2	2.30	0.46
32:XA:257:G:H2'	32:XA:258:G:O4'	2.16	0.46
32:XA:1030(D):G:H2'	32:XA:1030(E):A:C8	2.51	0.46
32:XA:1499:A:H1'	32:XA:1520:G:H5'	1.98	0.46
32:XA:1518:MA6:O5'	32:XA:1518:MA6:H8	2.14	0.46
41:XJ:25:GLU:O	41:XJ:29:ARG:HG2	2.15	0.46
55:XY:242:SER:CA	55:XY:263:GLN:HB3	2.36	0.46
1:RA:1379:A:H4'	1:RA:1380:G:OP2	2.16	0.46
1:RA:1625:C:H2'	1:RA:1626:G:O4'	2.15	0.46
24:R2:64:LEU:HD21	24:R2:68:ARG:HE	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:486:U:H2'	32:QA:487:A:C8	2.50	0.46
32:QA:501:C:H2'	32:QA:502:G:C8	2.50	0.46
32:QA:657:G:O2'	46:QO:23:GLY:HA2	2.15	0.46
33:QB:69:LEU:HD13	33:QB:91:PRO:HB2	1.97	0.46
1:YA:813:U:H2'	1:YA:814:C:C6	2.50	0.46
1:YA:2593:U:H2'	1:YA:2594:C:C6	2.51	0.46
32:XA:727:G:N2	32:XA:730:G:OP2	2.47	0.46
44:XM:80:ARG:NH2	50:XS:65:ASN:O	2.49	0.46
1:RA:1263:U:C4	1:RA:1264:G:C6	3.03	0.46
1:RA:2304:G:H22	1:RA:2312:U:H3	1.64	0.46
1:RA:2420:C:OP1	30:R8:34:TRP:HB3	2.16	0.46
6:RG:5:VAL:HG12	26:R4:25:TYR:HE1	1.81	0.46
8:RI:90:GLY:O	8:RI:121:LYS:HE2	2.15	0.46
13:RR:29:LEU:HB3	13:RR:75:LEU:HD21	1.96	0.46
21:RZ:198:LYS:HE2	53:QV:53:G:O4'	2.16	0.46
26:R4:46:GLN:O	26:R4:48:ARG:N	2.48	0.46
26:R4:50:VAL:HG21	44:QM:64:TRP:C	2.41	0.46
32:QA:976:G:N2	32:QA:1363(A):C:OP2	2.38	0.46
35:QD:148:VAL:HG11	35:QD:158:ILE:HD12	1.97	0.46
36:QE:33:VAL:HG13	36:QE:112:LEU:HD12	1.98	0.46
39:QH:51:VAL:HG21	39:QH:60:ARG:HH11	1.81	0.46
50:QS:27:GLU:CB	50:QS:28:LYS:HG3	2.46	0.46
53:QV:76:A:H3'	55:QY:234:GLY:HA3	1.96	0.46
1:YA:1188:U:H4'	17:YV:79:VAL:HG22	1.97	0.46
1:YA:1803:A:H4'	3:YD:259:THR:HG23	1.98	0.46
32:XA:1002:G:N3	32:XA:1003:G:C8	2.84	0.46
32:XA:1030(A):C:N3	32:XA:1031:G:N2	2.63	0.46
33:XB:7:VAL:O	33:XB:217:ARG:NE	2.39	0.46
34:XC:8:ILE:HD12	34:XC:16:ARG:HD3	1.98	0.46
55:XY:175:LEU:O	55:XY:205:VAL:HG21	2.15	0.46
1:RA:1038:C:N4	1:RA:1117:G:H1	2.06	0.46
1:RA:1127:A:N7	1:RA:2488:A:O2'	2.43	0.46
1:RA:1530:C:H1'	1:RA:1531:C:OP1	2.16	0.46
1:RA:2119:A:N6	1:RA:2168:G:H21	2.13	0.46
1:RA:2397:G:H5''	23:R1:28:GLY:HA2	1.98	0.46
1:RA:2802:G:H2'	1:RA:2803:C:O4'	2.16	0.46
9:RN:4:TYR:CD2	16:RU:100:VAL:HG11	2.50	0.46
28:R6:35:GLU:HG2	28:R6:50:ARG:HD3	1.98	0.46
31:R9:24:TYR:CE2	31:R9:35:ARG:HG3	2.50	0.46
33:QB:124:SER:HA	33:QB:125:PRO:HA	1.68	0.46
37:QF:37:VAL:HA	37:QF:65:VAL:HG12	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:1065:U:H4'	1:YA:1066:U:H5'	1.97	0.46
1:YA:1525:G:H2'	1:YA:1526:G:H8	1.80	0.46
1:YA:2347:C:OP1	28:Y6:38:LYS:NZ	2.26	0.46
9:YN:58:ASP:OD1	9:YN:58:ASP:N	2.49	0.46
32:XA:540:G:H2'	32:XA:541:G:O4'	2.16	0.46
32:XA:1376:U:H2'	32:XA:1377:A:H8	1.80	0.46
34:XC:114:PRO:O	34:XC:118:GLN:HG3	2.16	0.46
48:XQ:41:LYS:HZ1	48:XQ:92:ARG:HH21	1.64	0.46
55:XY:176:LYS:HE3	55:XY:177:PHE:CZ	2.50	0.46
1:RA:239:U:H2'	1:RA:240:G:O4'	2.16	0.46
1:RA:878:A:H3'	1:RA:879:G:H8	1.78	0.46
1:RA:1036:G:H1	1:RA:1119:C:H42	1.64	0.46
1:RA:1087:G:H2'	1:RA:1088:A:H5'	1.96	0.46
1:RA:1155:A:H5''	16:RU:55:ARG:HD3	1.98	0.46
1:RA:2291:U:O2'	1:RA:2374:C:O2	2.34	0.46
1:RA:2376:A:H2'	1:RA:2377:A:O4'	2.15	0.46
1:RA:2507:C:H5''	1:RA:2573:C:N4	2.30	0.46
1:RA:2774:C:H2'	1:RA:2775:A:O4'	2.15	0.46
2:RB:14:U:OP2	2:RB:70:C:O2'	2.28	0.46
30:R8:62:LEU:HB3	30:R8:65:GLU:HG2	1.96	0.46
32:QA:1492:A:H1'	54:QX:20:A:O2'	2.15	0.46
33:QB:114:ARG:HD2	33:QB:114:ARG:HA	1.84	0.46
55:QY:244:ILE:H	55:QY:266:ASN:ND2	2.14	0.46
1:YA:183:C:N4	1:YA:213:A:H61	2.13	0.46
1:YA:876:C:H2'	1:YA:877:U:O4'	2.16	0.46
1:YA:1056:G:H5''	1:YA:1057:A:H5'	1.97	0.46
1:YA:2079:U:H2'	1:YA:2080:G:O4'	2.15	0.46
7:YH:28:GLY:HA3	7:YH:79:VAL:HB	1.98	0.46
11:YP:100:LEU:HD22	11:YP:105:LEU:HD12	1.97	0.46
32:XA:114:U:H1'	32:XA:353:A:H1'	1.97	0.46
32:XA:265:G:H2'	32:XA:267:C:H5	1.80	0.46
32:XA:1218:C:H2'	32:XA:1219:U:C6	2.51	0.46
32:XA:1309:G:OP1	44:XM:88:ARG:HD3	2.15	0.46
1:RA:1104:C:H2'	1:RA:1105:U:C6	2.51	0.46
1:RA:2477:C:N4	31:R9:10:ILE:HG12	2.31	0.46
1:RA:2680:C:H5'	4:RE:189:PRO:HA	1.98	0.46
1:RA:2690:C:N4	1:RA:2713:A:H1'	2.31	0.46
20:RY:99:CYS:SG	20:RY:100:ALA:N	2.89	0.46
30:R8:23:VAL:HG11	30:R8:47:LYS:HD3	1.97	0.46
30:R8:50:LEU:HA	30:R8:50:LEU:HD23	1.79	0.46
32:QA:187:C:H5''	51:QT:86:ARG:HG3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:992:U:H2'	32:QA:1043:C:H41	1.79	0.46
46:QO:82:ILE:O	46:QO:86:GLY:N	2.48	0.46
53:QV:43:A:H2'	53:QV:44:A:C8	2.51	0.46
1:YA:456:C:O2'	19:YX:68:ARG:NH1	2.44	0.46
1:YA:740:U:H2'	1:YA:741:G:H8	1.81	0.46
1:YA:752:A:OP1	29:Y7:3:ARG:NH2	2.42	0.46
1:YA:960:A:C8	1:YA:962:G:C8	3.04	0.46
1:YA:2262:U:H4'	1:YA:2328:A:C2	2.51	0.46
1:YA:2704:C:H2'	1:YA:2705:A:O4'	2.16	0.46
18:YW:97:LYS:HE2	18:YW:99:ARG:NH2	2.31	0.46
30:Y8:63:PRO:HG2	30:Y8:64:TYR:CE2	2.51	0.46
32:XA:632:A:H5'	32:XA:633:G:OP2	2.16	0.46
34:XC:130:VAL:HG21	34:XC:157:ILE:HG23	1.97	0.46
1:RA:1067:A:H4'	1:RA:1068:G:OP2	2.11	0.46
1:RA:1097:U:O2	1:RA:1097:U:H2'	2.15	0.46
1:RA:1341:U:OP2	1:RA:1394:U:O2'	2.21	0.46
1:RA:1495:A:H2'	1:RA:1496:A:C8	2.50	0.46
1:RA:1588:C:H2'	1:RA:1589:C:C6	2.51	0.46
3:RD:206:LEU:HD22	3:RD:211:ARG:HD2	1.98	0.46
12:RQ:30:GLY:HA2	12:RQ:107:ALA:HB2	1.98	0.46
32:QA:222:U:H2'	32:QA:223:U:C6	2.51	0.46
32:QA:946:A:O2'	32:QA:1333:A:N3	2.41	0.46
32:QA:1143:G:H2'	32:QA:1144:G:C8	2.51	0.46
33:QB:98:LEU:O	33:QB:101:MET:HG3	2.16	0.46
42:QK:84:VAL:HG11	42:QK:91:ARG:HD2	1.97	0.46
1:YA:1587:A:H2'	1:YA:1588:C:C6	2.51	0.46
1:YA:2390:U:P	30:Y8:35:GLN:HE22	2.39	0.46
1:YA:2805:G:H2'	1:YA:2807:G:C8	2.51	0.46
32:XA:266:G:O2'	32:XA:267:C:OP2	2.30	0.46
1:RA:9:U:HO2'	1:RA:10:G:P	2.39	0.45
1:RA:78:A:H2'	1:RA:79:G:C8	2.51	0.45
1:RA:573:G:O2'	1:RA:574:C:H3'	2.15	0.45
1:RA:634:C:H2'	1:RA:635:C:C6	2.51	0.45
1:RA:1657:C:H2'	1:RA:1658:C:C6	2.51	0.45
21:RZ:109:ALA:HB3	21:RZ:145:GLU:OE1	2.16	0.45
32:QA:431:A:H2'	32:QA:432:A:O4'	2.17	0.45
32:QA:1036:G:H5''	32:QA:1037:C:C5	2.52	0.45
32:QA:1106:G:H5''	34:QC:172:ARG:HG2	1.97	0.45
33:QB:160:ASP:OD1	33:QB:160:ASP:N	2.49	0.45
50:QS:12:ASP:O	50:QS:14:HIS:N	2.42	0.45
55:QY:222:LEU:HD23	55:QY:248:HIS:HA	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:2611:U:C4	27:Y5:3:LYS:HG2	2.50	0.45
5:YF:20:LEU:CD2	5:YF:21:ALA:H	2.28	0.45
55:XY:227:PHE:CE2	55:XY:245:ARG:HD3	2.51	0.45
1:RA:827:U:O2	1:RA:2246:G:H4'	2.16	0.45
1:RA:1179:C:H2'	1:RA:1180:C:C6	2.51	0.45
1:RA:1930:G:N2	1:RA:1968:G:H2'	2.32	0.45
1:RA:1937:A:O2'	1:RA:1939:5MU:OP2	2.25	0.45
1:RA:1942:5MC:H4'	55:QY:257:CYS:SG	2.55	0.45
28:R6:6:ARG:NH1	28:R6:26:ASN:HB2	2.30	0.45
32:QA:580:U:H2'	32:QA:581:G:O4'	2.16	0.45
32:QA:786:G:H2'	32:QA:787:A:O4'	2.16	0.45
34:QC:88:ARG:NH2	34:QC:101:LEU:O	2.50	0.45
1:YA:195:A:OP1	11:YP:46:LYS:NZ	2.40	0.45
1:YA:277:C:H1'	1:YA:278:A:P	2.56	0.45
1:YA:2689:U:H4'	1:YA:2690:C:H5'	1.97	0.45
1:YA:2756:U:OP2	31:Y9:19:ARG:NH2	2.48	0.45
4:YE:51:PHE:O	4:YE:77:ILE:N	2.45	0.45
32:XA:31:G:O2'	32:XA:48:C:N4	2.49	0.45
33:XB:16:HIS:HB2	33:XB:204:ASN:HB3	1.97	0.45
35:XD:163:GLU:O	35:XD:166:LYS:HG2	2.16	0.45
47:XP:17:TYR:HE1	47:XP:41:PRO:HG3	1.82	0.45
1:RA:751:A:H5'	18:RW:90:ARG:HA	1.98	0.45
1:RA:2224:G:H4'	1:RA:2226:C:C2	2.50	0.45
1:RA:2390:U:O2'	1:RA:2391:G:H5'	2.16	0.45
1:RA:2629:A:H1'	1:RA:2630:G:H5''	1.98	0.45
3:RD:148:GLU:HB2	3:RD:151:LYS:HD2	1.99	0.45
4:RE:7:VAL:HG13	4:RE:27:LEU:HB3	1.98	0.45
8:RI:133:HIS:ND1	8:RI:134:PRO:O	2.49	0.45
15:RT:11:GLU:O	15:RT:15:VAL:HG23	2.16	0.45
17:RV:40:LEU:HB2	17:RV:46:VAL:HG12	1.98	0.45
28:R6:6:ARG:NE	28:R6:24:GLU:OE1	2.43	0.45
1:YA:857:C:N4	1:YA:858:U:O4	2.49	0.45
1:YA:2832:U:O4	1:YA:2883:A:H5''	2.16	0.45
26:Y4:15:ILE:HB	26:Y4:32:TYR:CD1	2.52	0.45
32:XA:1029:C:N4	32:XA:1030(A):C:H41	2.14	0.45
34:XC:12:LEU:HD11	45:YN:51:GLY:HA2	1.98	0.45
44:XM:97:PRO:N	44:XM:110:ARG:HG2	2.31	0.45
1:RA:336:C:HO2'	20:RY:35:TYR:HH	1.47	0.45
1:RA:1557:C:H5''	1:RA:1558:A:OP2	2.17	0.45
1:RA:1907:G:C6	1:RA:1908:C:C4	3.04	0.45
1:RA:2357:U:P	22:R0:20:ARG:HH11	2.40	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:2552:2MU:C2	1:RA:2554:U:H5'	2.46	0.45
5:RF:110:LEU:HA	5:RF:110:LEU:HD23	1.77	0.45
5:RF:178:PRO:HB2	5:RF:201:VAL:CG2	2.47	0.45
26:R4:34:GLU:H	26:R4:34:GLU:HG2	1.41	0.45
32:QA:1297:C:O2'	38:QG:114:ARG:NH2	2.50	0.45
33:QB:16:HIS:CG	33:QB:17:PHE:N	2.84	0.45
37:QF:61:LEU:HD23	37:QF:63:TYR:OH	2.17	0.45
1:YA:70:G:H5''	1:YA:112:U:O2	2.17	0.45
1:YA:492:A:H2'	1:YA:493:G:O4'	2.15	0.45
1:YA:779:U:OP1	3:YD:49:ILE:HG13	2.16	0.45
1:YA:1041:C:N4	1:YA:1114:G:H1	2.10	0.45
1:YA:1092:C:OP2	1:YA:1092:C:H6	1.99	0.45
1:YA:1803:A:HO2'	3:YD:259:THR:HG21	1.81	0.45
1:YA:2261:C:OP1	22:Y0:19:LYS:NZ	2.36	0.45
5:YF:172:TRP:CD1	5:YF:172:TRP:H	2.33	0.45
32:XA:142:G:H2'	32:XA:143:A:C8	2.50	0.45
32:XA:187:C:H2'	32:XA:188:C:H6	1.82	0.45
32:XA:1237:C:O3'	32:XA:1300:G:N2	2.45	0.45
1:RA:184:C:H2'	1:RA:185:U:C6	2.51	0.45
1:RA:1223:G:N2	1:RA:1226:A:OP2	2.44	0.45
1:RA:1418:G:H8	1:RA:1418:G:O5'	1.99	0.45
1:RA:1490:A:O2'	3:RD:99:ASP:OD1	2.34	0.45
1:RA:1826:G:H4'	3:RD:242:ARG:CZ	2.46	0.45
1:RA:2133:G:N2	1:RA:2157:G:H2'	2.31	0.45
1:RA:2810:A:N6	1:RA:2891:G:O2'	2.39	0.45
3:RD:72:LYS:HG3	3:RD:103:ARG:HH22	1.81	0.45
3:RD:242:ARG:HD3	3:RD:242:ARG:N	2.31	0.45
18:RW:18:ARG:NH1	18:RW:76:VAL:O	2.49	0.45
31:R9:25:VAL:O	31:R9:33:LYS:HA	2.17	0.45
32:QA:629:G:H2'	32:QA:630:G:O4'	2.17	0.45
32:QA:1316:G:H5''	45:QN:17:LYS:NZ	2.32	0.45
34:QC:148:GLY:HA3	34:QC:172:ARG:O	2.16	0.45
55:QY:105:PRO:C	55:QY:107:ASP:H	2.24	0.45
1:YA:1112:G:H2'	1:YA:1112:G:N3	2.31	0.45
1:YA:1493:C:N4	1:YA:2206:G:O2'	2.49	0.45
1:YA:1638:C:H2'	1:YA:1639:U:O4'	2.16	0.45
5:YF:150:GLY:HA2	5:YF:172:TRP:CD2	2.52	0.45
8:YI:50:ARG:O	8:YI:54:GLN:HG2	2.17	0.45
26:Y4:61:ARG:NH2	50:XS:9:VAL:HG11	2.32	0.45
35:XD:10:ARG:HB2	35:XD:40:PRO:HG3	1.99	0.45
1:RA:2643:G:H2'	1:RA:2644:G:O4'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:RB:41:U:H5	6:RG:70:VAL:O	1.99	0.45
5:RF:10:PRO:HB3	5:RF:17:ARG:HE	1.80	0.45
16:RU:92:ARG:HA	16:RU:95:LEU:HB2	1.99	0.45
32:QA:1060:C:C5	34:QC:2:GLY:HA3	2.52	0.45
33:QB:178:ARG:NH2	33:QB:198:ASP:OD1	2.49	0.45
37:QF:19:LEU:HD11	37:QF:59:TYR:CE2	2.52	0.45
42:QK:27:ASN:OD1	42:QK:28:THR:N	2.49	0.45
1:YA:674:G:H1'	5:YF:74:ARG:HD3	1.99	0.45
1:YA:1050:A:H2'	1:YA:1051:G:C8	2.50	0.45
1:YA:2306:C:C4	1:YA:2307:G:C6	3.05	0.45
1:YA:2808:U:H5''	1:YA:2891:G:O6	2.16	0.45
3:YD:19:ALA:HB2	3:YD:204:ILE:HD11	1.99	0.45
4:YE:35:GLN:OE1	4:YE:66:HIS:HE1	1.99	0.45
4:YE:120:TRP:CD1	4:YE:155:LYS:HB3	2.51	0.45
32:XA:625:G:H4'	47:XP:16:HIS:CD2	2.52	0.45
36:XE:110:LEU:HD13	36:XE:118:ILE:HG21	1.98	0.45
40:XI:6:GLY:HA3	40:XI:83:ARG:HB2	1.97	0.45
41:XJ:57:LYS:HE3	41:XJ:60:ARG:NH2	2.31	0.45
43:XL:57:LYS:HD3	43:XL:65:GLU:OE2	2.15	0.45
51:XT:57:ARG:HH12	51:XT:100:ILE:HB	1.81	0.45
1:RA:329:G:H8	1:RA:329:G:OP1	2.00	0.45
1:RA:1030:G:OP2	12:RQ:128:LYS:NZ	2.38	0.45
1:RA:1889:A:N1	1:RA:2234:G:H1'	2.32	0.45
1:RA:2695:C:H2'	1:RA:2696:U:C6	2.52	0.45
10:RO:10:VAL:HG21	10:RO:16:ALA:HB3	1.99	0.45
12:RQ:34:LEU:HB2	12:RQ:118:LEU:HD22	1.99	0.45
13:RR:44:LEU:HD22	13:RR:48:VAL:HG23	1.99	0.45
32:QA:411:A:OP2	35:QD:25:ARG:NH2	2.50	0.45
32:QA:1201:A:H1'	32:QA:1202:G:OP2	2.16	0.45
46:QO:21:ASP:OD1	46:QO:24:SER:HB3	2.17	0.45
1:YA:530:G:N1	1:YA:2023:G:OP1	2.35	0.45
1:YA:2128:C:H5'	1:YA:2129:C:OP2	2.16	0.45
1:YA:2572:A:N7	4:YE:144:ARG:HD3	2.30	0.45
1:YA:2716:U:H2'	1:YA:2717:G:C8	2.52	0.45
3:YD:12:SER:HB3	3:YD:208:LYS:HB3	1.99	0.45
6:YG:170:ARG:NH2	6:YG:182:LYS:O	2.49	0.45
12:YQ:109:VAL:HG13	12:YQ:113:GLN:HB2	1.98	0.45
26:Y4:64:GLY:C	26:Y4:66:SER:N	2.75	0.45
32:XA:1270:C:O2'	32:XA:1314:C:H5'	2.16	0.45
36:XE:78:HIS:ND1	39:XH:104:ARG:HD2	2.31	0.45
1:RA:676:A:H1'	1:RA:2443:C:H1'	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:RY:9:LYS:HA	20:RY:10:GLY:HA2	1.67	0.45
27:R5:8:LYS:O	27:R5:9:LYS:HD2	2.16	0.45
41:QJ:44:VAL:HG13	41:QJ:66:ARG:HD2	1.99	0.45
47:QP:59:TRP:HA	47:QP:62:VAL:HG12	1.98	0.45
48:QQ:53:LEU:HD23	48:QQ:82:MET:HE1	1.98	0.45
55:QY:308:ARG:HD2	55:QY:310:TYR:OH	2.17	0.45
1:YA:392:C:H5''	1:YA:409:C:H5''	1.98	0.45
1:YA:428:A:H8	1:YA:428:A:OP2	2.00	0.45
1:YA:478:A:C6	1:YA:480:A:C6	3.05	0.45
1:YA:1411:C:H2'	1:YA:1412:A:H8	1.82	0.45
1:YA:1581:G:H2'	1:YA:1582:C:O4'	2.17	0.45
1:YA:1668:A:O2'	1:YA:1674:G:N7	2.40	0.45
1:YA:2137:C:H1'	1:YA:2154:G:H22	1.82	0.45
1:YA:2331:G:O2'	22:Y0:43:THR:HG22	2.16	0.45
16:YU:108:GLU:O	16:YU:112:ARG:HG2	2.17	0.45
32:XA:814:A:H2'	32:XA:816:A:H5''	1.99	0.45
32:XA:958:A:N3	32:XA:985:C:O2'	2.44	0.45
32:XA:1023:G:H3'	32:XA:1024:G:H8	1.81	0.45
32:XA:1227:A:N3	50:XS:83:HIS:HB3	2.32	0.45
32:XA:1366:C:O2'	41:XJ:60:ARG:NH2	2.33	0.45
38:XG:12:LEU:HD12	38:XG:12:LEU:H	1.82	0.45
53:XV:40:C:H2'	53:XV:41:C:H6	1.81	0.45
55:XY:230:SER:OG	55:XY:258:GLN:NE2	2.49	0.45
1:RA:568:U:H5'	1:RA:945:A:N6	2.31	0.45
1:RA:1378:A:P	29:R7:10:ARG:HH22	2.40	0.45
1:RA:2321:G:HO2'	1:RA:2322:A:P	2.39	0.45
5:RF:150:GLY:HA2	5:RF:172:TRP:CD2	2.51	0.45
10:RO:26:LYS:O	10:RO:30:ALA:HB2	2.17	0.45
32:QA:438:G:N1	32:QA:495:A:OP2	2.35	0.45
32:QA:946:A:H2'	32:QA:947:G:C8	2.52	0.45
32:QA:1146:A:H5'	32:QA:1147:C:OP2	2.17	0.45
38:QG:28:ASN:HA	38:QG:31:MET:HE2	1.99	0.45
38:QG:70:LYS:O	38:QG:138:LYS:HE2	2.16	0.45
55:QY:214:LEU:H	55:QY:215:PRO:CD	2.30	0.45
1:YA:142(B):C:H2'	1:YA:143(A):G:O4'	2.16	0.45
1:YA:615:G:OP1	5:YF:40:GLN:NE2	2.36	0.45
1:YA:818:G:H4'	1:YA:838:C:O3'	2.17	0.45
1:YA:1166:C:H2'	1:YA:1167:U:C6	2.52	0.45
2:YB:73:A:C4	2:YB:105:A:C2	3.05	0.45
7:YH:4:ILE:O	7:YH:69:ARG:HG2	2.17	0.45
18:YW:79:GLY:HA3	18:YW:100:THR:HG22	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:XC:8:ILE:HD12	34:XC:16:ARG:CD	2.47	0.45
39:XH:42:GLU:HG3	39:XH:109:ILE:HD13	1.98	0.45
45:XN:3:ARG:HG2	45:XN:3:ARG:HH21	1.82	0.45
47:XP:4:ILE:O	47:XP:66:PRO:HA	2.17	0.45
55:XY:112:PHE:O	55:XY:205:VAL:HA	2.17	0.45
55:XY:183:ARG:CZ	55:XY:309:THR:HG21	2.46	0.45
1:RA:572:A:OP2	17:RV:78:LYS:NZ	2.49	0.45
1:RA:2127:G:H2'	1:RA:2128:C:O4'	2.17	0.45
1:RA:2786:U:O2'	4:RE:62:PRO:O	2.29	0.45
3:RD:142:VAL:HG23	3:RD:193:VAL:HA	1.99	0.45
8:RI:140:LEU:HD22	8:RI:142:VAL:HG22	1.99	0.45
42:QK:79:SER:HA	42:QK:104:GLN:HB2	1.99	0.45
1:YA:190:A:N3	1:YA:679:C:O2'	2.47	0.45
1:YA:320:A:H4'	1:YA:322:A:N7	2.31	0.45
1:YA:738:G:C2	1:YA:759:G:C5	3.05	0.45
1:YA:1028:A:N6	1:YA:1125:G:H2'	2.32	0.45
1:YA:1063:G:H2'	1:YA:1063:G:N3	2.32	0.45
1:YA:1557:C:H5''	1:YA:1558:A:OP2	2.17	0.45
1:YA:2557:G:H4'	55:XY:245:ARG:NH2	2.32	0.45
5:YF:10:PRO:HB3	5:YF:17:ARG:NE	2.23	0.45
5:YF:29:ASN:H	5:YF:112:MET:HE3	1.82	0.45
21:YZ:33:LEU:HD21	21:YZ:90:VAL:HG11	1.98	0.45
21:YZ:91:LEU:HG	21:YZ:130:PRO:HG3	1.99	0.45
32:XA:397:A:H3'	32:XA:397:A:N3	2.32	0.45
32:XA:730:G:C5	32:XA:731:G:H1'	2.51	0.45
32:XA:1349:A:H5''	40:XI:121:ARG:HB2	1.99	0.45
32:XA:1519:MA6:H8	32:XA:1519:MA6:O5'	2.16	0.45
33:XB:189:ASP:HB3	33:XB:205:ASP:H	1.81	0.45
33:XB:224:GLN:HA	33:XB:228:GLY:O	2.17	0.45
1:RA:1075:C:C2'	1:RA:1076:C:H5'	2.48	0.44
1:RA:1790:C:H2'	1:RA:1791:A:C5	2.52	0.44
1:RA:2336:A:H61	22:R0:43:THR:HG22	1.81	0.44
1:RA:2355:C:H1'	22:R0:39:ARG:NH2	2.29	0.44
20:RY:56:PRO:C	20:RY:58:GLY:H	2.25	0.44
32:QA:179:A:H2'	32:QA:180:U:C6	2.52	0.44
32:QA:339:C:H2'	32:QA:340:U:C6	2.52	0.44
32:QA:433:C:H2'	32:QA:434:U:H6	1.82	0.44
35:QD:178:VAL:HG12	35:QD:179:GLU:H	1.82	0.44
51:QT:18:GLN:O	51:QT:22:ARG:HG3	2.17	0.44
55:QY:319:ASP:OD2	55:QY:344:ILE:HG12	2.16	0.44
1:YA:184:C:H2'	1:YA:185:U:H6	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:330:A:HO2'	1:YA:331:A:H8	1.65	0.44
11:YP:70:GLN:OE1	11:YP:70:GLN:N	2.50	0.44
21:YZ:118:GLN:N	21:YZ:173:ALA:O	2.49	0.44
32:XA:1469:G:H2'	32:XA:1470:G:H8	1.82	0.44
41:XJ:11:PHE:CE1	41:XJ:67:THR:HG22	2.51	0.44
1:RA:228:A:H8	1:RA:229:A:H5'	1.81	0.44
1:RA:1607:C:H4'	1:RA:1608:A:O5'	2.18	0.44
1:RA:2298:A:H62	1:RA:2318:G:H8	1.63	0.44
10:RO:7:TYR:O	10:RO:8:LEU:HD23	2.17	0.44
16:RU:46:ALA:O	16:RU:50:ARG:HG3	2.16	0.44
32:QA:159:G:H2'	32:QA:161:A:OP2	2.17	0.44
32:QA:692:U:O2'	32:QA:694:A:N7	2.32	0.44
32:QA:1223:C:H5''	32:QA:1224:G:H5''	2.00	0.44
34:QC:9:GLY:HA2	34:QC:12:LEU:HG	1.98	0.44
55:QY:227:PHE:CE2	55:QY:245:ARG:HD2	2.52	0.44
1:YA:236:C:H2'	1:YA:237:C:C6	2.53	0.44
1:YA:518:G:H2'	1:YA:519:U:C6	2.52	0.44
1:YA:2119:A:O2'	1:YA:2120:G:H5'	2.17	0.44
1:YA:2364:C:OP1	22:Y0:55:ARG:NH1	2.50	0.44
1:YA:2630:G:H2'	1:YA:2631:G:C8	2.52	0.44
6:YG:11:TYR:OH	6:YG:33:ARG:HG2	2.17	0.44
11:YP:101:VAL:HA	11:YP:106:LEU:O	2.18	0.44
17:YV:72:VAL:HG13	17:YV:85:LYS:HB3	2.00	0.44
20:YY:37:VAL:HG21	20:YY:72:VAL:HG21	1.99	0.44
32:XA:189(L):U:H2'	32:XA:189(M):G:C8	2.52	0.44
32:XA:688:G:H2'	32:XA:689:C:H6	1.82	0.44
33:XB:9:GLU:C	33:XB:11:LEU:H	2.25	0.44
42:XK:84:VAL:HG11	42:XK:91:ARG:HD2	1.98	0.44
8:RI:9:LEU:HD13	8:RI:9:LEU:HA	1.86	0.44
25:R3:59:VAL:O	25:R3:60:GLU:HG2	2.17	0.44
32:QA:551:U:H2'	32:QA:552:U:C6	2.52	0.44
32:QA:786:G:C2	32:QA:797:C:C2	3.05	0.44
32:QA:1060:C:C4	34:QC:2:GLY:HA3	2.51	0.44
35:QD:79:PHE:HE1	35:QD:204:ILE:HD13	1.82	0.44
35:QD:155:LEU:O	35:QD:159:ARG:HG3	2.17	0.44
36:QE:137:GLU:OE1	36:QE:140:ARG:HD2	2.18	0.44
40:QI:22:GLY:HA3	40:QI:60:ASP:OD1	2.17	0.44
1:YA:460:A:H2'	1:YA:461:C:O4'	2.17	0.44
1:YA:910:A:C6	1:YA:911:A:C6	3.05	0.44
1:YA:1036:G:H1	1:YA:1119:C:H42	1.66	0.44
1:YA:1268:A:H2'	1:YA:1269:A:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:1278:A:OP1	13:YR:36:THR:HG23	2.17	0.44
1:YA:2165:G:H2'	1:YA:2166:G:O4'	2.16	0.44
6:YG:36:LYS:HD3	6:YG:95:ARG:NH1	2.32	0.44
7:YH:20:ALA:HB1	7:YH:21:PRO:HD2	2.00	0.44
32:XA:1004:A:H5'	32:XA:1025:U:C5	2.51	0.44
32:XA:1164:G:H1	32:XA:1172:C:H42	1.63	0.44
32:XA:1315:U:H2'	32:XA:1316:G:O4'	2.17	0.44
32:XA:1372:U:H2'	32:XA:1373:G:O4'	2.18	0.44
32:XA:1513:A:H2'	32:XA:1514:C:C6	2.52	0.44
43:XL:32:PHE:HD2	43:XL:86:ARG:HB3	1.82	0.44
54:XX:20:A:N6	55:XY:190:THR:O	2.50	0.44
1:RA:68:G:H2'	1:RA:69:C:O4'	2.18	0.44
1:RA:459:U:H4'	29:R7:40:TRP:CZ3	2.52	0.44
1:RA:760:G:H2'	1:RA:761:A:O4'	2.18	0.44
1:RA:2134:A:H8	1:RA:2156:G:H21	1.64	0.44
2:RB:66:A:H61	2:RB:108:U:H2'	1.81	0.44
6:RG:115:ARG:HB3	6:RG:136:ARG:HH22	1.82	0.44
32:QA:627:G:H2'	32:QA:628:G:H8	1.81	0.44
32:QA:1225:A:H2'	32:QA:1226:C:C5	2.53	0.44
33:QB:80:ILE:HD11	33:QB:212:GLN:HB2	1.98	0.44
33:QB:166:ASP:HB3	33:QB:169:LYS:HB3	2.00	0.44
34:QC:181:ASN:HB3	34:QC:205:GLY:O	2.17	0.44
36:QE:50:GLU:HB2	36:QE:53:LEU:HD13	1.98	0.44
47:QP:19:ILE:HD11	47:QP:74:LEU:HD11	1.99	0.44
50:QS:20:LEU:HD23	50:QS:23:ASN:HD22	1.82	0.44
1:YA:323:G:C8	5:YF:171:PRO:HG3	2.52	0.44
1:YA:1053:C:O2'	1:YA:1054:A:OP1	2.29	0.44
5:YF:101:LEU:HD12	5:YF:102:PRO:HD2	1.99	0.44
33:XB:28:PHE:O	33:XB:32:ILE:HG13	2.18	0.44
33:XB:127:ILE:C	33:XB:129:GLU:H	2.25	0.44
39:XH:46:LYS:HG3	39:XH:64:LYS:HB2	1.98	0.44
49:XR:38:GLU:OE2	49:XR:41:LYS:NZ	2.39	0.44
55:XY:349:GLN:O	55:XY:353:LEU:N	2.41	0.44
1:RA:78:A:H2'	1:RA:79:G:H8	1.82	0.44
1:RA:84:A:H5''	20:RY:8:LYS:HE2	1.98	0.44
1:RA:1178:C:P	1:RA:1178:C:H6	2.41	0.44
1:RA:1803:A:O2'	3:RD:259:THR:HG21	2.17	0.44
1:RA:1866:C:H2'	1:RA:1876:A:O4'	2.18	0.44
1:RA:2029:G:H2'	1:RA:2031:A:OP1	2.16	0.44
1:RA:2516:G:C6	1:RA:2517:C:N4	2.86	0.44
19:RX:35:THR:HB	19:RX:38:GLU:HB2	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:R4:58:ARG:HD2	50:QS:68:GLY:H	1.83	0.44
32:QA:1054:C:O2	32:QA:1196:U:O2'	2.33	0.44
38:QG:90:GLU:H	38:QG:90:GLU:CD	2.25	0.44
54:QX:14:A:H2'	54:QX:14:A:N3	2.31	0.44
55:QY:349:GLN:O	55:QY:353:LEU:HG	2.17	0.44
1:YA:1496:A:N3	1:YA:1577:C:O2'	2.41	0.44
1:YA:2180:U:H2'	1:YA:2181:G:C8	2.51	0.44
6:YG:96:ARG:H	6:YG:99:MET:HE2	1.83	0.44
11:YP:97:PRO:HD3	11:YP:126:VAL:O	2.17	0.44
12:YQ:11:LYS:HE2	12:YQ:88:GLY:O	2.18	0.44
13:YR:95:THR:HG22	13:YR:116:LEU:HD23	2.00	0.44
26:Y4:58:ARG:HD3	50:XS:65:ASN:O	2.18	0.44
32:XA:828:A:H2'	32:XA:829:G:O4'	2.17	0.44
36:XE:137:GLU:OE1	36:XE:141:GLN:NE2	2.50	0.44
40:XI:53:VAL:HG11	40:XI:92:TYR:CE1	2.52	0.44
1:RA:620:G:N3	1:RA:620:G:H5'	2.32	0.44
1:RA:807:U:OP2	11:RP:41:ARG:NH2	2.51	0.44
1:RA:1045:A:H4'	1:RA:1046:A:H5'	1.99	0.44
1:RA:2342:C:O2'	1:RA:2374:C:H5''	2.18	0.44
5:RF:12:LEU:HD13	5:RF:124:LEU:HD11	1.99	0.44
12:RQ:59:ARG:HG2	12:RQ:59:ARG:HH11	1.83	0.44
16:RU:76:TYR:CZ	16:RU:80:ILE:HG13	2.53	0.44
21:RZ:91:LEU:HD12	21:RZ:91:LEU:HA	1.84	0.44
21:RZ:125:LEU:HB3	21:RZ:165:VAL:HG13	1.99	0.44
24:R2:65:ASN:O	24:R2:69:ARG:HG3	2.17	0.44
32:QA:363:A:OP1	43:QL:33:ARG:HD3	2.18	0.44
32:QA:501:C:H2'	32:QA:502:G:H8	1.81	0.44
32:QA:1442(A):G:N3	32:QA:1442(A):G:H2'	2.32	0.44
34:QC:50:ALA:HB1	34:QC:70:VAL:HG21	1.99	0.44
35:QD:156:GLU:O	35:QD:160:GLN:HG2	2.17	0.44
51:QT:101:GLY:HA2	51:QT:102:GLY:HA2	1.66	0.44
53:QV:15:G:H21	53:QV:21:A:H1'	1.82	0.44
1:YA:1025:G:C4	1:YA:1135:C:H1'	2.53	0.44
1:YA:2070:G:H2'	1:YA:2071:A:C8	2.53	0.44
1:YA:2115:G:N2	1:YA:2171:A:H61	2.14	0.44
1:YA:2712(A):U:O2'	1:YA:2712(B):A:P	2.76	0.44
6:YG:14:GLU:C	6:YG:17:PRO:HD2	2.43	0.44
6:YG:113:ARG:NH2	26:Y4:33:VAL:HG12	2.24	0.44
10:YO:68:GLU:HB3	10:YO:78:ARG:HB2	2.00	0.44
12:YQ:7:MET:HB3	12:YQ:7:MET:HE2	1.75	0.44
22:Y0:23:VAL:HG22	22:Y0:38:VAL:HG22	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:Y8:52:LYS:O	30:Y8:56:GLU:HG3	2.17	0.44
32:XA:933:G:O6	38:XG:3:ARG:NH2	2.49	0.44
32:XA:1151:A:O2'	32:XA:1152:A:H8	2.01	0.44
44:XM:4:ILE:HD11	44:XM:60:VAL:HG11	1.99	0.44
1:RA:2507:C:H5''	1:RA:2573:C:H41	1.83	0.44
1:RA:2573:C:N4	55:QY:238:ASN:O	2.50	0.44
4:RE:116:VAL:HG13	4:RE:122:PHE:HB2	2.00	0.44
6:RG:50:ALA:C	6:RG:52:ILE:N	2.74	0.44
15:RT:28:VAL:HG13	15:RT:86:ILE:HG23	1.99	0.44
20:RY:5:MET:HE1	20:RY:35:TYR:HA	1.98	0.44
21:RZ:5:LEU:HD11	21:RZ:44:PHE:HD1	1.83	0.44
32:QA:7:G:H5''	32:QA:298:A:O4'	2.18	0.44
32:QA:297:G:N2	32:QA:300:A:OP2	2.43	0.44
34:QC:32:LEU:HD22	34:QC:59:ARG:NH1	2.32	0.44
38:QG:113:GLU:HG3	38:QG:118:VAL:HG12	2.00	0.44
39:QH:121:ASP:OD1	39:QH:121:ASP:N	2.51	0.44
1:YA:247:G:H4'	1:YA:386:G:C5	2.53	0.44
1:YA:632:A:H2'	1:YA:633:A:C8	2.53	0.44
1:YA:2467:C:H4'	12:YQ:123:HIS:CG	2.53	0.44
4:YE:112:GLY:O	4:YE:159:HIS:HA	2.17	0.44
7:YH:12:PRO:O	7:YH:15:VAL:HG22	2.17	0.44
22:Y0:26:TYR:O	22:Y0:29:GLN:HB2	2.18	0.44
26:Y4:61:ARG:NH2	50:XS:9:VAL:HG21	2.30	0.44
32:XA:865:A:H2	32:XA:918:A:H4'	1.82	0.44
33:XB:174:VAL:O	33:XB:178:ARG:HG2	2.18	0.44
34:XC:148:GLY:HA3	34:XC:172:ARG:O	2.18	0.44
40:XI:26:VAL:HA	40:XI:61:ALA:O	2.18	0.44
42:XK:48:ILE:HD13	42:XK:48:ILE:HA	1.86	0.44
50:XS:62:ILE:HA	50:XS:66:MET:SD	2.57	0.44
55:XY:114:GLU:HG2	55:XY:163:ILE:HG23	2.00	0.44
1:RA:522:G:H2'	1:RA:523:C:C6	2.53	0.44
1:RA:1141:U:P	9:RN:25:ARG:HH12	2.40	0.44
1:RA:1688:U:O2	1:RA:1700:A:H5'	2.18	0.44
1:RA:1721:G:H2'	1:RA:1740:G:O6	2.18	0.44
1:RA:1918:A:O2'	1:RA:1920:4OC:N4	2.51	0.44
3:RD:108:PRO:HD2	3:RD:111:LEU:HG	1.99	0.44
8:RI:62:LYS:O	8:RI:66:GLU:HG2	2.18	0.44
18:RW:84:ARG:O	18:RW:96:ILE:N	2.44	0.44
33:QB:82:ARG:HG3	33:QB:82:ARG:HH11	1.82	0.44
40:QI:16:ARG:HH11	40:QI:64:THR:HG21	1.82	0.44
1:YA:82:G:N2	1:YA:103:A:OP2	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:250:G:C6	1:YA:251:A:C6	3.06	0.44
1:YA:729:G:C6	3:YD:208:LYS:HB2	2.53	0.44
1:YA:1429:G:H2'	1:YA:1430:C:C6	2.53	0.44
1:YA:2136:C:O2	1:YA:2156:G:O2'	2.27	0.44
1:YA:2314:C:H2'	1:YA:2315:G:C8	2.53	0.44
1:YA:2493:U:HO2'	55:XY:264:HIS:CD2	2.34	0.44
1:YA:2511:U:O2'	4:YE:138:PRO:O	2.36	0.44
5:YF:150:GLY:HA2	5:YF:172:TRP:CE3	2.53	0.44
6:YG:36:LYS:HB3	6:YG:95:ARG:HG2	2.00	0.44
6:YG:101:ILE:HD13	26:Y4:25:TYR:HB2	2.00	0.44
32:XA:41:G:H2'	32:XA:42:G:C8	2.52	0.44
32:XA:581:G:OP1	46:XO:61:GLY:HA3	2.18	0.44
33:XB:69:LEU:HB3	33:XB:162:ILE:HG22	1.99	0.44
1:RA:286:C:H2'	1:RA:287:C:C6	2.52	0.44
1:RA:652(C):A:N6	1:RA:655:A:H1'	2.29	0.44
1:RA:2345:G:H1'	1:RA:2382:G:H5'	2.00	0.44
6:RG:15:VAL:HG13	6:RG:175:LEU:HB3	2.00	0.44
7:RH:3:ARG:HH12	7:RH:65:HIS:HB3	1.83	0.44
10:RO:36:GLY:HA3	10:RO:109:LYS:HD2	1.98	0.44
11:RP:63:PRO:HB2	30:R8:30:ARG:NH2	2.32	0.44
26:R4:59:PHE:CE1	50:QS:64:GLU:HG3	2.53	0.44
32:QA:571:U:O2	32:QA:918:A:H5'	2.17	0.44
32:QA:1024:G:H2'	32:QA:1024:G:N3	2.32	0.44
32:QA:1031:G:C2'	32:QA:1032:G:H5'	2.48	0.44
35:QD:57:ARG:NH2	36:QE:107:ARG:HD3	2.33	0.44
35:QD:173:TRP:CE3	35:QD:174:LEU:HG	2.52	0.44
36:QE:57:LYS:HG2	36:QE:61:TYR:CE2	2.52	0.44
36:QE:90:VAL:O	36:QE:120:THR:HA	2.18	0.44
39:QH:46:LYS:HG3	39:QH:64:LYS:HB2	2.00	0.44
55:QY:191:GLU:HG2	55:QY:195:ARG:HG2	2.00	0.44
1:YA:7:G:H2'	1:YA:8:A:C8	2.53	0.44
1:YA:699:A:H2'	1:YA:700:G:O4'	2.18	0.44
1:YA:747:U:O2	1:YA:2014:A:H1'	2.17	0.44
1:YA:1097:U:O2	1:YA:1097:U:H2'	2.17	0.44
1:YA:1721:G:H5''	1:YA:1721:G:N3	2.33	0.44
5:YF:24:LEU:HD21	5:YF:114:VAL:HG12	2.00	0.44
14:YS:71:ARG:O	14:YS:75:GLU:HG2	2.18	0.44
18:YW:10:VAL:HG12	18:YW:12:ILE:HG22	2.00	0.44
23:Y1:23:LYS:HB3	23:Y1:29:GLY:HA3	2.00	0.44
25:Y3:7:LYS:HG3	25:Y3:34:GLU:HG3	2.00	0.44
32:XA:131:C:H2'	32:XA:132:C:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:560:U:H4'	32:XA:561:U:O5'	2.18	0.44
32:XA:688:G:H2'	32:XA:689:C:C6	2.53	0.44
32:XA:1100:C:H2'	32:XA:1102:A:O5'	2.17	0.44
32:XA:1333:A:H2'	32:XA:1334:G:O4'	2.17	0.44
33:XB:218:ALA:O	33:XB:222:ILE:HG23	2.18	0.44
38:XG:16:LEU:HD11	40:XI:45:ALA:HB2	1.99	0.44
55:XY:101:LEU:N	55:XY:103:LYS:HE3	2.28	0.44
1:RA:27:G:C4	1:RA:512:G:N2	2.86	0.43
1:RA:207:A:H2'	1:RA:208:C:O4'	2.18	0.43
1:RA:375:C:H2'	1:RA:376:C:C6	2.53	0.43
1:RA:1815:A:OP2	3:RD:54:ARG:NH2	2.50	0.43
1:RA:1916:A:H8	1:RA:1916:A:O5'	2.02	0.43
1:RA:2149:G:C2	1:RA:2150:U:H1'	2.53	0.43
1:RA:2262:U:H4'	1:RA:2328:A:C2	2.53	0.43
3:RD:182:LEU:HB2	3:RD:272:ALA:HB3	2.00	0.43
13:RR:87:TYR:OH	13:RR:117:VAL:O	2.35	0.43
21:RZ:198:LYS:HE3	53:QV:52:G:N2	2.33	0.43
32:QA:532:A:N6	34:QC:193:TYR:HA	2.32	0.43
32:QA:881:G:P	43:QL:12:ARG:HH22	2.41	0.43
32:QA:1030(D):G:H2'	32:QA:1030(E):A:C8	2.53	0.43
32:QA:1158:C:H5	32:QA:1181:G:H1	1.64	0.43
32:QA:1438:G:H2'	32:QA:1439:C:C6	2.52	0.43
36:QE:71:LEU:C	36:QE:72:GLN:HG2	2.43	0.43
44:QM:3:ARG:HG3	44:QM:4:ILE:N	2.32	0.43
1:YA:272(P):C:HO2'	8:YI:42:SER:HG	1.39	0.43
1:YA:824:A:H1'	1:YA:2358:G:N7	2.34	0.43
1:YA:1050:A:O2'	1:YA:2752:C:H4'	2.18	0.43
1:YA:1141:U:OP2	9:YN:63:THR:OG1	2.33	0.43
1:YA:2109:U:H1'	1:YA:2181:G:N2	2.32	0.43
1:YA:2313:C:H2'	1:YA:2314:C:C6	2.52	0.43
1:YA:2749:A:O3'	7:YH:62:LYS:HE3	2.18	0.43
1:YA:2893:G:H5''	1:YA:2894:G:O4'	2.18	0.43
2:YB:78:A:C2	2:YB:100:A:C4	3.06	0.43
3:YD:51:VAL:CG1	3:YD:54:ARG:HD2	2.48	0.43
3:YD:147:LEU:HD11	3:YD:183:ARG:NE	2.31	0.43
6:YG:12:TYR:HA	6:YG:16:ARG:HG2	2.00	0.43
8:YI:114:LEU:HD11	8:YI:128:LEU:HD13	2.00	0.43
9:YN:97:ARG:HA	9:YN:100:GLU:HB2	2.00	0.43
21:YZ:91:LEU:HD12	21:YZ:91:LEU:HA	1.83	0.43
32:XA:376:G:H5''	47:XP:5:ARG:HB2	2.00	0.43
32:XA:1181:G:O2'	32:XA:1182:G:N7	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:1191:A:OP2	34:XC:3:ASN:ND2	2.51	0.43
33:XB:19:HIS:CG	33:XB:20:GLU:H	2.37	0.43
55:XY:225:ASP:O	55:XY:245:ARG:HB3	2.18	0.43
1:RA:1358:G:O2'	1:RA:1359:A:H5'	2.18	0.43
1:RA:2784:C:O2'	4:RE:37:ARG:NH1	2.51	0.43
5:RF:135:LYS:HB2	5:RF:138:GLU:CD	2.43	0.43
11:RP:94:GLU:HG3	11:RP:124:LYS:HD3	2.00	0.43
21:RZ:158:PRO:O	21:RZ:161:VAL:HG13	2.18	0.43
32:QA:401:C:OP2	35:QD:73:ARG:NH2	2.48	0.43
32:QA:460:G:H1'	32:QA:472:A:H61	1.83	0.43
32:QA:677:U:H2'	32:QA:678:U:C6	2.53	0.43
35:QD:194:LEU:HD12	35:QD:195:ALA:H	1.83	0.43
36:QE:92:LYS:HB3	36:QE:119:LEU:HB2	2.00	0.43
1:YA:971:C:H2'	1:YA:972:G:O4'	2.19	0.43
1:YA:1112:G:C6	1:YA:1113:U:H1'	2.54	0.43
1:YA:1275:A:N1	1:YA:1295:C:O2'	2.42	0.43
5:YF:64:ILE:HD12	5:YF:65:TRP:CZ3	2.53	0.43
32:XA:186:C:O2'	51:XT:85:MET:SD	2.71	0.43
32:XA:302:G:N3	32:XA:556:C:H4'	2.33	0.43
33:XB:16:HIS:CD2	33:XB:210:SER:HB3	2.53	0.43
33:XB:71:VAL:HG12	33:XB:93:VAL:HG22	2.00	0.43
43:XL:28:LYS:HD2	43:XL:62:SER:HB2	2.00	0.43
1:RA:839:U:H2'	1:RA:840:C:C6	2.53	0.43
1:RA:1107:G:C2	1:RA:1108:U:H1'	2.53	0.43
1:RA:1969:A:O2'	1:RA:1972:A:N3	2.50	0.43
1:RA:1999:C:H5''	1:RA:2723:C:O2'	2.18	0.43
1:RA:2114:A:H3'	1:RA:2115:G:H8	1.83	0.43
13:RR:63:ARG:O	13:RR:67:LEU:HB2	2.18	0.43
15:RT:65:LYS:HE2	15:RT:67:SER:HB2	2.00	0.43
32:QA:1030(A):C:N3	32:QA:1031:G:N2	2.66	0.43
32:QA:1031:G:H2'	32:QA:1032:G:H5'	1.99	0.43
32:QA:1068:G:N2	32:QA:1191:A:N3	2.53	0.43
41:QJ:62:HIS:HB3	45:QN:59:ALA:HB3	2.00	0.43
47:QP:20:VAL:HG21	47:QP:32:TYR:CG	2.53	0.43
48:QQ:10:VAL:HG13	48:QQ:19:VAL:HB	2.00	0.43
1:YA:579:G:H2'	1:YA:580:C:C6	2.53	0.43
1:YA:784:A:N6	3:YD:229:VAL:HG11	2.33	0.43
1:YA:2659:G:O2'	7:YH:175:LYS:HE2	2.17	0.43
3:YD:111:LEU:HA	3:YD:111:LEU:HD23	1.74	0.43
29:Y7:33:ARG:HH11	29:Y7:33:ARG:HD2	1.69	0.43
32:XA:485:G:O2'	32:XA:486:U:OP2	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:1004:A:N7	32:XA:1037:C:H2'	2.32	0.43
32:XA:1030(B):G:H2'	32:XA:1030(C):C:H5''	1.99	0.43
32:XA:1187:G:H4'	40:XI:111:ARG:HH11	1.83	0.43
32:XA:1327:C:H2'	32:XA:1328:C:H6	1.82	0.43
44:XM:22:ILE:HG21	44:XM:66:LEU:HD13	2.01	0.43
48:XQ:41:LYS:NZ	48:XQ:88:TYR:OH	2.44	0.43
1:RA:18:C:O2'	1:RA:554:U:OP1	2.34	0.43
1:RA:38:A:H2'	1:RA:39:C:C6	2.54	0.43
1:RA:108:U:H2'	1:RA:109:G:C8	2.54	0.43
1:RA:858:U:O2	1:RA:2268:A:H2'	2.19	0.43
1:RA:1449:A:N3	1:RA:1529:G:H1'	2.33	0.43
1:RA:2119:A:H61	1:RA:2168:G:N2	2.15	0.43
1:RA:2522:U:O2'	1:RA:2647:U:OP1	2.33	0.43
12:RQ:61:GLY:HA2	21:RZ:177:PRO:HB2	2.00	0.43
14:RS:99:LYS:HE2	14:RS:103:GLU:OE2	2.18	0.43
26:R4:61:ARG:HG3	26:R4:62:ARG:H	1.83	0.43
32:QA:620:C:H2'	32:QA:621:A:O4'	2.19	0.43
32:QA:778:G:H2'	32:QA:779:C:O4'	2.19	0.43
43:QL:113:ARG:HH21	43:QL:116:SER:HB2	1.83	0.43
47:QP:75:ARG:HG3	47:QP:80:PHE:CD2	2.52	0.43
1:YA:64:A:O3'	19:YX:71:GLY:HA3	2.18	0.43
1:YA:785:G:C6	1:YA:786:C:C4	3.06	0.43
1:YA:2218:U:C2	23:Y1:52:ARG:NH2	2.86	0.43
13:YR:118:GLU:H	13:YR:118:GLU:CD	2.26	0.43
17:YV:25:LEU:HD12	17:YV:94:LEU:HD21	2.00	0.43
30:Y8:23:VAL:CG1	30:Y8:47:LYS:HD3	2.48	0.43
32:XA:273:A:H1'	48:XQ:16:GLN:OE1	2.19	0.43
32:XA:404:U:C5'	35:XD:122:ARG:HD3	2.48	0.43
32:XA:790:A:C6	32:XA:791:G:C6	3.06	0.43
32:XA:1151:A:O4'	41:XJ:39:PRO:HB2	2.17	0.43
32:XA:1252:A:H2'	32:XA:1253:G:O4'	2.19	0.43
37:XF:33:TYR:HB2	37:XF:75:LEU:HD23	2.00	0.43
42:XK:16:SER:OG	42:XK:106:LYS:NZ	2.51	0.43
55:XY:144:TRP:CH2	55:XY:171:VAL:HA	2.52	0.43
1:RA:300:A:H2'	1:RA:334:C:H1'	1.99	0.43
1:RA:1864:U:OP1	1:RA:2410:G:O2'	2.21	0.43
1:RA:2245:U:H5''	1:RA:2246:G:H5'	2.01	0.43
1:RA:2869:G:H2'	1:RA:2870:C:O4'	2.18	0.43
32:QA:1027:C:H2'	32:QA:1028:C:C5	2.54	0.43
32:QA:1312:G:H5'	50:QS:5:LEU:HD12	2.01	0.43
32:QA:1315:U:H2'	32:QA:1316:G:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:QD:13:ARG:NH2	35:QD:40:PRO:HA	2.34	0.43
35:QD:107:ARG:HA	35:QD:107:ARG:HD2	1.78	0.43
43:QL:33:ARG:NH1	43:QL:62:SER:HB3	2.31	0.43
53:QV:76:A:H5''	55:QY:233:GLY:O	2.19	0.43
55:QY:114:GLU:OE1	55:QY:294:ARG:NE	2.51	0.43
1:YA:445:C:C4	1:YA:446:G:C6	3.07	0.43
1:YA:1364:G:P	23:Y1:3:LYS:HG3	2.58	0.43
1:YA:1815:A:C5	1:YA:1817:G:C6	3.05	0.43
1:YA:1936:A:OP2	1:YA:1962:5MC:N4	2.50	0.43
1:YA:2296:U:OP2	14:YS:9:ARG:NH2	2.48	0.43
1:YA:2747:G:O6	1:YA:2755:C:H5''	2.17	0.43
6:YG:165:THR:OG1	6:YG:168:GLU:HG3	2.18	0.43
7:YH:154:PRO:HB3	7:YH:163:TYR:CZ	2.53	0.43
15:YT:41:ARG:NH2	32:XA:345:C:H3'	2.33	0.43
23:Y1:3:LYS:HB2	23:Y1:61:ARG:HH11	1.84	0.43
29:Y7:24:THR:O	29:Y7:28:ARG:HG3	2.19	0.43
32:XA:269:C:H2'	32:XA:270:A:C8	2.54	0.43
32:XA:770:C:O2'	32:XA:771:G:H5'	2.18	0.43
32:XA:946:A:O2'	32:XA:1333:A:N3	2.47	0.43
32:XA:1342:C:H2'	32:XA:1343:G:C8	2.53	0.43
32:XA:1431:C:H2'	32:XA:1432:G:O4'	2.18	0.43
40:XI:25:LYS:HA	40:XI:25:LYS:HD3	1.77	0.43
47:XP:13:HIS:O	47:XP:42:ARG:NH1	2.52	0.43
50:XS:41:VAL:HG22	50:XS:42:PRO:HD2	1.99	0.43
1:RA:586:A:N1	1:RA:809:G:O2'	2.45	0.43
1:RA:998:C:P	16:RU:92:ARG:HH22	2.42	0.43
1:RA:2320:A:N3	1:RA:2320:A:H2'	2.33	0.43
1:RA:2724:C:OP1	4:RE:111:ARG:NH1	2.49	0.43
1:RA:2846:G:H2'	1:RA:2847:U:O4'	2.19	0.43
1:RA:2872:G:C2	1:RA:2873:A:N6	2.87	0.43
7:RH:88:LEU:HD23	7:RH:130:ARG:HG3	2.01	0.43
10:RO:3:GLN:HB2	10:RO:4:PRO:HD2	2.01	0.43
32:QA:18:C:H4'	32:QA:1078:U:O2	2.19	0.43
32:QA:840:C:H4'	32:QA:841:U:OP1	2.18	0.43
32:QA:1003:G:C2	32:QA:1004:A:N3	2.86	0.43
32:QA:1492:A:H4'	43:QL:47:LYS:HZ1	1.83	0.43
33:QB:115:LEU:HD13	33:QB:145:LEU:HB3	2.00	0.43
41:QJ:4:ILE:N	41:QJ:100:THR:HG22	2.33	0.43
51:QT:9:ASN:OD1	51:QT:9:ASN:N	2.50	0.43
51:QT:24:LEU:HD12	51:QT:24:LEU:HA	1.91	0.43
55:QY:170:GLY:O	55:QY:174:ARG:HG2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:117:G:C6	1:YA:119:A:C6	3.07	0.43
1:YA:1570:A:H2'	1:YA:1571:A:C8	2.53	0.43
1:YA:1802:A:C6	1:YA:1803:A:C6	3.07	0.43
1:YA:2113:U:H2'	1:YA:2114:A:O4'	2.18	0.43
8:YI:12:LEU:HD11	8:YI:25:TYR:HE2	1.84	0.43
32:XA:736:C:H2'	32:XA:737:A:H8	1.82	0.43
32:XA:881:G:P	43:XL:12:ARG:HH22	2.41	0.43
32:XA:1025:U:H3	32:XA:1036:G:H1	1.67	0.43
33:XB:8:LYS:CD	33:XB:51:LEU:HB3	2.48	0.43
43:XL:77:LEU:HD21	43:XL:107:ALA:HA	2.00	0.43
55:XY:114:GLU:HG2	55:XY:163:ILE:HG12	2.01	0.43
55:XY:114:GLU:HB2	55:XY:204:ALA:HB3	1.99	0.43
1:RA:524:U:H4'	1:RA:555:U:H4'	2.00	0.43
1:RA:527:C:N4	1:RA:2777:G:O2'	2.46	0.43
1:RA:974:G:OP1	1:RA:1187:G:O2'	2.26	0.43
1:RA:1404:C:H2'	1:RA:1405:U:H6	1.84	0.43
1:RA:2077:A:H2'	1:RA:2078:C:H6	1.83	0.43
1:RA:2352:A:N6	1:RA:2365:G:O2'	2.51	0.43
1:RA:2465:C:O2	1:RA:2486:G:C2	2.72	0.43
1:RA:2756:U:H5''	31:R9:19:ARG:HA	2.01	0.43
4:RE:40:GLU:H	4:RE:40:GLU:CD	2.27	0.43
19:RX:12:VAL:HG21	19:RX:27:THR:HG22	2.01	0.43
27:R5:35:GLU:HG2	27:R5:51:TYR:CG	2.54	0.43
32:QA:383:A:C5	32:QA:384:G:H1'	2.54	0.43
32:QA:1356:G:H2'	32:QA:1357:A:C8	2.54	0.43
35:QD:195:ALA:O	37:XF:16:GLN:HB3	2.18	0.43
38:QG:68:ASN:O	38:QG:138:LYS:HD2	2.18	0.43
47:QP:1:MET:SD	47:QP:65:GLN:HG3	2.59	0.43
55:QY:255:VAL:HG21	55:QY:273:VAL:CG1	2.49	0.43
1:YA:185:U:H4'	1:YA:218:A:H4'	2.01	0.43
1:YA:411:G:C5	11:YP:72:PRO:HB3	2.53	0.43
1:YA:1260:G:C6	1:YA:1261:C:C4	3.07	0.43
1:YA:1287:A:O4'	13:YR:104:ARG:HD3	2.18	0.43
3:YD:275:LYS:HD2	3:YD:275:LYS:HA	1.86	0.43
4:YE:111:ARG:HG3	4:YE:160:TYR:CD2	2.54	0.43
20:YY:86:ARG:HB2	20:YY:98:VAL:HG23	2.00	0.43
24:Y2:32:LEU:HD22	24:Y2:36:ARG:HH11	1.84	0.43
32:XA:952:U:H2'	32:XA:953:G:H8	1.84	0.43
32:XA:1005:A:C5	32:XA:1006:C:H1'	2.54	0.43
33:XB:71:VAL:HG12	33:XB:93:VAL:CG2	2.49	0.43
35:XD:13:ARG:NH2	35:XD:40:PRO:HA	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:XH:84:ARG:O	39:XH:84:ARG:HG3	2.19	0.43
45:XN:27:CYS:SG	45:XN:29:ARG:HB2	2.59	0.43
1:RA:875:G:H2'	1:RA:876:C:O4'	2.18	0.43
1:RA:1084:A:H3'	1:RA:1085:A:C4'	2.48	0.43
1:RA:1188:U:H4'	17:RV:79:VAL:HG22	2.01	0.43
1:RA:2115:G:N2	1:RA:2171:A:H61	2.15	0.43
1:RA:2251:OMG:H1'	1:RA:2251:OMG:HM23	1.76	0.43
1:RA:2563:U:H2'	1:RA:2565:A:OP2	2.18	0.43
1:RA:2718:G:O2'	1:RA:2847:U:OP1	2.33	0.43
3:RD:72:LYS:HG3	3:RD:103:ARG:NH2	2.33	0.43
19:RX:88:LYS:HB2	19:RX:88:LYS:HE3	1.84	0.43
32:QA:1308:U:OP1	44:QM:98:VAL:N	2.39	0.43
35:QD:57:ARG:HD3	35:QD:205:GLU:HB3	1.99	0.43
38:QG:136:LYS:HB2	38:QG:136:LYS:HE3	1.86	0.43
47:QP:74:LEU:HB3	47:QP:79:VAL:HG21	1.99	0.43
1:YA:560:C:H5'	16:YU:52:ARG:HH21	1.84	0.43
1:YA:1486:A:H2'	1:YA:1487:G:C8	2.54	0.43
1:YA:1696:G:C6	1:YA:1697:G:C4	3.07	0.43
1:YA:2413:G:H2'	1:YA:2414:G:O4'	2.19	0.43
1:YA:2455:G:H2'	1:YA:2456:C:C6	2.53	0.43
3:YD:69:ARG:HG3	3:YD:119:ALA:HB2	2.01	0.43
32:XA:130:A:O2'	32:XA:131:C:O5'	2.36	0.43
32:XA:176:C:H2'	32:XA:177:C:C6	2.54	0.43
32:XA:537:G:H5''	43:XL:113:ARG:HH12	1.82	0.43
32:XA:922:G:C6	32:XA:923:A:C6	3.07	0.43
34:XC:19:GLU:HB3	34:XC:40:ARG:HH22	1.84	0.43
1:RA:388:G:OP2	23:R1:32:LYS:HG2	2.19	0.43
1:RA:470:A:H2'	1:RA:471:A:O4'	2.19	0.43
1:RA:1210:A:H5''	1:RA:1212:G:O4'	2.18	0.43
1:RA:2098:U:H2'	1:RA:2099:U:O4'	2.19	0.43
17:RV:5:VAL:HG21	17:RV:35:LEU:HD23	2.00	0.43
32:QA:447:G:H2'	32:QA:485:G:N2	2.34	0.43
33:QB:8:LYS:NZ	33:QB:52:GLU:HG3	2.33	0.43
33:QB:211:ILE:H	33:QB:211:ILE:HG13	1.65	0.43
35:QD:88:VAL:HG22	36:QE:96:PRO:HB2	2.00	0.43
35:QD:88:VAL:HG13	36:QE:97:GLY:HA2	1.99	0.43
39:QH:95:VAL:HB	39:QH:99:GLU:HG3	2.00	0.43
41:QJ:5:ARG:O	41:QJ:98:ILE:HA	2.19	0.43
1:YA:796:C:H2'	1:YA:797:C:H6	1.82	0.43
1:YA:1036:G:OP1	7:YH:59:ARG:HG2	2.18	0.43
1:YA:1040:C:H4'	21:YZ:46:LYS:HE3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:2106:G:C4	1:YA:2107:C:H1'	2.54	0.43
1:YA:2188:C:H2'	1:YA:2189:U:O4'	2.19	0.43
1:YA:2572:A:OP1	1:YA:2574:G:O2'	2.33	0.43
1:YA:2756:U:OP2	31:Y9:19:ARG:NE	2.49	0.43
5:YF:164:ARG:O	5:YF:168:ARG:HB2	2.19	0.43
7:YH:105:LEU:HD12	7:YH:105:LEU:HA	1.86	0.43
32:XA:126:G:OP1	32:XA:605:U:O2'	2.26	0.43
32:XA:501:C:H1'	32:XA:549:C:H1'	2.01	0.43
32:XA:598:U:H4'	39:XH:94:TYR:CG	2.54	0.43
32:XA:791:G:N2	32:XA:1497:G:O3'	2.51	0.43
32:XA:972:C:H4'	41:XJ:57:LYS:HB2	2.01	0.43
33:XB:28:PHE:CE1	33:XB:31:TYR:HB2	2.54	0.43
44:XM:54:VAL:HA	44:XM:57:ARG:HB3	2.01	0.43
1:RA:284:U:H2'	1:RA:285:C:C6	2.54	0.43
1:RA:886:C:O2'	1:RA:889:C:N4	2.49	0.43
1:RA:2762:G:H2'	1:RA:2763:G:O4'	2.19	0.43
6:RG:181:ARG:HG3	6:RG:182:LYS:N	2.34	0.43
21:RZ:102:LEU:HD11	21:RZ:124:ILE:HB	2.00	0.43
24:R2:32:LEU:HD22	24:R2:36:ARG:NH1	2.34	0.43
32:QA:743:U:H2'	32:QA:744:C:C6	2.54	0.43
32:QA:943:U:H1'	40:QI:124:GLN:HE22	1.84	0.43
36:QE:145:LYS:O	36:QE:149:GLU:HG2	2.19	0.43
38:QG:26:PHE:O	38:QG:30:ILE:HG13	2.19	0.43
38:QG:104:LEU:HD12	38:QG:104:LEU:HA	1.84	0.43
47:QP:20:VAL:HG23	47:QP:35:LYS:HA	2.01	0.43
1:YA:183:C:H42	1:YA:213:A:N6	2.16	0.43
1:YA:618:C:H2'	1:YA:619:G:O4'	2.19	0.43
1:YA:2522:U:O2'	1:YA:2647:U:OP1	2.23	0.43
1:YA:2564:A:OP1	1:YA:2648:C:H4'	2.18	0.43
5:YF:63:LYS:HA	5:YF:76:GLY:O	2.18	0.43
25:Y3:43:ILE:O	25:Y3:47:VAL:HG23	2.19	0.43
32:XA:314:C:O2'	32:XA:315:A:H5'	2.19	0.43
32:XA:828:A:N6	32:XA:858:G:O2'	2.50	0.43
32:XA:1320:C:H2'	32:XA:1321:C:O4'	2.19	0.43
34:XC:9:GLY:HA3	45:XN:49:HIS:HA	2.01	0.43
37:XF:45:LEU:HD12	37:XF:59:TYR:CD2	2.54	0.43
38:XG:111:ARG:HD3	38:XG:113:GLU:OE2	2.19	0.43
55:XY:133:ARG:HG3	55:XY:134:MET:CE	2.47	0.43
1:RA:2282:G:H4'	1:RA:2389:G:O2'	2.19	0.42
1:RA:2466:C:C2	1:RA:2485:G:C2	3.07	0.42
6:RG:108:ASN:HA	26:R4:37:SER:HB3	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:RH:41:MET:HE1	7:RH:54:ARG:HB3	2.00	0.42
8:RI:109:ILE:HA	8:RI:109:ILE:HD12	1.67	0.42
9:RN:24:GLY:O	9:RN:28:THR:HG23	2.19	0.42
21:RZ:144:LEU:HD11	21:RZ:150:LEU:HD22	2.00	0.42
54:QX:21:A:C2	55:QY:196:ILE:HG23	2.54	0.42
1:YA:875:G:H2'	1:YA:876:C:O4'	2.18	0.42
1:YA:1073:A:H4'	1:YA:1074:G:OP1	2.19	0.42
1:YA:1312:U:H4'	1:YA:1313:U:O5'	2.18	0.42
1:YA:1408:C:C2	1:YA:1595:G:N2	2.87	0.42
1:YA:1889:A:H2'	1:YA:1890:A:C8	2.54	0.42
1:YA:2086:U:H2'	1:YA:2087:G:C8	2.54	0.42
5:YF:140:LEU:HD13	5:YF:170:LEU:HD21	2.00	0.42
15:YT:4:GLY:O	15:YT:8:LYS:HG2	2.19	0.42
35:XD:107:ARG:HA	35:XD:107:ARG:HD2	1.90	0.42
35:XD:200:GLU:O	35:XD:204:ILE:HG12	2.18	0.42
40:XI:22:GLY:HA3	40:XI:60:ASP:OD1	2.19	0.42
1:RA:942:G:H1'	1:RA:1189:A:C2	2.54	0.42
1:RA:1351:C:H2'	1:RA:1352:U:C6	2.54	0.42
1:RA:1422:G:C6	1:RA:1423:G:C5	3.07	0.42
1:RA:1784:A:H4'	1:RA:1785:A:O5'	2.19	0.42
1:RA:2242:G:H2'	1:RA:2243:U:O4'	2.20	0.42
3:RD:29:PRO:HB2	3:RD:34:VAL:HG11	2.00	0.42
23:R1:64:ALA:HA	23:R1:67:ILE:HG13	1.99	0.42
32:QA:612:C:O2	32:QA:629:G:N2	2.52	0.42
32:QA:1003:G:C2	32:QA:1004:A:H1'	2.54	0.42
32:QA:1055:A:O2'	34:QC:161:GLU:O	2.30	0.42
32:QA:1075:C:OP1	33:QB:179:LYS:NZ	2.52	0.42
40:QI:106:ALA:O	40:QI:108:VAL:HG23	2.19	0.42
40:QI:110:GLU:OE2	40:QI:113:LYS:NZ	2.51	0.42
1:YA:26:G:C6	1:YA:27:G:N1	2.87	0.42
1:YA:45:C:OP2	1:YA:215:G:H2'	2.18	0.42
1:YA:245:G:O5'	11:YP:73:GLY:HA2	2.19	0.42
1:YA:484:C:H2'	1:YA:485:C:H6	1.83	0.42
1:YA:2106:G:C6	1:YA:2107:C:C2	3.06	0.42
1:YA:2461:C:H2'	1:YA:2462:U:C6	2.54	0.42
5:YF:21:ALA:CB	5:YF:22:ALA:HA	2.49	0.42
6:YG:72:ARG:HG2	6:YG:87:PRO:HA	2.01	0.42
23:Y1:73:LEU:HD23	23:Y1:73:LEU:HA	1.88	0.42
32:XA:409:G:H2'	32:XA:410:G:O4'	2.20	0.42
32:XA:737:A:H2'	32:XA:738:C:C6	2.54	0.42
32:XA:1376:U:H2'	32:XA:1377:A:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:108:U:H2'	1:RA:109:G:H8	1.84	0.42
1:RA:2267:A:H5''	1:RA:2268:A:H5'	2.02	0.42
1:RA:2438:U:O2'	1:RA:2440:C:OP1	2.26	0.42
1:RA:2462:U:H2'	1:RA:2463:C:C6	2.55	0.42
4:RE:12:THR:HG21	15:RT:11:GLU:OE2	2.19	0.42
19:RX:44:GLU:HG3	19:RX:51:VAL:HG23	2.01	0.42
26:R4:18:CYS:SG	26:R4:20:ASN:HB2	2.59	0.42
32:QA:130:A:OP2	48:QQ:63:ARG:NE	2.47	0.42
32:QA:1263:C:H2'	32:QA:1264:C:C6	2.54	0.42
33:QB:9:GLU:OE1	33:QB:217:ARG:NH2	2.45	0.42
34:QC:43:LEU:O	34:QC:47:LEU:HB2	2.19	0.42
34:QC:180:ALA:HB1	34:QC:203:PHE:CE1	2.53	0.42
36:QE:6:PHE:HD1	36:QE:36:ASP:HB3	1.83	0.42
55:QY:105:PRO:O	55:QY:107:ASP:N	2.51	0.42
55:QY:106:ASP:OD1	55:QY:109:ARG:HD2	2.19	0.42
1:YA:553:G:H2'	1:YA:554:U:O4'	2.20	0.42
1:YA:560:C:C5'	16:YU:52:ARG:HH21	2.31	0.42
1:YA:571:A:O2'	17:YV:78:LYS:HE2	2.18	0.42
1:YA:1914:C:O2	55:XY:295:ARG:HD3	2.19	0.42
1:YA:2064:C:H2'	1:YA:2065:C:C6	2.55	0.42
1:YA:2583:G:N2	55:XY:238:ASN:OD1	2.52	0.42
1:YA:2762:G:H2'	1:YA:2763:G:O4'	2.19	0.42
3:YD:5:LYS:HE3	3:YD:5:LYS:HB3	1.84	0.42
16:YU:86:ALA:O	17:YV:49:THR:HG23	2.19	0.42
32:XA:116:A:H61	32:XA:313:A:H1'	1.83	0.42
32:XA:355:C:O2'	32:XA:388:G:N3	2.50	0.42
32:XA:1039:C:C4	32:XA:1040:U:C4	3.06	0.42
33:XB:8:LYS:HD2	33:XB:51:LEU:HD13	2.00	0.42
36:XE:100:VAL:O	36:XE:107:ARG:NH2	2.49	0.42
51:XT:43:LEU:HD13	51:XT:51:GLU:HB3	2.01	0.42
1:RA:10:G:H1'	1:RA:2801(B):A:N1	2.35	0.42
1:RA:569:U:C4	1:RA:570:G:C6	3.07	0.42
1:RA:631:A:H2'	1:RA:632:A:O4'	2.18	0.42
1:RA:742:G:O2'	1:RA:1676:A:H4'	2.19	0.42
1:RA:771:G:OP1	29:R7:14:LYS:HE2	2.19	0.42
1:RA:996:A:H4'	16:RU:91:ASP:OD2	2.19	0.42
1:RA:2152:G:H2'	1:RA:2153:G:H8	1.82	0.42
1:RA:2636:U:H1'	1:RA:2783:G:N2	2.34	0.42
1:RA:2712(A):U:OP1	1:RA:2714:G:H4'	2.20	0.42
1:RA:2849:U:O4	15:RT:23:ARG:NH2	2.53	0.42
3:RD:16:MET:HG3	3:RD:206:LEU:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:RI:4:ILE:HG12	8:RI:18:VAL:HG22	2.01	0.42
21:RZ:108:PRO:HA	21:RZ:142:SER:HA	1.99	0.42
32:QA:45:U:H2'	32:QA:46:G:H8	1.80	0.42
32:QA:399:G:H2'	32:QA:400:C:C6	2.54	0.42
32:QA:519:C:H2'	32:QA:520:A:O4'	2.20	0.42
32:QA:713:G:H2'	32:QA:714:G:C8	2.55	0.42
32:QA:1074:G:C6	32:QA:1075:C:C4	3.07	0.42
34:QC:127:ARG:CZ	34:QC:127:ARG:HB3	2.48	0.42
37:QF:23:LYS:HE2	37:QF:23:LYS:HB3	1.84	0.42
48:QQ:81:ARG:HA	48:QQ:81:ARG:HD2	1.76	0.42
55:QY:258:GLN:HG3	55:QY:258:GLN:O	2.19	0.42
1:YA:82:G:N1	1:YA:103:A:OP2	2.48	0.42
1:YA:671:C:H2'	1:YA:672:C:H6	1.84	0.42
1:YA:817:C:O2'	1:YA:839:U:H5''	2.19	0.42
1:YA:1153:C:H2'	1:YA:1154:G:O4'	2.19	0.42
1:YA:1697:G:OP2	1:YA:1698:A:O2'	2.31	0.42
1:YA:1939:5MU:O2	1:YA:1967:C:H4'	2.19	0.42
1:YA:2114:A:H3'	1:YA:2115:G:C8	2.55	0.42
1:YA:2128:C:N3	1:YA:2160:G:N2	2.63	0.42
1:YA:2193:G:H2'	1:YA:2194:G:C8	2.54	0.42
1:YA:2564:A:C2	1:YA:2647:U:H4'	2.55	0.42
1:YA:2641:G:OP1	9:YN:74:ARG:NH1	2.53	0.42
2:YB:106:G:H5'	21:YZ:31:ARG:HB3	2.01	0.42
6:YG:55:LYS:HD3	6:YG:150:ASP:OD2	2.19	0.42
18:YW:86:LEU:HD22	18:YW:96:ILE:HD11	2.01	0.42
19:YX:65:ARG:HB3	19:YX:70:LEU:HD23	2.00	0.42
32:XA:346:G:H2'	32:XA:347:G:O4'	2.19	0.42
32:XA:504:C:H1'	32:XA:510:A:C4	2.54	0.42
32:XA:865:A:N3	32:XA:918:A:O2'	2.47	0.42
34:XC:180:ALA:HB1	34:XC:203:PHE:HE1	1.84	0.42
45:XN:4:LYS:HG3	45:XN:7:ILE:HD11	2.00	0.42
55:XY:317:VAL:HG23	55:XY:329:LEU:HD12	2.01	0.42
1:RA:200:U:O2	1:RA:386:G:N2	2.52	0.42
1:RA:1104:C:H2'	1:RA:1105:U:H6	1.84	0.42
1:RA:2418:A:H2'	1:RA:2419:U:C6	2.55	0.42
4:RE:98:PRO:HD3	4:RE:175:VAL:HG12	2.02	0.42
5:RF:7:TYR:O	5:RF:21:ALA:HA	2.19	0.42
5:RF:165:ARG:HA	5:RF:168:ARG:CD	2.45	0.42
5:RF:178:PRO:HB2	5:RF:201:VAL:HG21	2.02	0.42
11:RP:84:ASN:HB3	11:RP:117:GLU:O	2.19	0.42
12:RQ:18:LYS:HE2	12:RQ:18:LYS:HB2	1.74	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:687:A:N3	32:QA:688:G:H1'	2.34	0.42
32:QA:1015:A:H2'	32:QA:1016:A:C8	2.54	0.42
32:QA:1058:G:OP1	34:QC:199:LYS:HE3	2.20	0.42
32:QA:1151:A:O2'	32:QA:1152:A:O5'	2.36	0.42
37:QF:6:VAL:HG22	37:QF:90:VAL:HG22	2.01	0.42
42:QK:84:VAL:CG1	42:QK:91:ARG:HD2	2.49	0.42
48:QQ:58:GLU:OE2	48:QQ:75:ARG:NH2	2.52	0.42
51:QT:63:ILE:HD13	51:QT:80:ARG:HB3	2.00	0.42
55:QY:97:GLN:O	55:QY:99:LEU:N	2.53	0.42
55:QY:222:LEU:HD21	55:QY:248:HIS:HD2	1.85	0.42
1:YA:1069:A:H2'	1:YA:1073:A:N7	2.34	0.42
1:YA:1080:C:H2'	1:YA:1081:U:C6	2.55	0.42
1:YA:1283:G:H2'	1:YA:1285:G:OP2	2.19	0.42
1:YA:2391:G:O6	1:YA:2425:A:H8	2.02	0.42
1:YA:2660:A:H2'	1:YA:2661:G:O4'	2.19	0.42
3:YD:61:LEU:O	3:YD:63:ARG:NH1	2.52	0.42
23:Y1:83:GLU:HA	23:Y1:84:GLY:HA2	1.72	0.42
32:XA:57:G:H2'	32:XA:58:C:C6	2.54	0.42
32:XA:950:U:H2'	32:XA:951:G:C8	2.55	0.42
32:XA:1062:U:H2'	32:XA:1063:C:C6	2.54	0.42
32:XA:1063:C:H2'	32:XA:1064:G:C8	2.54	0.42
32:XA:1469:G:H2'	32:XA:1470:G:C8	2.54	0.42
33:XB:230:VAL:HG22	33:XB:231:GLU:H	1.84	0.42
40:XI:28:VAL:N	40:XI:31:GLN:O	2.45	0.42
55:XY:217:ILE:HD13	55:XY:278:ILE:CD1	2.50	0.42
1:RA:898:C:H2'	1:RA:899:A:O4'	2.20	0.42
1:RA:1264:G:N2	1:RA:2015:A:OP2	2.53	0.42
1:RA:2336:A:H61	22:R0:43:THR:CG2	2.33	0.42
1:RA:2695:C:H2'	1:RA:2696:U:H6	1.84	0.42
6:RG:114:ILE:HG12	6:RG:140:ILE:HG12	2.00	0.42
13:RR:55:ALA:HB2	13:RR:79:LEU:HD13	2.01	0.42
32:QA:110:C:H2'	32:QA:111:G:O4'	2.20	0.42
32:QA:1033:G:H2'	32:QA:1034:G:H8	1.85	0.42
32:QA:1425:U:H2'	32:QA:1426:C:C6	2.54	0.42
33:QB:141:GLU:HG2	33:QB:145:LEU:HD23	2.02	0.42
37:QF:45:LEU:HD12	37:QF:59:TYR:CD2	2.54	0.42
40:QI:65:VAL:HG21	40:QI:73:GLN:HB3	2.01	0.42
1:YA:49:A:H4'	1:YA:50:U:H5''	2.00	0.42
1:YA:305:U:H2'	1:YA:306:U:C6	2.55	0.42
1:YA:795:C:H2'	1:YA:796:C:C6	2.55	0.42
1:YA:978:G:C2	1:YA:986:C:C2	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:1816:G:O6	3:YD:35:LYS:NZ	2.39	0.42
1:YA:2586:C:C5	1:YA:2608:G:N2	2.88	0.42
6:YG:114:ILE:HG23	6:YG:136:ARG:HH22	1.84	0.42
18:YW:48:ALA:O	18:YW:52:GLU:HG2	2.20	0.42
38:XG:65:ALA:HB1	38:XG:127:ALA:HB3	2.00	0.42
43:XL:89:ARG:HB3	43:XL:97:ARG:HA	2.00	0.42
55:XY:218:ASN:HA	55:XY:219:PRO:HD3	1.89	0.42
1:RA:821:A:H2'	1:RA:946:G:H5''	2.00	0.42
1:RA:962:G:H2'	1:RA:963:U:C6	2.55	0.42
1:RA:1654:A:H1'	1:RA:2823:A:H5'	2.02	0.42
1:RA:2028:U:H2'	1:RA:2029:G:O4'	2.20	0.42
1:RA:2574:G:H2'	1:RA:2575:C:O4'	2.19	0.42
5:RF:17:ARG:NH2	5:RF:19:GLU:OE2	2.53	0.42
32:QA:376:G:H5''	47:QP:5:ARG:HD3	2.01	0.42
32:QA:624:C:H2'	32:QA:625:G:H8	1.85	0.42
35:QD:76:ARG:HD2	35:QD:76:ARG:HA	1.84	0.42
39:QH:38:ILE:HD13	39:QH:41:ARG:NH2	2.35	0.42
1:YA:226:G:C2	1:YA:227:A:C6	3.07	0.42
1:YA:483:A:H1'	20:YY:59:GLY:O	2.20	0.42
1:YA:649:G:H2'	1:YA:650:C:C6	2.55	0.42
1:YA:886:C:O2'	1:YA:889:C:N4	2.52	0.42
1:YA:952:G:C6	1:YA:953:A:N7	2.88	0.42
1:YA:2193:G:H2'	1:YA:2194:G:H8	1.84	0.42
1:YA:2406:U:N3	11:YP:73:GLY:O	2.36	0.42
3:YD:182:LEU:HB2	3:YD:272:ALA:HB3	2.02	0.42
5:YF:184:TYR:O	5:YF:188:ARG:HG3	2.19	0.42
7:YH:8:PRO:HB2	7:YH:49:VAL:CG2	2.49	0.42
15:YT:53:ARG:NH1	15:YT:53:ARG:HB3	2.34	0.42
21:YZ:5:LEU:HD11	21:YZ:39:VAL:HB	2.01	0.42
32:XA:114:U:H2'	32:XA:115:G:C8	2.54	0.42
32:XA:279:A:OP2	48:XQ:95:TYR:OH	2.23	0.42
32:XA:435:C:H2'	32:XA:436:C:H6	1.84	0.42
32:XA:1104:G:H4'	33:XB:111:ARG:NH1	2.34	0.42
38:XG:28:ASN:HA	38:XG:31:MET:HE2	2.02	0.42
1:RA:492:A:H2'	1:RA:493:G:O4'	2.20	0.42
1:RA:652(U):C:H2'	1:RA:652(V):G:C8	2.55	0.42
1:RA:984:A:H5''	1:RA:985:C:H5	1.84	0.42
1:RA:2006:C:O5'	1:RA:2006:C:H6	2.02	0.42
1:RA:2334:G:H5'	14:RS:9:ARG:HG2	2.01	0.42
1:RA:2630:G:H2'	1:RA:2631:G:C8	2.54	0.42
26:R4:1:MET:HE2	26:R4:6:HIS:CD2	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:77:G:C2'	32:QA:78:G:H5'	2.49	0.42
32:QA:108:G:N1	51:QT:15:ARG:HG2	2.34	0.42
32:QA:441:A:H3'	32:QA:442:C:C6	2.55	0.42
32:QA:1125:U:H4'	41:QJ:5:ARG:NH2	2.35	0.42
32:QA:1316:G:N2	32:QA:1318:A:H3'	2.34	0.42
35:QD:53:ASP:HB3	35:QD:57:ARG:NH1	2.28	0.42
35:QD:196:LEU:H	35:QD:196:LEU:HD12	1.85	0.42
37:QF:45:LEU:HD23	37:QF:57:GLN:OE1	2.20	0.42
40:QI:4:TYR:HB2	40:QI:19:LEU:HB2	2.01	0.42
40:QI:97:LYS:HB3	40:QI:98:PRO:HD3	2.02	0.42
51:QT:10:LEU:HD23	51:QT:11:SER:H	1.84	0.42
1:YA:1040:C:H4'	21:YZ:46:LYS:CE	2.49	0.42
1:YA:1270:C:H5''	1:YA:1271:G:O5'	2.20	0.42
1:YA:1719:G:C6	1:YA:1720:U:C4	3.07	0.42
1:YA:2028:U:H2'	1:YA:2029:G:O4'	2.19	0.42
1:YA:2320:A:N3	1:YA:2320:A:H2'	2.34	0.42
30:Y8:23:VAL:HG13	30:Y8:47:LYS:HB3	2.02	0.42
32:XA:266:G:C3'	48:XQ:67:LYS:HB2	2.49	0.42
32:XA:407:G:H5''	35:XD:115:ARG:HG2	2.00	0.42
32:XA:559:A:H5''	32:XA:560:U:H3'	2.01	0.42
32:XA:601:C:H2'	32:XA:602:A:C8	2.55	0.42
32:XA:919:A:O2'	32:XA:1080:A:N1	2.38	0.42
32:XA:1009:G:H1	32:XA:1020:U:H3	1.68	0.42
38:XG:69:VAL:HG21	38:XG:104:LEU:HD11	2.02	0.42
47:XP:60:LEU:HD12	47:XP:60:LEU:HA	1.86	0.42
53:XV:40:C:H2'	53:XV:41:C:C6	2.54	0.42
1:RA:297:C:H2'	1:RA:298:G:O4'	2.20	0.42
1:RA:579:G:H2'	1:RA:580:C:C6	2.54	0.42
1:RA:2001:A:OP1	13:RR:9:LYS:NZ	2.43	0.42
5:RF:148:LEU:CD2	5:RF:191:ARG:HE	2.33	0.42
26:R4:24:THR:OG1	26:R4:25:TYR:N	2.53	0.42
32:QA:1427:U:H2'	32:QA:1428:A:H8	1.85	0.42
32:QA:1517:G:C6	32:QA:1518:MA6:C6	3.03	0.42
39:QH:51:VAL:HG11	39:QH:60:ARG:NH1	2.34	0.42
45:QN:27:CYS:SG	45:QN:29:ARG:HB2	2.59	0.42
50:QS:22:LEU:HD12	50:QS:31:ILE:HD11	2.02	0.42
52:QU:5:ASP:O	52:QU:11:GLY:HA3	2.20	0.42
1:YA:183:C:H42	1:YA:213:A:H61	1.68	0.42
1:YA:2081:C:H2'	1:YA:2082:A:C8	2.52	0.42
7:YH:16:SER:O	7:YH:26:VAL:HA	2.20	0.42
8:YI:65:ALA:O	8:YI:69:LYS:N	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Y4:61:ARG:HH21	50:XS:9:VAL:HG11	1.85	0.42
32:XA:7:G:H5'	32:XA:298:A:O4'	2.20	0.42
32:XA:1129:C:H4'	32:XA:1130:A:OP1	2.20	0.42
55:XY:108:GLU:HB3	55:XY:170:GLY:H	1.85	0.42
1:RA:117:G:C6	1:RA:119:A:C6	3.08	0.42
1:RA:185:U:H4'	1:RA:218:A:H4'	2.02	0.42
1:RA:323:G:H1'	1:RA:1205:U:O2	2.20	0.42
1:RA:792:G:H5''	1:RA:793:A:H5'	2.01	0.42
1:RA:1087:G:H1	1:RA:1102:C:H42	1.68	0.42
1:RA:2119:A:O2'	1:RA:2120:G:H5'	2.20	0.42
1:RA:2393:A:H2'	1:RA:2394:C:O4'	2.20	0.42
1:RA:2693:A:H2'	1:RA:2694:G:H8	1.85	0.42
7:RH:12:PRO:O	7:RH:15:VAL:HG22	2.19	0.42
15:RT:51:ARG:HG3	15:RT:98:LYS:HE3	2.01	0.42
26:R4:59:PHE:CD1	50:QS:64:GLU:HG3	2.54	0.42
32:QA:1479:C:H2'	32:QA:1480:G:C8	2.55	0.42
33:QB:8:LYS:H	33:QB:8:LYS:HG3	1.60	0.42
33:QB:45:GLN:O	33:QB:49:GLU:HG2	2.19	0.42
33:QB:185:ILE:HG22	33:QB:199:TYR:CD2	2.55	0.42
33:QB:212:GLN:O	33:QB:216:SER:OG	2.37	0.42
34:QC:179:ARG:NH1	34:QC:206:GLU:OE1	2.53	0.42
37:QF:76:ALA:O	37:QF:80:ARG:HG3	2.20	0.42
43:QL:109:GLY:HA3	43:QL:121:GLY:O	2.20	0.42
1:YA:1709:U:H2'	1:YA:1710:C:C6	2.55	0.42
3:YD:69:ARG:HG2	3:YD:130:ALA:HB3	2.02	0.42
6:YG:139:LEU:HA	6:YG:144:ILE:HB	2.02	0.42
7:YH:144:VAL:O	7:YH:148:ILE:HG12	2.20	0.42
10:YO:9:GLU:O	10:YO:83:ALA:HA	2.20	0.42
12:YQ:41:TRP:CD1	12:YQ:96:VAL:HG22	2.55	0.42
13:YR:96:ARG:HG2	13:YR:115:GLU:HG3	2.01	0.42
14:YS:83:LYS:HB3	14:YS:111:GLU:OE1	2.19	0.42
15:YT:16:ARG:HG2	15:YT:18:ASP:OD1	2.20	0.42
31:Y9:27:CYS:SG	31:Y9:28:GLU:N	2.93	0.42
32:XA:371:G:O2'	32:XA:373:A:N7	2.51	0.42
32:XA:781:A:H4'	32:XA:1522:U:O2'	2.19	0.42
32:XA:865:A:H5'	32:XA:1078:U:C5	2.55	0.42
33:XB:57:PHE:CE2	33:XB:185:ILE:HD11	2.54	0.42
55:XY:310:TYR:HB3	55:XY:329:LEU:HD11	2.02	0.42
1:RA:42:G:H1'	1:RA:437:G:N2	2.35	0.41
1:RA:468:G:H5''	5:RF:60:SER:HB2	2.01	0.41
1:RA:1058:G:N2	1:RA:1080:C:N3	2.61	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:1356:G:N2	1:RA:1376:C:C2	2.88	0.41
1:RA:1412:A:H2'	1:RA:1413:G:O4'	2.20	0.41
1:RA:1812:A:O2'	3:RD:45:ASN:N	2.52	0.41
1:RA:2061:G:C2	1:RA:2063:C:C4	3.08	0.41
1:RA:2747:G:OP1	7:RH:138:LYS:NZ	2.48	0.41
4:RE:94:GLU:OE2	4:RE:177:PRO:HB3	2.20	0.41
18:RW:46:PHE:O	18:RW:50:VAL:HG23	2.20	0.41
19:RX:41:ASN:O	19:RX:45:THR:HG23	2.20	0.41
32:QA:352:C:O2'	32:QA:354:G:OP1	2.33	0.41
32:QA:757:U:O2'	32:QA:879:C:O2	2.32	0.41
32:QA:821:G:H2'	32:QA:822:C:C6	2.55	0.41
32:QA:921:U:O2	36:QE:19:MET:HB2	2.19	0.41
32:QA:1323:G:H2'	32:QA:1324:A:C8	2.55	0.41
32:QA:1327:C:H2'	32:QA:1328:C:C6	2.55	0.41
39:QH:119:LEU:HB3	39:QH:123:GLU:HB2	2.01	0.41
41:QJ:35:SER:N	41:QJ:73:ASP:O	2.44	0.41
55:QY:248:HIS:CE1	55:QY:250:PRO:HG2	2.55	0.41
1:YA:272(O):C:H2'	1:YA:272(P):C:C6	2.55	0.41
1:YA:674:G:O2'	5:YF:74:ARG:HD3	2.19	0.41
1:YA:1913:A:OP1	55:XY:160:LYS:HE2	2.20	0.41
1:YA:2286:A:OP1	28:Y6:29:ASN:HB3	2.20	0.41
1:YA:2319:G:H22	14:YS:3:ARG:CZ	2.33	0.41
2:YB:13:A:O2'	2:YB:14:U:H3'	2.19	0.41
5:YF:89:VAL:HG12	5:YF:90:PHE:CD2	2.55	0.41
7:YH:98:LEU:HD12	7:YH:98:LEU:HA	1.86	0.41
32:XA:921:U:H2'	32:XA:922:G:O4'	2.20	0.41
32:XA:1070:U:H2'	32:XA:1071:C:C6	2.55	0.41
42:XK:84:VAL:HG21	42:XK:95:ILE:HD11	2.01	0.41
45:XN:58:LYS:HE3	45:XN:58:LYS:HB3	1.82	0.41
1:RA:738:G:C6	1:RA:739:G:C2	3.08	0.41
1:RA:911:A:H2'	12:RQ:9:TYR:OH	2.20	0.41
1:RA:1070:A:H2'	1:RA:1071:G:C8	2.55	0.41
1:RA:1080:C:H2'	1:RA:1081:U:C6	2.54	0.41
5:RF:30:PRO:HB3	11:RP:1:MET:HE1	2.02	0.41
18:RW:1:MET:HE2	18:RW:62:HIS:HB3	2.02	0.41
38:QG:12:LEU:H	38:QG:12:LEU:HD12	1.85	0.41
41:QJ:29:ARG:C	41:QJ:31:GLY:H	2.26	0.41
55:QY:317:VAL:HG23	55:QY:329:LEU:HB2	2.03	0.41
1:YA:272(P):C:O2'	8:YI:42:SER:OG	2.17	0.41
1:YA:434:U:H1'	1:YA:435:C:H5	1.85	0.41
1:YA:671:C:H2'	1:YA:672:C:C6	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:1904:G:O2'	1:YA:1928:A:N1	2.50	0.41
28:Y6:6:ARG:NH1	28:Y6:26:ASN:HB2	2.35	0.41
32:XA:176:C:H2'	32:XA:177:C:H6	1.85	0.41
32:XA:324:G:N1	32:XA:327:A:OP2	2.52	0.41
32:XA:1286:A:C8	32:XA:1287:A:H4'	2.55	0.41
32:XA:1346:A:N1	32:XA:1374:A:H5''	2.34	0.41
32:XA:1516:G:H2'	32:XA:1518:MA6:OP2	2.20	0.41
33:XB:19:HIS:CG	33:XB:20:GLU:N	2.88	0.41
40:XI:5:TYR:HE1	40:XI:16:ARG:HB3	1.85	0.41
40:XI:100:GLY:O	40:XI:103:THR:HG22	2.20	0.41
41:XJ:9:ARG:NH2	41:XJ:95:GLU:OE1	2.45	0.41
1:RA:908:C:OP1	12:RQ:22:LYS:HB3	2.20	0.41
1:RA:1213:A:N3	1:RA:1238:G:H1'	2.34	0.41
1:RA:1803:A:H4'	3:RD:259:THR:HG23	2.01	0.41
3:RD:69:ARG:C	3:RD:71:ASP:N	2.79	0.41
4:RE:144:ARG:HB3	4:RE:145:LYS:H	1.66	0.41
6:RG:45:GLU:H	6:RG:45:GLU:HG2	1.53	0.41
17:RV:14:VAL:HB	17:RV:96:ILE:HG13	2.02	0.41
17:RV:40:LEU:HB2	17:RV:46:VAL:CG1	2.51	0.41
18:RW:23:LEU:HD11	27:R5:25:LEU:HB2	2.02	0.41
22:R0:27:GLU:HB2	22:R0:69:PHE:HD1	1.85	0.41
24:R2:3:LEU:HD23	24:R2:3:LEU:HA	1.90	0.41
32:QA:1179:A:H2'	32:QA:1180:A:O4'	2.20	0.41
32:QA:1182:G:H5'	32:QA:1184:G:H5'	2.03	0.41
33:QB:15:VAL:O	33:QB:15:VAL:HG22	2.20	0.41
33:QB:146:GLN:O	33:QB:150:SER:HB3	2.20	0.41
36:QE:31:LEU:HD11	36:QE:129:ILE:HA	2.02	0.41
47:QP:34:GLU:OE2	47:QP:55:ARG:NH2	2.54	0.41
47:QP:74:LEU:HB3	47:QP:79:VAL:CG2	2.51	0.41
1:YA:459:U:H2'	1:YA:460:A:C8	2.55	0.41
1:YA:601:C:O2'	1:YA:605:C:H5''	2.21	0.41
1:YA:738:G:C6	1:YA:739:G:C2	3.09	0.41
1:YA:960:A:H2'	1:YA:962:G:H5'	2.02	0.41
1:YA:1721:G:H2'	1:YA:1740:G:O6	2.20	0.41
1:YA:1932:A:H2'	1:YA:1933:G:O4'	2.18	0.41
1:YA:2251:OMG:H1'	1:YA:2251:OMG:HM23	1.85	0.41
12:YQ:31:ASP:OD1	12:YQ:134:ARG:NH1	2.44	0.41
23:Y1:82:LEU:O	23:Y1:85:LEU:HD13	2.20	0.41
31:Y9:22:ARG:HB2	31:Y9:24:TYR:CE1	2.55	0.41
32:XA:28:G:O2'	32:XA:296:U:OP1	2.27	0.41
32:XA:841:U:OP1	32:XA:841:U:H6	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:913:A:H4'	32:XA:914:A:O5'	2.21	0.41
32:XA:1521:G:H2'	32:XA:1522:U:C6	2.54	0.41
38:XG:113:GLU:HG3	38:XG:118:VAL:HG12	2.03	0.41
40:XI:5:TYR:OH	40:XI:16:ARG:HG2	2.20	0.41
45:XN:23:ARG:NH1	45:XN:28:GLY:O	2.50	0.41
48:XQ:4:LYS:H	48:XQ:61:GLU:HG2	1.84	0.41
55:XY:259:ASP:OD1	55:XY:259:ASP:N	2.51	0.41
1:RA:1006:C:O2'	9:RN:106:MET:HB3	2.20	0.41
1:RA:1778:U:H2'	1:RA:1784:A:N6	2.35	0.41
1:RA:1794:U:H2'	1:RA:1795:C:C6	2.56	0.41
1:RA:2679:A:C2	1:RA:2729:G:C2	3.08	0.41
1:RA:2730:C:O2'	4:RE:168:MET:O	2.28	0.41
3:RD:69:ARG:HE	3:RD:130:ALA:HB2	1.86	0.41
5:RF:22:ALA:HB1	5:RF:203:GLN:HE22	1.85	0.41
9:RN:108:PRO:O	9:RN:113:GLY:HA3	2.20	0.41
26:R4:10:VAL:HG21	26:R4:29:PRO:HG3	2.01	0.41
32:QA:1398:A:H5'	32:QA:1401:G:H4'	2.03	0.41
32:QA:1513:A:H2'	32:QA:1514:C:C6	2.55	0.41
35:QD:18:LYS:NZ	35:QD:31:CYS:SG	2.91	0.41
49:QR:65:ILE:O	49:QR:69:THR:HG23	2.21	0.41
1:YA:242:G:O2'	1:YA:254:G:O6	2.29	0.41
1:YA:1683:C:H2'	1:YA:1684:C:C6	2.56	0.41
3:YD:38:LYS:HA	3:YD:38:LYS:HD2	1.88	0.41
11:YP:126:VAL:HG22	11:YP:146:VAL:HB	2.03	0.41
31:Y9:22:ARG:HB2	31:Y9:24:TYR:HE1	1.84	0.41
32:XA:321:A:H2	32:XA:332:G:H22	1.69	0.41
39:XH:73:ASP:OD1	39:XH:75:ARG:HG3	2.21	0.41
39:XH:85:ARG:NH2	39:XH:87:SER:O	2.53	0.41
39:XH:121:ASP:OD1	39:XH:121:ASP:N	2.51	0.41
44:XM:108:ARG:HA	44:XM:108:ARG:HD3	1.90	0.41
49:XR:41:LYS:O	49:XR:41:LYS:HG2	2.20	0.41
51:XT:42:GLN:NE2	51:XT:46:GLU:OE2	2.53	0.41
1:RA:272(M):G:N2	8:RI:50:ARG:HD3	2.35	0.41
1:RA:300:A:H1'	1:RA:319:C:H1'	2.03	0.41
1:RA:304:G:C2	1:RA:305:U:C2	3.09	0.41
1:RA:674:G:C1'	5:RF:74:ARG:HD3	2.50	0.41
1:RA:1789:A:H5'	3:RD:221:VAL:HG12	2.01	0.41
1:RA:2699:C:H2'	1:RA:2700:C:O4'	2.19	0.41
3:RD:106:ILE:O	3:RD:108:PRO:HD3	2.20	0.41
4:RE:47:VAL:HG23	4:RE:84:PHE:O	2.20	0.41
10:RO:22:ILE:HG12	10:RO:40:VAL:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:RO:73:ASP:HB2	15:RT:82:LEU:HD13	2.03	0.41
17:RV:71:LEU:HD23	17:RV:71:LEU:HA	1.91	0.41
19:RX:56:THR:HB	19:RX:77:LYS:HE3	2.02	0.41
32:QA:345:C:H4'	32:QA:346:G:C4	2.56	0.41
32:QA:437:U:H5'	35:QD:155:LEU:HD21	2.02	0.41
32:QA:689:C:OP1	42:QK:44:SER:OG	2.23	0.41
32:QA:782:A:O3'	32:QA:1515:C:H4'	2.20	0.41
32:QA:1010:G:N2	32:QA:1020:U:H1'	2.35	0.41
33:QB:91:PRO:HG2	33:QB:155:LEU:HD23	2.02	0.41
34:QC:125:GLU:HG3	34:QC:189:ALA:HB1	2.03	0.41
47:QP:79:VAL:HG23	47:QP:80:PHE:CD1	2.55	0.41
1:YA:859:G:O2'	1:YA:916:G:O6	2.35	0.41
1:YA:1900:A:N1	1:YA:1970:A:C6	2.88	0.41
10:YO:4:PRO:HA	10:YO:21:CYS:O	2.20	0.41
11:YP:39:LYS:HD2	11:YP:45:LEU:HD11	2.01	0.41
12:YQ:4:PRO:HB2	12:YQ:7:MET:HE3	2.01	0.41
15:YT:91:ARG:HD2	15:YT:120:ARG:NH1	2.35	0.41
34:XC:28:GLN:HB3	34:XC:32:LEU:HD23	2.02	0.41
35:XD:76:ARG:HD3	35:XD:207:TYR:CE1	2.55	0.41
46:XO:4:THR:CG2	46:XO:7:GLU:H	2.33	0.41
53:XV:47:U:H3'	53:XV:48:C:C5'	2.50	0.41
1:RA:242:G:C8	30:R8:5:LYS:HG2	2.56	0.41
1:RA:675:A:C6	1:RA:676:A:C6	3.08	0.41
3:RD:221:VAL:HG23	3:RD:226:MET:HE2	2.01	0.41
5:RF:153:SER:OG	5:RF:190:GLU:HG3	2.20	0.41
14:RS:59:LYS:CD	14:RS:60:GLY:H	2.21	0.41
15:RT:16:ARG:HG2	15:RT:18:ASP:OD1	2.19	0.41
24:R2:63:VAL:HA	24:R2:66:GLU:HB2	2.02	0.41
32:QA:266:G:O3'	48:QQ:67:LYS:HB2	2.19	0.41
32:QA:627:G:H2'	32:QA:628:G:C8	2.55	0.41
32:QA:736:C:H2'	32:QA:737:A:C8	2.56	0.41
35:QD:111:ALA:HB2	35:QD:120:LEU:HD12	2.02	0.41
55:QY:99:LEU:HD12	55:QY:349:GLN:HE22	1.86	0.41
55:QY:221:ASP:HB3	55:QY:250:PRO:CD	2.50	0.41
1:YA:581:C:H2'	1:YA:582:G:C8	2.55	0.41
1:YA:582:G:H2'	1:YA:583:G:C8	2.56	0.41
1:YA:1069:A:H5'	1:YA:1096:A:C5'	2.51	0.41
1:YA:1069:A:H5'	1:YA:1096:A:H5'	2.03	0.41
1:YA:1130:U:C2	4:YE:147:PRO:HB3	2.54	0.41
1:YA:1316:U:H2'	1:YA:1317:A:H8	1.86	0.41
1:YA:1430:C:H2'	1:YA:1431:U:C6	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:2361:A:H5'	30:Y8:26:LYS:HZ1	1.84	0.41
2:YB:105:A:H2'	2:YB:106:G:O4'	2.21	0.41
4:YE:116:VAL:HG13	4:YE:122:PHE:HB2	2.02	0.41
23:Y1:77:ALA:O	23:Y1:80:LEU:HB2	2.20	0.41
32:XA:881:G:OP2	43:XL:12:ARG:NH2	2.51	0.41
32:XA:1323:G:H2'	32:XA:1324:A:C8	2.56	0.41
34:XC:180:ALA:HB1	34:XC:203:PHE:CE1	2.55	0.41
41:XJ:7:LYS:HB2	41:XJ:97:GLU:HB2	2.03	0.41
1:RA:309:G:C5	1:RA:330:A:C6	3.09	0.41
1:RA:321:G:H5'	5:RF:134:GLY:O	2.19	0.41
1:RA:1133:U:O4	1:RA:2026:C:H1'	2.21	0.41
1:RA:1899:G:H2'	1:RA:1899:G:N3	2.35	0.41
1:RA:2445:G:OP1	5:RF:74:ARG:NH2	2.53	0.41
4:RE:119:ARG:HG3	4:RE:160:TYR:CG	2.55	0.41
5:RF:110:LEU:HA	5:RF:183:VAL:HG12	2.03	0.41
13:RR:54:LEU:HD12	13:RR:54:LEU:HA	1.97	0.41
21:RZ:103:ARG:HD2	21:RZ:136:PHE:CG	2.56	0.41
32:QA:499:A:H4'	32:QA:500:G:H5'	2.03	0.41
32:QA:619:U:N3	35:QD:134:ASP:OD1	2.38	0.41
32:QA:1143:G:H2'	32:QA:1144:G:H8	1.85	0.41
35:QD:173:TRP:CG	35:QD:189:PRO:HG3	2.55	0.41
35:QD:188:LEU:HD23	35:QD:188:LEU:H	1.85	0.41
37:QF:91:VAL:HG11	49:QR:72:ARG:NH1	2.36	0.41
40:QI:17:VAL:HG23	40:QI:63:ILE:HG12	2.01	0.41
41:QJ:19:SER:O	41:QJ:23:ILE:HG12	2.21	0.41
41:QJ:49:VAL:HG21	45:QN:41:ARG:O	2.21	0.41
45:QN:41:ARG:HG3	45:QN:42:ILE:HG13	2.03	0.41
53:QV:10:G:N2	53:QV:26:G:H1'	2.36	0.41
55:QY:244:ILE:H	55:QY:266:ASN:HD22	1.68	0.41
1:YA:57:C:H2'	1:YA:58:G:O4'	2.21	0.41
1:YA:635:C:O2'	1:YA:639:U:OP1	2.30	0.41
1:YA:687:C:H2'	1:YA:688:U:O4'	2.19	0.41
1:YA:910:A:N1	1:YA:2277:G:H1'	2.36	0.41
1:YA:2137:C:C2	1:YA:2154:G:N1	2.89	0.41
1:YA:2264:C:H2'	1:YA:2265:U:C6	2.55	0.41
4:YE:12:THR:HG22	4:YE:13:ARG:N	2.32	0.41
4:YE:174:ASP:OD1	4:YE:175:VAL:N	2.54	0.41
9:YN:62:VAL:CG1	9:YN:66:LYS:HB2	2.50	0.41
10:YO:7:TYR:C	10:YO:8:LEU:HD23	2.46	0.41
16:YU:27:LEU:HB3	16:YU:31:SER:HB3	2.03	0.41
18:YW:8:ARG:HG2	18:YW:102:HIS:ND1	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Y4:1:MET:HE2	26:Y4:6:HIS:CD2	2.56	0.41
32:XA:8:A:H5'	36:XE:101:ILE:HG22	2.01	0.41
32:XA:255:G:H2'	32:XA:256:U:C6	2.56	0.41
32:XA:292:G:C5	32:XA:293:G:H1'	2.56	0.41
32:XA:407:G:OP1	35:XD:115:ARG:HD3	2.20	0.41
32:XA:1329:A:P	44:XM:28:ALA:HB3	2.60	0.41
33:XB:24:TRP:CZ3	33:XB:26:PRO:HA	2.55	0.41
35:XD:88:VAL:HG22	36:XE:96:PRO:HB2	2.02	0.41
55:XY:255:VAL:CG1	55:XY:274:LEU:HG	2.45	0.41
1:RA:329:G:H8	1:RA:329:G:P	2.43	0.41
1:RA:523:C:O2	1:RA:554:U:O2'	2.35	0.41
1:RA:559:G:H22	16:RU:49:HIS:CE1	2.39	0.41
1:RA:777:A:H2'	1:RA:778:G:C8	2.56	0.41
1:RA:1073:A:H4'	1:RA:1074:G:OP1	2.21	0.41
1:RA:1092:C:OP2	1:RA:1092:C:H6	2.04	0.41
1:RA:1359:A:H61	1:RA:1372:U:H3	1.69	0.41
1:RA:1421:G:C2	1:RA:1422:G:C8	3.09	0.41
1:RA:2228:G:OP1	3:RD:261:LYS:NZ	2.36	0.41
2:RB:13:A:N1	2:RB:69:G:O2'	2.39	0.41
31:R9:32:HIS:O	31:R9:34:GLN:HG3	2.21	0.41
32:QA:408:A:H2'	32:QA:409:G:O4'	2.21	0.41
32:QA:1418:A:N6	32:QA:1482:G:O2'	2.47	0.41
33:QB:77:ALA:HB2	33:QB:211:ILE:HD13	2.03	0.41
35:QD:108:LEU:HB3	35:QD:110:PHE:CD1	2.56	0.41
1:YA:560:C:H4'	16:YU:52:ARG:HE	1.86	0.41
1:YA:839:U:H2'	1:YA:840:C:C6	2.56	0.41
1:YA:2318:G:N2	14:YS:3:ARG:HH11	2.18	0.41
6:YG:146:TYR:HD2	44:XM:8:GLU:CD	2.29	0.41
7:YH:171:LEU:HD23	7:YH:171:LEU:H	1.85	0.41
10:YO:8:LEU:HD12	10:YO:84:ALA:HB2	2.02	0.41
14:YS:43:GLU:OE1	22:Y0:49:LYS:HE3	2.21	0.41
32:XA:189(M):G:H2'	32:XA:190:U:H6	1.86	0.41
32:XA:575:G:O2'	32:XA:821:G:H5'	2.20	0.41
32:XA:738:C:OP1	37:XF:2:ARG:NH1	2.51	0.41
32:XA:979:C:H42	45:XM:18:VAL:HG12	1.84	0.41
32:XA:1366:C:H2'	32:XA:1367:C:C6	2.55	0.41
35:XD:190:ASP:O	35:XD:193:ASP:HB2	2.20	0.41
36:XE:141:GLN:HA	36:XE:143:ARG:HH21	1.86	0.41
37:XF:100:ASN:HB2	49:XR:27:GLY:O	2.20	0.41
41:XJ:70:ARG:HA	41:XJ:70:ARG:HD3	1.92	0.41
55:XY:129:GLY:HA2	55:XY:159:TYR:HD2	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:116:C:H2'	1:RA:117:G:O4'	2.21	0.41
1:RA:337:C:H2'	1:RA:338:G:O4'	2.21	0.41
1:RA:1055:G:H21	1:RA:1084:A:N6	2.19	0.41
1:RA:1071:G:OP1	1:RA:1073:A:N6	2.53	0.41
1:RA:1482:G:C6	1:RA:1507:A:C6	3.08	0.41
1:RA:1649:G:O2'	13:RR:107:ASP:OD2	2.33	0.41
1:RA:2046:G:H5'	27:R5:19:ARG:HB2	2.03	0.41
1:RA:2070:G:H2'	1:RA:2071:A:O4'	2.21	0.41
1:RA:2122:U:H2'	1:RA:2123:G:C8	2.56	0.41
1:RA:2158:A:H1'	1:RA:2159:G:C8	2.56	0.41
1:RA:2306:C:C4	1:RA:2307:G:C6	3.08	0.41
4:RE:143:ASN:HD22	4:RE:147:PRO:CD	2.34	0.41
6:RG:53:LEU:H	6:RG:53:LEU:HD23	1.86	0.41
7:RH:98:LEU:HD12	7:RH:98:LEU:HA	1.97	0.41
10:RO:80:ASP:OD1	15:RT:64:ARG:NH2	2.54	0.41
12:RQ:35:VAL:HG13	12:RQ:130:LYS:HB3	2.03	0.41
16:RU:28:ARG:NH1	16:RU:38:THR:OG1	2.47	0.41
21:RZ:198:LYS:HE2	53:QV:52:G:H2'	2.02	0.41
26:R4:48:ARG:O	26:R4:49:PHE:C	2.64	0.41
32:QA:7:G:O2'	36:QE:120:THR:O	2.39	0.41
32:QA:193:C:H4'	51:QT:60:GLU:HG2	2.03	0.41
32:QA:266:G:H5''	32:QA:267:C:C5	2.56	0.41
32:QA:540:G:H2'	32:QA:541:G:O4'	2.21	0.41
32:QA:1005:A:OP1	32:QA:1006:C:N4	2.53	0.41
32:QA:1441:G:H4'	32:QA:1442(A):G:C4	2.56	0.41
32:QA:1466:C:H2'	32:QA:1467:G:O4'	2.21	0.41
34:QC:6:HIS:HE1	34:QC:8:ILE:HB	1.83	0.41
35:QD:8:VAL:HG22	35:QD:21:LEU:HD13	2.03	0.41
35:QD:188:LEU:HA	35:QD:189:PRO:HD3	1.91	0.41
37:QF:41:GLU:HG2	37:QF:43:LEU:HD12	2.02	0.41
41:QJ:78:ASN:O	41:QJ:80:LYS:N	2.54	0.41
41:QJ:84:GLN:HE21	41:QJ:84:GLN:HB3	1.61	0.41
55:QY:214:LEU:HD12	55:QY:215:PRO:CD	2.50	0.41
1:YA:646:A:H2'	1:YA:647:G:O4'	2.21	0.41
1:YA:1420:U:O2'	1:YA:1421:G:OP1	2.31	0.41
1:YA:1472:A:H2'	1:YA:1473:G:O4'	2.21	0.41
1:YA:2287:A:C8	1:YA:2289:G:C8	3.08	0.41
1:YA:2405:G:H5'	11:YP:75:ILE:HD13	2.03	0.41
2:YB:12:C:H2'	22:Y0:73:GLY:HA3	2.03	0.41
4:YE:179:GLU:HG3	15:YT:9:LEU:CD2	2.51	0.41
5:YF:11:VAL:HG22	5:YF:125:LEU:HB2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:YF:33:LEU:HD13	5:YF:112:MET:HE2	2.02	0.41
9:YN:35:ARG:HH21	9:YN:42:TRP:HZ2	1.68	0.41
12:YQ:137:TYR:O	12:YQ:141:GLN:HG2	2.21	0.41
14:YS:11:LYS:HG3	14:YS:91:PRO:HD3	2.02	0.41
16:YU:36:ARG:HD3	16:YU:40:PHE:CZ	2.56	0.41
20:YY:13:VAL:O	20:YY:24:VAL:HA	2.21	0.41
32:XA:20:U:H2'	32:XA:21:G:O4'	2.20	0.41
32:XA:449:C:O2	47:XP:42:ARG:HD2	2.21	0.41
32:XA:663:A:H5''	49:XR:61:LYS:NZ	2.36	0.41
32:XA:728:A:C8	46:XO:54:ARG:NH2	2.88	0.41
32:XA:796:C:O5'	32:XA:796:C:H6	2.03	0.41
32:XA:952:U:H2'	32:XA:953:G:C8	2.56	0.41
32:XA:1070:U:H2'	32:XA:1071:C:H6	1.85	0.41
32:XA:1099:G:OP2	33:XB:144:ARG:NH2	2.54	0.41
32:XA:1225:A:H2'	32:XA:1226:C:C5	2.56	0.41
32:XA:1518:MA6:H93	32:XA:1519:MA6:N6	2.36	0.41
34:XC:50:ALA:HB1	34:XC:70:VAL:HG21	2.03	0.41
36:XE:78:HIS:CG	39:XH:104:ARG:HD2	2.56	0.41
39:XH:96:GLY:N	39:XH:99:GLU:HG3	2.36	0.41
44:XM:22:ILE:HB	44:XM:25:ILE:HD12	2.03	0.41
47:XP:4:ILE:HG23	47:XP:36:ILE:HD11	2.03	0.41
47:XP:20:VAL:HG23	47:XP:35:LYS:HA	2.03	0.41
55:XY:183:ARG:O	55:XY:309:THR:HA	2.20	0.41
55:XY:349:GLN:C	55:XY:353:LEU:HG	2.46	0.41
1:RA:392:C:H5''	1:RA:409:C:H5''	2.02	0.41
1:RA:411:G:C5	11:RP:72:PRO:HB3	2.56	0.41
1:RA:500:G:N1	1:RA:503:A:OP2	2.54	0.41
1:RA:859:G:O2'	1:RA:916:G:O6	2.35	0.41
1:RA:1053:C:H4'	1:RA:1054:A:OP1	2.21	0.41
1:RA:2075:U:C4	1:RA:2238:G:C6	3.08	0.41
1:RA:2391:G:O6	1:RA:2425:A:H8	2.03	0.41
1:RA:2502:G:H5''	1:RA:2503:2MA:H5''	2.03	0.41
1:RA:2503:2MA:H4'	1:RA:2504:U:OP1	2.21	0.41
1:RA:2507:C:C2	1:RA:2508:G:C8	3.09	0.41
1:RA:2578:G:OP1	1:RA:2614:A:N6	2.51	0.41
1:RA:2717:G:H1'	15:RT:96:ARG:HH21	1.86	0.41
1:RA:2849:U:H4'	1:RA:2868:A:C2	2.56	0.41
7:RH:69:ARG:HH11	7:RH:69:ARG:HD3	1.62	0.41
11:RP:88:LEU:HD11	11:RP:114:ILE:HD12	2.02	0.41
32:QA:36:C:OP1	43:QL:123:LYS:HE2	2.21	0.41
32:QA:255:G:C2	32:QA:272:C:C2	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:355:C:O2'	32:QA:388:G:N3	2.40	0.41
32:QA:441:A:H3'	32:QA:442:C:H6	1.86	0.41
32:QA:757:U:H2'	32:QA:758:G:O4'	2.21	0.41
32:QA:772:U:C4	32:QA:773:G:N7	2.89	0.41
32:QA:1492:A:O2'	55:QY:119:THR:HG23	2.20	0.41
34:QC:5:ILE:HD13	41:QJ:51:ARG:HH12	1.86	0.41
34:QC:58:GLU:CB	41:QJ:92:THR:HG21	2.49	0.41
40:QI:8:GLY:HA3	40:QI:76:ALA:O	2.21	0.41
41:QJ:21:GLN:O	41:QJ:25:GLU:HG3	2.20	0.41
53:QV:19:G:H5'	53:QV:20:U:H5	1.86	0.41
1:YA:613:G:O2'	1:YA:614(D):A:N1	2.40	0.41
1:YA:775:G:C4	1:YA:794:G:C8	3.09	0.41
1:YA:1317:A:H2'	1:YA:1318:C:C6	2.56	0.41
1:YA:2077:A:H2'	1:YA:2078:C:H6	1.86	0.41
1:YA:2330:G:H2'	1:YA:2331:G:O4'	2.21	0.41
1:YA:2359:C:H2'	1:YA:2360:A:O4'	2.20	0.41
1:YA:2680:C:H5'	4:YE:189:PRO:HA	2.02	0.41
1:YA:2887:U:H2'	1:YA:2888:C:C6	2.55	0.41
7:YH:140:LYS:HE3	7:YH:140:LYS:HB2	1.89	0.41
9:YN:120:LEU:HD22	9:YN:122:VAL:HG23	2.03	0.41
10:YO:105:GLU:OE1	10:YO:105:GLU:N	2.49	0.41
12:YQ:29:PHE:O	21:YZ:122:ARG:NH2	2.52	0.41
20:YY:35:TYR:CE2	20:YY:69:ALA:HB3	2.56	0.41
21:YZ:72:ARG:HH11	21:YZ:72:ARG:HD2	1.75	0.41
24:Y2:12:GLU:HA	24:Y2:15:LYS:NZ	2.36	0.41
25:Y3:26:LEU:O	25:Y3:35:ARG:NE	2.48	0.41
26:Y4:61:ARG:HG2	50:XS:42:PRO:CG	2.51	0.41
32:XA:25:C:H2'	32:XA:26:A:C8	2.55	0.41
32:XA:530:G:C6	54:XX:21:A:C4	3.08	0.41
32:XA:539:A:H2'	32:XA:540:G:H8	1.84	0.41
32:XA:946:A:H2'	32:XA:947:G:C8	2.55	0.41
36:XE:69:VAL:HA	36:XE:70:PRO:HD3	1.84	0.41
40:XI:121:ARG:NH1	40:XI:122:ALA:O	2.53	0.41
55:XY:328:ARG:NH1	55:XY:331:GLU:OE1	2.42	0.41
1:RA:241:A:H8	1:RA:241:A:OP1	2.04	0.40
1:RA:674:G:O2'	5:RF:74:ARG:HD3	2.20	0.40
1:RA:942:G:O2'	1:RA:1189:A:N3	2.53	0.40
1:RA:2577:A:H2'	1:RA:2614:A:N6	2.36	0.40
16:RU:86:ALA:O	17:RV:49:THR:HG23	2.21	0.40
19:RX:60:ARG:NH1	29:R7:47:ARG:HH12	2.19	0.40
21:RZ:28:MET:HG3	21:RZ:90:VAL:CG2	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:31:G:N7	32:QA:306:G:H1'	2.36	0.40
32:QA:652:U:O4	32:QA:752:G:O2'	2.29	0.40
32:QA:1005:A:H8	32:QA:1005:A:O5'	2.04	0.40
34:QC:181:ASN:OD1	34:QC:204:LEU:HD12	2.20	0.40
35:QD:111:ALA:HB1	35:QD:116:GLN:HB3	2.03	0.40
42:QK:78:GLN:O	42:QK:103:LEU:HD23	2.22	0.40
49:QR:28:GLU:H	49:QR:28:GLU:HG2	1.63	0.40
55:QY:322:ILE:HD11	55:QY:344:ILE:HA	2.03	0.40
1:YA:588:U:H1'	5:YF:90:PHE:HB3	2.02	0.40
1:YA:753:C:H2'	1:YA:754:C:H6	1.86	0.40
1:YA:947:G:H2'	1:YA:948:G:C8	2.56	0.40
1:YA:1427:A:H4'	1:YA:1428:C:O4'	2.21	0.40
1:YA:2001:A:H2'	1:YA:2002:G:C8	2.56	0.40
1:YA:2181:G:H2'	1:YA:2182:G:O4'	2.21	0.40
1:YA:2818:G:O2'	1:YA:2819:G:H5'	2.21	0.40
1:YA:2823:A:OP1	4:YE:113:PHE:HB2	2.20	0.40
4:YE:18:ASP:HB3	15:YT:82:LEU:HD21	2.03	0.40
5:YF:53:THR:CG2	5:YF:56:GLU:HG3	2.52	0.40
15:YT:39:ARG:NH1	15:YT:41:ARG:HD3	2.36	0.40
24:Y2:65:ASN:OD1	24:Y2:69:ARG:NH1	2.53	0.40
32:XA:217:C:H2'	32:XA:218:C:C6	2.56	0.40
32:XA:657:G:C2	32:XA:658:G:C8	3.09	0.40
32:XA:687:A:H4'	32:XA:688:G:OP1	2.21	0.40
32:XA:1289:A:N1	32:XA:1371:G:O2'	2.40	0.40
32:XA:1458:G:H5''	51:XT:31:SER:HB2	2.02	0.40
36:XE:92:LYS:HB3	36:XE:119:LEU:HB2	2.03	0.40
44:XM:13:LYS:HA	44:XM:44:ARG:HH11	1.86	0.40
44:XM:57:ARG:O	44:XM:61:GLU:HG3	2.21	0.40
1:RA:37:C:H2'	1:RA:38:A:C8	2.55	0.40
1:RA:1583:A:H5''	1:RA:1584:C:OP1	2.21	0.40
1:RA:1818:U:O2'	3:RD:154:LYS:O	2.36	0.40
1:RA:2033:A:O2'	1:RA:2035:G:OP2	2.29	0.40
1:RA:2315:G:H2'	1:RA:2316:C:C6	2.56	0.40
1:RA:2519:U:C4	1:RA:2542:A:C5	3.10	0.40
1:RA:2870:C:H5''	13:RR:65:LEU:HD21	2.03	0.40
2:RB:7:G:H8	2:RB:7:G:H5''	1.86	0.40
2:RB:33:G:C6	2:RB:34:U:C4	3.09	0.40
23:R1:23:LYS:HB3	23:R1:29:GLY:HA3	2.03	0.40
27:R5:35:GLU:HG2	27:R5:51:TYR:CD2	2.56	0.40
32:QA:1277:C:O2'	32:QA:1279:A:H1'	2.20	0.40
32:QA:1280:A:O2'	32:QA:1281:U:H5'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:QY:149:MET:HB2	55:QY:149:MET:HE3	1.81	0.40
1:YA:225:A:O2'	1:YA:257:A:H4'	2.20	0.40
1:YA:272(F):C:H2'	1:YA:272(G):C:C6	2.56	0.40
1:YA:1064:C:H5	1:YA:1065:U:C6	2.38	0.40
1:YA:2018:G:O2'	16:YU:34:LYS:HE3	2.21	0.40
1:YA:2667:C:H2'	1:YA:2668:G:O4'	2.21	0.40
1:YA:2732:G:H3'	1:YA:2733:A:O4'	2.20	0.40
2:YB:77:U:OP1	21:YZ:19:ARG:NH2	2.53	0.40
3:YD:18:VAL:HG12	3:YD:211:ARG:NH1	2.37	0.40
5:YF:192:LEU:HD22	5:YF:194:MET:HG3	2.03	0.40
7:YH:113:VAL:HG11	7:YH:151:ILE:HD13	2.02	0.40
9:YN:99:LEU:HD23	9:YN:99:LEU:HA	1.81	0.40
10:YO:70:LYS:HE2	10:YO:70:LYS:HB3	1.91	0.40
12:YQ:35:VAL:HG12	12:YQ:130:LYS:O	2.21	0.40
32:XA:18:C:H4'	32:XA:1078:U:O2	2.21	0.40
32:XA:163:C:H2'	32:XA:164:U:O4'	2.21	0.40
32:XA:581:G:OP1	46:XO:65:ARG:NH2	2.48	0.40
33:XB:101:MET:HG2	33:XB:108:ILE:HG21	2.02	0.40
49:XR:76:LEU:HD12	49:XR:76:LEU:HA	1.89	0.40
1:RA:820:A:H2'	1:RA:821:A:O4'	2.22	0.40
1:RA:1425:G:H2'	1:RA:1426:G:O4'	2.21	0.40
1:RA:1448:G:O2'	1:RA:1528(B):A:N1	2.49	0.40
1:RA:2553:G:C2	1:RA:2583:G:H1'	2.56	0.40
2:RB:105:A:H2'	2:RB:106:G:O4'	2.22	0.40
4:RE:2:LYS:HB2	4:RE:95:ILE:HD12	2.02	0.40
6:RG:64:THR:HB	6:RG:94:LEU:HD21	2.03	0.40
7:RH:7:LEU:C	7:RH:69:ARG:HH12	2.29	0.40
12:RQ:35:VAL:HG12	12:RQ:130:LYS:O	2.21	0.40
18:RW:14:PRO:HG2	18:RW:78:GLU:HG2	2.02	0.40
21:RZ:35:ARG:HA	21:RZ:35:ARG:HD2	1.93	0.40
32:QA:637:G:H2'	32:QA:638:G:C8	2.56	0.40
32:QA:1328:C:OP1	52:QU:20:LYS:NZ	2.33	0.40
33:QB:169:LYS:HG3	33:QB:170:GLU:OE1	2.22	0.40
48:QQ:62:SER:OG	48:QQ:72:ARG:HG3	2.21	0.40
1:YA:249:C:O2	30:Y8:12:LYS:NZ	2.31	0.40
1:YA:612:C:H2'	1:YA:613:G:O4'	2.20	0.40
1:YA:661:C:HO2'	11:YP:14:LYS:H	1.69	0.40
1:YA:724:U:H2'	1:YA:725:G:O4'	2.21	0.40
1:YA:1359:A:N3	1:YA:1359:A:H5'	2.36	0.40
1:YA:1417:C:H2'	1:YA:1418:G:O4'	2.21	0.40
1:YA:1598:C:H2'	1:YA:1599:C:C6	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:1668:A:C8	1:YA:1674:G:C6	3.09	0.40
1:YA:2679:A:H4'	4:YE:165:VAL:HG11	2.02	0.40
2:YB:17:C:H2'	2:YB:18:G:O4'	2.21	0.40
2:YB:75:G:H4'	21:YZ:36:LYS:HG2	2.02	0.40
3:YD:102:LYS:O	3:YD:103:ARG:HG2	2.21	0.40
6:YG:16:ARG:NE	6:YG:31:VAL:HG21	2.34	0.40
12:YQ:75:THR:HA	12:YQ:89:ASN:O	2.21	0.40
16:YU:112:ARG:HG2	16:YU:112:ARG:H	1.73	0.40
20:YY:5:MET:HE3	20:YY:32:PRO:HA	2.02	0.40
21:YZ:92:SER:O	21:YZ:130:PRO:HG2	2.22	0.40
32:XA:986:A:H2'	32:XA:987:G:O4'	2.21	0.40
32:XA:1133:G:H2'	32:XA:1134:G:C8	2.57	0.40
33:XB:41:ILE:HD13	33:XB:41:ILE:HA	1.78	0.40
34:XC:43:LEU:HB3	34:XC:47:LEU:HD12	2.03	0.40
38:XG:114:ARG:HB2	38:XG:115:ARG:HH21	1.86	0.40
47:XP:14:ASN:HD22	47:XP:42:ARG:NH2	2.19	0.40
47:XP:75:ARG:HG3	47:XP:80:PHE:CD2	2.56	0.40
53:XV:52:G:C2	53:XV:63:G:C2	3.10	0.40
53:XV:76:A:H3'	55:XY:234:GLY:HA3	2.03	0.40
55:XY:183:ARG:NH2	55:XY:309:THR:HG21	2.36	0.40
1:RA:272(K):U:H1'	8:RI:50:ARG:NH2	2.36	0.40
1:RA:523:C:H4'	1:RA:540:C:O2	2.20	0.40
7:RH:4:ILE:O	7:RH:69:ARG:HG2	2.21	0.40
7:RH:64:LEU:O	7:RH:68:THR:OG1	2.37	0.40
13:RR:96:ARG:NH1	13:RR:115:GLU:OE1	2.52	0.40
22:R0:22:GLY:N	22:R0:39:ARG:O	2.43	0.40
31:R9:10:ILE:HD12	31:R9:32:HIS:HA	2.02	0.40
32:QA:582:U:OP1	46:QO:64:ARG:NH1	2.55	0.40
32:QA:790:A:C6	32:QA:791:G:C6	3.09	0.40
46:QO:8:LYS:O	46:QO:12:ILE:HG13	2.21	0.40
1:YA:300:A:H1'	1:YA:319:C:H1'	2.04	0.40
1:YA:329:G:H8	1:YA:329:G:P	2.44	0.40
1:YA:1093:G:H2'	1:YA:1094:U:O4'	2.21	0.40
1:YA:1486:A:H2'	1:YA:1487:G:H8	1.86	0.40
1:YA:2314:C:H5'	6:YG:38:VAL:HG11	2.04	0.40
6:YG:43:LEU:HB3	6:YG:44:GLY:H	1.70	0.40
22:Y0:19:LYS:HD3	22:Y0:19:LYS:HA	1.86	0.40
32:XA:101:A:H5''	51:XT:10:LEU:HD21	2.03	0.40
32:XA:403:C:OP1	35:XD:137:SER:OG	2.32	0.40
32:XA:542:G:H5'	35:XD:41:GLY:HA3	2.03	0.40
32:XA:692:U:O2'	32:XA:694:A:N7	2.41	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:1492:A:O4'	43:XL:47:LYS:HD3	2.22	0.40
34:XC:8:ILE:HG12	34:XC:184:TYR:HB3	2.02	0.40
34:XC:140:ARG:NH1	34:XC:140:ARG:HB2	2.36	0.40
37:XF:82:ARG:HB2	37:XF:85:VAL:HG23	2.03	0.40
42:XK:65:ALA:HB3	42:XK:97:ALA:HB3	2.03	0.40
44:XM:16:ASP:OD1	44:XM:16:ASP:N	2.53	0.40
1:RA:536:A:H2'	1:RA:537:C:C6	2.56	0.40
1:RA:1789:A:OP1	3:RD:221:VAL:HA	2.21	0.40
1:RA:1817:G:C6	1:RA:1818:U:C4	3.10	0.40
1:RA:1907:G:C2	1:RA:1908:C:C2	3.10	0.40
1:RA:2106:G:C6	1:RA:2107:C:C2	3.10	0.40
1:RA:2540:C:H2'	1:RA:2541:A:O4'	2.21	0.40
3:RD:5:LYS:HB3	3:RD:5:LYS:HE3	1.85	0.40
8:RI:61:ARG:HD3	8:RI:61:ARG:HA	1.74	0.40
14:RS:39:ILE:HB	14:RS:49:VAL:HG12	2.03	0.40
15:RT:11:GLU:CD	15:RT:57:PHE:HB3	2.46	0.40
30:R8:23:VAL:CG1	30:R8:47:LYS:HB3	2.51	0.40
32:QA:427:U:OP1	35:QD:13:ARG:NH2	2.55	0.40
32:QA:947:G:H2'	32:QA:948:C:O4'	2.21	0.40
32:QA:1279:A:O2'	32:QA:1281:U:OP2	2.22	0.40
36:QE:126:ARG:HG3	36:QE:126:ARG:NH1	2.30	0.40
40:QI:4:TYR:O	40:QI:19:LEU:N	2.40	0.40
55:QY:101:LEU:H	55:QY:102:PRO:HD2	1.87	0.40
55:QY:214:LEU:H	55:QY:215:PRO:HD3	1.85	0.40
1:YA:242:G:C8	30:Y8:3:LYS:HG3	2.56	0.40
1:YA:307:G:N2	1:YA:309:G:H3'	2.37	0.40
1:YA:1937:A:H1'	1:YA:1939:5MU:H71	2.03	0.40
4:YE:52:LEU:O	4:YE:76:ARG:N	2.49	0.40
5:YF:130:ALA:HB3	5:YF:142:TRP:HD1	1.87	0.40
14:YS:20:ARG:HD3	14:YS:20:ARG:O	2.21	0.40
16:YU:65:ILE:CD1	16:YU:95:LEU:HB3	2.51	0.40
20:YY:38:ILE:HD11	20:YY:66:PRO:HG3	2.03	0.40
21:YZ:35:ARG:HD2	21:YZ:35:ARG:HA	1.94	0.40
21:YZ:183:LEU:HD23	21:YZ:183:LEU:HA	1.95	0.40
32:XA:266:G:O3'	48:XQ:67:LYS:HB2	2.22	0.40
32:XA:404:U:H5''	35:XD:122:ARG:HD3	2.03	0.40
32:XA:936:C:H2'	32:XA:937:A:O4'	2.21	0.40
32:XA:1273:G:H3'	32:XA:1274:G:H8	1.86	0.40
33:XB:9:GLU:O	33:XB:11:LEU:N	2.55	0.40
37:XF:45:LEU:HD23	37:XF:57:GLN:OE1	2.21	0.40
42:XK:92:GLU:O	42:XK:96:ARG:HD2	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:XL:8:ASN:O	43:XL:12:ARG:HG3	2.21	0.40
55:XY:119:THR:O	55:XY:199:SER:HB2	2.21	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]	2.02	0.18

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	RD	273/276 (99%)	263 (96%)	10 (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	57
4	YE	202/206 (98%)	194 (96%)	8 (4%)	0	100	100
5	RF	201/210 (96%)	196 (98%)	5 (2%)	0	100	100
5	YF	201/210 (96%)	194 (96%)	6 (3%)	1 (0%)	24	57
6	RG	179/182 (98%)	168 (94%)	9 (5%)	2 (1%)	11	39
6	YG	179/182 (98%)	169 (94%)	9 (5%)	1 (1%)	21	53
7	RH	172/180 (96%)	164 (95%)	8 (5%)	0	100	100
7	YH	171/180 (95%)	163 (95%)	8 (5%)	0	100	100
8	RI	145/148 (98%)	134 (92%)	10 (7%)	1 (1%)	18	49
8	YI	144/148 (97%)	136 (94%)	8 (6%)	0	100	100
9	RN	138/140 (99%)	134 (97%)	4 (3%)	0	100	100
9	YN	138/140 (99%)	134 (97%)	4 (3%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
10	RO	120/122 (98%)	114 (95%)	6 (5%)	0	100	100
10	YO	120/122 (98%)	113 (94%)	7 (6%)	0	100	100
11	RP	147/150 (98%)	141 (96%)	5 (3%)	1 (1%)	18	49
11	YP	147/150 (98%)	141 (96%)	5 (3%)	1 (1%)	18	49
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%)	112 (97%)	4 (3%)	0	100	100
14	RS	108/112 (96%)	104 (96%)	3 (3%)	1 (1%)	14	44
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%)	114 (100%)	0	0	100	100
16	YU	114/118 (97%)	113 (99%)	1 (1%)	0	100	100
17	RV	99/101 (98%)	95 (96%)	4 (4%)	0	100	100
17	YV	99/101 (98%)	96 (97%)	2 (2%)	1 (1%)	12	41
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%)	0	1 (1%)	11	39
20	RY	105/110 (96%)	98 (93%)	7 (7%)	0	100	100
20	YY	105/110 (96%)	101 (96%)	4 (4%)	0	100	100
21	RZ	201/206 (98%)	196 (98%)	5 (2%)	0	100	100
21	YZ	199/206 (97%)	194 (98%)	5 (2%)	0	100	100
22	R0	75/85 (88%)	73 (97%)	2 (3%)	0	100	100
22	Y0	75/85 (88%)	72 (96%)	3 (4%)	0	100	100
23	R1	95/98 (97%)	94 (99%)	0	1 (1%)	11	39
23	Y1	95/98 (97%)	92 (97%)	2 (2%)	1 (1%)	11	39
24	R2	68/72 (94%)	68 (100%)	0	0	100	100
24	Y2	68/72 (94%)	68 (100%)	0	0	100	100
25	R3	57/60 (95%)	55 (96%)	2 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
25	Y3	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
26	R4	67/71 (94%)	55 (82%)	7 (10%)	5 (8%)	1	3
26	Y4	67/71 (94%)	56 (84%)	9 (13%)	2 (3%)	3	17
27	R5	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
27	Y5	57/60 (95%)	54 (95%)	3 (5%)	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%)	204 (89%)	17 (7%)	8 (4%)	3	14
33	XB	229/256 (90%)	203 (89%)	21 (9%)	5 (2%)	5	23
34	QC	204/239 (85%)	191 (94%)	13 (6%)	0	100	100
34	XC	204/239 (85%)	189 (93%)	14 (7%)	1 (0%)	24	57
35	QD	206/209 (99%)	196 (95%)	10 (5%)	0	100	100
35	XD	206/209 (99%)	199 (97%)	7 (3%)	0	100	100
36	QE	146/162 (90%)	145 (99%)	1 (1%)	0	100	100
36	XE	146/162 (90%)	145 (99%)	1 (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%)	150 (98%)	3 (2%)	0	100	100
38	XG	153/156 (98%)	150 (98%)	3 (2%)	0	100	100
39	QH	135/138 (98%)	133 (98%)	2 (2%)	0	100	100
39	XH	135/138 (98%)	133 (98%)	2 (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	30
41	QJ	95/105 (90%)	81 (85%)	11 (12%)	3 (3%)	3	16
41	XJ	94/105 (90%)	83 (88%)	10 (11%)	1 (1%)	11	39

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
42	QK	112/129 (87%)	105 (94%)	7 (6%)	0	100	100
42	XK	112/129 (87%)	106 (95%)	5 (4%)	1 (1%)	14	44
43	QL	119/132 (90%)	118 (99%)	1 (1%)	0	100	100
43	XL	119/132 (90%)	117 (98%)	2 (2%)	0	100	100
44	QM	114/126 (90%)	105 (92%)	8 (7%)	1 (1%)	14	44
44	XM	112/126 (89%)	104 (93%)	7 (6%)	1 (1%)	14	44
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%)	3 (3%)	0	100	100
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%)	66 (100%)	0	0	100	100
50	QS	81/93 (87%)	77 (95%)	4 (5%)	0	100	100
50	XS	81/93 (87%)	77 (95%)	4 (5%)	0	100	100
51	QT	94/106 (89%)	90 (96%)	3 (3%)	1 (1%)	11	39
51	XT	96/106 (91%)	90 (94%)	4 (4%)	2 (2%)	5	24
52	QU	21/27 (78%)	19 (90%)	2 (10%)	0	100	100
52	XU	21/27 (78%)	20 (95%)	1 (5%)	0	100	100
55	QY	257/360 (71%)	218 (85%)	21 (8%)	18 (7%)	1	4
55	XY	258/360 (72%)	215 (83%)	30 (12%)	13 (5%)	1	9
All	All	11955/12848 (93%)	11397 (95%)	481 (4%)	77 (1%)	21	53

All (77) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
26	R4	47	GLN
26	R4	49	PHE
33	QB	16	HIS
55	QY	98	VAL
55	QY	210	PRO

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Mol	Chain	Res	Type
55	QY	241	ASP
55	QY	304	SER
5	YF	21	ALA
23	Y1	3	LYS
26	Y4	60	GLN
33	XB	17	PHE
40	XI	44	VAL
40	XI	54	ASP
44	XM	67	GLU
51	XT	95	ALA
55	XY	216	ASP
55	XY	241	ASP
6	RG	51	ARG
26	R4	45	GLY
26	R4	55	ARG
33	QB	17	PHE
41	QJ	31	GLY
41	QJ	78	ASN
51	QT	95	ALA
55	QY	211	ASP
55	QY	214	LEU
55	QY	299	GLY
55	QY	324	LEU
55	QY	337	LEU
6	YG	81	LYS
33	XB	20	GLU
33	XB	124	SER
55	XY	106	ASP
55	XY	217	ILE
55	XY	306	ARG
26	R4	57	GLU
55	QY	101	LEU
33	XB	10	LEU
33	XB	125	PRO
41	XJ	78	ASN
55	XY	101	LEU
55	XY	102	PRO
55	XY	324	LEU
4	RE	52	LEU
6	RG	49	ASP
33	QB	21	ARG
55	QY	99	LEU

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Mol	Chain	Res	Type
55	QY	109	ARG
55	QY	213	GLU
33	QB	20	GLU
44	QM	12	ASN
55	QY	143	ARG
55	QY	305	ASP
55	QY	322	ILE
55	XY	305	ASP
55	XY	323	ASN
55	XY	337	LEU
8	RI	73	GLU
23	R1	3	LYS
33	QB	127	ILE
55	QY	217	ILE
26	Y4	55	ARG
34	XC	108	ASN
55	QY	313	PRO
51	XT	100	ILE
33	QB	124	SER
41	QJ	77	PRO
11	YP	122	PRO
17	YV	79	VAL
11	RP	122	PRO
14	RS	60	GLY
33	QB	231	GLU
42	XK	118	GLY
55	XY	301	GLY
19	YX	94	GLY
55	XY	299	GLY
33	QB	125	PRO

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%)	209 (98%)	5 (2%)	44 70

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	YD	215/218 (99%)	207 (96%)	8 (4%)	30	61
4	RE	164/166 (99%)	157 (96%)	7 (4%)	26	57
4	YE	164/166 (99%)	156 (95%)	8 (5%)	22	53
5	RF	160/166 (96%)	148 (92%)	12 (8%)	12	38
5	YF	159/166 (96%)	151 (95%)	8 (5%)	22	53
6	RG	144/156 (92%)	138 (96%)	6 (4%)	26	58
6	YG	142/156 (91%)	136 (96%)	6 (4%)	26	58
7	RH	144/148 (97%)	140 (97%)	4 (3%)	38	67
7	YH	143/148 (97%)	133 (93%)	10 (7%)	14	41
8	RI	111/124 (90%)	106 (96%)	5 (4%)	24	56
8	YI	108/124 (87%)	99 (92%)	9 (8%)	10	34
9	RN	119/119 (100%)	113 (95%)	6 (5%)	22	53
9	YN	118/119 (99%)	114 (97%)	4 (3%)	32	63
10	RO	100/100 (100%)	98 (98%)	2 (2%)	48	73
10	YO	100/100 (100%)	99 (99%)	1 (1%)	68	81
11	RP	115/116 (99%)	109 (95%)	6 (5%)	21	51
11	YP	115/116 (99%)	110 (96%)	5 (4%)	26	57
12	RQ	111/111 (100%)	107 (96%)	4 (4%)	31	62
12	YQ	111/111 (100%)	108 (97%)	3 (3%)	39	68
13	RR	101/101 (100%)	92 (91%)	9 (9%)	9	32
13	YR	101/101 (100%)	93 (92%)	8 (8%)	11	36
14	RS	87/88 (99%)	85 (98%)	2 (2%)	44	70
14	YS	85/88 (97%)	83 (98%)	2 (2%)	43	70
15	RT	115/127 (91%)	110 (96%)	5 (4%)	26	57
15	YT	113/127 (89%)	109 (96%)	4 (4%)	32	62
16	RU	93/94 (99%)	90 (97%)	3 (3%)	34	64
16	YU	93/94 (99%)	91 (98%)	2 (2%)	45	71
17	RV	81/82 (99%)	76 (94%)	5 (6%)	16	45
17	YV	80/82 (98%)	77 (96%)	3 (4%)	29	60
18	RW	90/92 (98%)	86 (96%)	4 (4%)	25	56
18	YW	90/92 (98%)	86 (96%)	4 (4%)	25	56

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
19	RX	77/78 (99%)	75 (97%)	2 (3%)	40	69
19	YX	77/78 (99%)	76 (99%)	1 (1%)	61	79
20	RY	86/91 (94%)	84 (98%)	2 (2%)	44	70
20	YY	86/91 (94%)	84 (98%)	2 (2%)	44	70
21	RZ	169/179 (94%)	164 (97%)	5 (3%)	36	66
21	YZ	165/179 (92%)	161 (98%)	4 (2%)	43	70
22	R0	61/67 (91%)	59 (97%)	2 (3%)	33	64
22	Y0	61/67 (91%)	61 (100%)	0	100	100
23	R1	79/83 (95%)	77 (98%)	2 (2%)	42	69
23	Y1	81/83 (98%)	78 (96%)	3 (4%)	30	61
24	R2	65/67 (97%)	65 (100%)	0	100	100
24	Y2	66/67 (98%)	64 (97%)	2 (3%)	36	66
25	R3	51/52 (98%)	49 (96%)	2 (4%)	28	59
25	Y3	50/52 (96%)	47 (94%)	3 (6%)	17	47
26	R4	58/63 (92%)	56 (97%)	2 (3%)	32	63
26	Y4	54/63 (86%)	51 (94%)	3 (6%)	19	49
27	R5	51/52 (98%)	49 (96%)	2 (4%)	28	59
27	Y5	50/52 (96%)	48 (96%)	2 (4%)	28	59
28	R6	51/52 (98%)	50 (98%)	1 (2%)	48	73
28	Y6	50/52 (96%)	49 (98%)	1 (2%)	48	73
29	R7	41/42 (98%)	39 (95%)	2 (5%)	22	53
29	Y7	41/42 (98%)	39 (95%)	2 (5%)	22	53
30	R8	54/55 (98%)	53 (98%)	1 (2%)	50	73
30	Y8	54/55 (98%)	54 (100%)	0	100	100
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%)	179 (94%)	12 (6%)	16	45
33	XB	187/220 (85%)	178 (95%)	9 (5%)	23	54
34	QC	144/188 (77%)	138 (96%)	6 (4%)	26	58
34	XC	140/188 (74%)	136 (97%)	4 (3%)	37	67
35	QD	171/181 (94%)	164 (96%)	7 (4%)	27	58

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
35	XD	172/181 (95%)	164 (95%)	8 (5%)	23	55
36	QE	114/123 (93%)	112 (98%)	2 (2%)	51	74
36	XE	114/123 (93%)	112 (98%)	2 (2%)	51	74
37	QF	85/90 (94%)	84 (99%)	1 (1%)	63	79
37	XF	85/90 (94%)	83 (98%)	2 (2%)	43	70
38	QG	120/127 (94%)	115 (96%)	5 (4%)	26	58
38	XG	119/127 (94%)	115 (97%)	4 (3%)	32	63
39	QH	116/119 (98%)	112 (97%)	4 (3%)	32	63
39	XH	114/119 (96%)	111 (97%)	3 (3%)	40	69
40	QI	91/99 (92%)	85 (93%)	6 (7%)	15	43
40	XI	88/99 (89%)	83 (94%)	5 (6%)	18	49
41	QJ	68/92 (74%)	67 (98%)	1 (2%)	57	77
41	XJ	68/92 (74%)	68 (100%)	0	100	100
42	QK	83/99 (84%)	81 (98%)	2 (2%)	43	70
42	XK	83/99 (84%)	81 (98%)	2 (2%)	43	70
43	QL	96/108 (89%)	94 (98%)	2 (2%)	47	72
43	XL	96/108 (89%)	92 (96%)	4 (4%)	26	58
44	QM	90/101 (89%)	87 (97%)	3 (3%)	33	64
44	XM	87/101 (86%)	83 (95%)	4 (5%)	24	55
45	QN	49/50 (98%)	46 (94%)	3 (6%)	17	46
45	XN	49/50 (98%)	47 (96%)	2 (4%)	27	58
46	QO	78/80 (98%)	77 (99%)	1 (1%)	61	79
46	XO	78/80 (98%)	76 (97%)	2 (3%)	40	69
47	QP	69/74 (93%)	65 (94%)	4 (6%)	18	48
47	XP	68/74 (92%)	64 (94%)	4 (6%)	18	47
48	QQ	94/97 (97%)	92 (98%)	2 (2%)	47	72
48	XQ	94/97 (97%)	92 (98%)	2 (2%)	47	72
49	QR	59/77 (77%)	56 (95%)	3 (5%)	21	52
49	XR	59/77 (77%)	57 (97%)	2 (3%)	32	63
50	QS	68/80 (85%)	65 (96%)	3 (4%)	25	56
50	XS	67/80 (84%)	66 (98%)	1 (2%)	57	77

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
51	QT	71/82 (87%)	67 (94%)	4 (6%)	19	49
51	XT	70/82 (85%)	66 (94%)	4 (6%)	18	49
52	QU	18/22 (82%)	18 (100%)	0	100	100
52	XU	18/22 (82%)	17 (94%)	1 (6%)	19	49
55	QY	210/300 (70%)	204 (97%)	6 (3%)	37	67
55	XY	211/300 (70%)	202 (96%)	9 (4%)	26	57
All	All	9784/10664 (92%)	9417 (96%)	367 (4%)	29	60

All (367) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	RD	52	ARG
3	RD	142	VAL
3	RD	193	VAL
3	RD	211	ARG
3	RD	257	LEU
4	RE	9	VAL
4	RE	21	VAL
4	RE	75	VAL
4	RE	111	ARG
4	RE	116	VAL
4	RE	181	LEU
4	RE	184	VAL
5	RF	12	LEU
5	RF	20	LEU
5	RF	33	LEU
5	RF	53	THR
5	RF	57	VAL
5	RF	110	LEU
5	RF	125	LEU
5	RF	168	ARG
5	RF	183	VAL
5	RF	192	LEU
5	RF	197	ASP
5	RF	201	VAL
6	RG	7	LEU
6	RG	31	VAL
6	RG	45	GLU
6	RG	60	LEU
6	RG	82	LEU

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Mol	Chain	Res	Type
6	RG	135	LEU
7	RH	23	ARG
7	RH	62	LYS
7	RH	71	LEU
7	RH	105	LEU
8	RI	12	LEU
8	RI	92	VAL
8	RI	109	ILE
8	RI	116	LEU
8	RI	121	LYS
9	RN	48	MET
9	RN	61	ARG
9	RN	62	VAL
9	RN	87	LEU
9	RN	120	LEU
9	RN	121	LYS
10	RO	24	VAL
10	RO	69	ILE
11	RP	55	ARG
11	RP	59	LEU
11	RP	98	GLU
11	RP	106	LEU
11	RP	112	LEU
11	RP	125	VAL
12	RQ	21	THR
12	RQ	55	VAL
12	RQ	75	THR
12	RQ	109	VAL
13	RR	18	LEU
13	RR	28	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
13	RR	111	LEU
14	RS	59	LYS
14	RS	69	VAL
15	RT	28	VAL
15	RT	53	ARG
15	RT	78	LEU

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Mol	Chain	Res	Type
15	RT	89	VAL
15	RT	96	ARG
16	RU	8	VAL
16	RU	92	ARG
16	RU	95	LEU
17	RV	18	LEU
17	RV	61	VAL
17	RV	72	VAL
17	RV	79	VAL
17	RV	100	ARG
18	RW	23	LEU
18	RW	51	LEU
18	RW	100	THR
18	RW	107	LEU
19	RX	66	LEU
19	RX	76	ARG
20	RY	72	VAL
20	RY	90	LEU
21	RZ	5	LEU
21	RZ	6	LYS
21	RZ	28	MET
21	RZ	150	LEU
21	RZ	161	VAL
22	R0	39	ARG
22	R0	59	LEU
23	R1	52	ARG
23	R1	95	LEU
25	R3	8	LEU
25	R3	54	VAL
26	R4	49	PHE
26	R4	50	VAL
27	R5	29	THR
27	R5	60	VAL
28	R6	28	ARG
29	R7	23	ARG
29	R7	43	THR
30	R8	30	ARG
33	QB	7	VAL
33	QB	15	VAL
33	QB	16	HIS
33	QB	20	GLU
33	QB	44	LEU

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Mol	Chain	Res	Type
33	QB	76	GLN
33	QB	106	LYS
33	QB	122	PHE
33	QB	135	GLN
33	QB	157	ARG
33	QB	187	LEU
33	QB	226	ARG
34	QC	15	THR
34	QC	64	VAL
34	QC	127	ARG
34	QC	150	LYS
34	QC	178	LEU
34	QC	196	LEU
35	QD	8	VAL
35	QD	31	CYS
35	QD	49	ARG
35	QD	108	LEU
35	QD	118	ARG
35	QD	135	LEU
35	QD	184	LYS
36	QE	12	LEU
36	QE	41	VAL
37	QF	10	LEU
38	QG	56	GLN
38	QG	104	LEU
38	QG	114	ARG
38	QG	139	GLU
38	QG	143	ARG
39	QH	18	ARG
39	QH	39	LEU
39	QH	51	VAL
39	QH	56	LYS
40	QI	25	LYS
40	QI	42	ARG
40	QI	65	VAL
40	QI	81	ILE
40	QI	93	ARG
40	QI	103	THR
41	QJ	84	GLN
42	QK	96	ARG
42	QK	117	ASN
43	QL	27	LEU

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Mol	Chain	Res	Type
43	QL	117	ARG
44	QM	32	GLU
44	QM	69	GLU
44	QM	98	VAL
45	QN	18	VAL
45	QN	33	VAL
45	QN	41	ARG
46	QO	39	LEU
47	QP	19	ILE
47	QP	20	VAL
47	QP	50	LYS
47	QP	60	LEU
48	QQ	72	ARG
48	QQ	78	GLU
49	QR	26	LEU
49	QR	31	LEU
49	QR	76	LEU
50	QS	5	LEU
50	QS	41	VAL
50	QS	65	ASN
51	QT	9	ASN
51	QT	10	LEU
51	QT	84	LEU
51	QT	100	ILE
55	QY	146	VAL
55	QY	184	VAL
55	QY	237	VAL
55	QY	244	ILE
55	QY	311	ASN
55	QY	326	LEU
3	YD	94	LEU
3	YD	111	LEU
3	YD	142	VAL
3	YD	193	VAL
3	YD	211	ARG
3	YD	221	VAL
3	YD	257	LEU
3	YD	275	LYS
4	YE	9	VAL
4	YE	21	VAL
4	YE	52	LEU
4	YE	73	GLU

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Mol	Chain	Res	Type
4	YE	75	VAL
4	YE	111	ARG
4	YE	116	VAL
4	YE	181	LEU
5	YF	20	LEU
5	YF	24	LEU
5	YF	33	LEU
5	YF	57	VAL
5	YF	110	LEU
5	YF	162	LEU
5	YF	175	THR
5	YF	183	VAL
6	YG	3	LEU
6	YG	5	VAL
6	YG	21	ARG
6	YG	115	ARG
6	YG	135	LEU
6	YG	136	ARG
7	YH	23	ARG
7	YH	33	LEU
7	YH	34	GLU
7	YH	46	GLU
7	YH	71	LEU
7	YH	81	GLU
7	YH	88	LEU
7	YH	105	LEU
7	YH	136	ILE
7	YH	171	LEU
8	YI	9	LEU
8	YI	61	ARG
8	YI	68	LEU
8	YI	75	LEU
8	YI	77	LEU
8	YI	92	VAL
8	YI	116	LEU
8	YI	123	LEU
8	YI	140	LEU
9	YN	28	THR
9	YN	67	LEU
9	YN	87	LEU
9	YN	120	LEU
10	YO	24	VAL

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Mol	Chain	Res	Type
11	YP	55	ARG
11	YP	59	LEU
11	YP	106	LEU
11	YP	112	LEU
11	YP	148	LEU
12	YQ	21	THR
12	YQ	75	THR
12	YQ	109	VAL
13	YR	18	LEU
13	YR	28	LEU
13	YR	29	LEU
13	YR	44	LEU
13	YR	60	LEU
13	YR	65	LEU
13	YR	79	LEU
13	YR	111	LEU
14	YS	23	ARG
14	YS	69	VAL
15	YT	28	VAL
15	YT	49	VAL
15	YT	89	VAL
15	YT	96	ARG
16	YU	8	VAL
16	YU	95	LEU
17	YV	38	LEU
17	YV	53	GLU
17	YV	79	VAL
18	YW	23	LEU
18	YW	51	LEU
18	YW	100	THR
18	YW	107	LEU
19	YX	88	LYS
20	YY	23	ARG
20	YY	72	VAL
21	YZ	94	GLU
21	YZ	150	LEU
21	YZ	161	VAL
21	YZ	190	GLU
23	Y1	26	ARG
23	Y1	52	ARG
23	Y1	96	LYS
24	Y2	31	GLU

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Mol	Chain	Res	Type
24	Y2	64	LEU
25	Y3	8	LEU
25	Y3	23	LEU
25	Y3	54	VAL
26	Y4	46	GLN
26	Y4	58	ARG
26	Y4	62	ARG
27	Y5	29	THR
27	Y5	35	GLU
28	Y6	48	VAL
29	Y7	23	ARG
29	Y7	43	THR
33	XB	16	HIS
33	XB	44	LEU
33	XB	127	ILE
33	XB	144	ARG
33	XB	154	LEU
33	XB	157	ARG
33	XB	187	LEU
33	XB	222	ILE
33	XB	226	ARG
34	XC	45	LYS
34	XC	85	ARG
34	XC	140	ARG
34	XC	178	LEU
35	XD	8	VAL
35	XD	28	SER
35	XD	31	CYS
35	XD	65	ARG
35	XD	108	LEU
35	XD	118	ARG
35	XD	135	LEU
35	XD	150	GLU
36	XE	41	VAL
36	XE	137	GLU
37	XF	10	LEU
37	XF	72	VAL
38	XG	90	GLU
38	XG	104	LEU
38	XG	114	ARG
38	XG	115	ARG
39	XH	14	ARG

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Mol	Chain	Res	Type
39	XH	69	ARG
39	XH	112	LEU
40	XI	23	ASN
40	XI	35	GLU
40	XI	65	VAL
40	XI	102	LEU
40	XI	108	VAL
42	XK	96	ARG
42	XK	117	ASN
43	XL	52	LEU
43	XL	83	VAL
43	XL	86	ARG
43	XL	117	ARG
44	XM	63	THR
44	XM	69	GLU
44	XM	98	VAL
44	XM	110	ARG
45	XN	18	VAL
45	XN	33	VAL
46	XO	54	ARG
46	XO	83	GLU
47	XP	20	VAL
47	XP	28	ARG
47	XP	54	GLU
47	XP	60	LEU
48	XQ	72	ARG
48	XQ	74	LEU
49	XR	26	LEU
49	XR	76	LEU
50	XS	27	GLU
51	XT	84	LEU
51	XT	89	ARG
51	XT	99	LEU
51	XT	100	ILE
52	XU	15	ARG
55	XY	99	LEU
55	XY	100	LEU
55	XY	101	LEU
55	XY	103	LYS
55	XY	249	LEU
55	XY	259	ASP
55	XY	318	THR

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Mol	Chain	Res	Type
55	XY	326	LEU
55	XY	340	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (55) such sidechains are listed below:

Mol	Chain	Res	Type
3	RD	164	GLN
4	RE	143	ASN
6	RG	121	ASN
7	RH	158	HIS
12	RQ	123	HIS
13	RR	50	HIS
15	RT	84	GLN
16	RU	94	ASN
16	RU	117	GLN
18	RW	60	ASN
20	RY	92	ASN
21	RZ	32	HIS
21	RZ	151	HIS
28	R6	20	ASN
33	QB	78	GLN
33	QB	95	GLN
34	QC	63	ASN
34	QC	98	ASN
34	QC	104	GLN
35	QD	45	GLN
35	QD	160	GLN
38	QG	51	GLN
38	QG	64	GLN
38	QG	110	GLN
38	QG	148	ASN
40	QI	89	ASN
41	QJ	13	HIS
44	QM	77	ASN
46	QO	9	GLN
50	QS	65	ASN
55	QY	258	GLN
3	YD	87	ASN
6	YG	79	ASN
6	YG	132	ASN
7	YH	74	ASN
7	YH	158	HIS

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Mol	Chain	Res	Type
9	YN	94	HIS
9	YN	131	GLN
10	YO	3	GLN
13	YR	13	HIS
15	YT	58	ASN
15	YT	84	GLN
16	YU	94	ASN
21	YZ	151	HIS
33	XB	45	GLN
33	XB	78	GLN
34	XC	6	HIS
38	XG	148	ASN
39	XH	78	GLN
40	XI	89	ASN
43	XL	99	HIS
46	XO	50	HIS
47	XP	14	ASN
47	XP	16	HIS
48	XQ	93	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	RA	2858/2915 (98%)	494 (17%)	22 (0%)
1	YA	2858/2915 (98%)	483 (16%)	24 (0%)
2	RB	119/122 (97%)	14 (11%)	0
2	YB	119/122 (97%)	13 (10%)	0
32	QA	1497/1521 (98%)	259 (17%)	15 (1%)
32	XA	1501/1521 (98%)	236 (15%)	16 (1%)
53	QV	76/77 (98%)	16 (21%)	0
53	XV	76/77 (98%)	16 (21%)	1 (1%)
54	QX	8/25 (32%)	4 (50%)	0
54	XX	9/25 (36%)	4 (44%)	0
All	All	9121/9320 (97%)	1539 (16%)	78 (0%)

All (1539) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	RA	10	G
1	RA	12	U
1	RA	36	G

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Mol	Chain	Res	Type
1	RA	45	C
1	RA	59	U
1	RA	61	G
1	RA	71	A
1	RA	74	A
1	RA	75	G
1	RA	83	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	125	G
1	RA	128	C
1	RA	141	A
1	RA	157	U
1	RA	181	A
1	RA	182	A
1	RA	196	A
1	RA	199	A
1	RA	201	C
1	RA	205	G
1	RA	214	G
1	RA	215	G
1	RA	216	A
1	RA	221	A
1	RA	222	A
1	RA	225	A
1	RA	229	A
1	RA	230	U
1	RA	232	G
1	RA	248	G
1	RA	250	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

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Mol	Chain	Res	Type
1	RA	273(K)	C
1	RA	277	C
1	RA	278	A
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	352	G
1	RA	363(A)	G
1	RA	372	G
1	RA	386	G
1	RA	396	G
1	RA	405	U
1	RA	407	G
1	RA	411	G
1	RA	428	A
1	RA	444	C
1	RA	456	C
1	RA	457	A
1	RA	470	A
1	RA	481	G
1	RA	482	A
1	RA	494	G
1	RA	496	G
1	RA	504	U
1	RA	505	A
1	RA	508	G
1	RA	509	C
1	RA	530	G
1	RA	531	C
1	RA	532	A
1	RA	533	G
1	RA	545	G
1	RA	556	G
1	RA	563	G
1	RA	567	A
1	RA	568	U
1	RA	573	G
1	RA	575	A
1	RA	586	A

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Mol	Chain	Res	Type
1	RA	587	C
1	RA	595	C
1	RA	603	A
1	RA	604	G
1	RA	607	U
1	RA	614(C)	G
1	RA	615	G
1	RA	627	A
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	729	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	869	G
1	RA	877	U
1	RA	880	G
1	RA	886	C
1	RA	887	A
1	RA	888	C
1	RA	889	C

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Mol	Chain	Res	Type
1	RA	890	A
1	RA	893	C
1	RA	896	A
1	RA	897	C
1	RA	900	A
1	RA	907	U
1	RA	910	A
1	RA	914	C
1	RA	915	C
1	RA	917	A
1	RA	926	A
1	RA	932	G
1	RA	936	C
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	983	A
1	RA	996	A
1	RA	1008	C
1	RA	1012	U
1	RA	1013	C
1	RA	1017	G
1	RA	1025	G
1	RA	1026	U
1	RA	1033	U
1	RA	1034	G
1	RA	1038	C
1	RA	1039	G
1	RA	1043	C
1	RA	1044	G
1	RA	1045	A
1	RA	1046	A
1	RA	1047	G
1	RA	1048	A
1	RA	1049	C
1	RA	1053	C
1	RA	1054	A

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Mol	Chain	Res	Type
1	RA	1055	G
1	RA	1058	G
1	RA	1060	U
1	RA	1063	G
1	RA	1064	C
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	1073	A
1	RA	1074	G
1	RA	1076	C
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	1087	G
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	1097	U
1	RA	1098	A
1	RA	1100	C
1	RA	1109	C
1	RA	1110	G
1	RA	1111	A
1	RA	1112	G
1	RA	1129	A
1	RA	1130	U
1	RA	1135	C
1	RA	1136	G
1	RA	1138	G
1	RA	1142(B)	A

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Mol	Chain	Res	Type
1	RA	1170	G
1	RA	1171	G
1	RA	1211	U
1	RA	1219	G
1	RA	1236	G
1	RA	1241	A
1	RA	1248	G
1	RA	1250	G
1	RA	1253	A
1	RA	1256	G
1	RA	1271	G
1	RA	1272	A
1	RA	1300	U
1	RA	1301	A
1	RA	1306	C
1	RA	1309	G
1	RA	1314	C
1	RA	1320	C
1	RA	1321	A
1	RA	1352	U
1	RA	1359	A
1	RA	1360	A
1	RA	1365	A
1	RA	1368	G
1	RA	1378	A
1	RA	1384	A
1	RA	1385	G
1	RA	1395	A
1	RA	1416	G
1	RA	1417	C
1	RA	1420	U
1	RA	1421	G
1	RA	1427	A
1	RA	1428	C
1	RA	1445(A)	A
1	RA	1450(A)	G
1	RA	1455	G
1	RA	1459	G
1	RA	1460	A
1	RA	1467	C
1	RA	1471	A
1	RA	1482	G

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Mol	Chain	Res	Type
1	RA	1493	C
1	RA	1497	U
1	RA	1508	A
1	RA	1509(A)	C
1	RA	1509(B)	A
1	RA	1509(C)	A
1	RA	1531	C
1	RA	1542	A
1	RA	1543	C
1	RA	1554	A
1	RA	1558	A
1	RA	1566	A
1	RA	1569	A
1	RA	1578	U
1	RA	1580	A
1	RA	1584	C
1	RA	1586	A
1	RA	1608	A
1	RA	1609	A
1	RA	1618	A
1	RA	1640	C
1	RA	1648	C
1	RA	1654	A
1	RA	1674	G
1	RA	1675	C
1	RA	1696	G
1	RA	1698	A
1	RA	1700	A
1	RA	1701	A
1	RA	1703	G
1	RA	1721	G
1	RA	1722	A
1	RA	1746	G
1	RA	1756	G
1	RA	1762	A
1	RA	1763	G
1	RA	1764	G
1	RA	1773	A
1	RA	1776	G
1	RA	1780	A
1	RA	1782	C
1	RA	1784	A

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Mol	Chain	Res	Type
1	RA	1791	A
1	RA	1800	C
1	RA	1801	G
1	RA	1812	A
1	RA	1816	G
1	RA	1833	U
1	RA	1835	G
1	RA	1847	A
1	RA	1848	A
1	RA	1877	A
1	RA	1878	G
1	RA	1889	A
1	RA	1895	C
1	RA	1900	A
1	RA	1906	G
1	RA	1913	A
1	RA	1914	C
1	RA	1929	G
1	RA	1930	G
1	RA	1936	A
1	RA	1937	A
1	RA	1938	A
1	RA	1939	5MU
1	RA	1955	U
1	RA	1960	A
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	2037	G
1	RA	2043	C
1	RA	2055	C
1	RA	2056	G
1	RA	2060	A

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Mol	Chain	Res	Type
1	RA	2061	G
1	RA	2062	A
1	RA	2063	C
1	RA	2069	G
1	RA	2096	U
1	RA	2099	U
1	RA	2103	C
1	RA	2104	G
1	RA	2105	C
1	RA	2107	C
1	RA	2108	C
1	RA	2109	U
1	RA	2112	G
1	RA	2114	A
1	RA	2116	G
1	RA	2117	A
1	RA	2119	A
1	RA	2121	G
1	RA	2123	G
1	RA	2126	A
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	2135	A
1	RA	2136	C
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	2157	G
1	RA	2158	A
1	RA	2159	G
1	RA	2161	C
1	RA	2165	G
1	RA	2172	U
1	RA	2173	A
1	RA	2174	C

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Mol	Chain	Res	Type
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	2219	G
1	RA	2225	A
1	RA	2238	G
1	RA	2239	G
1	RA	2243	U
1	RA	2269	A
1	RA	2275	C
1	RA	2278	A
1	RA	2283	C
1	RA	2287	A
1	RA	2291	U
1	RA	2292	C
1	RA	2305	A
1	RA	2308	G
1	RA	2309	A
1	RA	2311	A
1	RA	2312	U
1	RA	2319	G
1	RA	2320	A
1	RA	2321	G
1	RA	2322	A
1	RA	2325	G
1	RA	2334	G
1	RA	2335	A
1	RA	2336	A
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	2400	G

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Mol	Chain	Res	Type
1	RA	2406	U
1	RA	2410	G
1	RA	2414	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	2474	C
1	RA	2475	C
1	RA	2476	A
1	RA	2478	A
1	RA	2498	C
1	RA	2502	G
1	RA	2505	G
1	RA	2518	A
1	RA	2520	C
1	RA	2529	G
1	RA	2549	G
1	RA	2554	U
1	RA	2555	U
1	RA	2566	A
1	RA	2567	G
1	RA	2601	C
1	RA	2602	A
1	RA	2609	U
1	RA	2611	U
1	RA	2612	C
1	RA	2615	U
1	RA	2629	A
1	RA	2630	G
1	RA	2632	A
1	RA	2654	A
1	RA	2689	U
1	RA	2690	C
1	RA	2691	C
1	RA	2700	C

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Mol	Chain	Res	Type
1	RA	2702	U
1	RA	2703	C
1	RA	2712(B)	A
1	RA	2713	A
1	RA	2714	G
1	RA	2726	U
1	RA	2733	A
1	RA	2744	G
1	RA	2751	G
1	RA	2758	A
1	RA	2759	G
1	RA	2764	A
1	RA	2765	A
1	RA	2766	G
1	RA	2778	A
1	RA	2789	C
1	RA	2794(A)	C
1	RA	2818	G
1	RA	2820	A
1	RA	2821	A
1	RA	2833	G
1	RA	2872	G
1	RA	2873	A
1	RA	2879	C
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	7	G
2	RB	8	U
2	RB	13	A
2	RB	24	G
2	RB	30	C
2	RB	34	U
2	RB	45	A
2	RB	53	A
2	RB	56	G
2	RB	73	A
2	RB	85	G
2	RB	106	G

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Mol	Chain	Res	Type
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	41	G
32	QA	42	G
32	QA	48	C
32	QA	50	A
32	QA	51	A
32	QA	53	A
32	QA	61	G
32	QA	78	G
32	QA	79	G
32	QA	101	A
32	QA	116	A
32	QA	121	C
32	QA	127	G
32	QA	131	C
32	QA	137	C
32	QA	163	C
32	QA	169	C
32	QA	174	C
32	QA	182	U
32	QA	189(F)	U
32	QA	195	A
32	QA	201	C
32	QA	203	U
32	QA	204	U
32	QA	216	G
32	QA	231	G
32	QA	247	G
32	QA	251	G
32	QA	266	G
32	QA	267	C
32	QA	289	G
32	QA	298	A
32	QA	306	G
32	QA	321	A
32	QA	328	C
32	QA	332	G

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Mol	Chain	Res	Type
32	QA	343	U
32	QA	345	C
32	QA	347	G
32	QA	348	G
32	QA	352	C
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	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	446	G
32	QA	452	A
32	QA	454	C
32	QA	458	C
32	QA	461	A
32	QA	470	C
32	QA	477	A
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	513	C
32	QA	517	G
32	QA	518	C
32	QA	521	G
32	QA	524	G
32	QA	527	7MG
32	QA	532	A
32	QA	547	A

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Mol	Chain	Res	Type
32	QA	550	G
32	QA	559	A
32	QA	561	U
32	QA	564	C
32	QA	572	A
32	QA	573	A
32	QA	574	A
32	QA	575	G
32	QA	576	G
32	QA	577	G
32	QA	596	C
32	QA	607	A
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	721	G
32	QA	723	U
32	QA	731	G
32	QA	755	G
32	QA	760	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	796	C
32	QA	798	G
32	QA	816	A
32	QA	817	C
32	QA	821	G
32	QA	828	A
32	QA	829	G
32	QA	839	U
32	QA	840	C
32	QA	841	U

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Mol	Chain	Res	Type
32	QA	848	C
32	QA	851	G
32	QA	902	G
32	QA	914	A
32	QA	916	G
32	QA	917	G
32	QA	926	G
32	QA	927	G
32	QA	934	C
32	QA	935	A
32	QA	939	G
32	QA	942	G
32	QA	944	G
32	QA	960	U
32	QA	961	U
32	QA	968	A
32	QA	969	A
32	QA	971	G
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	1003	G
32	QA	1006	C
32	QA	1009	G
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(A)	C
32	QA	1030(B)	G
32	QA	1030(C)	C
32	QA	1030(E)	A
32	QA	1032	G

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Mol	Chain	Res	Type
32	QA	1034	G
32	QA	1037	C
32	QA	1044	A
32	QA	1053	G
32	QA	1065	U
32	QA	1066	C
32	QA	1068	G
32	QA	1070	U
32	QA	1081	G
32	QA	1087	G
32	QA	1094	G
32	QA	1095	U
32	QA	1101	A
32	QA	1108	G
32	QA	1113	C
32	QA	1125	U
32	QA	1126	U
32	QA	1130	A
32	QA	1134	G
32	QA	1136	U
32	QA	1138	G
32	QA	1139	G
32	QA	1146	A
32	QA	1152	A
32	QA	1159	U
32	QA	1168	A
32	QA	1183	A
32	QA	1184	G
32	QA	1193	G
32	QA	1196	U
32	QA	1197	G
32	QA	1202	G
32	QA	1204	A
32	QA	1208	C
32	QA	1212	U
32	QA	1213	A
32	QA	1225	A
32	QA	1227	A
32	QA	1238	A
32	QA	1256	A
32	QA	1257	U
32	QA	1258	G

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Mol	Chain	Res	Type
32	QA	1278	U
32	QA	1280	A
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	1311	G
32	QA	1319	A
32	QA	1320	C
32	QA	1338	G
32	QA	1340	A
32	QA	1347	G
32	QA	1353	G
32	QA	1359	C
32	QA	1363(A)	C
32	QA	1363(B)	A
32	QA	1364	U
32	QA	1370	G
32	QA	1379	G
32	QA	1381	U
32	QA	1397	C
32	QA	1398	A
32	QA	1401	G
32	QA	1402	4OC
32	QA	1419	G
32	QA	1442(A)	G
32	QA	1442(B)	G
32	QA	1442(C)	A
32	QA	1446	U
32	QA	1447	A
32	QA	1452	C
32	QA	1456	G
32	QA	1487	G
32	QA	1491	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

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Mol	Chain	Res	Type
32	QA	1505	G
32	QA	1506	U
32	QA	1507	A
32	QA	1517	G
32	QA	1519	MA6
32	QA	1520	G
32	QA	1529	G
32	QA	1530	G
53	QV	4	G
53	QV	5	G
53	QV	8	U
53	QV	9	G
53	QV	17(A)	U
53	QV	18	G
53	QV	19	G
53	QV	21	A
53	QV	22	G
53	QV	31	G
53	QV	47	U
53	QV	48	C
53	QV	54	U
53	QV	68	C
53	QV	75	C
53	QV	76	A
54	QX	15	A
54	QX	17	U
54	QX	21	A
54	QX	22	C
1	YA	9	U
1	YA	10	G
1	YA	12	U
1	YA	15	G
1	YA	34	C
1	YA	45	C
1	YA	55	G
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	118	A

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Mol	Chain	Res	Type
1	YA	119	A
1	YA	120	U
1	YA	154(A)	G
1	YA	154(B)	C
1	YA	157	U
1	YA	181	A
1	YA	182	A
1	YA	188	G
1	YA	196	A
1	YA	199	A
1	YA	205	G
1	YA	214	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	233	A
1	YA	248	G
1	YA	266	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	311	A
1	YA	317	G
1	YA	324	A
1	YA	327	G
1	YA	329	G
1	YA	330	A
1	YA	342	G
1	YA	346	A
1	YA	352	G
1	YA	362	U
1	YA	363(A)	G

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Mol	Chain	Res	Type
1	YA	372	G
1	YA	386	G
1	YA	389	G
1	YA	407	G
1	YA	411	G
1	YA	428	A
1	YA	444	C
1	YA	455	C
1	YA	463	G
1	YA	464	U
1	YA	470	A
1	YA	481	G
1	YA	505	A
1	YA	508	G
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	567	A
1	YA	573	G
1	YA	575	A
1	YA	586	A
1	YA	595	C
1	YA	603	A
1	YA	604	G
1	YA	607	U
1	YA	615	G
1	YA	616	G
1	YA	620	G
1	YA	627	A
1	YA	637	A
1	YA	644	A
1	YA	645	C
1	YA	646	A
1	YA	652(C)	A
1	YA	652(D)	G
1	YA	652(V)	G
1	YA	653	A
1	YA	669	G

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Mol	Chain	Res	Type
1	YA	686	G
1	YA	715	G
1	YA	730	C
1	YA	747	U
1	YA	752	A
1	YA	753	C
1	YA	762	U
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	833	U
1	YA	859	G
1	YA	866	A
1	YA	878	A
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	897	C
1	YA	899	A
1	YA	907	U
1	YA	910	A
1	YA	914	C
1	YA	917	A
1	YA	932	G
1	YA	941	A
1	YA	945	A
1	YA	946	G
1	YA	958	U
1	YA	959	A

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Mol	Chain	Res	Type
1	YA	961	C
1	YA	962	G
1	YA	974	G
1	YA	975(A)	C
1	YA	983	A
1	YA	989	G
1	YA	996	A
1	YA	999	U
1	YA	1008	C
1	YA	1012	U
1	YA	1013	C
1	YA	1015	G
1	YA	1017	G
1	YA	1025	G
1	YA	1026	U
1	YA	1033	U
1	YA	1041	C
1	YA	1044	G
1	YA	1045	A
1	YA	1046	A
1	YA	1047	G
1	YA	1048	A
1	YA	1049	C
1	YA	1050	A
1	YA	1052	C
1	YA	1053	C
1	YA	1054	A
1	YA	1058	G
1	YA	1060	U
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

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Mol	Chain	Res	Type
1	YA	1079	C
1	YA	1082	U
1	YA	1083	U
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	1100	C
1	YA	1108	U
1	YA	1109	C
1	YA	1110	G
1	YA	1112	G
1	YA	1113	U
1	YA	1114	G
1	YA	1117	G
1	YA	1118	C
1	YA	1119	C
1	YA	1126	A
1	YA	1129	A
1	YA	1130	U
1	YA	1135	C
1	YA	1136	G
1	YA	1142(B)	A
1	YA	1151	G
1	YA	1155	A
1	YA	1157	G
1	YA	1171	G
1	YA	1211	U
1	YA	1212	G
1	YA	1220	A
1	YA	1236	G
1	YA	1250	G
1	YA	1253	A
1	YA	1256	G
1	YA	1271	G

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Mol	Chain	Res	Type
1	YA	1272	A
1	YA	1273	U
1	YA	1300	U
1	YA	1301	A
1	YA	1313	U
1	YA	1314	C
1	YA	1352	U
1	YA	1359	A
1	YA	1365	A
1	YA	1368	G
1	YA	1378	A
1	YA	1380	G
1	YA	1384	A
1	YA	1385	G
1	YA	1386	C
1	YA	1416	G
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	1451	C
1	YA	1455	G
1	YA	1459	G
1	YA	1467	C
1	YA	1471	A
1	YA	1478	G
1	YA	1482	G
1	YA	1490	A
1	YA	1493	C
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	1554	A
1	YA	1558	A
1	YA	1559	G

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Mol	Chain	Res	Type
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	1651	G
1	YA	1664	A
1	YA	1674	G
1	YA	1675	C
1	YA	1696	G
1	YA	1700	A
1	YA	1701	A
1	YA	1703	G
1	YA	1721	G
1	YA	1722	A
1	YA	1756	G
1	YA	1762	A
1	YA	1763	G
1	YA	1764	G
1	YA	1773	A
1	YA	1776	G
1	YA	1780	A
1	YA	1782	C
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	1829	A
1	YA	1834	U
1	YA	1835	G
1	YA	1847	A
1	YA	1848	A
1	YA	1877	A
1	YA	1878	G

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Mol	Chain	Res	Type
1	YA	1890	A
1	YA	1900	A
1	YA	1906	G
1	YA	1914	C
1	YA	1929	G
1	YA	1930	G
1	YA	1937	A
1	YA	1938	A
1	YA	1955	U
1	YA	1963	U
1	YA	1965	C
1	YA	1967	C
1	YA	1970	A
1	YA	1971	A
1	YA	1972	A
1	YA	1993	U
1	YA	1997	G
1	YA	2020	A
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
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	2105	C
1	YA	2107	C
1	YA	2108	C
1	YA	2109	U
1	YA	2112	G
1	YA	2116	G
1	YA	2117	A
1	YA	2118	U
1	YA	2119	A
1	YA	2121	G

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Mol	Chain	Res	Type
1	YA	2123	G
1	YA	2126	A
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	2151	G
1	YA	2158	A
1	YA	2159	G
1	YA	2161	C
1	YA	2165	G
1	YA	2172	U
1	YA	2173	A
1	YA	2180	U
1	YA	2186	G
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	2279	G
1	YA	2283	C
1	YA	2287	A
1	YA	2305	A
1	YA	2308	G
1	YA	2312	U
1	YA	2320	A

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Mol	Chain	Res	Type
1	YA	2321	G
1	YA	2322	A
1	YA	2325	G
1	YA	2334	G
1	YA	2335	A
1	YA	2336	A
1	YA	2343	C
1	YA	2347	C
1	YA	2350	C
1	YA	2372	G
1	YA	2383	G
1	YA	2384	G
1	YA	2385	C
1	YA	2389	G
1	YA	2400	G
1	YA	2406	U
1	YA	2410	G
1	YA	2414	G
1	YA	2422	A
1	YA	2425	A
1	YA	2429	G
1	YA	2430	A
1	YA	2431	U
1	YA	2435	A
1	YA	2439	A
1	YA	2441	C
1	YA	2448	A
1	YA	2468	G
1	YA	2474	C
1	YA	2476	A
1	YA	2487	G
1	YA	2502	G
1	YA	2505	G
1	YA	2518	A
1	YA	2520	C
1	YA	2525	G
1	YA	2529	G
1	YA	2530	A
1	YA	2549	G
1	YA	2554	U
1	YA	2566	A
1	YA	2567	G

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Mol	Chain	Res	Type
1	YA	2578	G
1	YA	2582	G
1	YA	2602	A
1	YA	2609	U
1	YA	2611	U
1	YA	2612	C
1	YA	2629	A
1	YA	2630	G
1	YA	2636	U
1	YA	2654	A
1	YA	2663	G
1	YA	2682	U
1	YA	2689	U
1	YA	2690	C
1	YA	2691	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	2733	A
1	YA	2744	G
1	YA	2751	G
1	YA	2758	A
1	YA	2759	G
1	YA	2764	A
1	YA	2765	A
1	YA	2769	C
1	YA	2778	A
1	YA	2780	G
1	YA	2802	G
1	YA	2811	G
1	YA	2818	G
1	YA	2820	A
1	YA	2821	A
1	YA	2833	G
1	YA	2835	A
1	YA	2849	U
1	YA	2866	U
1	YA	2872	G
1	YA	2873	A

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Mol	Chain	Res	Type
1	YA	2879	C
1	YA	2880	C
1	YA	2886	G
1	YA	2891	G
1	YA	2892	A
1	YA	2894	G
1	YA	2897	U
2	YB	8	U
2	YB	9	G
2	YB	12	C
2	YB	25	A
2	YB	30	C
2	YB	51	G
2	YB	56	G
2	YB	63	G
2	YB	73	A
2	YB	84	C
2	YB	106	G
2	YB	109	C
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	65	U
32	XA	66	G
32	XA	69	G
32	XA	78	G
32	XA	88	A
32	XA	89	C
32	XA	101	A
32	XA	116	A
32	XA	121	C
32	XA	131	C
32	XA	151	A
32	XA	163	C

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Mol	Chain	Res	Type
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	262	A
32	XA	266	G
32	XA	267	C
32	XA	281	G
32	XA	289	G
32	XA	321	A
32	XA	328	C
32	XA	332	G
32	XA	340	U
32	XA	351	G
32	XA	352	C
32	XA	353	A
32	XA	354	G
32	XA	356	A
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
32	XA	452	A
32	XA	458	C
32	XA	470	C
32	XA	482	A

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Mol	Chain	Res	Type
32	XA	484	G
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	527	7MG
32	XA	532	A
32	XA	533	A
32	XA	536	C
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	574	A
32	XA	575	G
32	XA	576	G
32	XA	577	G
32	XA	596	C
32	XA	630	G
32	XA	631	G
32	XA	632	A
32	XA	646	U
32	XA	653	A
32	XA	661	G
32	XA	665	A
32	XA	688	G
32	XA	695	A
32	XA	701	C
32	XA	721	G
32	XA	723	U
32	XA	724	G
32	XA	731	G
32	XA	749	C
32	XA	753	A
32	XA	755	G
32	XA	766	A

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Mol	Chain	Res	Type
32	XA	774	G
32	XA	776	G
32	XA	777	A
32	XA	792	A
32	XA	793	U
32	XA	794	A
32	XA	816	A
32	XA	817	C
32	XA	818	G
32	XA	821	G
32	XA	828	A
32	XA	829	G
32	XA	836	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	935	A
32	XA	960	U
32	XA	961	U
32	XA	965	A
32	XA	968	A
32	XA	969	A
32	XA	971	G
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	1003	G
32	XA	1004	A
32	XA	1005	A
32	XA	1006	C
32	XA	1009	G

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Mol	Chain	Res	Type
32	XA	1016	A
32	XA	1020	U
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	1030(B)	G
32	XA	1030(C)	C
32	XA	1038	C
32	XA	1041	A
32	XA	1043	C
32	XA	1044	A
32	XA	1045	C
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	1139	G
32	XA	1147	C
32	XA	1152	A
32	XA	1159	U
32	XA	1160	G
32	XA	1183	A
32	XA	1184	G
32	XA	1196	U
32	XA	1197	G
32	XA	1211	U
32	XA	1213	A
32	XA	1227	A
32	XA	1236	A
32	XA	1238	A

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Mol	Chain	Res	Type
32	XA	1250	A
32	XA	1256	A
32	XA	1257	U
32	XA	1258	G
32	XA	1270	C
32	XA	1278	U
32	XA	1279	A
32	XA	1280	A
32	XA	1281	U
32	XA	1282	C
32	XA	1286	A
32	XA	1287	A
32	XA	1300	G
32	XA	1302	U
32	XA	1305	G
32	XA	1320	C
32	XA	1329	A
32	XA	1340	A
32	XA	1346	A
32	XA	1347	G
32	XA	1353	G
32	XA	1363(A)	C
32	XA	1363(B)	A
32	XA	1364	U
32	XA	1397	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	1447	A
32	XA	1456	G
32	XA	1457	G
32	XA	1487	G
32	XA	1491	G
32	XA	1493	A
32	XA	1497	G
32	XA	1503	A
32	XA	1504	G
32	XA	1507	A
32	XA	1517	G
32	XA	1519	MA6

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Mol	Chain	Res	Type
32	XA	1520	G
32	XA	1525	G
32	XA	1529	G
32	XA	1530	G
53	XV	2	G
53	XV	4	G
53	XV	5	G
53	XV	8	U
53	XV	9	G
53	XV	17(A)	U
53	XV	18	G
53	XV	19	G
53	XV	21	A
53	XV	22	G
53	XV	31	G
53	XV	47	U
53	XV	48	C
53	XV	54	U
53	XV	68	C
53	XV	76	A
54	XX	15	A
54	XX	17	U
54	XX	21	A
54	XX	22	C

All (78) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	RA	9	U
1	RA	214	G
1	RA	272(M)	G
1	RA	277	C
1	RA	752	A
1	RA	856	C
1	RA	1045	A
1	RA	1053	C
1	RA	1057	A
1	RA	1065	U
1	RA	1067	A
1	RA	1073	A
1	RA	1210	A
1	RA	1240	U

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Mol	Chain	Res	Type
1	RA	1420	U
1	RA	1530	C
1	RA	1992	G
1	RA	2126	A
1	RA	2171	A
1	RA	2172	U
1	RA	2321	G
1	RA	2689	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	943	U
32	QA	991	U
32	QA	1065	U
32	QA	1067	A
32	QA	1201	A
32	QA	1207	2MG
32	QA	1285	A
32	QA	1442(A)	G
1	YA	9	U
1	YA	272(M)	G
1	YA	277	C
1	YA	752	A
1	YA	764	A
1	YA	774	A
1	YA	827	U
1	YA	832	G
1	YA	958	U
1	YA	1053	C
1	YA	1057	A
1	YA	1065	U
1	YA	1067	A
1	YA	1073	A
1	YA	1420	U
1	YA	1530	C
1	YA	1608	A
1	YA	1992	G
1	YA	2126	A

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Mol	Chain	Res	Type
1	YA	2171	A
1	YA	2172	U
1	YA	2321	G
1	YA	2430	A
1	YA	2689	U
32	XA	60	A
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	1183	A
32	XA	1256	A
32	XA	1442(A)	G
53	XV	53	G

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

48 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	4.32	7 (36%)	26,32,35	1.59	4 (15%)
32	7MG	QA	527	56,32	23,26,27	5.54	11 (47%)	27,39,42	4.06	12 (44%)
32	PSU	QA	516	56,32	18,21,22	1.19	1 (5%)	21,30,33	1.60	5 (23%)
32	2MG	XA	1207	32	23,26,27	3.11	7 (30%)	33,38,41	3.69	13 (39%)
32	M2G	QA	966	32	24,27,28	2.75	6 (25%)	33,40,43	2.38	9 (27%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
32	5MC	XA	967	32	19,22,23	4.22	7 (36%)	26,32,35	1.55	4 (15%)
1	4OC	RA	1920	1	19,22,24	3.28	7 (36%)	25,31,35	1.28	3 (12%)
43	0TD	XL	92	43	8,9,10	1.45	1 (12%)	6,11,13	2.71	4 (66%)
32	7MG	XA	527	56,32	23,26,27	5.41	11 (47%)	27,39,42	3.88	12 (44%)
1	5MC	RA	1942	56,1	19,22,23	4.14	7 (36%)	26,32,35	1.34	3 (11%)
43	0TD	QL	92	43	8,9,10	2.48	1 (12%)	6,11,13	3.31	4 (66%)
32	MA6	QA	1518	32	23,26,27	1.62	4 (17%)	33,38,41	2.90	9 (27%)
32	M2G	XA	966	32	24,27,28	2.59	6 (25%)	33,40,43	2.46	9 (27%)
1	PSU	YA	1911	1	18,21,22	1.10	1 (5%)	21,30,33	1.73	5 (23%)
1	5MU	YA	1915	1	19,22,23	5.20	6 (31%)	27,32,35	3.55	11 (40%)
1	2MA	YA	2503	56,1	22,25,26	4.10	8 (36%)	32,37,40	3.48	13 (40%)
32	5MC	XA	1407	32	19,22,23	4.17	7 (36%)	26,32,35	1.78	6 (23%)
32	UR3	QA	1498	32	19,22,23	3.16	6 (31%)	26,32,35	2.02	7 (26%)
1	5MC	RA	1962	56,1	19,22,23	4.05	7 (36%)	26,32,35	1.28	3 (11%)
1	OMG	YA	2251	53,56,1	23,26,27	2.55	7 (30%)	32,38,41	3.14	16 (50%)
32	2MG	QA	1207	32	23,26,27	3.19	7 (30%)	33,38,41	3.78	13 (39%)
32	MA6	XA	1519	32	23,26,27	1.65	4 (17%)	33,38,41	3.82	14 (42%)
1	2MU	RA	2552	56,1	19,22,24	6.09	12 (63%)	25,31,36	3.32	10 (40%)
1	OMG	RA	2251	53,56,1	23,26,27	2.54	7 (30%)	32,38,41	3.05	15 (46%)
1	5MC	YA	1962	56,1	19,22,23	3.84	7 (36%)	26,32,35	1.34	3 (11%)
1	5MU	RA	1915	1	19,22,23	5.15	7 (36%)	27,32,35	3.45	10 (37%)
1	5MU	YA	1939	56,1	19,22,23	4.91	5 (26%)	27,32,35	4.05	9 (33%)
1	5MC	YA	1942	1	19,22,23	4.12	7 (36%)	26,32,35	1.59	5 (19%)
1	PSU	YA	2605	1	18,21,22	1.04	1 (5%)	21,30,33	1.51	3 (14%)
32	4OC	XA	1402	32	20,23,24	3.11	7 (35%)	25,32,35	1.37	4 (16%)
1	2MU	YA	2552	56,1	19,22,24	6.14	12 (63%)	25,31,36	3.47	10 (40%)
32	UR3	XA	1498	56,32	19,22,23	3.10	6 (31%)	26,32,35	1.88	4 (15%)
32	5MC	QA	1400	32	19,22,23	4.24	7 (36%)	26,32,35	1.38	3 (11%)
32	5MC	QA	1407	32	19,22,23	4.27	7 (36%)	26,32,35	1.48	3 (11%)
1	PSU	RA	1917	1	18,21,22	1.11	1 (5%)	21,30,33	1.62	4 (19%)
32	MA6	QA	1519	32	23,26,27	1.53	7 (30%)	33,38,41	2.92	9 (27%)
32	PSU	XA	516	32	18,21,22	1.06	1 (5%)	21,30,33	1.69	5 (23%)
32	5MC	QA	1404	32	19,22,23	4.33	7 (36%)	26,32,35	1.54	4 (15%)
32	MA6	XA	1518	32	23,26,27	1.42	4 (17%)	33,38,41	3.01	10 (30%)
32	5MC	XA	1400	32	19,22,23	4.21	7 (36%)	26,32,35	1.68	5 (19%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
1	5MU	RA	1939	1	19,22,23	4.84	5 (26%)	27,32,35	3.68	8 (29%)
1	PSU	YA	1917	1	18,21,22	0.99	1 (5%)	21,30,33	1.83	5 (23%)
1	PSU	RA	2605	1	18,21,22	1.09	1 (5%)	21,30,33	1.97	3 (14%)
1	4OC	YA	1920	1	19,22,24	3.11	7 (36%)	25,31,35	1.23	3 (12%)
1	PSU	RA	1911	1	18,21,22	1.04	1 (5%)	21,30,33	1.64	4 (19%)
32	4OC	QA	1402	32	20,23,24	3.26	7 (35%)	25,32,35	1.23	2 (8%)
1	2MA	RA	2503	56,1	22,25,26	4.22	8 (36%)	32,37,40	3.38	13 (40%)
32	5MC	QA	967	32	19,22,23	4.30	7 (36%)	26,32,35	1.48	4 (15%)

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
32	7MG	QA	527	56,32	-	2/7/37/38	0/3/3/3
32	PSU	QA	516	56,32	-	0/7/25/26	0/2/2/2
32	2MG	XA	1207	32	-	0/9/27/28	0/3/3/3
32	M2G	QA	966	32	-	0/11/29/30	0/3/3/3
32	5MC	XA	967	32	-	1/7/25/26	0/2/2/2
1	4OC	RA	1920	1	-	0/9/27/30	0/2/2/2
43	0TD	XL	92	43	-	3/7/12/14	-
32	7MG	XA	527	56,32	-	2/7/37/38	0/3/3/3
1	5MC	RA	1942	56,1	-	0/7/25/26	0/2/2/2
43	0TD	QL	92	43	-	1/7/12/14	-
32	MA6	QA	1518	32	-	0/11/29/30	0/3/3/3
32	M2G	XA	966	32	-	0/11/29/30	0/3/3/3
1	PSU	YA	1911	1	-	0/7/25/26	0/2/2/2
1	5MU	YA	1915	1	-	2/7/25/26	0/2/2/2
1	2MA	YA	2503	56,1	-	1/7/25/26	0/3/3/3
32	5MC	XA	1407	32	-	0/7/25/26	0/2/2/2
32	UR3	QA	1498	32	-	0/7/25/26	0/2/2/2
1	5MC	RA	1962	56,1	-	0/7/25/26	0/2/2/2
1	OMG	YA	2251	53,56,1	-	0/9/27/28	0/3/3/3
32	2MG	QA	1207	32	-	0/9/27/28	0/3/3/3
32	MA6	XA	1519	32	-	2/11/29/30	0/3/3/3
1	2MU	RA	2552	56,1	-	0/9/27/28	0/2/2/2
1	OMG	RA	2251	53,56,1	-	0/9/27/28	0/3/3/3
1	5MC	YA	1962	56,1	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	5MU	RA	1915	1	-	2/7/25/26	0/2/2/2
1	5MU	YA	1939	56,1	-	0/7/25/26	0/2/2/2
1	5MC	YA	1942	1	-	0/7/25/26	0/2/2/2
1	PSU	YA	2605	1	-	0/7/25/26	0/2/2/2
32	4OC	XA	1402	32	-	2/9/29/30	0/2/2/2
1	2MU	YA	2552	56,1	-	0/9/27/28	0/2/2/2
32	UR3	XA	1498	56,32	-	0/7/25/26	0/2/2/2
32	5MC	QA	1400	32	-	2/7/25/26	0/2/2/2
32	5MC	QA	1407	32	-	0/7/25/26	0/2/2/2
1	PSU	RA	1917	1	-	0/7/25/26	0/2/2/2
32	MA6	QA	1519	32	-	3/11/29/30	0/3/3/3
32	PSU	XA	516	32	-	0/7/25/26	0/2/2/2
32	5MC	QA	1404	32	-	0/7/25/26	0/2/2/2
32	MA6	XA	1518	32	-	1/11/29/30	0/3/3/3
32	5MC	XA	1400	32	-	2/7/25/26	0/2/2/2
1	5MU	RA	1939	1	-	2/7/25/26	0/2/2/2
1	PSU	YA	1917	1	-	0/7/25/26	0/2/2/2
1	PSU	RA	2605	1	-	0/7/25/26	0/2/2/2
1	4OC	YA	1920	1	-	1/9/27/30	0/2/2/2
1	PSU	RA	1911	1	-	0/7/25/26	0/2/2/2
32	4OC	QA	1402	32	-	2/9/29/30	0/2/2/2
1	2MA	RA	2503	56,1	-	0/7/25/26	0/3/3/3
32	5MC	QA	967	32	-	0/7/25/26	0/2/2/2

All (278) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	QA	527	7MG	C8-N9	17.08	1.56	1.45
32	XA	527	7MG	C8-N9	16.34	1.56	1.45
1	YA	2552	2MU	C5-C4	14.41	1.75	1.43
1	RA	2552	2MU	C5-C4	14.35	1.74	1.43
1	YA	2503	2MA	C4-N3	13.42	1.51	1.34
1	RA	2503	2MA	C4-N3	13.26	1.51	1.34
1	YA	1915	5MU	C6-N1	12.51	1.59	1.38
1	RA	1915	5MU	C6-N1	12.14	1.58	1.38
1	YA	1939	5MU	C6-N1	12.08	1.58	1.38
1	YA	1915	5MU	C2-N1	12.01	1.57	1.38
1	RA	1939	5MU	C6-N1	11.90	1.58	1.38
1	RA	1915	5MU	C2-N1	11.58	1.56	1.38
1	YA	2552	2MU	C4-N3	-11.57	1.18	1.38
1	RA	2552	2MU	C4-N3	-11.24	1.19	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	YA	1939	5MU	C2-N1	11.06	1.55	1.38
1	RA	1939	5MU	C2-N1	10.57	1.55	1.38
1	YA	2552	2MU	C6-N1	9.94	1.61	1.38
1	RA	1915	5MU	C4-C5	9.73	1.60	1.44
32	QA	527	7MG	C4-N9	9.62	1.49	1.37
1	YA	1915	5MU	C4-C5	9.47	1.60	1.44
1	RA	2552	2MU	C6-N1	9.42	1.60	1.38
32	XA	527	7MG	C5-N7	9.26	1.47	1.35
32	XA	527	7MG	C4-N9	9.24	1.49	1.37
32	QA	1498	UR3	C2-N1	9.22	1.51	1.38
32	XA	1404	5MC	C5-C4	9.21	1.51	1.44
32	XA	1498	UR3	C2-N1	9.03	1.51	1.38
32	QA	527	7MG	C5-N7	8.97	1.47	1.35
32	XA	1400	5MC	C4-N3	8.94	1.48	1.34
32	QA	967	5MC	C4-N3	8.83	1.48	1.34
1	RA	1939	5MU	C4-C5	8.80	1.59	1.44
1	YA	1962	5MC	C4-N3	8.75	1.48	1.34
32	XA	967	5MC	C4-N3	8.71	1.48	1.34
1	RA	2552	2MU	C3'-C2'	-8.70	1.34	1.53
32	QA	1400	5MC	C4-N3	8.69	1.48	1.34
32	QA	1407	5MC	C6-C5	8.68	1.48	1.34
32	XA	1407	5MC	C4-N3	8.68	1.48	1.34
32	QA	1404	5MC	C4-N3	8.63	1.48	1.34
32	QA	1400	5MC	C6-C5	8.58	1.48	1.34
1	YA	2552	2MU	C3'-C2'	-8.57	1.34	1.53
1	YA	1939	5MU	C4-C5	8.57	1.58	1.44
32	QA	967	5MC	C6-C5	8.50	1.48	1.34
32	XA	1407	5MC	C6-C5	8.50	1.48	1.34
32	QA	1404	5MC	C6-C5	8.49	1.48	1.34
32	XA	967	5MC	C6-C5	8.44	1.48	1.34
32	XA	1404	5MC	C6-C5	8.40	1.48	1.34
32	QA	1404	5MC	C5-C4	8.35	1.50	1.44
32	XA	1400	5MC	C6-C5	8.33	1.48	1.34
1	RA	1942	5MC	C4-N3	8.29	1.47	1.34
1	YA	1942	5MC	C6-C5	8.29	1.48	1.34
32	QA	1402	4OC	C4-N3	8.29	1.46	1.32
32	QA	1207	2MG	C2-N3	8.28	1.47	1.32
1	RA	1942	5MC	C6-C5	8.27	1.48	1.34
1	RA	1962	5MC	C4-N3	8.26	1.47	1.34
1	RA	2503	2MA	C6-N1	8.20	1.46	1.35
32	XA	1404	5MC	C4-N3	8.19	1.47	1.34
32	QA	1400	5MC	C5-C4	8.19	1.50	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	RA	2503	2MA	C2-N3	8.17	1.48	1.34
1	RA	1962	5MC	C6-C5	8.16	1.47	1.34
32	QA	1407	5MC	C4-N3	8.13	1.47	1.34
1	RA	1915	5MU	C6-C5	8.12	1.47	1.34
32	XA	1207	2MG	C2-N3	8.05	1.47	1.32
32	QA	1407	5MC	C5-C4	8.03	1.50	1.44
1	YA	1942	5MC	C4-N3	7.98	1.46	1.34
1	YA	1942	5MC	C5-C4	7.97	1.50	1.44
1	YA	1915	5MU	C6-C5	7.95	1.47	1.34
32	QA	967	5MC	C5-C4	7.90	1.50	1.44
1	YA	2503	2MA	C6-N1	7.85	1.45	1.35
32	QA	966	M2G	C2-N2	7.76	1.49	1.35
1	RA	1962	5MC	C5-C4	7.69	1.49	1.44
1	RA	1942	5MC	C5-C4	7.56	1.49	1.44
1	YA	1962	5MC	C6-C5	7.51	1.46	1.34
32	XA	1400	5MC	C5-C4	7.49	1.49	1.44
1	YA	2503	2MA	C2-N3	7.48	1.46	1.34
1	YA	1939	5MU	C4-N3	-7.47	1.24	1.38
1	RA	1939	5MU	C4-N3	-7.40	1.25	1.38
32	QA	527	7MG	C4-N3	7.38	1.51	1.34
32	XA	1400	5MC	C2-N3	7.35	1.50	1.36
1	YA	2552	2MU	O4'-C1'	7.26	1.58	1.42
32	XA	1407	5MC	C2-N3	7.26	1.50	1.36
32	XA	967	5MC	C5-C4	7.23	1.49	1.44
32	XA	1402	4OC	C4-N3	7.20	1.44	1.32
1	RA	1939	5MU	C6-C5	7.20	1.46	1.34
32	QA	1404	5MC	C2-N3	7.15	1.50	1.36
32	XA	966	M2G	C2-N2	7.14	1.48	1.35
32	XA	967	5MC	C2-N3	7.09	1.50	1.36
32	XA	527	7MG	C4-N3	7.09	1.50	1.34
32	QA	527	7MG	C2-N3	7.07	1.50	1.33
1	RA	2552	2MU	O4'-C1'	7.07	1.58	1.42
32	QA	1400	5MC	C2-N3	7.06	1.50	1.36
1	YA	1939	5MU	C6-C5	7.05	1.46	1.34
32	QA	967	5MC	C2-N3	7.02	1.50	1.36
32	QA	1407	5MC	C2-N3	6.97	1.50	1.36
1	RA	1915	5MU	C4-N3	-6.96	1.25	1.38
1	YA	1915	5MU	C4-N3	-6.94	1.25	1.38
1	RA	1962	5MC	C2-N3	6.92	1.50	1.36
32	XA	527	7MG	C2-N3	6.89	1.49	1.33
32	QA	1207	2MG	C4-N3	6.88	1.50	1.34
1	RA	1920	4OC	C6-C5	6.85	1.51	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	QA	1207	2MG	C2-N2	6.85	1.47	1.33
32	XA	1404	5MC	C2-N3	6.84	1.49	1.36
1	YA	1962	5MC	C2-N3	6.76	1.49	1.36
1	RA	1942	5MC	C2-N3	6.72	1.49	1.36
1	YA	1920	4OC	C6-C5	6.70	1.50	1.35
1	YA	1942	5MC	C2-N3	6.66	1.49	1.36
32	XA	1207	2MG	C4-N3	6.64	1.49	1.34
1	RA	2552	2MU	C6-C5	-6.53	1.20	1.35
32	QA	966	M2G	C4-N3	6.52	1.49	1.34
32	XA	1207	2MG	C2-N2	6.50	1.47	1.33
1	RA	1920	4OC	C2-N3	6.47	1.49	1.36
32	XA	1207	2MG	C2-N1	6.45	1.46	1.36
32	XA	1402	4OC	C6-C5	6.44	1.50	1.35
1	YA	2552	2MU	C6-C5	-6.43	1.20	1.35
32	QA	1207	2MG	C2-N1	6.42	1.46	1.36
32	QA	1402	4OC	C6-C5	6.41	1.49	1.35
1	RA	1920	4OC	C4-N3	6.31	1.47	1.34
1	YA	1962	5MC	C5-C4	6.30	1.48	1.44
32	QA	966	M2G	C2-N3	6.29	1.47	1.32
32	XA	966	M2G	C4-N3	6.28	1.48	1.34
32	XA	1407	5MC	C6-N1	6.27	1.48	1.38
32	QA	527	7MG	C2-N2	6.24	1.48	1.34
43	QL	92	0TD	CB-CA	-6.19	1.52	1.54
32	QA	1407	5MC	C6-N1	6.17	1.48	1.38
32	XA	1407	5MC	C5-C4	6.15	1.48	1.44
1	YA	1920	4OC	C2-N3	6.13	1.48	1.36
32	XA	527	7MG	C2-N2	6.12	1.48	1.34
1	RA	2552	2MU	O4'-C4'	-6.08	1.31	1.45
32	QA	1404	5MC	C6-N1	6.05	1.48	1.38
32	XA	966	M2G	C2-N3	6.02	1.46	1.32
32	QA	1402	4OC	C2-N3	6.01	1.48	1.36
1	RA	2251	OMG	C4-N3	6.01	1.48	1.34
32	QA	967	5MC	C6-N1	5.99	1.48	1.38
1	YA	2251	OMG	C4-N3	5.96	1.47	1.34
1	RA	2503	2MA	C2-N1	5.95	1.44	1.34
1	YA	1920	4OC	C4-N3	5.93	1.46	1.34
32	XA	967	5MC	C6-N1	5.88	1.48	1.38
32	QA	1498	UR3	C6-C5	5.85	1.48	1.35
32	XA	1498	UR3	C6-C5	5.84	1.48	1.35
32	QA	1498	UR3	C2-N3	5.81	1.50	1.39
32	XA	1498	UR3	C2-N3	5.78	1.50	1.39
32	XA	1404	5MC	C6-N1	5.78	1.47	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	YA	2552	2MU	O4'-C4'	-5.74	1.32	1.45
1	YA	2251	OMG	C2-N2	5.68	1.47	1.34
1	RA	2552	2MU	C1'-N1	-5.63	1.31	1.47
1	YA	2552	2MU	C1'-N1	-5.57	1.31	1.47
1	YA	1942	5MC	C6-N1	5.55	1.47	1.38
1	RA	1942	5MC	C6-N1	5.54	1.47	1.38
1	YA	2251	OMG	C2-N3	5.51	1.46	1.33
1	RA	1920	4OC	C4-N4	5.50	1.47	1.33
32	XA	527	7MG	C6-N1	5.47	1.49	1.38
32	XA	1402	4OC	C2-N3	5.44	1.47	1.36
32	QA	527	7MG	C6-N1	5.43	1.49	1.38
1	YA	2503	2MA	C2-N1	5.42	1.43	1.34
1	RA	2251	OMG	C2-N2	5.37	1.46	1.34
32	XA	1400	5MC	C6-N1	5.36	1.47	1.38
1	RA	2251	OMG	C2-N3	5.34	1.46	1.33
32	QA	1400	5MC	C6-N1	5.29	1.47	1.38
32	XA	527	7MG	C2-N1	5.21	1.50	1.37
32	XA	1404	5MC	C4-N4	5.21	1.47	1.34
32	QA	967	5MC	C4-N4	5.18	1.47	1.34
32	QA	527	7MG	C2-N1	5.16	1.50	1.37
32	QA	1404	5MC	C4-N4	5.15	1.47	1.34
32	XA	967	5MC	C4-N4	5.13	1.47	1.34
1	YA	1920	4OC	C4-N4	5.10	1.46	1.33
1	RA	1942	5MC	C2-N1	5.06	1.50	1.40
1	RA	1942	5MC	C4-N4	5.01	1.46	1.34
1	YA	1942	5MC	C4-N4	5.00	1.46	1.34
32	QA	1407	5MC	C4-N4	4.99	1.46	1.34
32	XA	1407	5MC	C4-N4	4.98	1.46	1.34
32	QA	1407	5MC	C2-N1	4.87	1.50	1.40
32	XA	1400	5MC	C4-N4	4.85	1.46	1.34
1	RA	1962	5MC	C6-N1	4.85	1.46	1.38
32	XA	967	5MC	C2-N1	4.84	1.50	1.40
32	QA	1402	4OC	C4-N4	4.84	1.46	1.36
32	XA	1407	5MC	C2-N1	4.80	1.50	1.40
32	QA	1400	5MC	C4-N4	4.75	1.46	1.34
32	QA	967	5MC	C2-N1	4.65	1.49	1.40
1	RA	1920	4OC	C2-N1	4.65	1.49	1.40
1	RA	1962	5MC	C4-N4	4.63	1.46	1.34
32	XA	1402	4OC	C4-N4	4.63	1.45	1.36
32	QA	1404	5MC	C2-N1	4.63	1.49	1.40
1	YA	1962	5MC	C4-N4	4.57	1.45	1.34
32	QA	1400	5MC	C2-N1	4.51	1.49	1.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	RA	1962	5MC	C2-N1	4.46	1.49	1.40
1	YA	1942	5MC	C2-N1	4.44	1.49	1.40
1	YA	1962	5MC	C6-N1	4.42	1.45	1.38
32	XA	527	7MG	C5-C6	4.37	1.54	1.43
32	XA	1400	5MC	C2-N1	4.36	1.49	1.40
32	XA	1404	5MC	C2-N1	4.34	1.49	1.40
1	RA	2503	2MA	C5-C6	4.29	1.52	1.41
1	YA	1920	4OC	C2-N1	4.27	1.49	1.40
32	XA	1402	4OC	C2-N1	4.25	1.49	1.40
1	YA	1962	5MC	C2-N1	4.17	1.48	1.40
32	QA	527	7MG	C5-C6	4.13	1.53	1.43
32	QA	1402	4OC	C2-N1	4.08	1.48	1.40
32	XA	1519	MA6	C6-N6	4.07	1.48	1.36
1	RA	2552	2MU	C3'-C4'	4.03	1.63	1.53
1	RA	2251	OMG	C2-N1	4.01	1.47	1.37
32	QA	516	PSU	C6-C5	4.00	1.39	1.35
32	QA	1518	MA6	C6-N6	4.00	1.47	1.36
1	YA	2251	OMG	C2-N1	3.87	1.47	1.37
32	QA	1402	4OC	C5-C4	3.85	1.49	1.41
1	YA	2251	OMG	O6-C6	-3.84	1.16	1.23
32	XA	1402	4OC	C5-C4	3.81	1.49	1.41
1	YA	2552	2MU	C3'-C4'	3.81	1.62	1.53
32	QA	1498	UR3	C4-N3	3.79	1.48	1.40
1	RA	2251	OMG	O6-C6	-3.76	1.16	1.23
32	QA	1207	2MG	C6-N1	3.75	1.45	1.38
32	QA	966	M2G	C2-N1	3.71	1.45	1.36
32	XA	1207	2MG	C6-N1	3.67	1.45	1.38
1	YA	1911	PSU	C6-C5	3.62	1.39	1.35
1	YA	2503	2MA	C5-C6	3.62	1.51	1.41
1	RA	1917	PSU	C6-C5	3.60	1.39	1.35
32	QA	1518	MA6	C5-N7	-3.59	1.32	1.39
32	XA	1518	MA6	C6-N6	3.55	1.46	1.36
1	RA	1920	4OC	C6-N1	3.46	1.46	1.38
32	XA	966	M2G	C2-N1	3.45	1.44	1.36
32	QA	1519	MA6	C5-N7	-3.43	1.32	1.39
32	XA	1519	MA6	C10-N6	3.43	1.53	1.45
32	XA	1498	UR3	C4-N3	3.42	1.47	1.40
1	YA	2503	2MA	C5-N7	-3.39	1.32	1.39
1	RA	1911	PSU	C6-C5	3.38	1.39	1.35
1	RA	2503	2MA	C5-N7	-3.35	1.33	1.39
1	YA	2605	PSU	C6-C5	3.34	1.39	1.35
1	RA	2251	OMG	C6-N1	3.32	1.45	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	YA	1920	4OC	C6-N1	3.32	1.46	1.38
32	XA	516	PSU	C6-C5	3.31	1.39	1.35
32	XA	1402	4OC	C6-N1	3.30	1.46	1.38
1	RA	2605	PSU	C6-C5	3.29	1.38	1.35
1	YA	1917	PSU	C6-C5	3.22	1.38	1.35
32	QA	1498	UR3	C6-N1	3.19	1.45	1.38
32	XA	1519	MA6	C5-N7	-3.19	1.33	1.39
32	XA	527	7MG	C5-C4	3.16	1.47	1.37
32	XA	1498	UR3	C6-N1	3.13	1.45	1.38
32	QA	1402	4OC	C6-N1	3.11	1.45	1.38
32	QA	527	7MG	C5-C4	3.09	1.47	1.37
32	QA	1519	MA6	C6-N6	3.04	1.45	1.36
32	QA	966	M2G	C6-N1	3.00	1.44	1.38
1	YA	2552	2MU	C2-N1	2.97	1.43	1.38
1	RA	1920	4OC	C5-C4	2.96	1.49	1.42
1	RA	2552	2MU	C2-N1	2.95	1.43	1.38
1	YA	2552	2MU	O2-C2	-2.87	1.18	1.23
32	XA	1518	MA6	C5-N7	-2.82	1.33	1.39
32	XA	966	M2G	C6-N1	2.70	1.43	1.38
1	YA	1920	4OC	C5-C4	2.68	1.49	1.42
43	XL	92	0TD	CB-CA	-2.68	1.53	1.54
32	QA	1498	UR3	C5-C4	2.67	1.50	1.43
32	XA	1498	UR3	C5-C4	2.62	1.50	1.43
1	YA	2251	OMG	C6-N1	2.62	1.43	1.38
32	QA	966	M2G	C5-N7	-2.53	1.34	1.39
32	QA	1518	MA6	C2-N1	2.51	1.38	1.33
32	QA	1518	MA6	C8-N7	2.46	1.36	1.31
1	RA	2552	2MU	O2-C2	-2.45	1.18	1.23
1	YA	2503	2MA	C6-N6	-2.44	1.28	1.34
1	RA	2552	2MU	O2'-C2'	2.40	1.48	1.42
1	RA	2503	2MA	CM2-C2	2.40	1.56	1.49
32	XA	966	M2G	C5-N7	-2.36	1.34	1.39
32	XA	1518	MA6	C8-N7	2.31	1.36	1.31
1	RA	2503	2MA	C6-N6	-2.29	1.28	1.34
32	XA	527	7MG	C8-N7	2.28	1.53	1.42
32	XA	1207	2MG	C5-N7	-2.27	1.34	1.39
1	RA	1915	5MU	O2-C2	-2.26	1.19	1.23
32	QA	527	7MG	C8-N7	2.25	1.53	1.42
32	QA	1519	MA6	C8-N7	2.23	1.36	1.31
1	YA	2552	2MU	O2'-C2'	2.20	1.48	1.42
1	YA	2503	2MA	CM2-C2	2.19	1.55	1.49
32	QA	1207	2MG	C5-N7	-2.16	1.34	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	YA	1915	5MU	C5M-C5	2.16	1.55	1.50
32	XA	1518	MA6	C2-N1	2.16	1.37	1.33
32	QA	1519	MA6	C4-N9	-2.14	1.33	1.37
1	YA	2251	OMG	C5-C6	2.14	1.52	1.44
32	XA	1519	MA6	C8-N7	2.14	1.35	1.31
32	QA	1519	MA6	C10-N6	2.12	1.50	1.45
1	RA	2251	OMG	C4-N9	-2.05	1.32	1.38
32	QA	1207	2MG	O6-C6	-2.04	1.19	1.23
32	XA	1207	2MG	C5-C6	2.03	1.52	1.44
32	QA	1519	MA6	C2-N1	2.03	1.37	1.33
1	RA	1915	5MU	C5M-C5	2.02	1.55	1.50
32	QA	1519	MA6	C5-C4	-2.01	1.35	1.39

All (337) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	XA	1519	MA6	N1-C6-N6	-14.34	99.39	116.86
1	YA	1939	5MU	C5-C4-N3	14.33	127.77	115.32
1	RA	1939	5MU	C5-C4-N3	13.01	126.63	115.32
1	YA	1915	5MU	C5-C4-N3	12.31	126.02	115.32
32	QA	1207	2MG	C2-N3-C4	12.00	127.00	112.00
32	XA	1207	2MG	C2-N3-C4	11.46	126.33	112.00
32	QA	1519	MA6	N1-C6-N6	-11.44	102.92	116.86
32	XA	1518	MA6	N1-C6-N6	-11.18	103.24	116.86
1	YA	1939	5MU	C5-C6-N1	-11.17	111.17	123.31
1	RA	1939	5MU	C5-C6-N1	-10.64	111.76	123.31
1	RA	2503	2MA	C5-C4-N3	-10.60	116.01	127.18
1	RA	1915	5MU	C5-C4-N3	10.50	124.45	115.32
32	QA	1518	MA6	N1-C6-N6	-10.37	104.22	116.86
32	XA	1207	2MG	N1-C2-N2	10.31	127.08	116.56
32	QA	1207	2MG	N1-C2-N2	10.23	127.01	116.56
1	YA	2552	2MU	C5-C4-N3	10.17	129.05	114.80
32	XA	1519	MA6	C5-C6-N6	10.14	141.39	125.33
1	RA	2552	2MU	C5-C4-N3	9.96	128.75	114.80
32	QA	527	7MG	C2-N3-C4	9.87	129.31	112.30
1	YA	2503	2MA	C5-C4-N3	-9.82	116.84	127.18
32	XA	527	7MG	C2-N3-C4	9.69	129.00	112.30
32	QA	527	7MG	C5-C6-N1	8.92	126.65	110.94
32	XA	527	7MG	C5-C6-N1	8.50	125.89	110.94
1	YA	2503	2MA	N3-C4-N9	8.41	137.67	126.99
1	YA	2552	2MU	O4-C4-N3	-8.08	107.56	119.27
1	RA	2503	2MA	N3-C4-N9	7.87	136.97	126.99

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	YA	2251	OMG	C2-N3-C4	7.84	125.81	112.30
1	YA	1915	5MU	C5-C6-N1	-7.63	115.03	123.31
1	RA	2251	OMG	C2-N3-C4	7.59	125.38	112.30
1	RA	1915	5MU	C5-C6-N1	-7.39	115.28	123.31
32	QA	1498	UR3	C4-N3-C2	-7.34	118.67	124.58
32	XA	1518	MA6	C5-C6-N6	7.19	136.71	125.33
32	QA	1518	MA6	C5-C6-N6	7.08	136.54	125.33
1	RA	2552	2MU	O4-C4-N3	-7.05	109.05	119.27
1	RA	2552	2MU	C4-N3-C2	-6.97	117.95	126.61
32	QA	527	7MG	C4-C5-N7	6.89	113.52	105.38
32	XA	1498	UR3	C4-N3-C2	-6.72	119.17	124.58
32	XA	966	M2G	C5-C4-N3	-6.61	117.88	128.39
32	QA	527	7MG	O6-C6-C5	-6.49	111.69	127.62
32	QA	527	7MG	N1-C2-N3	-6.39	111.63	123.32
1	YA	2503	2MA	C4-N9-C1'	-6.37	111.73	126.63
1	YA	1939	5MU	O4-C4-N3	-6.34	108.19	120.11
32	XA	527	7MG	C4-C5-N7	6.27	112.79	105.38
1	YA	2552	2MU	C4-N3-C2	-6.25	118.85	126.61
32	QA	1518	MA6	N1-C2-N3	-6.19	119.22	128.58
32	QA	1519	MA6	N1-C2-N3	-6.17	119.24	128.58
32	XA	527	7MG	N1-C2-N3	-6.13	112.10	123.32
32	QA	1207	2MG	N1-C2-N3	-6.05	113.50	123.68
32	QA	966	M2G	C5-C4-N3	-6.04	118.78	128.39
32	QA	966	M2G	C2-N3-C4	6.00	123.60	112.51
32	XA	527	7MG	O6-C6-C5	-5.99	112.92	127.62
32	QA	1207	2MG	C5-C4-N3	-5.95	118.92	128.39
32	XA	966	M2G	C2-N3-C4	5.94	123.50	112.51
32	XA	1207	2MG	C5-C4-N3	-5.90	119.00	128.39
32	XA	1518	MA6	N1-C2-N3	-5.80	119.80	128.58
1	YA	1915	5MU	O4-C4-N3	-5.71	109.38	120.11
1	RA	1939	5MU	O4-C4-N3	-5.67	109.46	120.11
32	QA	1519	MA6	C5-C6-N6	5.62	134.23	125.33
32	XA	1404	5MC	C5-C4-N3	-5.61	116.00	121.75
1	RA	2503	2MA	N3-C2-N1	-5.46	116.14	125.77
1	YA	2251	OMG	C1'-N9-C8	-5.44	111.27	126.73
1	YA	2503	2MA	C1'-N9-C8	5.42	139.12	127.09
32	XA	1207	2MG	N1-C2-N3	-5.41	114.56	123.68
1	YA	2503	2MA	N3-C2-N1	-5.31	116.40	125.77
1	YA	2251	OMG	N1-C2-N3	-5.29	113.63	123.32
1	RA	2605	PSU	N1-C2-N3	5.29	120.75	115.17
1	RA	2251	OMG	N1-C2-N3	-5.26	113.69	123.32
1	YA	1942	5MC	C5-C4-N3	-5.19	116.43	121.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	RA	2503	2MA	C4-N9-C1'	-5.18	114.53	126.63
32	QA	527	7MG	C5-C4-N3	-5.17	118.43	128.13
1	RA	1915	5MU	O4-C4-N3	-5.11	110.50	120.11
1	YA	2251	OMG	N9-C8-N7	-5.08	103.98	113.40
32	XA	527	7MG	C5-C4-N3	-5.03	118.70	128.13
32	XA	1207	2MG	C2-N1-C6	-4.99	118.52	124.55
32	QA	527	7MG	C6-C5-C4	-4.96	113.67	122.40
1	RA	1915	5MU	N3-C2-N1	4.95	121.34	114.89
1	RA	2503	2MA	C1'-N9-C8	4.93	138.05	127.09
1	RA	2503	2MA	C5-C6-N1	4.91	126.55	118.90
32	QA	527	7MG	N9-C4-N3	4.88	132.62	125.46
32	XA	1519	MA6	N9-C8-N7	-4.88	107.02	113.94
32	QA	527	7MG	N9-C8-N7	4.85	110.23	103.37
32	QA	1207	2MG	C5-C6-N1	4.84	125.57	113.25
32	XA	527	7MG	C6-C5-C4	-4.83	113.90	122.40
1	RA	1915	5MU	C5M-C5-C4	4.83	123.94	118.78
1	YA	2503	2MA	C5-C6-N1	4.82	126.41	118.90
1	RA	2251	OMG	C1'-N9-C8	-4.81	113.07	126.73
32	XA	1519	MA6	C5-C4-N3	-4.81	120.10	126.72
32	XA	1519	MA6	C4-C5-C6	4.77	120.85	115.91
32	XA	527	7MG	N2-C2-N1	4.76	126.81	116.76
32	XA	966	M2G	C1'-N9-C4	-4.76	112.43	126.49
32	QA	1404	5MC	C5-C4-N3	-4.76	116.88	121.75
1	RA	2251	OMG	O6-C6-C5	-4.73	114.05	126.53
43	QL	92	0TD	CSB-SB-CB	4.72	110.86	102.36
1	YA	2251	OMG	C5-C4-N3	-4.70	120.91	128.39
32	QA	527	7MG	N2-C2-N1	4.70	126.68	116.76
32	XA	1207	2MG	C5-C6-N1	4.70	125.22	113.25
1	RA	2251	OMG	N9-C8-N7	-4.69	104.70	113.40
32	XA	1407	5MC	C5-C4-N3	-4.69	116.95	121.75
1	RA	2251	OMG	N2-C2-N1	4.66	126.60	116.76
32	XA	1518	MA6	N9-C8-N7	-4.66	107.33	113.94
32	XA	1400	5MC	C5-C4-N3	-4.65	116.99	121.75
1	YA	1917	PSU	C4-N3-C2	-4.64	119.97	126.37
1	YA	2552	2MU	C6-C5-C4	-4.64	113.60	119.53
1	RA	2251	OMG	C5-C6-N1	4.63	125.05	113.25
43	XL	92	0TD	CSB-SB-CB	4.62	110.67	102.36
32	QA	966	M2G	C1'-N9-C4	-4.62	112.83	126.49
32	XA	966	M2G	C1'-N9-C8	4.59	139.76	126.73
32	QA	1207	2MG	O6-C6-C5	-4.58	114.45	126.53
32	XA	527	7MG	N9-C4-N3	4.57	132.16	125.46
1	YA	2251	OMG	C5-C6-N1	4.57	124.88	113.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	QA	1407	5MC	C5-C4-N3	-4.56	117.08	121.75
32	QA	1207	2MG	C2-N1-C6	-4.54	119.06	124.55
1	YA	2251	OMG	C6-C5-N7	4.54	138.56	130.29
32	XA	1519	MA6	N3-C4-N9	4.52	134.85	127.17
32	XA	967	5MC	C5-C4-N3	-4.52	117.12	121.75
32	QA	1207	2MG	N9-C4-N3	4.51	134.98	125.95
32	XA	527	7MG	N9-C8-N7	4.50	109.74	103.37
43	QL	92	0TD	CB-CA-N	-4.49	100.00	109.10
1	YA	1915	5MU	C5M-C5-C4	4.47	123.56	118.78
32	QA	967	5MC	C5-C4-N3	-4.46	117.18	121.75
1	RA	2605	PSU	C4-N3-C2	-4.46	120.22	126.37
1	YA	1917	PSU	N1-C2-N3	4.39	119.80	115.17
32	QA	1518	MA6	C2-N1-C6	4.35	122.46	111.83
32	XA	966	M2G	N9-C4-N3	4.34	134.63	125.95
32	XA	1207	2MG	O6-C6-C5	-4.33	115.11	126.53
32	XA	1207	2MG	N9-C4-N3	4.31	134.57	125.95
32	XA	1402	4OC	CM4-N4-C4	-4.29	114.07	122.45
32	XA	516	PSU	C4-N3-C2	-4.28	120.48	126.37
1	RA	2251	OMG	C5-C4-N3	-4.28	121.58	128.39
1	YA	2503	2MA	N9-C8-N7	-4.25	107.91	113.94
1	RA	1911	PSU	C4-N3-C2	-4.22	120.56	126.37
32	QA	966	M2G	N9-C4-N3	4.20	134.35	125.95
1	RA	1915	5MU	O2-C2-N3	-4.17	113.80	121.49
32	QA	1400	5MC	C5-C4-N3	-4.15	117.50	121.75
32	XA	1519	MA6	C4-N9-C8	4.15	110.10	105.74
1	YA	1939	5MU	C5M-C5-C4	4.14	123.20	118.78
32	QA	1207	2MG	N9-C8-N7	-4.11	105.77	113.40
1	YA	2503	2MA	CM2-C2-N1	4.10	123.27	117.13
1	YA	1915	5MU	O2-C2-N3	-4.10	113.93	121.49
32	XA	1207	2MG	N9-C8-N7	-4.09	105.81	113.40
1	YA	2605	PSU	C4-N3-C2	-4.07	120.77	126.37
1	RA	2552	2MU	C6-C5-C4	-4.04	114.37	119.53
32	QA	966	M2G	C1'-N9-C8	4.02	138.14	126.73
1	RA	1911	PSU	N1-C2-N3	4.01	119.39	115.17
32	QA	1518	MA6	N9-C8-N7	-3.99	108.27	113.94
1	RA	1915	5MU	C6-N1-C2	-3.96	117.36	121.30
1	YA	1911	PSU	N1-C2-N3	3.96	119.34	115.17
32	XA	1407	5MC	C4-N3-C2	3.93	126.27	120.81
1	RA	2251	OMG	C6-C5-N7	3.93	137.44	130.29
1	YA	2251	OMG	N9-C4-N3	3.92	133.78	125.95
1	YA	2251	OMG	N2-C2-N1	3.91	125.02	116.76
1	RA	1942	5MC	C5-C4-N3	-3.89	117.76	121.75

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	RA	1915	5MU	C5M-C5-C6	-3.89	117.59	122.85
1	YA	1939	5MU	C4-N3-C2	-3.88	122.25	127.34
1	YA	1911	PSU	C4-N3-C2	-3.87	121.04	126.37
43	QL	92	0TD	OD2-CG-CB	3.87	121.51	113.15
32	XA	1518	MA6	C2-N1-C6	3.86	121.25	111.83
1	RA	1917	PSU	N1-C2-N3	3.84	119.22	115.17
1	RA	2251	OMG	N9-C4-N3	3.84	133.64	125.95
32	QA	1519	MA6	N9-C8-N7	-3.82	108.52	113.94
1	YA	2251	OMG	C8-N9-C4	3.81	113.16	106.03
32	XA	1519	MA6	N1-C2-N3	-3.80	122.83	128.58
32	QA	1519	MA6	C5-C4-N3	-3.78	121.52	126.72
32	QA	516	PSU	C4-N3-C2	-3.77	121.17	126.37
1	RA	1917	PSU	C4-N3-C2	-3.76	121.20	126.37
1	RA	1962	5MC	C5-C4-N3	-3.73	117.94	121.75
32	QA	1404	5MC	C4-N3-C2	3.72	125.97	120.81
32	XA	1400	5MC	C4-N3-C2	3.69	125.93	120.81
1	YA	2503	2MA	C5-C6-N6	-3.64	114.28	123.29
32	XA	966	M2G	O6-C6-C5	-3.63	116.95	126.53
1	RA	2503	2MA	CM2-C2-N1	3.63	122.56	117.13
32	XA	1404	5MC	C4-N3-C2	3.63	125.85	120.81
1	RA	1915	5MU	C1'-N1-C2	3.62	124.10	117.59
32	XA	1498	UR3	C6-N1-C2	-3.61	118.85	121.80
32	XA	966	M2G	C5-C6-N1	3.60	122.42	113.25
1	RA	2503	2MA	N9-C8-N7	-3.59	108.84	113.94
1	YA	2552	2MU	O2-C2-N1	3.58	127.46	122.80
1	RA	2503	2MA	C2-N3-C4	3.58	127.28	115.02
1	YA	2251	OMG	C8-N7-C5	3.57	110.61	104.26
1	RA	2251	OMG	C8-N9-C4	3.56	112.70	106.03
32	XA	1407	5MC	N4-C4-N3	3.56	124.96	118.51
1	RA	1939	5MU	C5M-C5-C4	3.55	122.58	118.78
32	QA	1407	5MC	C4-N3-C2	3.54	125.73	120.81
1	YA	2552	2MU	O2-C2-N3	-3.53	114.97	121.49
1	RA	2503	2MA	C5-N7-C8	3.53	109.00	103.45
32	QA	966	M2G	N9-C8-N7	-3.51	106.89	113.40
1	YA	1915	5MU	N3-C2-N1	3.51	119.46	114.89
32	XA	967	5MC	C4-N3-C2	3.49	125.66	120.81
1	YA	2503	2MA	C5-N7-C8	3.48	108.93	103.45
32	QA	516	PSU	N1-C2-N3	3.45	118.81	115.17
32	QA	967	5MC	C4-N3-C2	3.41	125.54	120.81
32	QA	966	M2G	C5-C6-N1	3.39	121.87	113.25
1	YA	1911	PSU	O2-C2-N1	-3.37	119.31	122.79
32	QA	1519	MA6	C2-N1-C6	3.37	120.05	111.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	QA	1207	2MG	C6-C5-N7	3.36	136.41	130.29
32	QA	1207	2MG	C8-N7-C5	3.36	110.24	104.26
1	RA	1939	5MU	C4-N3-C2	-3.36	122.94	127.34
32	XA	1519	MA6	C2-N1-C6	3.36	120.03	111.83
32	XA	1207	2MG	C8-N7-C5	3.35	110.22	104.26
32	QA	1498	UR3	C5-C4-N3	3.32	119.42	115.04
1	YA	2251	OMG	O6-C6-C5	-3.30	117.82	126.53
1	YA	1962	5MC	N4-C4-N3	3.28	124.45	118.51
32	XA	1207	2MG	C6-C5-N7	3.26	136.23	130.29
32	QA	1402	4OC	C5-C4-N3	-3.26	117.50	122.60
1	YA	2503	2MA	C2-N3-C4	3.26	126.17	115.02
1	RA	1915	5MU	C4-N3-C2	-3.23	123.10	127.34
1	RA	1942	5MC	C4-N3-C2	3.23	125.30	120.81
32	XA	516	PSU	O2-C2-N1	-3.23	119.46	122.79
1	RA	2552	2MU	C5-C6-N1	-3.22	116.60	121.84
1	YA	2503	2MA	C4-N9-C8	3.22	109.12	105.74
32	QA	966	M2G	O6-C6-C5	-3.22	118.04	126.53
32	XA	1518	MA6	C4-N9-C8	3.20	109.10	105.74
1	YA	1939	5MU	C5M-C5-C6	-3.19	118.53	122.85
32	XA	516	PSU	N1-C2-N3	3.17	118.51	115.17
1	YA	1915	5MU	C1'-N1-C2	3.17	123.28	117.59
1	YA	2605	PSU	N1-C2-N3	3.16	118.50	115.17
1	YA	1942	5MC	C4-N3-C2	3.16	125.20	120.81
32	XA	1400	5MC	N4-C4-N3	3.16	124.22	118.51
43	XL	92	0TD	OD2-CG-CB	3.14	119.93	113.15
1	RA	2605	PSU	C6-N1-C2	-3.13	119.79	122.69
32	QA	1519	MA6	C2-N3-C4	3.12	119.46	111.83
1	YA	1962	5MC	C5-C4-N3	-3.12	118.55	121.75
1	YA	1962	5MC	C5-C4-N4	-3.12	117.00	121.39
1	YA	2552	2MU	C5-C6-N1	-3.09	116.81	121.84
32	QA	1400	5MC	C4-N3-C2	3.08	125.09	120.81
32	QA	966	M2G	C8-N7-C5	3.08	109.74	104.26
32	XA	967	5MC	N4-C4-N3	3.07	124.07	118.51
1	YA	2251	OMG	C1'-N9-C4	3.07	135.55	126.49
32	XA	1518	MA6	C5-C4-N3	-3.06	122.50	126.72
32	XA	966	M2G	N9-C8-N7	-3.04	107.77	113.40
1	YA	1917	PSU	O2-C2-N1	-3.00	119.70	122.79
1	RA	2251	OMG	C6-C5-C4	-2.99	114.33	118.83
1	RA	2251	OMG	C8-N7-C5	2.99	109.59	104.26
1	YA	1915	5MU	C4-N3-C2	-2.96	123.45	127.34
1	YA	1915	5MU	O2-C2-N1	2.93	126.60	122.80
32	XA	1519	MA6	C5-N7-C8	2.92	108.04	103.45

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	XA	1519	MA6	C2'-C1'-N9	-2.90	106.09	113.30
32	QA	1402	4OC	C4-N3-C2	2.90	123.94	120.11
32	XA	966	M2G	C8-N7-C5	2.90	109.43	104.26
1	RA	1920	4OC	C5-C4-N3	-2.90	116.44	121.32
1	YA	1942	5MC	C6-N1-C2	-2.90	117.09	120.95
32	XA	1498	UR3	C5-C4-N3	2.88	118.83	115.04
1	YA	2251	OMG	C6-C5-C4	-2.88	114.50	118.83
1	RA	2552	2MU	O2-C2-N3	-2.88	116.19	121.49
1	RA	1939	5MU	C5M-C5-C6	-2.84	119.00	122.85
1	RA	2251	OMG	C2-N1-C6	-2.84	119.97	125.11
1	RA	1917	PSU	O2-C2-N1	-2.81	119.89	122.79
32	QA	516	PSU	O2-C2-N1	-2.80	119.90	122.79
32	XA	1407	5MC	C6-N1-C2	-2.79	117.23	120.95
1	RA	2503	2MA	CM2-C2-N3	2.79	121.30	117.13
1	YA	1911	PSU	C6-N1-C2	-2.78	120.11	122.69
32	QA	967	5MC	N4-C4-N3	2.77	123.53	118.51
1	RA	1920	4OC	C4-N3-C2	2.77	124.62	120.26
32	XA	1518	MA6	C2-N3-C4	2.75	118.54	111.83
1	RA	1917	PSU	C6-N1-C2	-2.74	120.15	122.69
32	XA	516	PSU	O4-C4-C5	-2.73	117.21	124.01
32	QA	1518	MA6	C5-C4-N3	-2.73	122.96	126.72
1	YA	1915	5MU	C5M-C5-C6	-2.72	119.17	122.85
1	YA	1939	5MU	O2-C2-N3	-2.72	116.48	121.49
32	QA	1407	5MC	C6-N1-C2	-2.71	117.34	120.95
32	QA	1498	UR3	C3U-N3-C4	2.68	121.59	117.87
1	YA	2251	OMG	C2-N1-C6	-2.67	120.27	125.11
32	QA	527	7MG	C2-N1-C6	-2.65	120.31	125.11
32	XA	1518	MA6	C5-N7-C8	2.64	107.60	103.45
1	YA	1920	4OC	N4-C4-N3	2.63	122.62	117.91
1	RA	1920	4OC	N4-C4-N3	2.62	122.59	117.91
1	RA	2251	OMG	C1'-N9-C4	2.61	134.18	126.49
1	RA	1962	5MC	N4-C4-N3	2.59	123.20	118.51
32	XA	527	7MG	C2-N1-C6	-2.59	120.42	125.11
1	YA	1920	4OC	C5-C4-N3	-2.58	116.97	121.32
1	RA	2552	2MU	C6-N1-C2	2.57	124.13	121.00
32	QA	1498	UR3	C6-N1-C2	-2.57	119.70	121.80
1	YA	2552	2MU	C6-N1-C2	2.57	124.12	121.00
1	RA	2503	2MA	C5-C6-N6	-2.56	116.94	123.29
1	YA	1915	5MU	C6-N1-C2	-2.56	118.76	121.30
32	XA	1519	MA6	C6-C5-N7	-2.53	129.39	133.43
32	QA	1498	UR3	C1'-N1-C2	2.53	121.19	117.04
1	YA	1920	4OC	C4-N3-C2	2.53	124.25	120.26

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	RA	1962	5MC	C4-N3-C2	2.50	124.29	120.81
1	RA	2552	2MU	N3-C2-N1	2.50	118.14	114.89
32	QA	1518	MA6	C2-N3-C4	2.49	117.92	111.83
1	RA	2503	2MA	C4-C5-N7	-2.49	107.74	110.58
32	QA	1518	MA6	C4-N9-C8	2.47	108.33	105.74
1	YA	1942	5MC	N4-C4-N3	2.45	122.95	118.51
1	RA	1942	5MC	N4-C4-N3	2.45	122.94	118.51
32	QA	1518	MA6	C4-C5-C6	2.44	118.43	115.91
32	XA	1407	5MC	C5-C6-N1	2.43	125.96	123.31
32	XA	967	5MC	C6-N1-C2	-2.41	117.75	120.95
43	XL	92	0TD	CB-CA-N	-2.38	104.28	109.10
32	XA	1404	5MC	CM5-C5-C6	-2.36	119.66	122.85
32	QA	1400	5MC	N4-C4-N3	2.36	122.78	118.51
1	RA	1939	5MU	N3-C2-N1	2.36	117.96	114.89
1	YA	2251	OMG	C4-C5-N7	-2.35	106.94	110.67
32	XA	1407	5MC	C5-C4-N4	-2.34	118.09	121.39
32	QA	516	PSU	C6-N1-C2	-2.33	120.53	122.69
1	RA	1911	PSU	C6-N1-C2	-2.33	120.53	122.69
32	XA	1498	UR3	C1'-N1-C2	2.32	120.83	117.04
32	XA	1400	5MC	C5-C6-N1	2.30	125.81	123.31
32	QA	1404	5MC	N4-C4-N3	2.28	122.63	118.51
32	QA	1207	2MG	C8-N9-C4	2.25	110.24	106.03
1	YA	1939	5MU	N3-C2-N1	2.25	117.82	114.89
1	YA	1917	PSU	C6-N1-C2	-2.24	120.61	122.69
1	YA	1939	5MU	O2-C2-N1	2.23	125.70	122.80
32	XA	1404	5MC	C6-N1-C2	-2.23	117.98	120.95
1	YA	2605	PSU	O2-C2-N1	-2.23	120.49	122.79
32	XA	1519	MA6	C2-N3-C4	2.20	117.21	111.83
1	YA	1942	5MC	CM5-C5-C6	-2.20	119.88	122.85
32	XA	527	7MG	C5-C4-N9	2.20	109.15	106.33
32	XA	1207	2MG	C8-N9-C4	2.19	110.13	106.03
32	QA	967	5MC	C6-N1-C2	-2.18	118.05	120.95
1	RA	2552	2MU	O2-C2-N1	2.17	125.62	122.80
32	XA	1402	4OC	O2-C2-N3	-2.17	118.91	122.33
1	RA	1911	PSU	O2-C2-N1	-2.17	120.55	122.79
1	YA	2503	2MA	CM2-C2-N3	2.14	120.33	117.13
32	QA	1498	UR3	O4-C4-N3	2.13	122.26	119.66
32	QA	516	PSU	O4-C4-C5	-2.13	118.70	124.01
32	XA	1402	4OC	C5-C4-N3	-2.13	119.27	122.60
32	QA	1498	UR3	O4-C4-C5	-2.12	118.33	124.35
32	XA	1518	MA6	C4-C5-C6	2.12	118.10	115.91
32	QA	1207	2MG	O3'-C3'-C2'	2.12	118.60	111.82

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	QA	1519	MA6	C5-N7-C8	2.10	106.75	103.45
32	XA	1402	4OC	C6-C5-C4	2.09	119.52	117.00
1	YA	1911	PSU	O4-C4-C5	-2.09	118.81	124.01
1	RA	2552	2MU	C1'-N1-C2	-2.08	113.85	117.59
32	XA	1207	2MG	C4-C5-N7	-2.06	107.40	110.67
43	XL	92	0TD	OD2-CG-OD1	-2.05	119.42	124.08
1	YA	1917	PSU	O4-C4-C5	-2.05	118.92	124.01
1	YA	2552	2MU	N3-C2-N1	2.04	117.55	114.89
32	XA	1519	MA6	C9-N6-C6	-2.04	115.33	120.52
32	QA	527	7MG	C5-C4-N9	2.04	108.94	106.33
1	YA	2552	2MU	C5'-C4'-C3'	-2.04	107.88	115.21
1	RA	1939	5MU	O2-C2-N3	-2.04	117.73	121.49
32	XA	1400	5MC	O2-C2-N3	2.03	125.53	122.33
32	QA	1519	MA6	C5-C4-N9	2.03	108.02	105.81
32	QA	1404	5MC	C6-N1-C2	-2.02	118.26	120.95
32	XA	516	PSU	O4'-C1'-C2'	2.01	107.93	105.15
43	QL	92	0TD	OD2-CG-OD1	-2.00	119.54	124.08

There are no chirality outliers.

All (31) 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
32	QA	1402	4OC	O4'-C4'-C5'-O5'
32	QA	1519	MA6	O4'-C4'-C5'-O5'
32	QA	1519	MA6	C5-C6-N6-C9
1	YA	1915	5MU	O4'-C1'-N1-C2
1	YA	1915	5MU	O4'-C1'-N1-C6
32	XA	1402	4OC	O4'-C4'-C5'-O5'
32	XA	1402	4OC	C3'-C4'-C5'-O5'
32	XA	1519	MA6	O4'-C4'-C5'-O5'
43	XL	92	0TD	O-C-CA-CB
43	XL	92	0TD	CG-CB-SB-CSB
1	RA	1939	5MU	O4'-C4'-C5'-O5'
32	QA	527	7MG	C3'-C4'-C5'-O5'
32	XA	527	7MG	C3'-C4'-C5'-O5'
1	RA	1939	5MU	C3'-C4'-C5'-O5'
32	QA	527	7MG	O4'-C4'-C5'-O5'
32	QA	1400	5MC	O4'-C4'-C5'-O5'
32	QA	1402	4OC	C3'-C4'-C5'-O5'
32	QA	1519	MA6	C3'-C4'-C5'-O5'

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Mol	Chain	Res	Type	Atoms
32	XA	1519	MA6	C3'-C4'-C5'-O5'
32	XA	527	7MG	O4'-C4'-C5'-O5'
32	QA	1400	5MC	C3'-C4'-C5'-O5'
43	QL	92	0TD	CG-CB-SB-CSB
43	XL	92	0TD	SB-CB-CG-OD1
32	XA	1518	MA6	C5-C6-N6-C9
32	XA	1400	5MC	O4'-C4'-C5'-O5'
32	XA	1400	5MC	C3'-C4'-C5'-O5'
32	XA	967	5MC	O4'-C4'-C5'-O5'
1	YA	2503	2MA	C4'-C5'-O5'-P
1	YA	1920	4OC	C2'-C1'-N1-C2

There are no ring outliers.

17 monomers are involved in 29 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
1	RA	1920	4OC	1	0
1	RA	1942	5MC	1	0
32	QA	1518	MA6	1	0
1	RA	1962	5MC	1	0
1	YA	2251	OMG	1	0
32	XA	1519	MA6	4	0
1	RA	2552	2MU	3	0
1	RA	2251	OMG	1	0
1	YA	1962	5MC	2	0
1	YA	1939	5MU	2	0
1	YA	2552	2MU	3	0
1	RA	1917	PSU	1	0
32	QA	1519	MA6	2	0
32	XA	1518	MA6	5	0
1	RA	1939	5MU	1	0
32	QA	1402	4OC	1	0
1	RA	2503	2MA	2	0

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 2450 ligands modelled in this entry, 2448 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	XD	301	35	0,12,12	-	-	-		
58	SF4	QD	302	35	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	XD	301	35	-	-	0/6/5/5
58	SF4	QD	302	35	-	-	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%)	-0.08	66 (2%) 61 37	25, 61, 221, 314	0
1	YA	2856/2915 (97%)	-0.22	76 (2%) 56 32	15, 48, 188, 299	0
2	RB	120/122 (98%)	0.21	2 (1%) 69 45	64, 96, 118, 154	0
2	YB	120/122 (98%)	-0.19	1 (0%) 82 63	40, 67, 84, 108	0
3	RD	275/276 (99%)	0.05	3 (1%) 78 56	24, 49, 69, 101	0
3	YD	275/276 (99%)	-0.11	1 (0%) 88 76	19, 40, 60, 93	0
4	RE	204/206 (99%)	0.28	5 (2%) 58 34	29, 62, 92, 103	0
4	YE	204/206 (99%)	0.22	3 (1%) 72 48	20, 62, 91, 101	0
5	RF	203/210 (96%)	0.35	2 (0%) 79 58	30, 69, 104, 113	0
5	YF	203/210 (96%)	0.03	0 100 100	17, 51, 81, 93	0
6	RG	181/182 (99%)	1.05	17 (9%) 14 7	80, 108, 127, 140	0
6	YG	181/182 (99%)	0.46	5 (2%) 55 31	60, 78, 108, 131	0
7	RH	174/180 (96%)	1.26	28 (16%) 4 3	96, 141, 180, 185	0
7	YH	173/180 (96%)	0.62	9 (5%) 33 16	49, 76, 96, 123	0
8	RI	147/148 (99%)	1.16	24 (16%) 4 3	60, 110, 130, 141	0
8	YI	146/148 (98%)	0.75	5 (3%) 48 27	52, 90, 117, 125	0
9	RN	140/140 (100%)	0.62	5 (3%) 46 25	44, 71, 100, 121	0
9	YN	140/140 (100%)	0.15	0 100 100	27, 58, 90, 104	0
10	RO	122/122 (100%)	0.06	1 (0%) 82 63	35, 56, 73, 85	0
10	YO	122/122 (100%)	0.04	1 (0%) 82 63	30, 53, 72, 81	0
11	RP	149/150 (99%)	0.46	2 (1%) 75 52	33, 73, 98, 111	0
11	YP	149/150 (99%)	0.18	1 (0%) 84 66	21, 52, 80, 96	0
12	RQ	141/141 (100%)	0.49	2 (1%) 73 50	46, 71, 88, 100	0
12	YQ	141/141 (100%)	0.20	4 (2%) 55 31	33, 51, 67, 81	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	RR	118/118 (100%)	0.23	1 (0%) 82 63	30, 55, 72, 83	0
13	YR	118/118 (100%)	0.30	0 100 100	30, 55, 77, 97	0
14	RS	110/112 (98%)	0.96	7 (6%) 25 13	72, 91, 105, 116	0
14	YS	110/112 (98%)	0.31	4 (3%) 46 25	43, 63, 80, 88	0
15	RT	131/146 (89%)	0.23	3 (2%) 61 37	43, 64, 99, 117	0
15	YT	131/146 (89%)	0.36	2 (1%) 72 48	42, 66, 91, 117	0
16	RU	116/118 (98%)	0.30	0 100 100	33, 62, 91, 97	0
16	YU	116/118 (98%)	0.14	2 (1%) 69 45	23, 48, 88, 104	0
17	RV	101/101 (100%)	0.31	0 100 100	40, 82, 103, 115	0
17	YV	101/101 (100%)	0.12	0 100 100	25, 62, 86, 105	0
18	RW	112/113 (99%)	0.27	3 (2%) 56 32	36, 52, 84, 102	0
18	YW	112/113 (99%)	0.16	0 100 100	32, 47, 75, 107	0
19	RX	95/96 (98%)	0.58	2 (2%) 63 39	38, 65, 82, 91	0
19	YX	95/96 (98%)	0.08	1 (1%) 78 56	24, 42, 70, 91	0
20	RY	107/110 (97%)	1.25	14 (13%) 7 4	58, 92, 119, 129	0
20	YY	107/110 (97%)	0.59	3 (2%) 55 31	43, 68, 93, 107	0
21	RZ	203/206 (98%)	1.06	20 (9%) 13 7	78, 109, 144, 170	0
21	YZ	201/206 (97%)	0.58	16 (7%) 18 9	54, 78, 116, 163	0
22	R0	77/85 (90%)	0.58	3 (3%) 43 23	47, 64, 81, 96	0
22	Y0	77/85 (90%)	0.10	2 (2%) 57 33	28, 43, 72, 95	0
23	R1	97/98 (98%)	0.46	5 (5%) 33 16	31, 60, 90, 100	0
23	Y1	97/98 (98%)	0.23	1 (1%) 79 58	28, 50, 91, 106	0
24	R2	70/72 (97%)	0.56	2 (2%) 53 30	58, 81, 97, 108	0
24	Y2	70/72 (97%)	0.34	4 (5%) 29 15	32, 57, 77, 91	0
25	R3	59/60 (98%)	0.56	3 (5%) 33 17	43, 70, 100, 125	0
25	Y3	59/60 (98%)	0.25	0 100 100	30, 48, 92, 99	0
26	R4	69/71 (97%)	1.09	6 (8%) 16 8	104, 142, 170, 174	0
26	Y4	69/71 (97%)	1.05	10 (14%) 6 3	67, 117, 168, 175	0
27	R5	59/60 (98%)	0.27	0 100 100	30, 60, 109, 116	0
27	Y5	59/60 (98%)	0.41	3 (5%) 33 17	24, 56, 129, 138	0
28	R6	53/54 (98%)	2.41	29 (54%) 0 0	144, 186, 208, 215	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	Y6	53/54 (98%)	2.44	33 (62%) 0 0	119, 157, 178, 184	0
29	R7	48/49 (97%)	0.38	3 (6%) 26 13	29, 41, 65, 82	0
29	Y7	48/49 (97%)	-0.14	1 (2%) 63 39	19, 27, 57, 82	0
30	R8	64/65 (98%)	0.53	2 (3%) 51 29	41, 54, 70, 90	0
30	Y8	64/65 (98%)	0.08	0 100 100	18, 42, 63, 81	0
31	R9	37/37 (100%)	4.18	33 (89%) 0 0	122, 170, 195, 206	0
31	Y9	37/37 (100%)	4.07	35 (94%) 0 0	120, 136, 170, 177	0
32	QA	1488/1521 (97%)	0.40	52 (3%) 47 26	45, 96, 172, 287	0
32	XA	1492/1521 (98%)	0.24	19 (1%) 75 52	29, 91, 170, 268	0
33	QB	231/256 (90%)	1.13	31 (13%) 7 4	98, 130, 151, 163	0
33	XB	231/256 (90%)	0.94	25 (10%) 11 6	84, 114, 143, 160	0
34	QC	206/239 (86%)	0.98	24 (11%) 9 5	97, 123, 151, 165	0
34	XC	206/239 (86%)	0.79	19 (9%) 14 7	75, 99, 124, 139	0
35	QD	208/209 (99%)	0.89	20 (9%) 13 7	76, 97, 116, 125	0
35	XD	208/209 (99%)	1.23	29 (13%) 6 4	76, 104, 129, 135	0
36	QE	148/162 (91%)	0.65	7 (4%) 36 19	69, 91, 107, 127	0
36	XE	148/162 (91%)	0.54	8 (5%) 31 15	65, 89, 109, 119	0
37	QF	100/101 (99%)	0.87	4 (4%) 42 23	87, 105, 116, 119	0
37	XF	100/101 (99%)	0.39	0 100 100	61, 86, 105, 109	0
38	QG	155/156 (99%)	1.03	22 (14%) 6 4	93, 112, 135, 142	0
38	XG	155/156 (99%)	0.67	11 (7%) 22 11	80, 99, 115, 128	0
39	QH	137/138 (99%)	0.83	8 (5%) 29 14	80, 96, 114, 119	0
39	XH	137/138 (99%)	0.77	5 (3%) 46 25	74, 95, 107, 112	0
40	QI	127/128 (99%)	1.74	49 (38%) 1 1	88, 129, 153, 159	0
40	XI	126/128 (98%)	1.28	22 (17%) 4 2	75, 114, 131, 139	0
41	QJ	97/105 (92%)	1.55	24 (24%) 2 1	99, 126, 146, 152	0
41	XJ	96/105 (91%)	1.34	16 (16%) 4 3	82, 113, 133, 138	0
42	QK	114/129 (88%)	0.59	2 (1%) 67 43	65, 94, 108, 121	0
42	XK	114/129 (88%)	0.32	2 (1%) 67 43	52, 76, 93, 108	0
43	QL	121/132 (91%)	0.81	14 (11%) 9 5	52, 73, 86, 92	0
43	XL	121/132 (91%)	0.72	9 (7%) 20 10	57, 72, 86, 100	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	QM	116/126 (92%)	1.40	25 (21%) 2 1	101, 122, 138, 148	0
44	XM	114/126 (90%)	1.08	12 (10%) 11 6	83, 108, 119, 122	0
45	QN	60/61 (98%)	1.75	21 (35%) 1 1	104, 115, 129, 132	0
45	XN	60/61 (98%)	1.19	9 (15%) 5 3	72, 93, 109, 114	0
46	QO	88/89 (98%)	0.76	7 (7%) 18 9	70, 87, 118, 129	0
46	XO	88/89 (98%)	0.68	6 (6%) 23 12	52, 79, 109, 113	0
47	QP	82/88 (93%)	0.89	8 (9%) 13 7	62, 83, 105, 118	0
47	XP	82/88 (93%)	1.36	15 (18%) 3 2	73, 103, 125, 138	0
48	QQ	99/105 (94%)	0.82	6 (6%) 27 13	60, 83, 101, 111	0
48	XQ	99/105 (94%)	0.88	12 (12%) 8 5	59, 82, 100, 107	0
49	QR	68/88 (77%)	0.89	6 (8%) 15 8	87, 108, 120, 131	0
49	XR	68/88 (77%)	0.49	0 100 100	54, 86, 108, 112	0
50	QS	83/93 (89%)	1.39	17 (20%) 2 2	103, 125, 135, 141	0
50	XS	83/93 (89%)	1.40	14 (16%) 4 2	90, 109, 140, 145	0
51	QT	96/106 (90%)	1.00	11 (11%) 9 5	58, 80, 103, 108	0
51	XT	98/106 (92%)	1.52	27 (27%) 1 1	81, 98, 112, 123	0
52	QU	23/27 (85%)	2.30	11 (47%) 0 0	95, 114, 119, 121	0
52	XU	23/27 (85%)	1.81	9 (39%) 1 1	90, 96, 103, 111	0
53	QV	77/77 (100%)	0.17	3 (3%) 43 23	63, 93, 134, 144	0
53	XV	77/77 (100%)	0.07	2 (2%) 57 33	48, 85, 126, 147	0
54	QX	9/25 (36%)	1.34	3 (33%) 1 1	78, 91, 116, 129	0
54	XX	10/25 (40%)	1.70	4 (40%) 1 1	62, 78, 125, 136	0
55	QY	259/360 (71%)	1.19	48 (18%) 3 2	71, 111, 149, 181	0
55	XY	260/360 (72%)	0.90	26 (10%) 12 6	54, 94, 135, 143	0
All	All	21260/22168 (95%)	0.41	1240 (5%) 29 14	15, 78, 147, 314	0

All (1240) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
31	R9	26	ILE	10.4
31	R9	15	LYS	7.7
31	R9	23	VAL	7.6
31	Y9	33	LYS	7.4
22	Y0	8	GLY	7.2

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Mol	Chain	Res	Type	RSRZ
28	Y6	11	LEU	6.9
31	Y9	17	ILE	6.8
21	YZ	192	ALA	6.8
31	R9	14	CYS	6.6
55	QY	193	GLN	6.6
55	QY	192	SER	6.6
31	R9	37	GLY	6.5
28	R6	10	LEU	6.3
44	QM	100	GLY	6.2
31	Y9	26	ILE	6.2
31	Y9	31	LYS	6.0
28	R6	2	ALA	6.0
31	R9	17	ILE	6.0
21	RZ	192	ALA	5.9
31	R9	19	ARG	5.8
20	RY	1	MET	5.8
20	YY	1	MET	5.8
31	R9	24	TYR	5.8
23	R1	2	SER	5.7
55	XY	333	MET	5.7
28	Y6	36	LEU	5.7
51	XT	18	GLN	5.6
40	QI	127	LYS	5.6
43	QL	64	TYR	5.4
31	R9	12	ASP	5.4
31	R9	27	CYS	5.4
28	R6	21	TYR	5.4
45	QN	2	ALA	5.4
26	Y4	66	SER	5.4
35	QD	2	GLY	5.2
41	XJ	64	GLU	5.2
52	QU	17	THR	5.2
55	XY	339	MET	5.2
21	RZ	198	LYS	5.2
54	XX	23	A	5.1
32	QA	1036	G	5.1
40	QI	109	VAL	5.1
21	RZ	199	LYS	5.1
33	QB	70	PHE	5.0
31	R9	11	CYS	5.0
35	XD	76	ARG	5.0
31	R9	16	VAL	5.0

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Mol	Chain	Res	Type	RSRZ
28	Y6	23	THR	5.0
31	Y9	32	HIS	4.9
3	RD	276	LYS	4.9
34	QC	3	ASN	4.9
21	RZ	194	PRO	4.9
31	Y9	35	ARG	4.9
21	RZ	191	VAL	4.8
31	Y9	2	LYS	4.8
31	R9	18	ARG	4.8
21	RZ	197	ILE	4.7
21	RZ	195	GLU	4.7
31	Y9	18	ARG	4.7
28	R6	23	THR	4.7
32	XA	1397	C	4.7
44	QM	117	VAL	4.7
31	Y9	1	MET	4.7
40	QI	110	GLU	4.7
31	R9	5	ALA	4.6
55	QY	194	GLY	4.6
28	Y6	34	LEU	4.6
31	Y9	30	PRO	4.6
55	QY	189	ALA	4.6
31	Y9	20	HIS	4.6
40	XI	105	ASP	4.5
31	Y9	9	ARG	4.5
28	R6	11	LEU	4.5
31	Y9	15	LYS	4.5
14	RS	3	ARG	4.5
11	YP	15	ARG	4.5
51	XT	6	PRO	4.4
7	RH	71	LEU	4.4
1	YA	2805	G	4.4
34	QC	162	GLN	4.4
1	RA	1536	C	4.4
31	R9	21	GLY	4.4
50	XS	9	VAL	4.4
40	XI	75	ASP	4.4
31	Y9	24	TYR	4.4
31	Y9	12	ASP	4.3
21	YZ	193	GLU	4.3
8	RI	86	THR	4.3
31	R9	30	PRO	4.3

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Mol	Chain	Res	Type	RSRZ
51	XT	58	LYS	4.3
31	Y9	3	VAL	4.3
31	Y9	8	LYS	4.2
31	Y9	13	LYS	4.2
40	XI	11	LYS	4.2
47	XP	1	MET	4.2
31	Y9	37	GLY	4.2
48	QQ	24	GLU	4.2
55	XY	155	GLU	4.2
51	XT	14	LYS	4.2
55	QY	327	TYR	4.2
34	XC	3	ASN	4.2
28	Y6	7	ILE	4.2
29	R7	48	LYS	4.2
48	XQ	7	THR	4.2
40	QI	128	ARG	4.1
38	QG	84	ASN	4.1
31	R9	13	LYS	4.1
36	XE	20	GLN	4.1
50	QS	84	GLY	4.1
44	XM	116	THR	4.1
55	QY	314	GLN	4.1
31	R9	25	VAL	4.1
28	R6	54	ILE	4.1
52	QU	14	TRP	4.1
40	QI	105	ASP	4.0
21	YZ	201	LYS	4.0
52	QU	13	ILE	4.0
1	RA	229	A	4.0
37	QF	90	VAL	4.0
28	Y6	2	ALA	4.0
15	RT	131	ALA	4.0
31	Y9	5	ALA	4.0
52	QU	6	ARG	4.0
33	QB	214	ILE	4.0
22	R0	8	GLY	3.9
34	XC	2	GLY	3.9
34	QC	170	GLN	3.9
54	XX	22	C	3.9
45	XN	2	ALA	3.9
44	QM	78	ILE	3.9
31	Y9	23	VAL	3.9

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Mol	Chain	Res	Type	RSRZ
7	RH	115	VAL	3.8
21	YZ	200	GLY	3.8
31	Y9	36	GLN	3.8
48	XQ	37	LYS	3.8
31	R9	32	HIS	3.8
41	QJ	4	ILE	3.8
51	QT	9	ASN	3.8
28	R6	42	TRP	3.8
39	XH	2	LEU	3.8
38	QG	36	LYS	3.8
33	QB	99	GLY	3.8
39	QH	89	PRO	3.8
32	QA	160	A	3.8
1	YA	2803	C	3.7
44	QM	99	ARG	3.7
6	RG	35	GLU	3.7
55	QY	191	GLU	3.7
8	RI	39	ALA	3.7
28	R6	22	ALA	3.7
33	XB	136	VAL	3.7
21	RZ	196	VAL	3.7
31	Y9	14	CYS	3.7
1	RA	1046	A	3.7
28	R6	48	VAL	3.7
41	QJ	39	PRO	3.6
39	QH	99	GLU	3.6
44	QM	75	ALA	3.6
52	QU	15	ARG	3.6
24	R2	1	MET	3.6
31	Y9	27	CYS	3.6
33	QB	163	PHE	3.6
27	Y5	52	TYR	3.6
28	Y6	26	ASN	3.6
38	XG	2	ALA	3.6
21	RZ	155	LEU	3.6
21	YZ	197	ILE	3.6
1	YA	1051	G	3.6
31	R9	36	GLN	3.6
50	XS	56	GLN	3.6
33	QB	85	ALA	3.6
29	Y7	48	LYS	3.6
43	XL	28	LYS	3.6

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Mol	Chain	Res	Type	RSRZ
1	YA	274	G	3.5
1	YA	1048	A	3.5
31	Y9	4	ARG	3.5
51	XT	15	ARG	3.5
1	RA	2146	C	3.5
21	YZ	187	ALA	3.5
52	QU	24	ARG	3.5
40	QI	102	LEU	3.5
1	RA	2110	G	3.5
1	YA	1052	C	3.5
21	YZ	195	GLU	3.5
35	QD	4	TYR	3.5
41	QJ	46	ARG	3.5
41	QJ	67	THR	3.5
41	QJ	33	GLN	3.5
35	XD	69	GLY	3.5
31	Y9	16	VAL	3.5
40	QI	119	ALA	3.5
28	R6	36	LEU	3.5
42	XK	117	ASN	3.5
44	XM	106	ASN	3.5
1	RA	1092	C	3.5
1	YA	1109	C	3.5
1	YA	2116	G	3.5
31	R9	31	LYS	3.5
7	RH	43	VAL	3.5
9	RN	8	GLN	3.5
28	Y6	48	VAL	3.5
51	XT	7	LYS	3.5
32	XA	1531	A	3.5
21	RZ	193	GLU	3.4
26	Y4	63	TYR	3.4
34	QC	10	PHE	3.4
31	Y9	10	ILE	3.4
28	R6	8	LYS	3.4
31	R9	33	LYS	3.4
39	QH	2	LEU	3.4
20	RY	2	ARG	3.4
41	XJ	74	ILE	3.4
28	Y6	8	LYS	3.4
28	Y6	42	TRP	3.4
55	QY	122	ASP	3.4

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Mol	Chain	Res	Type	RSRZ
4	RE	151	TYR	3.4
32	QA	344	A	3.4
34	QC	160	ALA	3.4
24	Y2	70	GLN	3.4
44	QM	116	THR	3.4
31	R9	20	HIS	3.4
35	XD	120	LEU	3.4
41	QJ	40	LEU	3.4
33	QB	218	ALA	3.4
55	XY	192	SER	3.4
21	YZ	191	VAL	3.4
33	QB	136	VAL	3.4
28	R6	39	TYR	3.4
28	Y6	22	ALA	3.4
41	XJ	57	LYS	3.4
1	RA	34	C	3.3
15	YT	107	ASP	3.3
33	XB	227	GLY	3.3
55	QY	333	MET	3.3
32	QA	159	G	3.3
43	XL	18	VAL	3.3
55	XY	340	LEU	3.3
7	YH	47	GLU	3.3
32	QA	345	C	3.3
33	XB	131	PRO	3.3
45	QN	35	ARG	3.3
45	XN	3	ARG	3.3
23	R1	23	LYS	3.3
33	XB	133	LYS	3.3
45	QN	15	LYS	3.3
1	RA	2894	G	3.3
53	QV	53	G	3.3
55	XY	330	ASP	3.3
54	XX	15	A	3.3
38	QG	86	GLN	3.3
50	QS	79	THR	3.3
32	XA	1533	C	3.3
51	QT	10	LEU	3.3
31	R9	29	ASN	3.3
40	XI	127	LYS	3.3
15	RT	130	ALA	3.3
20	RY	62	GLU	3.3

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Mol	Chain	Res	Type	RSRZ
41	XJ	66	ARG	3.3
51	QT	23	ARG	3.3
21	RZ	18	LEU	3.3
28	R6	30	THR	3.3
38	QG	16	LEU	3.3
55	XY	314	GLN	3.3
28	Y6	20	ASN	3.3
7	RH	159	GLU	3.3
35	XD	2	GLY	3.3
41	QJ	66	ARG	3.2
55	QY	303	ARG	3.2
28	Y6	41	PRO	3.2
8	RI	83	ALA	3.2
51	XT	9	ASN	3.2
1	YA	275	G	3.2
1	YA	1090	U	3.2
21	RZ	202	GLU	3.2
48	QQ	86	GLU	3.2
48	XQ	8	GLY	3.2
52	QU	16	GLY	3.2
41	XJ	46	ARG	3.2
1	YA	277	C	3.2
46	QO	48	LYS	3.2
50	QS	16	LEU	3.2
31	Y9	11	CYS	3.2
40	QI	75	ASP	3.2
47	QP	19	ILE	3.2
31	Y9	21	GLY	3.2
50	QS	82	GLY	3.2
50	QS	35	SER	3.2
28	R6	40	CYS	3.2
32	QA	1320	C	3.2
53	QV	1	C	3.2
55	QY	330	ASP	3.2
31	R9	22	ARG	3.2
52	XU	9	ARG	3.2
31	R9	28	GLU	3.2
38	QG	37	ASN	3.2
43	QL	47	LYS	3.2
51	XT	74	LYS	3.2
48	QQ	98	LEU	3.2
55	QY	340	LEU	3.2

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Mol	Chain	Res	Type	RSRZ
26	R4	49	PHE	3.2
31	R9	7	VAL	3.2
51	QT	11	SER	3.2
47	QP	1	MET	3.2
47	XP	19	ILE	3.2
32	QA	1492	A	3.2
1	RA	1093	G	3.2
1	YA	1171	G	3.2
1	YA	1049	C	3.2
1	YA	1536	C	3.2
33	QB	138	LEU	3.2
50	QS	60	VAL	3.2
40	QI	42	ARG	3.2
51	XT	25	ARG	3.2
52	XU	6	ARG	3.2
23	Y1	2	SER	3.2
40	QI	106	ALA	3.2
43	QL	44	THR	3.2
26	Y4	54	GLY	3.1
40	XI	33	PHE	3.1
45	QN	25	VAL	3.1
45	QN	31	ARG	3.1
8	RI	96	ASP	3.1
50	XS	84	GLY	3.1
41	QJ	61	GLU	3.1
40	XI	126	SER	3.1
41	QJ	65	LEU	3.1
1	YA	1112	G	3.1
23	R1	27	GLU	3.1
40	QI	12	GLU	3.1
7	RH	17	VAL	3.1
31	R9	3	VAL	3.1
44	QM	102	ARG	3.1
3	YD	276	LYS	3.1
16	YU	117	GLN	3.1
1	RA	1040	C	3.1
1	YA	2804	C	3.1
38	XG	156	TRP	3.1
39	XH	25	ASP	3.1
44	QM	113	PRO	3.1
1	RA	1171	G	3.1
1	YA	1056	G	3.1

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Mol	Chain	Res	Type	RSRZ
39	QH	133	LEU	3.1
40	QI	126	SER	3.1
51	XT	19	SER	3.1
1	RA	2801(B)	A	3.1
6	RG	20	ILE	3.1
47	XP	17	TYR	3.1
35	XD	166	LYS	3.0
22	Y0	9	SER	3.0
55	QY	313	PRO	3.0
50	QS	13	ASP	3.0
35	XD	64	LEU	3.0
32	QA	1286	A	3.0
34	QC	190	ARG	3.0
45	QN	3	ARG	3.0
33	XB	99	GLY	3.0
51	XT	69	GLY	3.0
53	XV	1	C	3.0
55	QY	301	GLY	3.0
9	RN	9	VAL	3.0
40	QI	11	LYS	3.0
40	QI	70	LYS	3.0
43	XL	47	LYS	3.0
55	QY	325	THR	3.0
32	QA	1532	U	3.0
1	RA	2116	G	3.0
32	QA	347	G	3.0
32	QA	1117	G	3.0
45	QN	21	TYR	3.0
31	Y9	29	ASN	3.0
1	YA	1067	A	3.0
40	XI	102	LEU	3.0
48	XQ	91	ARG	3.0
42	QK	124	LYS	3.0
31	Y9	19	ARG	3.0
45	XN	17	LYS	3.0
55	QY	302	ASP	3.0
41	QJ	34	VAL	3.0
20	RY	43	ASN	3.0
31	R9	8	LYS	2.9
34	QC	124	ILE	2.9
20	RY	50	ARG	2.9
28	Y6	38	LYS	2.9

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Mol	Chain	Res	Type	RSRZ
30	R8	65	GLU	2.9
34	XC	201	TYR	2.9
55	QY	315	GLY	2.9
45	QN	16	PHE	2.9
32	QA	1531	A	2.9
40	QI	66	ARG	2.9
54	QX	14	A	2.9
45	QN	22	THR	2.9
31	Y9	28	GLU	2.9
7	RH	103	LEU	2.9
47	QP	26	ARG	2.9
55	QY	324	LEU	2.9
1	YA	1047	G	2.9
32	QA	346	G	2.9
32	QA	1361	G	2.9
34	XC	200	ALA	2.9
35	XD	150	GLU	2.9
52	QU	23	PRO	2.9
55	QY	256	GLU	2.9
55	QY	231	GLY	2.9
28	R6	19	ARG	2.9
44	QM	4	ILE	2.9
43	QL	23	LYS	2.9
36	QE	20	GLN	2.9
40	QI	41	VAL	2.9
51	XT	103	GLY	2.9
32	QA	79	G	2.9
32	QA	1101	A	2.9
38	QG	153	HIS	2.8
32	XA	1196	U	2.8
51	XT	11	SER	2.8
55	XY	193	GLN	2.8
7	RH	24	VAL	2.8
35	QD	154	ASN	2.8
26	Y4	67	TYR	2.8
28	Y6	10	LEU	2.8
35	XD	4	TYR	2.8
51	XT	10	LEU	2.8
51	XT	61	SER	2.8
1	RA	2141	G	2.8
1	RA	2802	G	2.8
44	QM	94	ARG	2.8

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Mol	Chain	Res	Type	RSRZ
54	QX	22	C	2.8
5	RF	208	GLY	2.8
7	RH	72	ILE	2.8
34	QC	155	GLY	2.8
55	XY	196	ILE	2.8
44	XM	107	ALA	2.8
1	YA	276	A	2.8
1	YA	1046	A	2.8
44	QM	81	LEU	2.8
8	RI	109	ILE	2.8
34	XC	81	GLY	2.8
35	XD	23	GLY	2.8
48	QQ	91	ARG	2.8
7	RH	39	PRO	2.8
21	YZ	199	LYS	2.8
33	QB	81	VAL	2.8
44	QM	65	LYS	2.8
20	RY	40	GLU	2.8
21	RZ	203	GLU	2.8
28	Y6	35	GLU	2.8
55	QY	329	LEU	2.8
55	XY	256	GLU	2.8
21	YZ	1	MET	2.8
31	R9	1	MET	2.8
36	QE	13	ILE	2.8
45	QN	7	ILE	2.8
51	XT	55	ILE	2.8
38	QG	82	GLY	2.8
52	XU	21	TYR	2.8
1	YA	2140	C	2.8
20	RY	95	LYS	2.8
28	R6	53	LYS	2.8
28	R6	52	VAL	2.8
31	Y9	7	VAL	2.8
35	QD	29	PRO	2.8
7	RH	63	SER	2.8
55	QY	100	LEU	2.8
4	RE	163	GLU	2.8
8	YI	10	GLU	2.8
21	RZ	190	GLU	2.8
33	XB	117	GLU	2.8
20	RY	5	MET	2.7

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Mol	Chain	Res	Type	RSRZ
55	XY	194	GLY	2.7
38	QG	28	ASN	2.7
44	QM	115	LYS	2.7
1	RA	1065	U	2.7
26	Y4	56	VAL	2.7
32	QA	161	A	2.7
7	RH	171	LEU	2.7
8	RI	88	ILE	2.7
55	QY	230	SER	2.7
20	RY	80	GLY	2.7
1	RA	2807	G	2.7
1	YA	614(C)	G	2.7
1	YA	1062	G	2.7
1	YA	2141	G	2.7
23	R1	26	ARG	2.7
55	QY	316	ARG	2.7
14	RS	57	LYS	2.7
20	RY	94	LYS	2.7
47	XP	14	ASN	2.7
52	XU	18	TYR	2.7
38	QG	152	ALA	2.7
40	QI	15	ALA	2.7
7	YH	45	VAL	2.7
35	XD	201	GLN	2.7
34	XC	196	LEU	2.7
51	XT	62	LEU	2.7
1	RA	614(B)	U	2.7
36	QE	26	PHE	2.7
34	QC	161	GLU	2.7
1	YA	1070	A	2.7
50	XS	4	SER	2.7
35	QD	73	ARG	2.7
1	RA	2896	C	2.7
32	XA	1030(C)	C	2.7
40	QI	36	TYR	2.7
50	QS	80	TYR	2.7
51	XT	59	ALA	2.7
38	QG	80	VAL	2.7
33	QB	11	LEU	2.7
39	QH	107	LEU	2.7
1	RA	1091	G	2.7
1	YA	10	G	2.7

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Mol	Chain	Res	Type	RSRZ
1	YA	1055	G	2.7
28	Y6	16	CYS	2.7
49	QR	43	PHE	2.7
11	RP	15	ARG	2.7
40	XI	107	ARG	2.7
45	QN	19	ARG	2.7
52	XU	15	ARG	2.7
30	R8	34	TRP	2.7
51	XT	70	SER	2.7
32	QA	90	U	2.7
54	XX	14	A	2.7
26	Y4	65	ASP	2.7
41	QJ	58	ASP	2.7
40	QI	17	VAL	2.7
55	XY	156	HIS	2.7
8	RI	147	GLN	2.7
32	QA	1397	C	2.7
28	Y6	54	ILE	2.7
6	RG	74	LYS	2.7
35	QD	166	LYS	2.7
35	XD	24	GLU	2.7
39	QH	90	GLY	2.7
40	XI	2	GLU	2.7
40	XI	12	GLU	2.7
52	XU	2	GLY	2.7
55	QY	155	GLU	2.7
32	QA	630	G	2.7
32	QA	1202	G	2.7
51	XT	66	ALA	2.7
32	XA	1532	U	2.7
34	QC	207	VAL	2.7
51	QT	72	LEU	2.7
28	R6	49	HIS	2.7
1	RA	529	A	2.6
1	RA	2758	A	2.6
8	RI	119	PRO	2.6
31	R9	10	ILE	2.6
32	XA	532	A	2.6
35	XD	70	ILE	2.6
46	QO	87	ILE	2.6
47	QP	82	GLN	2.6
50	XS	2	PRO	2.6

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Mol	Chain	Res	Type	RSRZ
40	QI	18	PHE	2.6
1	RA	2804	C	2.6
6	YG	35	GLU	2.6
7	YH	104	GLU	2.6
32	QA	1359	C	2.6
33	QB	12	GLU	2.6
35	XD	179	GLU	2.6
40	QI	30	GLY	2.6
6	RG	160	VAL	2.6
14	RS	58	LEU	2.6
33	QB	165	VAL	2.6
33	XB	121	LEU	2.6
44	QM	2	ALA	2.6
55	QY	255	VAL	2.6
55	QY	217	ILE	2.6
19	RX	1	MET	2.6
1	RA	1078	U	2.6
1	RA	1094	U	2.6
1	RA	2150	U	2.6
41	XJ	76	ASN	2.6
45	QN	9	LYS	2.6
55	QY	339	MET	2.6
47	XP	82	GLN	2.6
55	QY	233	GLY	2.6
1	YA	229	A	2.6
1	YA	529	A	2.6
1	YA	1054	A	2.6
46	QO	26	GLU	2.6
28	R6	34	LEU	2.6
33	XB	71	VAL	2.6
38	QG	2	ALA	2.6
38	QG	7	ALA	2.6
40	QI	43	ALA	2.6
33	QB	68	ILE	2.6
35	QD	5	ILE	2.6
40	QI	37	PHE	2.6
40	QI	123	PRO	2.6
41	QJ	47	PHE	2.6
45	QN	14	PRO	2.6
31	Y9	34	GLN	2.6
24	Y2	11	GLU	2.6
32	QA	1196	U	2.6

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Mol	Chain	Res	Type	RSRZ
8	RI	92	VAL	2.6
28	R6	38	LYS	2.6
38	XG	29	LYS	2.6
40	QI	113	LYS	2.6
26	R4	40	HIS	2.6
45	QN	34	TYR	2.6
40	XI	98	PRO	2.6
1	RA	2139	C	2.6
50	XS	71	LEU	2.6
1	YA	1108	U	2.6
18	RW	92	ARG	2.6
33	QB	97	TRP	2.6
34	XC	15	THR	2.6
40	XI	13	ALA	2.6
40	XI	106	ALA	2.6
45	XN	15	LYS	2.6
51	XT	83	ARG	2.6
32	XA	380	G	2.6
43	QL	69	TYR	2.6
47	QP	9	PHE	2.6
7	RH	112	PRO	2.6
55	QY	262	SER	2.6
1	RA	2062	A	2.6
1	RA	1043	C	2.6
21	YZ	189	ALA	2.6
21	YZ	196	VAL	2.6
28	Y6	53	LYS	2.6
33	QB	173	ALA	2.6
33	QB	188	ALA	2.6
34	QC	163	ALA	2.6
50	QS	78	ARG	2.6
8	RI	108	THR	2.6
28	Y6	30	THR	2.6
34	QC	165	THR	2.6
45	QN	13	THR	2.6
7	RH	9	ILE	2.5
50	XS	69	HIS	2.5
41	XJ	36	GLY	2.5
38	QG	124	LEU	2.5
1	RA	1099	G	2.5
1	YA	361	G	2.5
1	YA	1091	G	2.5

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Mol	Chain	Res	Type	RSRZ
1	YA	1110	G	2.5
1	YA	2807	G	2.5
6	RG	159	VAL	2.5
19	RX	33	LYS	2.5
44	XM	102	ARG	2.5
55	XY	122	ASP	2.5
1	RA	6	A	2.5
1	YA	1045	A	2.5
55	XY	191	GLU	2.5
40	QI	27	THR	2.5
12	RQ	1	MET	2.5
33	XB	101	MET	2.5
1	RA	1076	C	2.5
1	YA	2142	C	2.5
26	R4	59	PHE	2.5
43	XL	32	PHE	2.5
39	XH	101	PRO	2.5
55	QY	156	HIS	2.5
6	RG	76	SER	2.5
22	R0	9	SER	2.5
41	XJ	65	LEU	2.5
21	YZ	198	LYS	2.5
28	Y6	19	ARG	2.5
28	Y6	27	LYS	2.5
35	XD	49	ARG	2.5
6	RG	13	GLU	2.5
8	RI	48	GLU	2.5
36	QE	94	ALA	2.5
38	XG	33	ASP	2.5
1	YA	2629	A	2.5
20	RY	55	TYR	2.5
1	RA	2145	C	2.5
6	YG	51	ARG	2.5
19	YX	95	LEU	2.5
32	XA	1363(A)	C	2.5
48	XQ	33	GLY	2.5
33	QB	109	SER	2.5
55	XY	258	GLN	2.5
44	XM	98	VAL	2.5
2	RB	1	U	2.5
55	QY	334	GLU	2.5
7	RH	89	ILE	2.5

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Mol	Chain	Res	Type	RSRZ
52	QU	5	ASP	2.5
28	R6	41	PRO	2.5
41	QJ	77	PRO	2.5
8	RI	68	LEU	2.5
21	RZ	201	LYS	2.5
28	Y6	6	ARG	2.5
43	XL	98	TYR	2.5
34	QC	2	GLY	2.5
38	QG	21	VAL	2.5
40	QI	28	VAL	2.5
1	RA	1047	G	2.5
1	YA	363(A)	G	2.5
8	RI	49	ALA	2.5
1	RA	1118	C	2.5
9	RN	10	GLU	2.5
12	YQ	80	GLU	2.5
6	RG	108	ASN	2.5
8	RI	43	ASN	2.5
40	QI	29	ASN	2.5
1	RA	1090	U	2.5
45	XN	22	THR	2.5
4	YE	63	LEU	2.5
51	XT	23	ARG	2.5
52	XU	3	LYS	2.5
7	RH	8	PRO	2.5
38	XG	12	LEU	2.5
38	XG	59	LEU	2.5
47	XP	6	LEU	2.5
49	QR	31	LEU	2.5
4	YE	151	TYR	2.5
40	QI	117	HIS	2.5
40	XI	125	TYR	2.5
46	XO	3	ILE	2.4
1	YA	2173	A	2.4
36	QE	79	GLU	2.4
48	XQ	24	GLU	2.4
55	QY	206	MET	2.4
44	QM	27	LYS	2.4
47	XP	59	TRP	2.4
1	RA	1533	G	2.4
1	RA	2111	C	2.4
1	RA	2805	G	2.4

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Mol	Chain	Res	Type	RSRZ
32	QA	158	G	2.4
1	RA	1026	U	2.4
28	Y6	21	TYR	2.4
47	XP	2	VAL	2.4
46	QO	3	ILE	2.4
4	RE	73	GLU	2.4
21	YZ	166	SER	2.4
38	QG	8	GLU	2.4
40	QI	35	GLU	2.4
34	QC	131	ARG	2.4
43	XL	91	LYS	2.4
46	XO	88	ARG	2.4
33	XB	98	LEU	2.4
12	YQ	21	THR	2.4
32	XA	1286	A	2.4
39	QH	4	ASP	2.4
27	Y5	60	VAL	2.4
40	QI	125	TYR	2.4
48	XQ	32	TYR	2.4
55	QY	332	VAL	2.4
1	RA	2106	G	2.4
32	QA	108	G	2.4
48	QQ	100	LYS	2.4
28	R6	24	GLU	2.4
4	YE	52	LEU	2.4
7	RH	88	LEU	2.4
35	QD	157	LEU	2.4
38	QG	12	LEU	2.4
35	XD	29	PRO	2.4
48	XQ	35	VAL	2.4
50	XS	11	VAL	2.4
21	RZ	12	GLY	2.4
43	QL	63	GLY	2.4
44	QM	24	GLY	2.4
50	QS	83	HIS	2.4
33	QB	201	ILE	2.4
40	QI	13	ALA	2.4
29	R7	1	MET	2.4
48	XQ	26	GLN	2.4
32	QA	1027	C	2.4
43	QL	16	GLU	2.4
50	QS	71	LEU	2.4

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Mol	Chain	Res	Type	RSRZ
1	RA	1044	G	2.4
1	YA	1074	G	2.4
1	YA	1089	G	2.4
44	QM	109	THR	2.4
14	YS	61	ASN	2.4
34	QC	176	HIS	2.4
38	QG	81	GLY	2.4
20	RY	44	ILE	2.4
3	RD	275	LYS	2.4
33	QB	133	LYS	2.4
46	QO	64	ARG	2.4
46	XO	62	GLN	2.4
40	QI	33	PHE	2.4
7	RH	7	LEU	2.4
44	XM	19	LEU	2.4
45	QN	44	LEU	2.4
32	QA	978	A	2.4
41	XJ	61	GLU	2.4
55	QY	260	GLU	2.4
31	R9	6	SER	2.4
35	QD	71	SER	2.4
1	YA	614(B)	U	2.4
31	Y9	25	VAL	2.4
32	QA	343	U	2.4
32	QA	723	U	2.4
40	XI	68	GLY	2.3
35	XD	154	ASN	2.3
50	QS	14	HIS	2.3
49	QR	34	TYR	2.3
1	YA	1107	G	2.3
1	YA	2792	G	2.3
33	QB	57	PHE	2.3
34	XC	188	LEU	2.3
7	YH	40	GLU	2.3
28	Y6	24	GLU	2.3
29	R7	46	VAL	2.3
28	R6	31	PRO	2.3
1	YA	2135	A	2.3
55	QY	136	SER	2.3
35	XD	85	LYS	2.3
6	RG	52	ILE	2.3
6	RG	83	ARG	2.3

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Mol	Chain	Res	Type	RSRZ
40	QI	7	THR	2.3
40	XI	120	ARG	2.3
41	QJ	100	THR	2.3
4	RE	159	HIS	2.3
7	RH	96	ALA	2.3
8	RI	4	ILE	2.3
25	R3	30	ARG	2.3
45	QN	30	ALA	2.3
18	RW	60	ASN	2.3
34	QC	193	TYR	2.3
1	YA	1041	C	2.3
6	RG	97	ASP	2.3
8	RI	47	LEU	2.3
35	QD	11	LEU	2.3
35	XD	135	LEU	2.3
35	XD	74	GLN	2.3
40	QI	73	GLN	2.3
41	XJ	47	PHE	2.3
51	XT	99	LEU	2.3
55	XY	324	LEU	2.3
6	RG	48	GLU	2.3
1	RA	2319	G	2.3
7	RH	52	VAL	2.3
7	RH	114	VAL	2.3
40	XI	108	VAL	2.3
55	QY	237	VAL	2.3
28	Y6	17	LYS	2.3
24	Y2	69	ARG	2.3
33	XB	26	PRO	2.3
33	XB	137	ARG	2.3
44	XM	114	ARG	2.3
45	XN	14	PRO	2.3
47	QP	42	ARG	2.3
50	QS	2	PRO	2.3
55	XY	188	PRO	2.3
51	QT	100	ILE	2.3
8	RI	65	ALA	2.3
55	QY	199	SER	2.3
44	XM	86	CYS	2.3
28	R6	20	ASN	2.3
34	QC	47	LEU	2.3
35	QD	155	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
44	QM	77	ASN	2.3
1	RA	1067	A	2.3
1	YA	1066	U	2.3
8	RI	85	GLU	2.3
14	RS	8	GLU	2.3
34	XC	206	GLU	2.3
36	QE	81	GLU	2.3
1	RA	2161	C	2.3
1	YA	2139	C	2.3
33	XB	132	LYS	2.3
44	XM	74	VAL	2.3
48	XQ	34	LYS	2.3
51	XT	30	LYS	2.3
21	RZ	184	ALA	2.3
40	QI	55	ALA	2.3
50	QS	34	TRP	2.3
36	XE	98	THR	2.3
12	YQ	17	LEU	2.3
1	YA	1115	G	2.3
28	R6	13	CYS	2.3
26	Y4	60	GLN	2.3
40	QI	116	LYS	2.3
51	XT	29	LYS	2.3
28	Y6	52	VAL	2.3
33	XB	21	ARG	2.3
42	QK	126	ARG	2.3
44	QM	60	VAL	2.3
44	QM	88	ARG	2.3
33	XB	127	ILE	2.3
44	XM	9	ILE	2.3
50	QS	49	ILE	2.3
51	QT	103	GLY	2.3
1	YA	2145	C	2.3
33	XB	107	THR	2.3
34	QC	175	LEU	2.3
41	QJ	62	HIS	2.3
6	RG	178	PHE	2.3
33	QB	33	TYR	2.3
38	QG	85	TYR	2.3
52	QU	3	LYS	2.3
28	Y6	37	ARG	2.3
35	QD	115	ARG	2.3

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Mol	Chain	Res	Type	RSRZ
35	XD	209	ARG	2.3
43	QL	18	VAL	2.3
55	XY	338	ASP	2.3
10	YO	108	GLU	2.2
1	RA	2155	G	2.2
53	XV	53	G	2.2
50	XS	31	ILE	2.2
8	RI	111	PRO	2.2
15	YT	131	ALA	2.2
36	XE	10	MET	2.2
1	YA	1113	U	2.2
7	RH	105	LEU	2.2
10	RO	91	LEU	2.2
23	R1	98	LEU	2.2
14	RS	29	PHE	2.2
33	XB	70	PHE	2.2
47	XP	22	THR	2.2
14	YS	7	TYR	2.2
40	QI	71	SER	2.2
55	QY	300	SER	2.2
1	RA	2402	C	2.2
1	YA	2108	C	2.2
2	RB	88	C	2.2
13	RR	68	ARG	2.2
22	R0	44	ARG	2.2
44	QM	110	ARG	2.2
46	QO	88	ARG	2.2
28	Y6	29	ASN	2.2
41	XJ	34	VAL	2.2
46	XO	28	GLN	2.2
20	YY	107	ASP	2.2
33	XB	69	LEU	2.2
34	XC	61	ALA	2.2
41	XJ	27	ALA	2.2
49	QR	66	LEU	2.2
55	QY	252	GLY	2.2
44	QM	64	TRP	2.2
32	QA	1220	G	2.2
32	XA	630	G	2.2
32	XA	1036	G	2.2
51	XT	21	LYS	2.2
14	RS	20	ARG	2.2

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Mol	Chain	Res	Type	RSRZ
35	QD	20	TYR	2.2
35	QD	209	ARG	2.2
47	QP	25	ARG	2.2
1	RA	1045	A	2.2
7	RH	2	SER	2.2
32	QA	1001(A)	A	2.2
39	XH	95	VAL	2.2
40	QI	14	VAL	2.2
8	RI	7	GLU	2.2
20	RY	29	GLU	2.2
24	Y2	12	GLU	2.2
7	RH	57	ASP	2.2
32	QA	1321	C	2.2
25	R3	2	PRO	2.2
35	XD	157	LEU	2.2
38	QG	33	ASP	2.2
31	R9	35	ARG	2.2
40	XI	66	ARG	2.2
38	XG	85	TYR	2.2
40	QI	62	TYR	2.2
34	XC	66	VAL	2.2
35	XD	140	VAL	2.2
18	RW	13	SER	2.2
45	QN	32	SER	2.2
1	YA	12	U	2.2
20	RY	57	GLN	2.2
1	YA	1096	A	2.2
32	QA	790	A	2.2
32	QA	1184	G	2.2
32	QA	1187	G	2.2
37	QF	98	LEU	2.2
55	XY	331	GLU	2.2
7	YH	20	ALA	2.2
21	RZ	200	GLY	2.2
33	QB	234	PRO	2.2
35	QD	23	GLY	2.2
35	XD	167	GLY	2.2
47	XP	15	PRO	2.2
20	YY	63	LYS	2.2
26	Y4	61	ARG	2.2
35	XD	79	PHE	2.2
41	QJ	79	ARG	2.2

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Mol	Chain	Res	Type	RSRZ
43	QL	12	ARG	2.2
1	RA	1100	C	2.2
1	RA	1116	C	2.2
1	YA	273(K)	C	2.2
1	YA	2143	C	2.2
32	QA	163	C	2.2
32	QA	1030(C)	C	2.2
32	XA	100	C	2.2
44	XM	20	THR	2.2
28	R6	5	VAL	2.2
33	XB	31	TYR	2.2
34	QC	103	VAL	2.2
39	XH	118	VAL	2.2
43	XL	43	VAL	2.2
47	QP	2	VAL	2.2
52	XU	13	ILE	2.2
7	YH	67	LEU	2.2
34	XC	204	LEU	2.2
44	QM	90	LEU	2.2
33	QB	101	MET	2.2
8	YI	146	ALA	2.2
33	XB	134	GLU	2.2
9	RN	37	LYS	2.2
41	QJ	32	ALA	2.2
1	YA	9	U	2.2
1	YA	1083	U	2.2
32	XA	1257	U	2.2
36	QE	85	GLY	2.2
7	YH	42	ARG	2.2
28	R6	43	CYS	2.2
28	Y6	44	ARG	2.2
35	QD	49	ARG	2.2
55	XY	303	ARG	2.2
35	QD	102	ASP	2.2
1	RA	1048	A	2.2
32	QA	532	A	2.2
1	YA	1106	G	2.2
53	QV	52	G	2.2
44	XM	103	THR	2.1
45	XN	13	THR	2.1
55	QY	190	THR	2.1
40	QI	114	TYR	2.1

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Mol	Chain	Res	Type	RSRZ
1	YA	2146	C	2.1
34	XC	14	ILE	2.1
46	XO	87	ILE	2.1
8	RI	121	LYS	2.1
47	XP	12	LYS	2.1
6	RG	69	ALA	2.1
8	RI	42	SER	2.1
21	RZ	189	ALA	2.1
33	QB	237	ALA	2.1
55	XY	304	SER	2.1
14	YS	3	ARG	2.1
35	QD	24	GLU	2.1
41	QJ	64	GLU	2.1
55	XY	123	GLU	2.1
40	XI	72	GLY	2.1
55	QY	215	PRO	2.1
15	RT	107	ASP	2.1
33	QB	7	VAL	2.1
47	XP	13	HIS	2.1
48	QQ	35	VAL	2.1
1	RA	2117	A	2.1
26	R4	22	ILE	2.1
26	R4	67	TYR	2.1
40	QI	5	TYR	2.1
6	RG	133	LEU	2.1
34	QC	196	LEU	2.1
43	QL	17	LYS	2.1
1	YA	1059	G	2.1
1	YA	2793	G	2.1
7	RH	41	MET	2.1
16	YU	52	ARG	2.1
32	QA	1355	G	2.1
33	QB	110	GLN	2.1
8	YI	117	GLU	2.1
28	Y6	3	SER	2.1
35	XD	208	SER	2.1
1	YA	1100	C	2.1
1	YA	2789	C	2.1
50	QS	76	PRO	2.1
51	QT	19	SER	2.1
36	XE	45	PHE	2.1
38	XG	84	ASN	2.1

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Mol	Chain	Res	Type	RSRZ
6	YG	37	VAL	2.1
7	RH	113	VAL	2.1
35	XD	112	VAL	2.1
45	QN	33	VAL	2.1
50	XS	60	VAL	2.1
34	QC	135	LYS	2.1
35	XD	138	TYR	2.1
41	XJ	85	LEU	2.1
48	XQ	100	LYS	2.1
51	QT	30	LYS	2.1
28	Y6	18	ARG	2.1
43	QL	97	ARG	2.1
34	QC	133	ALA	2.1
38	XG	7	ALA	2.1
55	QY	220	ALA	2.1
1	YA	1050	A	2.1
7	YH	53	GLU	2.1
40	XI	115	GLY	2.1
41	QJ	37	PRO	2.1
54	QX	15	A	2.1
38	QG	77	SER	2.1
55	QY	312	PHE	2.1
51	XT	26	ASN	2.1
1	RA	1059	G	2.1
1	RA	1089	G	2.1
1	RA	1537	G	2.1
1	YA	2120	G	2.1
32	XA	69	G	2.1
32	XA	1017	G	2.1
33	XB	7	VAL	2.1
1	RA	2107	C	2.1
32	QA	1115	C	2.1
32	QA	1189	C	2.1
12	YQ	18	LYS	2.1
34	QC	4	LYS	2.1
50	QS	55	LYS	2.1
33	XB	215	LEU	2.1
47	XP	73	LEU	2.1
55	XY	99	LEU	2.1
55	XY	302	ASP	2.1
21	YZ	103	ARG	2.1
34	XC	190	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
40	QI	107	ARG	2.1
41	QJ	60	ARG	2.1
43	QL	89	ARG	2.1
49	QR	56	THR	2.1
8	RI	94	ALA	2.1
1	YA	1026	U	2.1
34	QC	158	GLY	2.1
34	XC	13	GLY	2.1
38	XG	81	GLY	2.1
46	XO	55	GLY	2.1
52	QU	4	GLY	2.1
3	RD	169	GLU	2.1
6	RG	2	PRO	2.1
25	R3	60	GLU	2.1
28	Y6	4	GLU	2.1
35	QD	150	GLU	2.1
39	QH	72	PRO	2.1
28	R6	3	SER	2.1
41	XJ	44	VAL	2.1
1	RA	2892	A	2.1
1	YA	1460	A	2.1
33	QB	37	ASN	2.1
47	XP	31	LYS	2.1
8	YI	88	ILE	2.1
35	QD	118	ARG	2.1
35	XD	21	LEU	2.1
50	XS	49	ILE	2.1
55	QY	244	ILE	2.1
33	XB	190	THR	2.1
45	XN	21	TYR	2.1
55	XY	310	TYR	2.1
1	RA	1049	C	2.1
1	RA	2140	C	2.1
32	QA	1327	C	2.1
1	RA	1074	G	2.1
1	RA	1117	G	2.1
32	QA	524	G	2.1
32	QA	1001(B)	G	2.1
32	QA	1353	G	2.1
32	XA	105	G	2.1
34	XC	168	ALA	2.1
45	XN	59	ALA	2.1

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Mol	Chain	Res	Type	RSRZ
45	QN	28	GLY	2.1
50	XS	68	GLY	2.1
51	QT	101	GLY	2.1
7	RH	128	PRO	2.1
26	Y4	57	GLU	2.1
35	XD	156	GLU	2.1
50	XS	10	PHE	2.1
55	QY	188	PRO	2.1
32	QA	789	U	2.0
32	QA	1348	U	2.0
33	QB	22	LYS	2.0
34	XC	195	VAL	2.0
40	QI	108	VAL	2.0
43	QL	21	LYS	2.0
44	QM	54	VAL	2.0
48	XQ	85	VAL	2.0
26	Y4	62	ARG	2.0
27	Y5	58	LEU	2.0
33	QB	115	LEU	2.0
36	XE	27	ARG	2.0
38	QG	10	ARG	2.0
40	QI	9	ARG	2.0
40	QI	111	ARG	2.0
41	QJ	23	ILE	2.0
41	QJ	74	ILE	2.0
41	QJ	76	ASN	2.0
44	QM	104	ARG	2.0
49	QR	58	LEU	2.0
11	RP	1	MET	2.0
33	QB	90	MET	2.0
1	RA	1111	A	2.0
1	YA	2801(B)	A	2.0
21	YZ	188	ALA	2.0
32	QA	1349	A	2.0
32	QA	1447	A	2.0
41	XJ	58	ASP	2.0
51	QT	12	ALA	2.0
9	RN	51	PHE	2.0
24	R2	70	GLN	2.0
42	XK	13	GLN	2.0
50	XS	59	PRO	2.0
52	XU	23	PRO	2.0

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Mol	Chain	Res	Type	RSRZ
7	RH	104	GLU	2.0
12	RQ	91	GLU	2.0
43	XL	126	LYS	2.0
14	RS	14	VAL	2.0
32	QA	1533	C	2.0
34	XC	207	VAL	2.0
41	QJ	94	VAL	2.0
1	RA	2120	G	2.0
1	YA	1114	G	2.0
7	RH	33	LEU	2.0
26	R4	61	ARG	2.0
33	XB	10	LEU	2.0
40	QI	19	LEU	2.0
40	XI	47	LEU	2.0
43	XL	89	ARG	2.0
46	QO	54	ARG	2.0
8	YI	79	ILE	2.0
41	XJ	35	SER	2.0
1	RA	1066	U	2.0
1	YA	2150	U	2.0
2	YB	1	U	2.0
8	RI	11	ASN	2.0
32	QA	1000	U	2.0
34	XC	176	HIS	2.0
47	XP	48	TRP	2.0
4	RE	187	ALA	2.0
21	RZ	187	ALA	2.0
37	QF	53	ALA	2.0
40	XI	119	ALA	2.0
6	RG	146	TYR	2.0
28	R6	14	THR	2.0
37	QF	60	PHE	2.0
38	XG	82	GLY	2.0
40	QI	101	PHE	2.0
43	QL	32	PHE	2.0
45	QN	37	PHE	2.0
55	QY	158	GLY	2.0
55	XY	301	GLY	2.0
6	YG	2	PRO	2.0
14	YS	33	LYS	2.0
1	YA	1111	A	2.0
6	YG	164	GLU	2.0

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Mol	Chain	Res	Type	RSRZ
32	QA	994	A	2.0
32	XA	88	A	2.0
33	QB	141	GLU	2.0
5	RF	44	ARG	2.0
33	XB	130	ARG	2.0
36	XE	18	ARG	2.0
7	YH	98	LEU	2.0
38	QG	99	LEU	2.0
36	XE	13	ILE	2.0
36	XE	109	ILE	2.0
40	QI	74	ILE	2.0
55	QY	246	ILE	2.0
1	RA	2137	C	2.0
1	RA	2138	C	2.0
1	YA	1118	C	2.0
1	YA	2161	C	2.0
32	XA	1354	C	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	0.82	0.13	88,92,95,97	0
32	2MG	QA	1207	24/25	0.85	0.12	117,127,138,140	0
32	2MG	XA	1207	24/25	0.86	0.14	91,97,111,112	0
32	PSU	QA	516	20/21	0.87	0.10	90,93,97,97	0
1	5MU	YA	1915	21/22	0.88	0.11	71,75,78,80	0
1	PSU	RA	1917	20/21	0.88	0.11	66,77,85,87	0
32	M2G	QA	966	25/26	0.89	0.15	81,89,103,104	0
32	7MG	QA	527	24/25	0.89	0.13	69,74,78,83	0
1	4OC	RA	1920	21/23	0.90	0.14	69,81,86,87	0
43	0TD	QL	92	10/11	0.90	0.14	73,80,84,86	0
32	5MC	XA	967	21/22	0.91	0.15	73,77,82,83	0
32	M2G	XA	966	25/26	0.91	0.13	75,80,91,94	0
32	4OC	XA	1402	22/23	0.91	0.12	45,54,61,64	0
43	0TD	XL	92	10/11	0.91	0.13	75,79,89,89	0
32	5MC	QA	1400	21/22	0.92	0.14	74,86,88,91	0
1	PSU	YA	1917	20/21	0.92	0.09	53,61,62,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
32	PSU	XA	516	20/21	0.92	0.09	73,80,84,87	0
1	PSU	RA	1911	20/21	0.92	0.10	71,79,83,85	0
32	5MC	QA	1404	21/22	0.93	0.13	61,66,69,71	0
1	4OC	YA	1920	21/23	0.93	0.12	44,53,55,57	0
32	5MC	QA	967	21/22	0.93	0.12	86,91,94,98	0
32	5MC	XA	1404	21/22	0.93	0.12	32,41,48,52	0
32	4OC	QA	1402	22/23	0.93	0.11	63,70,75,79	0
32	MA6	QA	1518	24/25	0.94	0.11	58,65,69,70	0
1	5MU	RA	1939	21/22	0.94	0.11	38,41,46,48	0
32	UR3	QA	1498	21/22	0.94	0.13	59,62,65,69	0
1	5MC	RA	1942	21/22	0.95	0.10	48,52,62,65	0
1	PSU	YA	1911	20/21	0.95	0.08	50,60,64,64	0
32	UR3	XA	1498	21/22	0.95	0.11	36,47,58,62	0
32	MA6	XA	1519	24/25	0.95	0.13	41,49,53,53	0
32	7MG	XA	527	24/25	0.95	0.12	57,64,66,70	0
32	5MC	QA	1407	21/22	0.96	0.09	47,55,67,79	0
1	5MC	RA	1962	21/22	0.96	0.09	38,42,46,50	0
1	OMG	RA	2251	24/25	0.96	0.09	33,39,42,43	0
32	5MC	XA	1400	21/22	0.96	0.10	42,52,62,66	0
1	5MU	YA	1939	21/22	0.96	0.09	15,24,29,30	0
1	5MC	YA	1942	21/22	0.96	0.09	30,37,42,43	0
1	5MC	YA	1962	21/22	0.96	0.09	32,37,43,46	0
32	MA6	XA	1518	24/25	0.96	0.11	43,49,54,56	0
1	2MA	RA	2503	23/24	0.96	0.09	25,28,37,43	0
1	2MU	RA	2552	21/23	0.96	0.09	34,37,46,47	0
1	OMG	YA	2251	24/25	0.97	0.08	22,28,32,33	0
32	5MC	XA	1407	21/22	0.97	0.07	35,42,46,47	0
1	2MA	YA	2503	23/24	0.97	0.07	14,22,27,32	0
1	2MU	YA	2552	21/23	0.97	0.08	27,31,37,38	0
1	PSU	RA	2605	20/21	0.97	0.07	23,33,39,43	0
32	MA6	QA	1519	24/25	0.97	0.10	53,60,63,63	0
1	PSU	YA	2605	20/21	0.98	0.07	16,25,28,30	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(Å ²)	Q<0.9
56	MG	XA	1678	1/1	-0.18	0.28	85,85,85,85	0
56	MG	QA	1844	1/1	-0.05	0.27	82,82,82,82	0
56	MG	QA	1827	1/1	-0.04	0.23	109,109,109,109	0
56	MG	QA	1855	1/1	0.01	0.50	85,85,85,85	0
56	MG	QA	1828	1/1	0.01	0.65	112,112,112,112	0
56	MG	XA	1670	1/1	0.02	0.32	101,101,101,101	0
56	MG	QA	1644	1/1	0.03	0.34	107,107,107,107	0
56	MG	QA	1766	1/1	0.04	0.35	94,94,94,94	0
56	MG	QA	1659	1/1	0.05	0.37	104,104,104,104	0
56	MG	RA	3441	1/1	0.07	0.39	75,75,75,75	0
56	MG	QA	1697	1/1	0.08	0.20	85,85,85,85	0
56	MG	RA	3193	1/1	0.08	0.28	97,97,97,97	0
56	MG	R9	101	1/1	0.11	0.34	94,94,94,94	0
56	MG	QA	1830	1/1	0.14	0.22	86,86,86,86	0
56	MG	YA	3056	1/1	0.15	0.23	82,82,82,82	0
56	MG	XA	1657	1/1	0.15	0.16	91,91,91,91	0
56	MG	RG	201	1/1	0.16	0.23	121,121,121,121	0
56	MG	XA	1748	1/1	0.18	0.28	88,88,88,88	0
56	MG	QA	1765	1/1	0.19	0.20	88,88,88,88	0
56	MG	RF	303	1/1	0.19	0.45	95,95,95,95	0
56	MG	RA	3911	1/1	0.20	0.25	95,95,95,95	0
56	MG	RN	202	1/1	0.21	0.18	86,86,86,86	0
56	MG	RA	3620	1/1	0.23	0.17	119,119,119,119	0
56	MG	YA	3188	1/1	0.23	0.29	88,88,88,88	0
56	MG	QA	1617	1/1	0.23	0.16	105,105,105,105	0
57	ZN	R9	102	1/1	0.24	0.48	203,203,203,203	0
56	MG	RA	3346	1/1	0.25	0.28	95,95,95,95	0
56	MG	RA	3558	1/1	0.25	0.32	68,68,68,68	0
56	MG	XA	1719	1/1	0.27	0.30	61,61,61,61	0
56	MG	YA	3626	1/1	0.27	0.49	94,94,94,94	0
56	MG	RA	3669	1/1	0.27	0.32	71,71,71,71	0
56	MG	RA	3184	1/1	0.30	0.79	94,94,94,94	0
56	MG	XA	1778	1/1	0.31	0.26	90,90,90,90	0
56	MG	RA	3552	1/1	0.31	0.19	79,79,79,79	0
56	MG	RB	208	1/1	0.32	0.18	87,87,87,87	0
56	MG	RA	3242	1/1	0.32	0.18	60,60,60,60	0
56	MG	RA	3699	1/1	0.33	0.21	72,72,72,72	0
56	MG	RD	315	1/1	0.33	0.35	69,69,69,69	0
56	MG	QA	1805	1/1	0.33	0.24	82,82,82,82	0
56	MG	RA	3535	1/1	0.33	0.45	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	QA	1610	1/1	0.33	0.21	76,76,76,76	0
56	MG	QA	1720	1/1	0.33	0.31	72,72,72,72	0
56	MG	RA	3851	1/1	0.34	0.39	74,74,74,74	0
56	MG	YB	212	1/1	0.34	0.28	73,73,73,73	0
56	MG	RA	3803	1/1	0.34	0.37	83,83,83,83	0
56	MG	RA	3034	1/1	0.35	0.26	81,81,81,81	0
56	MG	RA	3415	1/1	0.35	0.22	87,87,87,87	0
56	MG	RG	204	1/1	0.35	0.26	97,97,97,97	0
56	MG	QD	303	1/1	0.36	0.24	83,83,83,83	0
56	MG	RA	3355	1/1	0.36	0.48	88,88,88,88	0
56	MG	RA	3519	1/1	0.37	0.18	57,57,57,57	0
56	MG	QA	1791	1/1	0.37	0.17	63,63,63,63	0
56	MG	RB	221	1/1	0.37	0.18	89,89,89,89	0
56	MG	RA	3116	1/1	0.37	0.67	89,89,89,89	0
56	MG	QA	1751	1/1	0.38	0.25	99,99,99,99	0
56	MG	RA	3099	1/1	0.38	0.25	79,79,79,79	0
56	MG	RA	3073	1/1	0.38	0.35	73,73,73,73	0
56	MG	RA	3737	1/1	0.38	0.22	64,64,64,64	0
56	MG	YB	203	1/1	0.38	0.16	77,77,77,77	0
56	MG	RA	3666	1/1	0.38	0.18	93,93,93,93	0
56	MG	YB	216	1/1	0.38	0.31	85,85,85,85	0
56	MG	RA	3056	1/1	0.39	0.29	89,89,89,89	0
56	MG	RA	3619	1/1	0.39	0.19	90,90,90,90	0
56	MG	RA	3345	1/1	0.39	0.17	69,69,69,69	0
56	MG	RA	3087	1/1	0.39	0.58	59,59,59,59	0
56	MG	QA	1797	1/1	0.40	0.18	83,83,83,83	0
56	MG	QA	1711	1/1	0.40	0.41	91,91,91,91	0
56	MG	RA	3449	1/1	0.40	0.28	65,65,65,65	0
56	MG	YQ	203	1/1	0.41	0.20	62,62,62,62	0
56	MG	QA	1808	1/1	0.41	0.29	84,84,84,84	0
56	MG	YA	3455	1/1	0.41	0.54	88,88,88,88	0
56	MG	QA	1709	1/1	0.41	0.26	72,72,72,72	0
56	MG	RT	203	1/1	0.42	0.15	96,96,96,96	0
56	MG	RA	3501	1/1	0.42	0.18	78,78,78,78	0
56	MG	YA	3498	1/1	0.42	0.36	86,86,86,86	0
56	MG	RA	3633	1/1	0.43	0.81	110,110,110,110	0
56	MG	RA	3007	1/1	0.43	0.15	83,83,83,83	0
56	MG	RA	3597	1/1	0.43	0.42	68,68,68,68	0
56	MG	RA	3622	1/1	0.43	0.29	53,53,53,53	0
56	MG	RA	3717	1/1	0.43	0.23	81,81,81,81	0
56	MG	QA	1817	1/1	0.44	0.14	67,67,67,67	0
56	MG	RA	3665	1/1	0.44	0.32	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	QA	1698	1/1	0.44	0.25	73,73,73,73	0
56	MG	QE	202	1/1	0.44	0.19	77,77,77,77	0
56	MG	RA	3244	1/1	0.44	0.70	86,86,86,86	0
56	MG	QA	1715	1/1	0.45	0.15	68,68,68,68	0
56	MG	XA	1713	1/1	0.45	0.46	83,83,83,83	0
56	MG	RA	3353	1/1	0.45	0.36	56,56,56,56	0
56	MG	YA	3199	1/1	0.46	0.27	77,77,77,77	0
56	MG	RA	3916	1/1	0.46	0.42	98,98,98,98	0
56	MG	XA	1705	1/1	0.46	0.23	58,58,58,58	0
56	MG	R1	103	1/1	0.46	0.42	65,65,65,65	0
56	MG	XA	1613	1/1	0.47	0.20	81,81,81,81	0
56	MG	YA	3016	1/1	0.47	0.41	108,108,108,108	0
56	MG	RB	207	1/1	0.47	0.20	80,80,80,80	0
56	MG	YA	3566	1/1	0.47	0.35	94,94,94,94	0
56	MG	YA	3223	1/1	0.47	0.13	80,80,80,80	0
56	MG	QA	1762	1/1	0.48	0.25	92,92,92,92	0
56	MG	RA	3150	1/1	0.48	0.33	94,94,94,94	0
56	MG	XA	1636	1/1	0.48	0.18	71,71,71,71	0
56	MG	RA	3247	1/1	0.48	0.40	82,82,82,82	0
56	MG	XA	1666	1/1	0.48	0.10	95,95,95,95	0
56	MG	YA	3451	1/1	0.48	0.19	68,68,68,68	0
56	MG	RA	3804	1/1	0.48	0.19	72,72,72,72	0
56	MG	RA	3658	1/1	0.48	0.17	62,62,62,62	0
56	MG	QA	1800	1/1	0.48	0.28	75,75,75,75	0
56	MG	RA	3259	1/1	0.48	0.08	102,102,102,102	0
56	MG	RW	202	1/1	0.48	0.44	76,76,76,76	0
56	MG	QA	1695	1/1	0.48	0.20	85,85,85,85	0
56	MG	YA	3159	1/1	0.48	0.25	70,70,70,70	0
56	MG	RA	3837	1/1	0.49	0.21	59,59,59,59	0
56	MG	XA	1671	1/1	0.49	0.16	70,70,70,70	0
56	MG	RA	3596	1/1	0.49	0.20	81,81,81,81	0
56	MG	RA	3782	1/1	0.49	0.20	93,93,93,93	0
56	MG	YA	3505	1/1	0.49	0.28	53,53,53,53	0
56	MG	RA	3066	1/1	0.49	0.25	85,85,85,85	0
56	MG	RA	3101	1/1	0.49	0.26	87,87,87,87	0
56	MG	XA	1659	1/1	0.49	0.14	73,73,73,73	0
56	MG	QA	1684	1/1	0.49	0.13	90,90,90,90	0
56	MG	YA	3692	1/1	0.50	0.24	79,79,79,79	0
56	MG	RA	3808	1/1	0.50	0.21	63,63,63,63	0
56	MG	RA	3281	1/1	0.50	0.16	70,70,70,70	0
56	MG	RA	3801	1/1	0.50	0.29	66,66,66,66	0
56	MG	RA	3302	1/1	0.50	0.28	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	XA	1610	1/1	0.50	0.40	87,87,87,87	0
56	MG	RW	201	1/1	0.50	0.21	65,65,65,65	0
56	MG	QA	1646	1/1	0.50	0.13	81,81,81,81	0
56	MG	RA	3689	1/1	0.50	0.37	56,56,56,56	0
56	MG	QA	1836	1/1	0.50	0.27	46,46,46,46	0
57	ZN	Y5	103	1/1	0.50	0.18	214,214,214,214	0
56	MG	YA	3523	1/1	0.51	0.21	61,61,61,61	0
56	MG	RA	3177	1/1	0.51	0.23	77,77,77,77	0
56	MG	QT	201	1/1	0.51	0.29	64,64,64,64	0
56	MG	YA	3351	1/1	0.51	0.19	57,57,57,57	0
56	MG	XA	1746	1/1	0.51	0.28	49,49,49,49	0
56	MG	RA	3424	1/1	0.51	0.19	72,72,72,72	0
56	MG	RY	201	1/1	0.51	0.23	76,76,76,76	0
56	MG	RA	3945	1/1	0.51	0.24	62,62,62,62	0
56	MG	RA	3241	1/1	0.51	0.35	76,76,76,76	0
56	MG	RA	3593	1/1	0.52	0.28	71,71,71,71	0
56	MG	YA	3331	1/1	0.52	0.28	67,67,67,67	0
56	MG	RA	3953	1/1	0.52	0.23	67,67,67,67	0
56	MG	RA	3856	1/1	0.52	0.24	53,53,53,53	0
56	MG	RA	3340	1/1	0.52	0.15	70,70,70,70	0
56	MG	XA	1608	1/1	0.52	0.17	89,89,89,89	0
56	MG	RA	3131	1/1	0.52	0.22	72,72,72,72	0
56	MG	RA	3928	1/1	0.52	0.15	72,72,72,72	0
56	MG	YA	3172	1/1	0.52	0.11	78,78,78,78	0
56	MG	QA	1653	1/1	0.52	0.20	73,73,73,73	0
56	MG	XE	201	1/1	0.52	0.19	47,47,47,47	0
56	MG	RA	3938	1/1	0.52	0.15	42,42,42,42	0
56	MG	XA	1661	1/1	0.52	0.15	61,61,61,61	0
56	MG	XA	1689	1/1	0.53	0.28	83,83,83,83	0
56	MG	YA	3512	1/1	0.53	0.19	69,69,69,69	0
56	MG	RA	3648	1/1	0.53	0.39	100,100,100,100	0
56	MG	RA	3512	1/1	0.53	0.30	67,67,67,67	0
56	MG	RA	3731	1/1	0.53	0.23	71,71,71,71	0
56	MG	QA	1640	1/1	0.54	0.24	59,59,59,59	0
56	MG	RA	3816	1/1	0.54	0.28	106,106,106,106	0
56	MG	RA	3641	1/1	0.54	0.28	55,55,55,55	0
56	MG	QA	1730	1/1	0.54	0.21	77,77,77,77	0
56	MG	RA	3690	1/1	0.54	0.60	65,65,65,65	0
56	MG	R0	107	1/1	0.54	0.23	69,69,69,69	0
56	MG	RA	3038	1/1	0.54	0.32	77,77,77,77	0
56	MG	RB	206	1/1	0.54	0.16	95,95,95,95	0
56	MG	QA	1608	1/1	0.54	0.24	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	3757	1/1	0.54	0.59	80,80,80,80	0
56	MG	RA	3764	1/1	0.54	0.20	82,82,82,82	0
56	MG	YA	3712	1/1	0.55	0.21	49,49,49,49	0
56	MG	RA	3384	1/1	0.55	0.39	71,71,71,71	0
56	MG	RA	3273	1/1	0.55	0.23	73,73,73,73	0
56	MG	YA	3405	1/1	0.55	0.22	54,54,54,54	0
56	MG	RA	3810	1/1	0.55	0.14	81,81,81,81	0
56	MG	RA	3616	1/1	0.55	0.70	65,65,65,65	0
56	MG	YA	3096	1/1	0.55	0.17	81,81,81,81	0
56	MG	RA	3704	1/1	0.55	0.14	50,50,50,50	0
56	MG	QA	1850	1/1	0.55	0.31	98,98,98,98	0
56	MG	RA	3637	1/1	0.55	0.41	98,98,98,98	0
56	MG	RA	3289	1/1	0.55	0.85	114,114,114,114	0
56	MG	QE	201	1/1	0.55	0.15	60,60,60,60	0
56	MG	YA	3258	1/1	0.55	0.17	48,48,48,48	0
56	MG	RA	3838	1/1	0.56	0.26	76,76,76,76	0
56	MG	RB	217	1/1	0.56	0.30	88,88,88,88	0
56	MG	YA	3261	1/1	0.56	0.30	96,96,96,96	0
56	MG	RA	3258	1/1	0.56	0.26	98,98,98,98	0
56	MG	RA	3257	1/1	0.56	0.47	52,52,52,52	0
56	MG	YA	3587	1/1	0.56	0.27	56,56,56,56	0
56	MG	XA	1646	1/1	0.56	0.18	77,77,77,77	0
56	MG	RF	301	1/1	0.56	0.18	57,57,57,57	0
56	MG	QG	203	1/1	0.56	0.12	81,81,81,81	0
56	MG	YA	3454	1/1	0.56	0.40	73,73,73,73	0
56	MG	RA	3898	1/1	0.56	0.23	62,62,62,62	0
56	MG	YA	3466	1/1	0.56	0.23	69,69,69,69	0
56	MG	RA	3425	1/1	0.57	0.16	73,73,73,73	0
56	MG	QA	1656	1/1	0.57	0.29	72,72,72,72	0
56	MG	RA	3362	1/1	0.57	0.17	69,69,69,69	0
56	MG	XA	1616	1/1	0.57	0.28	83,83,83,83	0
56	MG	YA	3642	1/1	0.57	0.25	61,61,61,61	0
56	MG	RA	3448	1/1	0.57	0.37	77,77,77,77	0
56	MG	YA	3149	1/1	0.57	0.16	101,101,101,101	0
56	MG	YA	3272	1/1	0.57	0.37	45,45,45,45	0
56	MG	QA	1763	1/1	0.57	0.09	67,67,67,67	0
56	MG	XA	1664	1/1	0.57	0.13	74,74,74,74	0
56	MG	RA	3037	1/1	0.57	0.26	69,69,69,69	0
56	MG	YA	3359	1/1	0.57	0.18	72,72,72,72	0
56	MG	RA	3051	1/1	0.58	0.52	110,110,110,110	0
56	MG	QI	201	1/1	0.58	0.12	74,74,74,74	0
56	MG	RA	3317	1/1	0.58	0.34	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	3973	1/1	0.58	0.20	42,42,42,42	0
56	MG	YA	3691	1/1	0.58	0.38	60,60,60,60	0
56	MG	QA	1833	1/1	0.58	0.28	74,74,74,74	0
56	MG	RA	3149	1/1	0.58	0.34	63,63,63,63	0
56	MG	YA	3104	1/1	0.58	0.42	96,96,96,96	0
56	MG	QA	1801	1/1	0.58	0.11	63,63,63,63	0
56	MG	XA	1690	1/1	0.58	0.14	61,61,61,61	0
56	MG	XA	1704	1/1	0.58	0.41	79,79,79,79	0
56	MG	YA	3155	1/1	0.58	0.39	92,92,92,92	0
56	MG	RQ	204	1/1	0.58	0.36	76,76,76,76	0
56	MG	YA	3464	1/1	0.58	0.34	64,64,64,64	0
56	MG	YA	3162	1/1	0.58	0.35	94,94,94,94	0
56	MG	RA	3570	1/1	0.58	0.14	58,58,58,58	0
56	MG	XA	1614	1/1	0.58	0.14	60,60,60,60	0
56	MG	QA	1815	1/1	0.58	0.40	92,92,92,92	0
56	MG	RV	202	1/1	0.58	0.15	83,83,83,83	0
56	MG	QA	1826	1/1	0.58	0.15	92,92,92,92	0
56	MG	XA	1663	1/1	0.59	0.18	61,61,61,61	0
56	MG	RA	3707	1/1	0.59	0.19	55,55,55,55	0
56	MG	RA	3789	1/1	0.59	0.30	95,95,95,95	0
56	MG	QA	1806	1/1	0.59	0.14	49,49,49,49	0
56	MG	RA	3396	1/1	0.59	0.12	67,67,67,67	0
56	MG	QA	1710	1/1	0.59	0.18	92,92,92,92	0
56	MG	QQ	201	1/1	0.60	0.12	63,63,63,63	0
56	MG	YA	3196	1/1	0.60	0.11	71,71,71,71	0
56	MG	RA	3333	1/1	0.60	0.26	39,39,39,39	0
56	MG	RA	3802	1/1	0.60	0.23	81,81,81,81	0
56	MG	YA	3044	1/1	0.60	0.14	72,72,72,72	0
56	MG	QA	1673	1/1	0.60	0.39	58,58,58,58	0
56	MG	YA	3264	1/1	0.60	0.39	70,70,70,70	0
56	MG	QA	1683	1/1	0.60	0.19	60,60,60,60	0
56	MG	YA	3097	1/1	0.60	0.32	82,82,82,82	0
56	MG	RA	3926	1/1	0.60	0.33	69,69,69,69	0
56	MG	YA	3354	1/1	0.60	0.21	43,43,43,43	0
56	MG	XA	1695	1/1	0.60	0.19	52,52,52,52	0
56	MG	YA	3118	1/1	0.60	0.26	72,72,72,72	0
56	MG	QA	1822	1/1	0.60	0.14	70,70,70,70	0
56	MG	YA	3426	1/1	0.60	0.22	65,65,65,65	0
56	MG	YA	3428	1/1	0.60	0.30	100,100,100,100	0
56	MG	YA	3154	1/1	0.60	0.20	45,45,45,45	0
56	MG	RA	3232	1/1	0.60	0.44	73,73,73,73	0
56	MG	XA	1767	1/1	0.60	0.28	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	QA	1723	1/1	0.60	0.33	54,54,54,54	0
56	MG	RA	3350	1/1	0.60	0.27	66,66,66,66	0
56	MG	YA	3166	1/1	0.60	0.44	86,86,86,86	0
56	MG	QA	1746	1/1	0.60	0.25	84,84,84,84	0
56	MG	YA	3444	1/1	0.61	0.39	67,67,67,67	0
56	MG	YA	3747	1/1	0.61	0.42	71,71,71,71	0
56	MG	QA	1807	1/1	0.61	0.27	53,53,53,53	0
56	MG	YA	3066	1/1	0.61	0.19	52,52,52,52	0
56	MG	RA	3454	1/1	0.61	0.22	41,41,41,41	0
56	MG	YA	3241	1/1	0.61	0.61	81,81,81,81	0
56	MG	XA	1694	1/1	0.61	0.41	79,79,79,79	0
56	MG	RA	3668	1/1	0.61	0.19	76,76,76,76	0
56	MG	RA	3839	1/1	0.61	0.20	74,74,74,74	0
56	MG	RA	3719	1/1	0.61	0.23	75,75,75,75	0
56	MG	RA	3961	1/1	0.61	0.23	82,82,82,82	0
56	MG	RA	3372	1/1	0.61	0.33	50,50,50,50	0
56	MG	XA	1723	1/1	0.61	0.16	64,64,64,64	0
56	MG	RA	3510	1/1	0.61	0.16	42,42,42,42	0
56	MG	RA	3561	1/1	0.61	0.20	59,59,59,59	0
56	MG	QR	101	1/1	0.61	0.21	67,67,67,67	0
56	MG	RA	3316	1/1	0.61	0.24	66,66,66,66	0
56	MG	XA	1785	1/1	0.61	0.23	73,73,73,73	0
56	MG	YA	3683	1/1	0.61	0.19	60,60,60,60	0
56	MG	RA	3147	1/1	0.61	0.18	45,45,45,45	0
56	MG	QA	1842	1/1	0.61	0.22	67,67,67,67	0
56	MG	QA	1755	1/1	0.62	0.56	100,100,100,100	0
56	MG	RA	3010	1/1	0.62	0.13	62,62,62,62	0
56	MG	RA	3788	1/1	0.62	0.25	75,75,75,75	0
56	MG	RA	3305	1/1	0.62	0.24	69,69,69,69	0
56	MG	RA	3549	1/1	0.62	0.23	50,50,50,50	0
56	MG	YE	303	1/1	0.62	0.19	59,59,59,59	0
56	MG	QA	1773	1/1	0.62	0.16	100,100,100,100	0
56	MG	RA	3251	1/1	0.62	0.41	83,83,83,83	0
56	MG	RA	3557	1/1	0.62	0.17	61,61,61,61	0
56	MG	RA	3948	1/1	0.62	0.25	58,58,58,58	0
56	MG	YA	3570	1/1	0.62	0.33	82,82,82,82	0
56	MG	XA	1615	1/1	0.62	0.15	61,61,61,61	0
56	MG	RA	3447	1/1	0.62	0.30	44,44,44,44	0
56	MG	RA	3874	1/1	0.62	0.23	85,85,85,85	0
56	MG	XA	1638	1/1	0.62	0.13	76,76,76,76	0
56	MG	XA	1759	1/1	0.62	0.23	63,63,63,63	0
56	MG	YA	3185	1/1	0.62	0.13	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	YA	3663	1/1	0.62	0.20	44,44,44,44	0
56	MG	YA	3048	1/1	0.62	0.17	69,69,69,69	0
56	MG	RA	3256	1/1	0.62	0.31	93,93,93,93	0
56	MG	RA	3980	1/1	0.62	0.36	95,95,95,95	0
56	MG	YA	3702	1/1	0.62	0.33	54,54,54,54	0
56	MG	XA	1624	1/1	0.63	0.23	84,84,84,84	0
56	MG	YA	3144	1/1	0.63	0.26	76,76,76,76	0
56	MG	YA	3717	1/1	0.63	0.43	62,62,62,62	0
56	MG	YA	3517	1/1	0.63	0.44	78,78,78,78	0
56	MG	XA	1651	1/1	0.63	0.24	83,83,83,83	0
56	MG	YA	3018	1/1	0.63	0.44	67,67,67,67	0
56	MG	RA	3202	1/1	0.63	0.26	73,73,73,73	0
56	MG	QA	1784	1/1	0.63	0.22	62,62,62,62	0
56	MG	YA	3252	1/1	0.63	0.45	88,88,88,88	0
56	MG	QA	1675	1/1	0.63	0.21	66,66,66,66	0
56	MG	RA	3894	1/1	0.63	0.31	52,52,52,52	0
56	MG	XA	1769	1/1	0.63	0.30	66,66,66,66	0
56	MG	RA	3063	1/1	0.63	0.16	57,57,57,57	0
56	MG	RA	3194	1/1	0.63	0.31	83,83,83,83	0
56	MG	YA	3182	1/1	0.63	0.17	35,35,35,35	0
57	ZN	R5	101	1/1	0.63	0.14	214,214,214,214	0
56	MG	RA	3543	1/1	0.63	0.20	50,50,50,50	0
56	MG	RP	201	1/1	0.63	0.21	58,58,58,58	0
56	MG	RA	3113	1/1	0.64	0.35	73,73,73,73	0
56	MG	YA	3181	1/1	0.64	0.23	53,53,53,53	0
56	MG	XA	1710	1/1	0.64	0.29	56,56,56,56	0
56	MG	QA	1609	1/1	0.64	0.24	64,64,64,64	0
56	MG	QA	1846	1/1	0.64	0.29	84,84,84,84	0
56	MG	YA	3123	1/1	0.64	0.18	66,66,66,66	0
56	MG	RA	3784	1/1	0.64	0.39	84,84,84,84	0
56	MG	YA	3369	1/1	0.64	0.22	63,63,63,63	0
56	MG	YA	3382	1/1	0.64	0.26	69,69,69,69	0
56	MG	QA	1756	1/1	0.64	0.36	69,69,69,69	0
56	MG	RA	3744	1/1	0.64	0.29	62,62,62,62	0
56	MG	YA	3236	1/1	0.64	0.32	72,72,72,72	0
56	MG	RA	3057	1/1	0.64	0.50	81,81,81,81	0
56	MG	YA	3245	1/1	0.64	0.20	94,94,94,94	0
56	MG	RA	3708	1/1	0.64	0.23	43,43,43,43	0
56	MG	RA	4029	1/1	0.64	0.50	69,69,69,69	0
56	MG	RB	204	1/1	0.64	0.13	69,69,69,69	0
56	MG	QA	1612	1/1	0.65	0.21	103,103,103,103	0
56	MG	QA	1809	1/1	0.65	0.19	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	3508	1/1	0.65	0.19	58,58,58,58	0
56	MG	YA	3414	1/1	0.65	0.19	56,56,56,56	0
56	MG	RB	218	1/1	0.65	0.16	86,86,86,86	0
56	MG	RA	3875	1/1	0.65	0.55	85,85,85,85	0
56	MG	RA	3300	1/1	0.65	0.21	93,93,93,93	0
56	MG	RA	3137	1/1	0.65	0.24	66,66,66,66	0
56	MG	XA	1722	1/1	0.65	0.19	76,76,76,76	0
56	MG	RA	3821	1/1	0.65	0.41	90,90,90,90	0
56	MG	RA	3176	1/1	0.65	0.45	87,87,87,87	0
56	MG	YA	3710	1/1	0.65	0.20	65,65,65,65	0
56	MG	RA	3520	1/1	0.65	0.17	49,49,49,49	0
56	MG	RA	3118	1/1	0.65	0.18	62,62,62,62	0
56	MG	YA	3482	1/1	0.65	0.31	82,82,82,82	0
56	MG	QA	1802	1/1	0.65	0.21	40,40,40,40	0
56	MG	RA	3100	1/1	0.65	0.46	89,89,89,89	0
56	MG	YA	3055	1/1	0.65	0.25	77,77,77,77	0
56	MG	RA	3780	1/1	0.65	0.11	60,60,60,60	0
56	MG	YA	3521	1/1	0.65	0.23	48,48,48,48	0
56	MG	QA	1611	1/1	0.65	0.13	80,80,80,80	0
56	MG	YA	3720	1/1	0.66	0.48	78,78,78,78	0
56	MG	YA	3285	1/1	0.66	0.39	68,68,68,68	0
56	MG	YA	3484	1/1	0.66	0.28	63,63,63,63	0
56	MG	YA	3306	1/1	0.66	0.19	53,53,53,53	0
56	MG	RA	3621	1/1	0.66	0.35	65,65,65,65	0
56	MG	RA	3141	1/1	0.66	0.30	85,85,85,85	0
56	MG	RA	3756	1/1	0.66	0.23	66,66,66,66	0
56	MG	RA	3338	1/1	0.66	0.15	56,56,56,56	0
56	MG	RA	3077	1/1	0.66	0.28	57,57,57,57	0
56	MG	YA	3549	1/1	0.66	0.28	51,51,51,51	0
56	MG	RA	3295	1/1	0.66	0.48	75,75,75,75	0
56	MG	RA	3642	1/1	0.66	0.37	86,86,86,86	0
56	MG	RA	3726	1/1	0.66	0.15	50,50,50,50	0
56	MG	XA	1622	1/1	0.66	0.21	68,68,68,68	0
56	MG	QA	1823	1/1	0.66	0.22	69,69,69,69	0
56	MG	RA	3064	1/1	0.66	0.44	79,79,79,79	0
56	MG	YA	3432	1/1	0.66	0.18	59,59,59,59	0
56	MG	YA	3667	1/1	0.66	0.28	60,60,60,60	0
56	MG	RA	3976	1/1	0.66	0.16	67,67,67,67	0
56	MG	RA	3822	1/1	0.66	0.38	69,69,69,69	0
56	MG	YA	3452	1/1	0.66	0.15	45,45,45,45	0
56	MG	RA	4018	1/1	0.66	0.45	110,110,110,110	0
56	MG	QA	1670	1/1	0.66	0.19	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	QA	1835	1/1	0.66	0.26	50,50,50,50	0
56	MG	QA	1603	1/1	0.66	0.22	62,62,62,62	0
56	MG	YA	3249	1/1	0.67	0.44	75,75,75,75	0
56	MG	RA	3538	1/1	0.67	0.16	72,72,72,72	0
56	MG	RA	3539	1/1	0.67	0.25	76,76,76,76	0
56	MG	RA	3812	1/1	0.67	0.28	85,85,85,85	0
56	MG	RA	3514	1/1	0.67	0.48	79,79,79,79	0
56	MG	RA	3583	1/1	0.67	0.37	82,82,82,82	0
56	MG	YA	3284	1/1	0.67	0.36	72,72,72,72	0
56	MG	QG	202	1/1	0.67	0.18	76,76,76,76	0
56	MG	RA	3307	1/1	0.67	0.24	57,57,57,57	0
56	MG	RA	3906	1/1	0.67	0.26	49,49,49,49	0
56	MG	YA	3160	1/1	0.67	0.23	67,67,67,67	0
56	MG	R7	103	1/1	0.67	0.21	66,66,66,66	0
56	MG	RA	3275	1/1	0.67	0.21	90,90,90,90	0
56	MG	RA	3996	1/1	0.67	0.20	68,68,68,68	0
56	MG	RF	309	1/1	0.67	0.34	69,69,69,69	0
56	MG	RA	3998	1/1	0.67	0.52	80,80,80,80	0
56	MG	RA	3636	1/1	0.67	0.14	61,61,61,61	0
56	MG	XA	1632	1/1	0.67	0.27	71,71,71,71	0
56	MG	YA	3647	1/1	0.67	0.17	64,64,64,64	0
56	MG	RA	4021	1/1	0.67	0.17	79,79,79,79	0
56	MG	QA	1707	1/1	0.67	0.30	60,60,60,60	0
56	MG	RA	3439	1/1	0.67	0.19	69,69,69,69	0
56	MG	RA	3847	1/1	0.67	0.26	71,71,71,71	0
56	MG	XA	1658	1/1	0.67	0.25	71,71,71,71	0
56	MG	QA	1622	1/1	0.67	0.11	61,61,61,61	0
56	MG	QA	1712	1/1	0.67	0.21	60,60,60,60	0
56	MG	YA	3100	1/1	0.67	0.43	105,105,105,105	0
56	MG	QA	1686	1/1	0.68	0.19	54,54,54,54	0
56	MG	QA	1691	1/1	0.68	0.18	52,52,52,52	0
56	MG	RD	314	1/1	0.68	0.22	64,64,64,64	0
56	MG	YA	3688	1/1	0.68	0.31	84,84,84,84	0
56	MG	QG	201	1/1	0.68	0.36	96,96,96,96	0
56	MG	RA	3402	1/1	0.68	0.18	76,76,76,76	0
56	MG	RA	3414	1/1	0.68	0.21	74,74,74,74	0
56	MG	RA	3126	1/1	0.68	0.18	47,47,47,47	0
56	MG	RA	3553	1/1	0.68	0.15	54,54,54,54	0
56	MG	XA	1680	1/1	0.68	0.17	46,46,46,46	0
56	MG	XA	1684	1/1	0.68	0.25	102,102,102,102	0
56	MG	RA	3319	1/1	0.68	0.14	48,48,48,48	0
56	MG	RA	3041	1/1	0.68	0.18	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3860	1/1	0.68	0.30	74,74,74,74	0
56	MG	RA	3559	1/1	0.68	0.47	79,79,79,79	0
56	MG	RA	3274	1/1	0.68	0.35	77,77,77,77	0
56	MG	QA	1721	1/1	0.68	0.26	70,70,70,70	0
56	MG	XA	1706	1/1	0.68	0.16	64,64,64,64	0
56	MG	RA	3189	1/1	0.68	0.45	94,94,94,94	0
56	MG	QA	1651	1/1	0.68	0.16	58,58,58,58	0
56	MG	RA	3444	1/1	0.68	0.34	58,58,58,58	0
56	MG	RA	3031	1/1	0.68	0.16	58,58,58,58	0
56	MG	RA	3537	1/1	0.68	0.29	66,66,66,66	0
56	MG	QA	1667	1/1	0.68	0.19	95,95,95,95	0
56	MG	RA	3392	1/1	0.68	0.11	56,56,56,56	0
56	MG	RA	3609	1/1	0.68	0.30	85,85,85,85	0
56	MG	RA	3060	1/1	0.68	0.09	68,68,68,68	0
56	MG	YA	3130	1/1	0.68	0.25	62,62,62,62	0
56	MG	YA	3320	1/1	0.68	0.20	60,60,60,60	0
56	MG	QA	1682	1/1	0.68	0.13	59,59,59,59	0
56	MG	RA	3823	1/1	0.68	0.15	62,62,62,62	0
56	MG	XY	401	1/1	0.68	0.54	116,116,116,116	0
56	MG	QA	1781	1/1	0.68	0.29	76,76,76,76	0
56	MG	YA	3646	1/1	0.68	0.25	37,37,37,37	0
56	MG	RA	3835	1/1	0.68	0.27	78,78,78,78	0
56	MG	QA	1638	1/1	0.69	0.17	48,48,48,48	0
56	MG	YA	3656	1/1	0.69	0.19	81,81,81,81	0
56	MG	RA	3722	1/1	0.69	0.11	74,74,74,74	0
56	MG	QF	201	1/1	0.69	0.12	80,80,80,80	0
56	MG	RA	3585	1/1	0.69	0.23	73,73,73,73	0
56	MG	RA	3467	1/1	0.69	0.23	46,46,46,46	0
56	MG	RA	3883	1/1	0.69	0.31	65,65,65,65	0
56	MG	XA	1675	1/1	0.69	0.42	99,99,99,99	0
56	MG	RB	213	1/1	0.69	0.11	49,49,49,49	0
56	MG	QA	1655	1/1	0.69	0.20	48,48,48,48	0
56	MG	YA	3438	1/1	0.69	0.23	53,53,53,53	0
56	MG	RA	3736	1/1	0.69	0.23	68,68,68,68	0
56	MG	RA	3974	1/1	0.69	0.27	60,60,60,60	0
56	MG	QA	1664	1/1	0.69	0.38	105,105,105,105	0
56	MG	YA	3205	1/1	0.69	0.29	59,59,59,59	0
56	MG	QA	1819	1/1	0.69	0.17	38,38,38,38	0
56	MG	YA	3228	1/1	0.69	0.14	61,61,61,61	0
56	MG	QA	1736	1/1	0.69	0.18	82,82,82,82	0
56	MG	RA	3130	1/1	0.69	0.14	61,61,61,61	0
56	MG	R1	105	1/1	0.69	0.36	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	3240	1/1	0.69	0.16	75,75,75,75	0
56	MG	RA	3994	1/1	0.69	0.15	51,51,51,51	0
56	MG	RA	3534	1/1	0.69	0.21	39,39,39,39	0
56	MG	YA	3513	1/1	0.69	0.14	43,43,43,43	0
56	MG	RA	3291	1/1	0.69	0.16	73,73,73,73	0
56	MG	RF	306	1/1	0.69	0.32	76,76,76,76	0
56	MG	RA	3761	1/1	0.69	0.32	56,56,56,56	0
56	MG	YA	3539	1/1	0.69	0.28	63,63,63,63	0
56	MG	QA	1687	1/1	0.69	0.17	55,55,55,55	0
56	MG	XA	1782	1/1	0.69	0.25	51,51,51,51	0
56	MG	QA	1777	1/1	0.69	0.11	62,62,62,62	0
56	MG	RA	3280	1/1	0.69	0.24	69,69,69,69	0
56	MG	RA	4024	1/1	0.69	0.51	84,84,84,84	0
56	MG	RA	3677	1/1	0.69	0.82	91,91,91,91	0
56	MG	QA	1860	1/1	0.69	0.27	64,64,64,64	0
56	MG	RA	4030	1/1	0.69	0.23	60,60,60,60	0
56	MG	RA	3215	1/1	0.70	0.29	103,103,103,103	0
56	MG	YA	3546	1/1	0.70	0.16	34,34,34,34	0
56	MG	QA	1774	1/1	0.70	0.09	66,66,66,66	0
56	MG	RA	3357	1/1	0.70	0.32	54,54,54,54	0
56	MG	RA	3697	1/1	0.70	0.31	64,64,64,64	0
56	MG	YA	3298	1/1	0.70	0.24	61,61,61,61	0
56	MG	QA	1625	1/1	0.70	0.23	72,72,72,72	0
56	MG	YA	3142	1/1	0.70	0.15	66,66,66,66	0
56	MG	RA	3781	1/1	0.70	0.40	80,80,80,80	0
56	MG	RA	3255	1/1	0.70	0.33	70,70,70,70	0
56	MG	RA	3223	1/1	0.70	0.26	98,98,98,98	0
56	MG	XA	1669	1/1	0.70	0.10	65,65,65,65	0
56	MG	RA	3186	1/1	0.70	0.13	60,60,60,60	0
56	MG	RA	3156	1/1	0.70	0.25	72,72,72,72	0
56	MG	RA	3712	1/1	0.70	0.16	59,59,59,59	0
56	MG	RA	3296	1/1	0.70	0.24	61,61,61,61	0
56	MG	YA	3408	1/1	0.70	0.27	45,45,45,45	0
56	MG	RA	3718	1/1	0.70	0.30	57,57,57,57	0
56	MG	RA	3192	1/1	0.70	0.40	108,108,108,108	0
56	MG	YA	3709	1/1	0.70	0.51	101,101,101,101	0
56	MG	RA	3464	1/1	0.70	0.22	72,72,72,72	0
56	MG	QA	1812	1/1	0.70	0.11	73,73,73,73	0
56	MG	QA	1733	1/1	0.70	0.20	61,61,61,61	0
56	MG	RA	3133	1/1	0.70	0.17	48,48,48,48	0
56	MG	YA	3725	1/1	0.70	0.21	57,57,57,57	0
56	MG	YA	3727	1/1	0.70	0.45	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	YA	3735	1/1	0.70	0.20	44,44,44,44	0
56	MG	XA	1714	1/1	0.70	0.21	91,91,91,91	0
56	MG	RA	3544	1/1	0.70	0.20	60,60,60,60	0
56	MG	RA	3732	1/1	0.70	0.19	54,54,54,54	0
56	MG	YA	3032	1/1	0.70	0.28	70,70,70,70	0
56	MG	XA	1743	1/1	0.70	0.14	50,50,50,50	0
56	MG	YA	3216	1/1	0.70	0.28	81,81,81,81	0
56	MG	YA	3218	1/1	0.70	0.25	49,49,49,49	0
56	MG	YE	306	1/1	0.70	0.19	68,68,68,68	0
56	MG	RA	3121	1/1	0.70	0.23	57,57,57,57	0
56	MG	RA	3423	1/1	0.70	0.20	59,59,59,59	0
56	MG	YA	3234	1/1	0.70	0.30	69,69,69,69	0
56	MG	XA	1779	1/1	0.70	0.31	77,77,77,77	0
56	MG	RA	3738	1/1	0.70	0.20	57,57,57,57	0
56	MG	RA	3670	1/1	0.70	0.16	42,42,42,42	0
56	MG	RA	3067	1/1	0.70	0.41	98,98,98,98	0
56	MG	YA	3068	1/1	0.70	0.42	82,82,82,82	0
56	MG	YA	3082	1/1	0.70	0.15	70,70,70,70	0
56	MG	RA	3683	1/1	0.70	0.14	47,47,47,47	0
56	MG	QA	1769	1/1	0.70	0.11	63,63,63,63	0
56	MG	YA	3520	1/1	0.71	0.09	39,39,39,39	0
56	MG	QA	1771	1/1	0.71	0.15	79,79,79,79	0
56	MG	RA	3694	1/1	0.71	0.23	41,41,41,41	0
56	MG	QA	1816	1/1	0.71	0.16	49,49,49,49	0
56	MG	RA	3765	1/1	0.71	0.10	42,42,42,42	0
56	MG	RA	3646	1/1	0.71	0.18	64,64,64,64	0
56	MG	QA	1778	1/1	0.71	0.24	59,59,59,59	0
56	MG	RA	3957	1/1	0.71	0.32	77,77,77,77	0
56	MG	YA	3275	1/1	0.71	0.26	34,34,34,34	0
56	MG	RA	3279	1/1	0.71	0.19	86,86,86,86	0
56	MG	QA	1693	1/1	0.71	0.24	65,65,65,65	0
56	MG	RA	3132	1/1	0.71	0.18	49,49,49,49	0
56	MG	YA	3456	1/1	0.71	0.49	88,88,88,88	0
56	MG	RA	3104	1/1	0.71	0.24	83,83,83,83	0
56	MG	RX	101	1/1	0.71	0.27	65,65,65,65	0
56	MG	RA	3195	1/1	0.71	0.11	71,71,71,71	0
56	MG	YA	3672	1/1	0.71	0.21	40,40,40,40	0
56	MG	RA	3443	1/1	0.71	0.23	86,86,86,86	0
56	MG	RA	3793	1/1	0.71	0.54	73,73,73,73	0
56	MG	XV	101	1/1	0.71	0.21	73,73,73,73	0
56	MG	QA	1634	1/1	0.71	0.14	66,66,66,66	0
56	MG	QA	1635	1/1	0.71	0.10	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3240	1/1	0.71	0.45	94,94,94,94	0
56	MG	RA	3797	1/1	0.71	0.18	66,66,66,66	0
56	MG	YA	3540	1/1	0.72	0.25	38,38,38,38	0
56	MG	RA	3618	1/1	0.72	0.60	70,70,70,70	0
56	MG	QA	1742	1/1	0.72	0.23	53,53,53,53	0
56	MG	RA	3532	1/1	0.72	0.23	64,64,64,64	0
56	MG	YA	3174	1/1	0.72	0.26	69,69,69,69	0
56	MG	QA	1750	1/1	0.72	0.23	68,68,68,68	0
56	MG	YA	3620	1/1	0.72	0.18	46,46,46,46	0
56	MG	RA	3676	1/1	0.72	0.43	98,98,98,98	0
56	MG	YA	3635	1/1	0.72	0.19	66,66,66,66	0
56	MG	RA	3468	1/1	0.72	0.15	64,64,64,64	0
56	MG	YA	3386	1/1	0.72	0.32	80,80,80,80	0
56	MG	RA	3859	1/1	0.72	0.24	75,75,75,75	0
56	MG	RA	3472	1/1	0.72	0.30	40,40,40,40	0
56	MG	RA	3861	1/1	0.72	0.46	91,91,91,91	0
56	MG	YA	3422	1/1	0.72	0.17	34,34,34,34	0
56	MG	YA	3423	1/1	0.72	0.40	77,77,77,77	0
56	MG	YA	3424	1/1	0.72	0.20	43,43,43,43	0
56	MG	RA	3494	1/1	0.72	0.25	69,69,69,69	0
56	MG	YA	3210	1/1	0.72	0.13	66,66,66,66	0
56	MG	XA	1686	1/1	0.72	0.18	69,69,69,69	0
56	MG	YA	3212	1/1	0.72	0.16	62,62,62,62	0
56	MG	YA	3437	1/1	0.72	0.21	55,55,55,55	0
56	MG	YA	3706	1/1	0.72	0.31	64,64,64,64	0
56	MG	RA	3562	1/1	0.72	0.33	64,64,64,64	0
56	MG	XA	1699	1/1	0.72	0.21	64,64,64,64	0
56	MG	YA	3440	1/1	0.72	0.23	76,76,76,76	0
56	MG	RA	3567	1/1	0.72	0.22	56,56,56,56	0
56	MG	RA	3748	1/1	0.72	0.17	65,65,65,65	0
56	MG	RO	201	1/1	0.72	0.28	71,71,71,71	0
56	MG	RA	3174	1/1	0.72	0.35	101,101,101,101	0
56	MG	RA	3580	1/1	0.72	0.47	97,97,97,97	0
56	MG	YA	3731	1/1	0.72	0.20	43,43,43,43	0
56	MG	XA	1720	1/1	0.72	0.17	63,63,63,63	0
56	MG	QA	1840	1/1	0.72	0.24	69,69,69,69	0
56	MG	RA	3143	1/1	0.72	0.16	49,49,49,49	0
56	MG	XA	1739	1/1	0.72	0.27	43,43,43,43	0
56	MG	RA	3304	1/1	0.72	0.23	73,73,73,73	0
56	MG	YA	3480	1/1	0.72	0.23	39,39,39,39	0
56	MG	YA	3115	1/1	0.72	0.28	77,77,77,77	0
56	MG	YD	309	1/1	0.72	0.20	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	3218	1/1	0.72	0.27	81,81,81,81	0
56	MG	RA	3545	1/1	0.72	0.40	84,84,84,84	0
56	MG	YA	3500	1/1	0.72	0.44	83,83,83,83	0
56	MG	XA	1601	1/1	0.72	0.46	68,68,68,68	0
56	MG	RA	3932	1/1	0.72	0.09	55,55,55,55	0
56	MG	QA	1799	1/1	0.72	0.19	77,77,77,77	0
56	MG	QA	1654	1/1	0.72	0.15	87,87,87,87	0
56	MG	RA	3400	1/1	0.72	0.20	34,34,34,34	0
56	MG	RB	212	1/1	0.72	0.13	52,52,52,52	0
56	MG	RA	3197	1/1	0.72	0.17	51,51,51,51	0
56	MG	RA	3271	1/1	0.72	0.23	76,76,76,76	0
56	MG	QA	1666	1/1	0.72	0.15	72,72,72,72	0
56	MG	XA	1649	1/1	0.73	0.24	88,88,88,88	0
56	MG	RA	3243	1/1	0.73	0.37	79,79,79,79	0
56	MG	RA	3806	1/1	0.73	0.11	69,69,69,69	0
56	MG	YA	3156	1/1	0.73	0.23	49,49,49,49	0
56	MG	RA	3148	1/1	0.73	0.11	70,70,70,70	0
56	MG	RA	3230	1/1	0.73	0.19	50,50,50,50	0
56	MG	QA	1785	1/1	0.73	0.19	46,46,46,46	0
56	MG	YA	3164	1/1	0.73	0.29	65,65,65,65	0
56	MG	RA	3674	1/1	0.73	0.34	71,71,71,71	0
56	MG	RA	3516	1/1	0.73	0.62	58,58,58,58	0
56	MG	RA	3818	1/1	0.73	0.26	60,60,60,60	0
56	MG	RA	3163	1/1	0.73	0.47	100,100,100,100	0
56	MG	RA	3299	1/1	0.73	0.35	80,80,80,80	0
56	MG	XA	1677	1/1	0.73	0.20	78,78,78,78	0
56	MG	RA	3526	1/1	0.73	0.14	42,42,42,42	0
56	MG	QJ	201	1/1	0.73	0.25	69,69,69,69	0
56	MG	RA	3339	1/1	0.73	0.26	59,59,59,59	0
56	MG	RA	3970	1/1	0.73	0.39	83,83,83,83	0
56	MG	QA	1716	1/1	0.73	0.34	45,45,45,45	0
56	MG	QV	103	1/1	0.73	0.15	68,68,68,68	0
56	MG	RA	3239	1/1	0.73	0.09	73,73,73,73	0
56	MG	RA	3276	1/1	0.73	0.27	84,84,84,84	0
56	MG	RA	3575	1/1	0.73	0.12	71,71,71,71	0
56	MG	YA	3222	1/1	0.73	0.14	39,39,39,39	0
56	MG	QA	1652	1/1	0.73	0.12	68,68,68,68	0
56	MG	RA	3771	1/1	0.73	0.18	34,34,34,34	0
56	MG	YA	3231	1/1	0.73	0.24	69,69,69,69	0
56	MG	RA	3986	1/1	0.73	0.32	73,73,73,73	0
56	MG	YA	3473	1/1	0.73	0.41	68,68,68,68	0
56	MG	RA	3207	1/1	0.73	0.47	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	RA	3706	1/1	0.73	0.27	57,57,57,57	0
56	MG	YB	214	1/1	0.73	0.21	71,71,71,71	0
56	MG	RA	3644	1/1	0.73	0.19	46,46,46,46	0
56	MG	YA	3487	1/1	0.73	0.22	59,59,59,59	0
56	MG	RA	4003	1/1	0.73	0.34	38,38,38,38	0
56	MG	QA	1665	1/1	0.73	0.21	87,87,87,87	0
56	MG	RA	4004	1/1	0.73	0.22	62,62,62,62	0
56	MG	YA	3509	1/1	0.73	0.49	66,66,66,66	0
56	MG	RA	3349	1/1	0.73	0.19	74,74,74,74	0
56	MG	RA	3094	1/1	0.73	0.23	55,55,55,55	0
56	MG	YA	3110	1/1	0.73	0.35	63,63,63,63	0
56	MG	RA	3714	1/1	0.73	0.19	56,56,56,56	0
56	MG	XA	1781	1/1	0.73	0.27	53,53,53,53	0
56	MG	RA	3657	1/1	0.73	0.34	84,84,84,84	0
56	MG	RA	3352	1/1	0.73	0.17	42,42,42,42	0
56	MG	QA	1841	1/1	0.73	0.12	49,49,49,49	0
56	MG	RA	3083	1/1	0.73	0.41	81,81,81,81	0
56	MG	YA	3302	1/1	0.73	0.18	48,48,48,48	0
56	MG	RA	3315	1/1	0.73	0.23	45,45,45,45	0
56	MG	RA	3667	1/1	0.73	0.33	73,73,73,73	0
56	MG	YA	3151	1/1	0.73	0.42	86,86,86,86	0
56	MG	RA	3829	1/1	0.74	0.73	79,79,79,79	0
56	MG	YA	3326	1/1	0.74	0.27	68,68,68,68	0
56	MG	YA	3191	1/1	0.74	0.21	88,88,88,88	0
56	MG	XA	1672	1/1	0.74	0.25	63,63,63,63	0
56	MG	R0	105	1/1	0.74	0.13	52,52,52,52	0
56	MG	RA	3187	1/1	0.74	0.13	54,54,54,54	0
56	MG	YA	3203	1/1	0.74	0.21	53,53,53,53	0
56	MG	RA	3632	1/1	0.74	0.22	63,63,63,63	0
56	MG	XA	1683	1/1	0.74	0.22	68,68,68,68	0
56	MG	YA	3109	1/1	0.74	0.22	76,76,76,76	0
56	MG	RA	3206	1/1	0.74	0.17	63,63,63,63	0
56	MG	YA	3214	1/1	0.74	0.28	68,68,68,68	0
56	MG	RA	3711	1/1	0.74	0.20	63,63,63,63	0
56	MG	XA	1693	1/1	0.74	0.24	63,63,63,63	0
56	MG	RA	3090	1/1	0.74	0.18	90,90,90,90	0
56	MG	RA	3848	1/1	0.74	0.36	64,64,64,64	0
56	MG	RA	3517	1/1	0.74	0.16	54,54,54,54	0
56	MG	RG	202	1/1	0.74	0.15	98,98,98,98	0
56	MG	YI	201	1/1	0.74	0.20	108,108,108,108	0
56	MG	RA	3462	1/1	0.74	0.42	55,55,55,55	0
56	MG	RA	3175	1/1	0.74	0.39	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	1780	1/1	0.74	0.13	69,69,69,69	0
56	MG	RA	3363	1/1	0.74	0.12	41,41,41,41	0
56	MG	QA	1669	1/1	0.74	0.18	87,87,87,87	0
56	MG	QA	1614	1/1	0.74	0.28	69,69,69,69	0
56	MG	RA	3039	1/1	0.74	0.30	64,64,64,64	0
56	MG	YA	3033	1/1	0.74	0.23	36,36,36,36	0
56	MG	XA	1621	1/1	0.74	0.27	80,80,80,80	0
56	MG	RA	3152	1/1	0.74	0.13	67,67,67,67	0
56	MG	XA	1745	1/1	0.74	0.22	60,60,60,60	0
56	MG	RA	3047	1/1	0.74	0.19	63,63,63,63	0
56	MG	XA	1625	1/1	0.74	0.38	69,69,69,69	0
56	MG	YA	3052	1/1	0.74	0.14	58,58,58,58	0
56	MG	YA	3668	1/1	0.74	0.22	65,65,65,65	0
56	MG	RA	3395	1/1	0.74	0.17	42,42,42,42	0
56	MG	XA	1775	1/1	0.74	0.33	42,42,42,42	0
56	MG	RA	3887	1/1	0.74	0.22	54,54,54,54	0
56	MG	YA	3175	1/1	0.74	0.27	51,51,51,51	0
56	MG	YA	3467	1/1	0.74	0.22	38,38,38,38	0
56	MG	RA	3049	1/1	0.74	0.48	81,81,81,81	0
56	MG	YA	3697	1/1	0.74	0.26	63,63,63,63	0
56	MG	YA	3293	1/1	0.74	0.33	66,66,66,66	0
56	MG	XA	1660	1/1	0.74	0.13	83,83,83,83	0
56	MG	RA	3253	1/1	0.74	0.11	42,42,42,42	0
57	ZN	RY	202	1/1	0.74	0.22	187,187,187,187	0
56	MG	YA	3708	1/1	0.74	0.34	76,76,76,76	0
56	MG	YA	3183	1/1	0.74	0.50	108,108,108,108	0
56	MG	QA	1753	1/1	0.74	0.23	73,73,73,73	0
57	ZN	Y6	101	1/1	0.74	0.31	193,193,193,193	0
56	MG	QA	1641	1/1	0.75	0.15	63,63,63,63	0
56	MG	YA	3676	1/1	0.75	0.16	68,68,68,68	0
56	MG	QA	1754	1/1	0.75	0.27	56,56,56,56	0
56	MG	QA	1688	1/1	0.75	0.27	61,61,61,61	0
56	MG	YA	3146	1/1	0.75	0.19	58,58,58,58	0
56	MG	RA	3524	1/1	0.75	0.19	85,85,85,85	0
56	MG	QA	1814	1/1	0.75	0.19	55,55,55,55	0
56	MG	R1	101	1/1	0.75	0.39	101,101,101,101	0
56	MG	YA	3458	1/1	0.75	0.23	68,68,68,68	0
56	MG	QA	1649	1/1	0.75	0.13	68,68,68,68	0
56	MG	RA	3249	1/1	0.75	0.43	70,70,70,70	0
56	MG	RA	3563	1/1	0.75	0.24	69,69,69,69	0
56	MG	QA	1768	1/1	0.75	0.20	57,57,57,57	0
56	MG	RA	3955	1/1	0.75	0.19	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	QA	1825	1/1	0.75	0.18	54,54,54,54	0
56	MG	RA	4026	1/1	0.75	0.57	104,104,104,104	0
56	MG	YA	3290	1/1	0.75	0.39	34,34,34,34	0
56	MG	YA	3494	1/1	0.75	0.23	62,62,62,62	0
56	MG	YA	3733	1/1	0.75	0.25	50,50,50,50	0
56	MG	RA	3030	1/1	0.75	0.35	52,52,52,52	0
56	MG	RA	3451	1/1	0.75	0.15	46,46,46,46	0
56	MG	YA	3748	1/1	0.75	0.21	68,68,68,68	0
56	MG	QA	1776	1/1	0.75	0.20	62,62,62,62	0
56	MG	RA	3967	1/1	0.75	0.33	81,81,81,81	0
56	MG	YA	3313	1/1	0.75	0.12	50,50,50,50	0
56	MG	YA	3314	1/1	0.75	0.28	34,34,34,34	0
56	MG	RA	3484	1/1	0.75	0.12	59,59,59,59	0
56	MG	RA	3910	1/1	0.75	0.13	70,70,70,70	0
56	MG	QA	1839	1/1	0.75	0.22	90,90,90,90	0
56	MG	YA	3349	1/1	0.75	0.21	65,65,65,65	0
56	MG	XA	1721	1/1	0.75	0.11	52,52,52,52	0
56	MG	YA	3538	1/1	0.75	0.27	65,65,65,65	0
56	MG	Y7	101	1/1	0.75	0.24	49,49,49,49	0
56	MG	RA	3536	1/1	0.75	0.16	49,49,49,49	0
56	MG	XA	1605	1/1	0.75	0.20	60,60,60,60	0
56	MG	RA	3327	1/1	0.75	0.24	61,61,61,61	0
56	MG	YA	3092	1/1	0.75	0.18	75,75,75,75	0
56	MG	QA	1722	1/1	0.75	0.27	63,63,63,63	0
56	MG	YA	3200	1/1	0.75	0.21	55,55,55,55	0
56	MG	YA	3569	1/1	0.75	0.27	34,34,34,34	0
56	MG	RA	3918	1/1	0.75	0.23	63,63,63,63	0
56	MG	QA	1620	1/1	0.75	0.15	102,102,102,102	0
56	MG	RA	3446	1/1	0.75	0.22	71,71,71,71	0
56	MG	RA	3626	1/1	0.75	0.14	45,45,45,45	0
56	MG	YA	3631	1/1	0.75	0.27	59,59,59,59	0
56	MG	XA	1627	1/1	0.75	0.18	60,60,60,60	0
56	MG	RA	3631	1/1	0.75	0.31	86,86,86,86	0
56	MG	YA	3112	1/1	0.75	0.14	44,44,44,44	0
56	MG	YA	3217	1/1	0.75	0.35	92,92,92,92	0
56	MG	RA	3374	1/1	0.75	0.19	46,46,46,46	0
56	MG	RA	3943	1/1	0.75	0.28	42,42,42,42	0
56	MG	YA	3661	1/1	0.75	0.42	34,34,34,34	0
56	MG	YA	3119	1/1	0.75	0.10	59,59,59,59	0
56	MG	YA	3120	1/1	0.75	0.37	66,66,66,66	0
56	MG	R0	106	1/1	0.75	0.26	52,52,52,52	0
56	MG	RA	3977	1/1	0.76	0.66	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	3430	1/1	0.76	0.46	72,72,72,72	0
56	MG	RA	3984	1/1	0.76	0.28	87,87,87,87	0
56	MG	RA	3518	1/1	0.76	0.18	34,34,34,34	0
56	MG	YA	3213	1/1	0.76	0.21	58,58,58,58	0
56	MG	RA	3373	1/1	0.76	0.22	34,34,34,34	0
56	MG	QA	1618	1/1	0.76	0.10	91,91,91,91	0
56	MG	RA	3023	1/1	0.76	0.28	61,61,61,61	0
56	MG	RA	3540	1/1	0.76	0.34	61,61,61,61	0
56	MG	QA	1770	1/1	0.76	0.16	50,50,50,50	0
56	MG	RA	3523	1/1	0.76	0.33	63,63,63,63	0
56	MG	RA	3927	1/1	0.76	0.19	42,42,42,42	0
56	MG	RA	3796	1/1	0.76	0.32	55,55,55,55	0
56	MG	RA	3844	1/1	0.76	0.22	53,53,53,53	0
56	MG	YA	3235	1/1	0.76	0.17	43,43,43,43	0
56	MG	QA	1699	1/1	0.76	0.19	59,59,59,59	0
56	MG	YA	3116	1/1	0.76	0.18	55,55,55,55	0
56	MG	RA	3383	1/1	0.76	0.22	54,54,54,54	0
56	MG	QA	1779	1/1	0.76	0.25	77,77,77,77	0
56	MG	YA	3475	1/1	0.76	0.23	42,42,42,42	0
56	MG	RA	3180	1/1	0.76	0.36	75,75,75,75	0
56	MG	YA	3481	1/1	0.76	0.30	64,64,64,64	0
56	MG	RA	3671	1/1	0.76	0.21	62,62,62,62	0
56	MG	YA	3128	1/1	0.76	0.54	62,62,62,62	0
56	MG	RA	3754	1/1	0.76	0.28	64,64,64,64	0
56	MG	YA	3489	1/1	0.76	0.25	62,62,62,62	0
56	MG	QA	1861	1/1	0.76	0.08	62,62,62,62	0
56	MG	YB	206	1/1	0.76	0.18	76,76,76,76	0
56	MG	RA	3294	1/1	0.76	0.26	90,90,90,90	0
56	MG	RA	3805	1/1	0.76	0.24	57,57,57,57	0
56	MG	QA	1794	1/1	0.76	0.15	57,57,57,57	0
56	MG	XA	1718	1/1	0.76	0.18	74,74,74,74	0
56	MG	RA	3323	1/1	0.76	0.21	65,65,65,65	0
56	MG	QA	1719	1/1	0.76	0.18	62,62,62,62	0
56	MG	RA	3713	1/1	0.76	0.28	92,92,92,92	0
56	MG	RA	3964	1/1	0.76	0.17	77,77,77,77	0
56	MG	RA	3966	1/1	0.76	0.56	119,119,119,119	0
56	MG	RB	216	1/1	0.76	0.22	83,83,83,83	0
56	MG	RA	3050	1/1	0.76	0.35	65,65,65,65	0
56	MG	R3	102	1/1	0.76	0.44	89,89,89,89	0
56	MG	RA	3679	1/1	0.76	0.36	75,75,75,75	0
56	MG	QV	101	1/1	0.76	0.27	79,79,79,79	0
56	MG	XA	1753	1/1	0.76	0.16	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3769	1/1	0.76	0.17	60,60,60,60	0
56	MG	YA	3338	1/1	0.76	0.30	34,34,34,34	0
56	MG	XA	1768	1/1	0.76	0.31	68,68,68,68	0
56	MG	YA	3003	1/1	0.76	0.26	66,66,66,66	0
56	MG	YA	3180	1/1	0.76	0.15	59,59,59,59	0
56	MG	QA	1811	1/1	0.76	0.11	65,65,65,65	0
56	MG	QA	1743	1/1	0.76	0.34	79,79,79,79	0
56	MG	XA	1780	1/1	0.76	0.24	73,73,73,73	0
56	MG	YA	3613	1/1	0.76	0.27	34,34,34,34	0
56	MG	YA	3026	1/1	0.76	0.20	42,42,42,42	0
56	MG	RD	307	1/1	0.76	0.41	77,77,77,77	0
56	MG	QA	1668	1/1	0.76	0.11	94,94,94,94	0
56	MG	XL	201	1/1	0.76	0.18	57,57,57,57	0
56	MG	YA	3038	1/1	0.76	0.13	64,64,64,64	0
56	MG	YA	3407	1/1	0.76	0.29	81,81,81,81	0
56	MG	QA	1606	1/1	0.76	0.11	74,74,74,74	0
56	MG	XA	1647	1/1	0.76	0.16	84,84,84,84	0
56	MG	RA	3682	1/1	0.76	0.40	107,107,107,107	0
56	MG	XA	1650	1/1	0.76	0.18	67,67,67,67	0
56	MG	RA	3650	1/1	0.76	0.24	76,76,76,76	0
56	MG	RU	203	1/1	0.77	0.17	56,56,56,56	0
56	MG	RA	3005	1/1	0.77	0.12	43,43,43,43	0
56	MG	XA	1679	1/1	0.77	0.18	52,52,52,52	0
56	MG	YA	3553	1/1	0.77	0.19	52,52,52,52	0
56	MG	QA	1789	1/1	0.77	0.22	71,71,71,71	0
56	MG	YB	218	1/1	0.77	0.22	79,79,79,79	0
56	MG	QA	1676	1/1	0.77	0.24	84,84,84,84	0
56	MG	RA	3574	1/1	0.77	0.18	64,64,64,64	0
56	MG	RA	3123	1/1	0.77	0.14	37,37,37,37	0
56	MG	YA	3601	1/1	0.77	0.16	40,40,40,40	0
56	MG	YQ	202	1/1	0.77	0.20	41,41,41,41	0
56	MG	RA	3165	1/1	0.77	0.11	88,88,88,88	0
56	MG	YX	101	1/1	0.77	0.22	42,42,42,42	0
56	MG	YA	3253	1/1	0.77	0.19	63,63,63,63	0
56	MG	YA	3057	1/1	0.77	0.19	61,61,61,61	0
56	MG	YA	3260	1/1	0.77	0.22	88,88,88,88	0
56	MG	RA	3978	1/1	0.77	0.15	64,64,64,64	0
56	MG	QA	1639	1/1	0.77	0.14	50,50,50,50	0
56	MG	RA	3979	1/1	0.77	0.22	67,67,67,67	0
56	MG	YA	3177	1/1	0.77	0.36	96,96,96,96	0
56	MG	QA	1804	1/1	0.77	0.16	52,52,52,52	0
56	MG	YA	3094	1/1	0.77	0.19	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3475	1/1	0.77	0.23	70,70,70,70	0
56	MG	RA	3863	1/1	0.77	0.21	64,64,64,64	0
56	MG	YA	3098	1/1	0.77	0.17	57,57,57,57	0
56	MG	XA	1737	1/1	0.77	0.18	60,60,60,60	0
56	MG	YA	3300	1/1	0.77	0.17	58,58,58,58	0
56	MG	RA	3939	1/1	0.77	0.23	53,53,53,53	0
56	MG	XA	1744	1/1	0.77	0.32	57,57,57,57	0
56	MG	YA	3103	1/1	0.77	0.29	68,68,68,68	0
56	MG	QA	1759	1/1	0.77	0.21	65,65,65,65	0
56	MG	RA	3867	1/1	0.77	0.23	54,54,54,54	0
56	MG	XA	1642	1/1	0.77	0.11	75,75,75,75	0
56	MG	XA	1643	1/1	0.77	0.15	68,68,68,68	0
56	MG	XA	1765	1/1	0.77	0.12	65,65,65,65	0
56	MG	RA	3629	1/1	0.77	0.26	94,94,94,94	0
56	MG	YA	3486	1/1	0.77	0.19	44,44,44,44	0
56	MG	YA	3324	1/1	0.77	0.37	34,34,34,34	0
56	MG	RA	3483	1/1	0.77	0.33	42,42,42,42	0
56	MG	QA	1701	1/1	0.77	0.13	42,42,42,42	0
56	MG	RA	3169	1/1	0.77	0.17	50,50,50,50	0
56	MG	RA	3074	1/1	0.77	0.18	56,56,56,56	0
56	MG	RA	3497	1/1	0.77	0.14	47,47,47,47	0
56	MG	RA	3958	1/1	0.77	0.17	64,64,64,64	0
56	MG	RA	3960	1/1	0.77	0.11	65,65,65,65	0
56	MG	XA	1662	1/1	0.77	0.11	52,52,52,52	0
56	MG	RA	3324	1/1	0.77	0.19	76,76,76,76	0
56	MG	RA	3768	1/1	0.77	0.13	84,84,84,84	0
56	MG	XV	102	1/1	0.77	0.19	107,107,107,107	0
56	MG	RA	3728	1/1	0.77	0.12	40,40,40,40	0
56	MG	RB	202	1/1	0.77	0.16	80,80,80,80	0
56	MG	RA	3308	1/1	0.77	0.27	34,34,34,34	0
56	MG	RA	3525	1/1	0.77	0.41	67,67,67,67	0
56	MG	RU	201	1/1	0.77	0.17	56,56,56,56	0
56	MG	YA	3421	1/1	0.77	0.42	87,87,87,87	0
56	MG	RA	3178	1/1	0.78	0.25	76,76,76,76	0
56	MG	RA	3394	1/1	0.78	0.18	34,34,34,34	0
56	MG	YA	3410	1/1	0.78	0.16	34,34,34,34	0
56	MG	RA	3944	1/1	0.78	0.14	58,58,58,58	0
56	MG	YA	3136	1/1	0.78	0.35	58,58,58,58	0
56	MG	YA	3551	1/1	0.78	0.29	51,51,51,51	0
56	MG	QA	1821	1/1	0.78	0.16	57,57,57,57	0
56	MG	RA	3862	1/1	0.78	0.30	50,50,50,50	0
56	MG	RA	4008	1/1	0.78	0.40	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	RA	4011	1/1	0.78	0.23	76,76,76,76	0
56	MG	YA	3427	1/1	0.78	0.26	53,53,53,53	0
56	MG	YA	3595	1/1	0.78	0.32	69,69,69,69	0
56	MG	XA	1703	1/1	0.78	0.19	62,62,62,62	0
56	MG	Y1	101	1/1	0.78	0.21	42,42,42,42	0
56	MG	YA	3243	1/1	0.78	0.20	37,37,37,37	0
56	MG	YA	3610	1/1	0.78	0.22	45,45,45,45	0
56	MG	RA	3779	1/1	0.78	0.18	76,76,76,76	0
56	MG	YA	3619	1/1	0.78	0.16	47,47,47,47	0
56	MG	YA	3031	1/1	0.78	0.17	36,36,36,36	0
56	MG	RA	3326	1/1	0.78	0.23	34,34,34,34	0
56	MG	RA	3868	1/1	0.78	0.22	53,53,53,53	0
56	MG	YA	3256	1/1	0.78	0.11	41,41,41,41	0
56	MG	RA	3026	1/1	0.78	0.43	105,105,105,105	0
56	MG	YA	3043	1/1	0.78	0.23	34,34,34,34	0
56	MG	RA	3061	1/1	0.78	0.12	61,61,61,61	0
56	MG	XA	1730	1/1	0.78	0.23	60,60,60,60	0
56	MG	RA	3076	1/1	0.78	0.17	57,57,57,57	0
56	MG	QA	1786	1/1	0.78	0.23	50,50,50,50	0
56	MG	YA	3054	1/1	0.78	0.23	61,61,61,61	0
56	MG	XA	1628	1/1	0.78	0.11	48,48,48,48	0
56	MG	QA	1787	1/1	0.78	0.18	69,69,69,69	0
56	MG	QA	1677	1/1	0.78	0.19	84,84,84,84	0
56	MG	RA	3623	1/1	0.78	0.17	61,61,61,61	0
56	MG	XA	1749	1/1	0.78	0.41	66,66,66,66	0
56	MG	RA	3120	1/1	0.78	0.40	111,111,111,111	0
56	MG	RA	3577	1/1	0.78	0.26	66,66,66,66	0
56	MG	YA	3080	1/1	0.78	0.48	106,106,106,106	0
56	MG	QA	1747	1/1	0.78	0.17	40,40,40,40	0
56	MG	QA	1848	1/1	0.78	0.11	44,44,44,44	0
56	MG	RA	3902	1/1	0.78	0.30	65,65,65,65	0
56	MG	QA	1854	1/1	0.78	0.16	65,65,65,65	0
56	MG	XA	1654	1/1	0.78	0.21	66,66,66,66	0
56	MG	RA	3188	1/1	0.78	0.20	77,77,77,77	0
56	MG	RA	3068	1/1	0.78	0.16	51,51,51,51	0
56	MG	YA	3493	1/1	0.78	0.11	57,57,57,57	0
56	MG	RA	3798	1/1	0.78	0.28	34,34,34,34	0
56	MG	RA	3913	1/1	0.78	0.12	49,49,49,49	0
56	MG	RA	3842	1/1	0.78	0.08	66,66,66,66	0
56	MG	XE	202	1/1	0.78	0.09	73,73,73,73	0
56	MG	RA	3584	1/1	0.78	0.15	45,45,45,45	0
56	MG	RA	3106	1/1	0.78	0.42	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	3556	1/1	0.78	0.08	56,56,56,56	0
56	MG	QA	1810	1/1	0.78	0.13	53,53,53,53	0
56	MG	RA	3140	1/1	0.78	0.10	65,65,65,65	0
56	MG	YA	3519	1/1	0.78	0.23	46,46,46,46	0
56	MG	QA	1706	1/1	0.78	0.18	47,47,47,47	0
56	MG	RA	3463	1/1	0.78	0.30	34,34,34,34	0
56	MG	RA	3154	1/1	0.78	0.36	111,111,111,111	0
56	MG	QA	1831	1/1	0.79	0.13	77,77,77,77	0
56	MG	YA	3327	1/1	0.79	0.19	45,45,45,45	0
56	MG	QA	1631	1/1	0.79	0.13	58,58,58,58	0
56	MG	RA	3254	1/1	0.79	0.23	122,122,122,122	0
56	MG	RA	3115	1/1	0.79	0.38	87,87,87,87	0
56	MG	RQ	205	1/1	0.79	0.25	73,73,73,73	0
56	MG	RA	3734	1/1	0.79	0.18	73,73,73,73	0
56	MG	YA	3072	1/1	0.79	0.15	78,78,78,78	0
56	MG	XA	1688	1/1	0.79	0.27	38,38,38,38	0
56	MG	RA	3624	1/1	0.79	0.39	58,58,58,58	0
56	MG	RA	3418	1/1	0.79	0.21	69,69,69,69	0
56	MG	YD	307	1/1	0.79	0.18	41,41,41,41	0
56	MG	RA	3364	1/1	0.79	0.21	39,39,39,39	0
56	MG	QA	1645	1/1	0.79	0.22	69,69,69,69	0
56	MG	RA	3371	1/1	0.79	0.38	34,34,34,34	0
56	MG	XA	1700	1/1	0.79	0.18	55,55,55,55	0
56	MG	RA	3080	1/1	0.79	0.55	102,102,102,102	0
56	MG	YA	3215	1/1	0.79	0.26	72,72,72,72	0
56	MG	QA	1851	1/1	0.79	0.23	93,93,93,93	0
56	MG	QA	1852	1/1	0.79	0.33	77,77,77,77	0
56	MG	RA	3427	1/1	0.79	0.26	71,71,71,71	0
56	MG	RA	3288	1/1	0.79	0.22	34,34,34,34	0
56	MG	RA	3082	1/1	0.79	0.49	95,95,95,95	0
56	MG	RA	3196	1/1	0.79	0.37	102,102,102,102	0
56	MG	RA	3817	1/1	0.79	0.15	70,70,70,70	0
56	MG	RA	3581	1/1	0.79	0.09	68,68,68,68	0
56	MG	RA	3219	1/1	0.79	0.17	73,73,73,73	0
56	MG	RA	3136	1/1	0.79	0.29	59,59,59,59	0
56	MG	RA	3351	1/1	0.79	0.17	81,81,81,81	0
56	MG	RA	3226	1/1	0.79	0.48	80,80,80,80	0
56	MG	RB	222	1/1	0.79	0.07	57,57,57,57	0
56	MG	RA	3228	1/1	0.79	0.36	78,78,78,78	0
56	MG	RA	3004	1/1	0.79	0.24	88,88,88,88	0
56	MG	YA	3453	1/1	0.79	0.17	45,45,45,45	0
56	MG	QO	101	1/1	0.79	0.16	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	YA	3660	1/1	0.79	0.17	42,42,42,42	0
56	MG	RA	3605	1/1	0.79	0.16	43,43,43,43	0
56	MG	QA	1672	1/1	0.79	0.10	72,72,72,72	0
56	MG	RA	3922	1/1	0.79	0.13	36,36,36,36	0
56	MG	XA	1639	1/1	0.79	0.17	80,80,80,80	0
56	MG	XA	1763	1/1	0.79	0.16	44,44,44,44	0
56	MG	YA	3462	1/1	0.79	0.26	78,78,78,78	0
56	MG	YA	3669	1/1	0.79	0.35	44,44,44,44	0
56	MG	RA	3985	1/1	0.79	0.35	78,78,78,78	0
56	MG	QV	102	1/1	0.79	0.07	62,62,62,62	0
56	MG	YA	3682	1/1	0.79	0.21	40,40,40,40	0
56	MG	RA	3450	1/1	0.79	0.23	42,42,42,42	0
56	MG	RF	308	1/1	0.79	0.35	95,95,95,95	0
56	MG	XA	1652	1/1	0.79	0.35	91,91,91,91	0
56	MG	YA	3006	1/1	0.79	0.13	59,59,59,59	0
56	MG	QA	1758	1/1	0.79	0.13	46,46,46,46	0
56	MG	YA	3017	1/1	0.79	0.23	76,76,76,76	0
56	MG	QA	1681	1/1	0.79	0.24	56,56,56,56	0
56	MG	RA	3203	1/1	0.79	0.22	65,65,65,65	0
56	MG	RA	3555	1/1	0.79	0.16	50,50,50,50	0
56	MG	RA	3929	1/1	0.79	0.14	49,49,49,49	0
56	MG	RA	3453	1/1	0.79	0.35	71,71,71,71	0
56	MG	QA	1621	1/1	0.79	0.14	100,100,100,100	0
56	MG	RA	3408	1/1	0.79	0.20	60,60,60,60	0
56	MG	RA	3457	1/1	0.79	0.15	39,39,39,39	0
56	MG	YA	3499	1/1	0.79	0.39	86,86,86,86	0
57	ZN	YY	201	1/1	0.79	0.17	157,157,157,157	0
56	MG	QA	1626	1/1	0.79	0.23	62,62,62,62	0
56	MG	QA	1628	1/1	0.79	0.08	87,87,87,87	0
56	MG	RA	3179	1/1	0.80	0.37	88,88,88,88	0
56	MG	YA	3368	1/1	0.80	0.24	63,63,63,63	0
56	MG	RA	3832	1/1	0.80	0.25	53,53,53,53	0
56	MG	YA	3374	1/1	0.80	0.15	34,34,34,34	0
56	MG	RA	3767	1/1	0.80	0.17	73,73,73,73	0
56	MG	RA	3337	1/1	0.80	0.26	49,49,49,49	0
56	MG	YB	202	1/1	0.80	0.17	80,80,80,80	0
56	MG	YA	3122	1/1	0.80	0.16	87,87,87,87	0
56	MG	YA	3535	1/1	0.80	0.24	38,38,38,38	0
56	MG	RA	3931	1/1	0.80	0.21	42,42,42,42	0
56	MG	RA	3663	1/1	0.80	0.14	45,45,45,45	0
56	MG	YB	215	1/1	0.80	0.10	34,34,34,34	0
56	MG	RA	3664	1/1	0.80	0.23	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	3133	1/1	0.80	0.12	60,60,60,60	0
56	MG	YB	219	1/1	0.80	0.11	50,50,50,50	0
56	MG	RA	3487	1/1	0.80	0.30	36,36,36,36	0
56	MG	XA	1698	1/1	0.80	0.23	44,44,44,44	0
56	MG	YA	3024	1/1	0.80	0.28	85,85,85,85	0
56	MG	RA	3146	1/1	0.80	0.18	67,67,67,67	0
56	MG	RA	3495	1/1	0.80	0.22	52,52,52,52	0
56	MG	YA	3567	1/1	0.80	0.34	51,51,51,51	0
56	MG	YN	201	1/1	0.80	0.12	51,51,51,51	0
56	MG	RA	3221	1/1	0.80	0.31	57,57,57,57	0
56	MG	XA	1709	1/1	0.80	0.13	61,61,61,61	0
56	MG	RA	3065	1/1	0.80	0.20	55,55,55,55	0
56	MG	YA	3576	1/1	0.80	0.10	63,63,63,63	0
56	MG	YA	3582	1/1	0.80	0.19	40,40,40,40	0
56	MG	XA	1716	1/1	0.80	0.17	76,76,76,76	0
56	MG	YA	3584	1/1	0.80	0.12	34,34,34,34	0
56	MG	RA	3949	1/1	0.80	0.30	54,54,54,54	0
56	MG	XA	1602	1/1	0.80	0.23	62,62,62,62	0
56	MG	XA	1603	1/1	0.80	0.24	82,82,82,82	0
56	MG	RA	3951	1/1	0.80	0.22	62,62,62,62	0
56	MG	RA	3265	1/1	0.80	0.12	78,78,78,78	0
56	MG	XA	1727	1/1	0.80	0.40	62,62,62,62	0
56	MG	YA	3157	1/1	0.80	0.21	56,56,56,56	0
56	MG	RA	3723	1/1	0.80	0.21	43,43,43,43	0
56	MG	RA	3032	1/1	0.80	0.22	79,79,79,79	0
56	MG	RA	3455	1/1	0.80	0.18	44,44,44,44	0
56	MG	RA	3014	1/1	0.80	0.15	63,63,63,63	0
56	MG	RA	3012	1/1	0.80	0.34	87,87,87,87	0
56	MG	YA	3171	1/1	0.80	0.17	51,51,51,51	0
56	MG	RA	3322	1/1	0.80	0.17	42,42,42,42	0
56	MG	QA	1604	1/1	0.80	0.10	67,67,67,67	0
56	MG	RA	3298	1/1	0.80	0.13	94,94,94,94	0
56	MG	YA	3069	1/1	0.80	0.43	87,87,87,87	0
56	MG	XA	1762	1/1	0.80	0.27	44,44,44,44	0
56	MG	RA	3587	1/1	0.80	0.67	88,88,88,88	0
56	MG	RD	306	1/1	0.80	0.12	43,43,43,43	0
56	MG	RA	3097	1/1	0.80	0.26	34,34,34,34	0
56	MG	YA	3471	1/1	0.80	0.30	41,41,41,41	0
56	MG	YA	3301	1/1	0.80	0.22	34,34,34,34	0
56	MG	XA	1774	1/1	0.80	0.38	62,62,62,62	0
56	MG	RA	3740	1/1	0.80	0.12	55,55,55,55	0
56	MG	RA	3742	1/1	0.80	0.11	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3098	1/1	0.80	0.19	67,67,67,67	0
56	MG	RA	3747	1/1	0.80	0.26	55,55,55,55	0
56	MG	RA	3471	1/1	0.80	0.18	34,34,34,34	0
56	MG	YA	3684	1/1	0.80	0.29	47,47,47,47	0
56	MG	RA	3398	1/1	0.80	0.14	45,45,45,45	0
56	MG	RA	3698	1/1	0.80	0.32	38,38,38,38	0
56	MG	RA	3607	1/1	0.80	0.22	37,37,37,37	0
56	MG	YA	3204	1/1	0.80	0.14	52,52,52,52	0
56	MG	YA	3333	1/1	0.80	0.26	37,37,37,37	0
56	MG	RA	3820	1/1	0.80	0.77	90,90,90,90	0
56	MG	YA	3347	1/1	0.80	0.21	58,58,58,58	0
56	MG	RA	3025	1/1	0.80	0.20	49,49,49,49	0
56	MG	YA	3503	1/1	0.80	0.32	55,55,55,55	0
56	MG	RA	3763	1/1	0.80	0.20	52,52,52,52	0
56	MG	YA	3506	1/1	0.80	0.24	67,67,67,67	0
56	MG	RA	3655	1/1	0.80	0.13	54,54,54,54	0
56	MG	YA	3511	1/1	0.80	0.20	50,50,50,50	0
56	MG	RA	3029	1/1	0.81	0.51	69,69,69,69	0
56	MG	YA	3047	1/1	0.81	0.15	55,55,55,55	0
56	MG	RA	3886	1/1	0.81	0.23	38,38,38,38	0
56	MG	YA	3545	1/1	0.81	0.25	51,51,51,51	0
56	MG	RA	3420	1/1	0.81	0.20	38,38,38,38	0
56	MG	RA	3659	1/1	0.81	0.18	53,53,53,53	0
56	MG	RA	3422	1/1	0.81	0.29	49,49,49,49	0
56	MG	RA	3314	1/1	0.81	0.14	34,34,34,34	0
56	MG	XA	1687	1/1	0.81	0.24	55,55,55,55	0
56	MG	YA	3555	1/1	0.81	0.18	48,48,48,48	0
56	MG	RA	3834	1/1	0.81	0.13	60,60,60,60	0
56	MG	RA	3965	1/1	0.81	0.09	63,63,63,63	0
56	MG	YA	3568	1/1	0.81	0.28	35,35,35,35	0
56	MG	YD	305	1/1	0.81	0.44	83,83,83,83	0
56	MG	YA	3067	1/1	0.81	0.16	64,64,64,64	0
56	MG	XA	1697	1/1	0.81	0.15	52,52,52,52	0
56	MG	RA	3628	1/1	0.81	0.32	70,70,70,70	0
56	MG	YA	3572	1/1	0.81	0.15	53,53,53,53	0
56	MG	YA	3263	1/1	0.81	0.46	59,59,59,59	0
56	MG	YF	301	1/1	0.81	0.30	57,57,57,57	0
56	MG	RA	3452	1/1	0.81	0.32	34,34,34,34	0
56	MG	RA	3185	1/1	0.81	0.29	106,106,106,106	0
56	MG	RA	3746	1/1	0.81	0.23	41,41,41,41	0
56	MG	YA	3591	1/1	0.81	0.28	56,56,56,56	0
56	MG	YA	3280	1/1	0.81	0.23	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	RA	3053	1/1	0.81	0.29	70,70,70,70	0
56	MG	YA	3179	1/1	0.81	0.16	54,54,54,54	0
56	MG	YA	3611	1/1	0.81	0.23	57,57,57,57	0
56	MG	XA	1717	1/1	0.81	0.08	56,56,56,56	0
56	MG	YA	3457	1/1	0.81	0.31	46,46,46,46	0
56	MG	RA	3009	1/1	0.81	0.13	42,42,42,42	0
56	MG	XA	1604	1/1	0.81	0.20	80,80,80,80	0
56	MG	YA	3093	1/1	0.81	0.17	34,34,34,34	0
56	MG	QA	1692	1/1	0.81	0.15	44,44,44,44	0
56	MG	RA	3498	1/1	0.81	0.23	54,54,54,54	0
56	MG	XA	1611	1/1	0.81	0.12	59,59,59,59	0
56	MG	QA	1694	1/1	0.81	0.25	58,58,58,58	0
56	MG	RA	3158	1/1	0.81	0.56	108,108,108,108	0
56	MG	RB	220	1/1	0.81	0.15	55,55,55,55	0
56	MG	RA	3342	1/1	0.81	0.18	83,83,83,83	0
56	MG	YA	3198	1/1	0.81	0.17	50,50,50,50	0
56	MG	RA	3855	1/1	0.81	0.25	34,34,34,34	0
56	MG	R1	104	1/1	0.81	0.15	49,49,49,49	0
56	MG	QA	1772	1/1	0.81	0.18	67,67,67,67	0
56	MG	RA	3675	1/1	0.81	0.35	98,98,98,98	0
56	MG	YA	3328	1/1	0.81	0.38	34,34,34,34	0
56	MG	YA	3488	1/1	0.81	0.13	43,43,43,43	0
56	MG	RA	3343	1/1	0.81	0.24	40,40,40,40	0
56	MG	YA	3673	1/1	0.81	0.27	35,35,35,35	0
56	MG	YA	3207	1/1	0.81	0.34	84,84,84,84	0
56	MG	YA	3679	1/1	0.81	0.24	59,59,59,59	0
56	MG	RA	3511	1/1	0.81	0.21	77,77,77,77	0
56	MG	RA	3809	1/1	0.81	0.19	59,59,59,59	0
56	MG	YA	3010	1/1	0.81	0.18	70,70,70,70	0
56	MG	QA	1602	1/1	0.81	0.15	73,73,73,73	0
56	MG	YA	3690	1/1	0.81	0.24	55,55,55,55	0
56	MG	RA	3102	1/1	0.81	0.31	83,83,83,83	0
56	MG	RA	3024	1/1	0.81	0.08	41,41,41,41	0
56	MG	QA	1661	1/1	0.81	0.35	77,77,77,77	0
56	MG	YA	3700	1/1	0.81	0.16	50,50,50,50	0
56	MG	RA	3119	1/1	0.81	0.41	121,121,121,121	0
56	MG	RF	307	1/1	0.81	0.32	60,60,60,60	0
56	MG	RA	3727	1/1	0.81	0.20	47,47,47,47	0
56	MG	YA	3140	1/1	0.81	0.16	43,43,43,43	0
56	MG	YA	3395	1/1	0.81	0.22	62,62,62,62	0
56	MG	RA	4006	1/1	0.81	0.48	111,111,111,111	0
56	MG	RA	3684	1/1	0.81	0.15	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	XA	1665	1/1	0.81	0.21	76,76,76,76	0
56	MG	YA	3041	1/1	0.81	0.24	54,54,54,54	0
56	MG	RA	3181	1/1	0.81	0.32	48,48,48,48	0
56	MG	YA	3527	1/1	0.81	0.14	56,56,56,56	0
56	MG	YA	3530	1/1	0.81	0.31	34,34,34,34	0
56	MG	YA	3239	1/1	0.81	0.46	94,94,94,94	0
56	MG	YA	3040	1/1	0.82	0.21	55,55,55,55	0
56	MG	YA	3685	1/1	0.82	0.30	45,45,45,45	0
56	MG	YA	3294	1/1	0.82	0.20	81,81,81,81	0
56	MG	YA	3689	1/1	0.82	0.24	62,62,62,62	0
56	MG	RD	304	1/1	0.82	0.29	55,55,55,55	0
56	MG	RA	3022	1/1	0.82	0.12	54,54,54,54	0
56	MG	YA	3492	1/1	0.82	0.15	34,34,34,34	0
56	MG	RA	3509	1/1	0.82	0.12	43,43,43,43	0
56	MG	RD	308	1/1	0.82	0.55	98,98,98,98	0
56	MG	YA	3701	1/1	0.82	0.29	44,44,44,44	0
56	MG	RA	3309	1/1	0.82	0.26	34,34,34,34	0
56	MG	YA	3705	1/1	0.82	0.28	58,58,58,58	0
56	MG	YA	3049	1/1	0.82	0.14	53,53,53,53	0
56	MG	YA	3707	1/1	0.82	0.09	49,49,49,49	0
56	MG	RA	3988	1/1	0.82	0.33	110,110,110,110	0
56	MG	XA	1676	1/1	0.82	0.18	37,37,37,37	0
56	MG	QA	1832	1/1	0.82	0.12	61,61,61,61	0
56	MG	RE	306	1/1	0.82	0.18	37,37,37,37	0
56	MG	RA	3269	1/1	0.82	0.36	100,100,100,100	0
56	MG	YA	3714	1/1	0.82	0.25	48,48,48,48	0
56	MG	RF	302	1/1	0.82	0.31	93,93,93,93	0
56	MG	RA	3541	1/1	0.82	0.31	50,50,50,50	0
56	MG	QA	1615	1/1	0.82	0.11	105,105,105,105	0
56	MG	RF	304	1/1	0.82	0.23	46,46,46,46	0
56	MG	YA	3194	1/1	0.82	0.52	112,112,112,112	0
56	MG	YA	3518	1/1	0.82	0.25	57,57,57,57	0
56	MG	YA	3345	1/1	0.82	0.26	71,71,71,71	0
56	MG	RA	3997	1/1	0.82	0.33	95,95,95,95	0
56	MG	RA	3270	1/1	0.82	0.21	88,88,88,88	0
56	MG	RA	3751	1/1	0.82	0.16	55,55,55,55	0
56	MG	YA	3525	1/1	0.82	0.08	36,36,36,36	0
56	MG	QA	1689	1/1	0.82	0.16	62,62,62,62	0
56	MG	YA	3202	1/1	0.82	0.24	58,58,58,58	0
56	MG	YA	3084	1/1	0.82	0.15	50,50,50,50	0
56	MG	RA	3045	1/1	0.82	0.22	66,66,66,66	0
56	MG	QA	1623	1/1	0.82	0.13	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	3378	1/1	0.82	0.13	48,48,48,48	0
56	MG	RA	3272	1/1	0.82	0.30	79,79,79,79	0
56	MG	YA	3383	1/1	0.82	0.16	90,90,90,90	0
56	MG	RA	3170	1/1	0.82	0.37	114,114,114,114	0
56	MG	RA	3086	1/1	0.82	0.46	113,113,113,113	0
56	MG	YA	3400	1/1	0.82	0.35	54,54,54,54	0
56	MG	YE	304	1/1	0.82	0.23	64,64,64,64	0
56	MG	YA	3404	1/1	0.82	0.18	43,43,43,43	0
56	MG	RA	4017	1/1	0.82	0.29	54,54,54,54	0
56	MG	RA	3201	1/1	0.82	0.28	85,85,85,85	0
56	MG	RA	3672	1/1	0.82	0.43	76,76,76,76	0
56	MG	QA	1636	1/1	0.82	0.12	51,51,51,51	0
56	MG	RA	4022	1/1	0.82	0.37	72,72,72,72	0
56	MG	RA	3096	1/1	0.82	0.38	65,65,65,65	0
56	MG	Y0	101	1/1	0.82	0.27	45,45,45,45	0
56	MG	YA	3221	1/1	0.82	0.22	53,53,53,53	0
56	MG	RA	3638	1/1	0.82	0.13	73,73,73,73	0
56	MG	Y8	102	1/1	0.82	0.27	44,44,44,44	0
56	MG	RA	3489	1/1	0.82	0.24	34,34,34,34	0
56	MG	QA	1798	1/1	0.82	0.14	66,66,66,66	0
56	MG	RA	3224	1/1	0.82	0.31	51,51,51,51	0
56	MG	RB	201	1/1	0.82	0.09	54,54,54,54	0
56	MG	QA	1713	1/1	0.82	0.22	57,57,57,57	0
56	MG	YA	3434	1/1	0.82	0.13	49,49,49,49	0
56	MG	RA	3183	1/1	0.82	0.28	72,72,72,72	0
56	MG	QA	1647	1/1	0.82	0.14	60,60,60,60	0
56	MG	QA	1648	1/1	0.82	0.19	35,35,35,35	0
56	MG	RA	3124	1/1	0.82	0.19	57,57,57,57	0
56	MG	RB	205	1/1	0.82	0.13	52,52,52,52	0
56	MG	RA	3901	1/1	0.82	0.18	51,51,51,51	0
56	MG	RA	3434	1/1	0.82	0.13	51,51,51,51	0
56	MG	YA	3251	1/1	0.82	0.17	47,47,47,47	0
56	MG	XA	1623	1/1	0.82	0.11	47,47,47,47	0
56	MG	YA	3644	1/1	0.82	0.30	54,54,54,54	0
56	MG	RA	3285	1/1	0.82	0.24	52,52,52,52	0
56	MG	RA	3686	1/1	0.82	0.25	56,56,56,56	0
56	MG	YA	3255	1/1	0.82	0.27	76,76,76,76	0
56	MG	RA	3503	1/1	0.82	0.40	34,34,34,34	0
56	MG	XA	1633	1/1	0.82	0.09	50,50,50,50	0
56	MG	XA	1634	1/1	0.82	0.16	43,43,43,43	0
56	MG	QA	1658	1/1	0.82	0.17	45,45,45,45	0
56	MG	YA	3150	1/1	0.82	0.29	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	3836	1/1	0.82	0.26	34,34,34,34	0
56	MG	QA	1660	1/1	0.82	0.08	82,82,82,82	0
56	MG	RA	3656	1/1	0.82	0.23	50,50,50,50	0
56	MG	YA	3671	1/1	0.82	0.12	46,46,46,46	0
56	MG	YA	3029	1/1	0.82	0.26	43,43,43,43	0
56	MG	RA	3505	1/1	0.82	0.34	76,76,76,76	0
56	MG	RA	3792	1/1	0.82	0.31	34,34,34,34	0
56	MG	RA	3695	1/1	0.82	0.22	38,38,38,38	0
56	MG	RA	3739	1/1	0.82	0.27	65,65,65,65	0
56	MG	YA	3163	1/1	0.82	0.20	89,89,89,89	0
56	MG	RA	3016	1/1	0.83	0.62	79,79,79,79	0
56	MG	RA	3222	1/1	0.83	0.15	97,97,97,97	0
56	MG	YA	3315	1/1	0.83	0.20	34,34,34,34	0
56	MG	RA	3409	1/1	0.83	0.22	34,34,34,34	0
56	MG	RA	3546	1/1	0.83	0.37	46,46,46,46	0
56	MG	YA	3186	1/1	0.83	0.13	49,49,49,49	0
56	MG	YA	3073	1/1	0.83	0.35	34,34,34,34	0
56	MG	YA	3076	1/1	0.83	0.32	79,79,79,79	0
56	MG	YA	3192	1/1	0.83	0.14	74,74,74,74	0
56	MG	YA	3078	1/1	0.83	0.37	78,78,78,78	0
56	MG	RA	3205	1/1	0.83	0.38	76,76,76,76	0
56	MG	YA	3197	1/1	0.83	0.15	34,34,34,34	0
56	MG	YA	3346	1/1	0.83	0.22	34,34,34,34	0
56	MG	RA	3478	1/1	0.83	0.17	70,70,70,70	0
56	MG	RA	3857	1/1	0.83	0.47	69,69,69,69	0
56	MG	YA	3522	1/1	0.83	0.17	52,52,52,52	0
56	MG	RA	3002	1/1	0.83	0.15	58,58,58,58	0
56	MG	RA	3604	1/1	0.83	0.21	37,37,37,37	0
56	MG	YA	3740	1/1	0.83	0.15	40,40,40,40	0
56	MG	RA	3260	1/1	0.83	0.18	63,63,63,63	0
56	MG	YA	3365	1/1	0.83	0.28	57,57,57,57	0
56	MG	RA	3162	1/1	0.83	0.28	85,85,85,85	0
56	MG	RA	3212	1/1	0.83	0.09	70,70,70,70	0
56	MG	YB	205	1/1	0.83	0.38	66,66,66,66	0
56	MG	RA	3614	1/1	0.83	0.42	68,68,68,68	0
56	MG	YB	207	1/1	0.83	0.11	50,50,50,50	0
56	MG	RA	3745	1/1	0.83	0.28	38,38,38,38	0
56	MG	RA	3615	1/1	0.83	0.44	61,61,61,61	0
56	MG	RA	3491	1/1	0.83	0.47	70,70,70,70	0
56	MG	QA	1717	1/1	0.83	0.28	62,62,62,62	0
56	MG	RA	3702	1/1	0.83	0.13	57,57,57,57	0
56	MG	R1	102	1/1	0.83	0.24	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	3617	1/1	0.83	0.27	51,51,51,51	0
56	MG	RA	3972	1/1	0.83	0.23	46,46,46,46	0
56	MG	YA	3117	1/1	0.83	0.31	45,45,45,45	0
56	MG	RA	3391	1/1	0.83	0.26	41,41,41,41	0
56	MG	RA	3888	1/1	0.83	0.60	61,61,61,61	0
56	MG	YE	305	1/1	0.83	0.25	34,34,34,34	0
56	MG	XA	1711	1/1	0.83	0.31	59,59,59,59	0
56	MG	YA	3226	1/1	0.83	0.19	39,39,39,39	0
56	MG	YA	3227	1/1	0.83	0.28	90,90,90,90	0
56	MG	XA	1715	1/1	0.83	0.34	61,61,61,61	0
56	MG	R7	101	1/1	0.83	0.36	41,41,41,41	0
56	MG	QA	1734	1/1	0.83	0.16	40,40,40,40	0
56	MG	RA	3975	1/1	0.83	0.25	96,96,96,96	0
56	MG	YA	3585	1/1	0.83	0.19	75,75,75,75	0
56	MG	RA	3814	1/1	0.83	0.12	54,54,54,54	0
56	MG	YA	3590	1/1	0.83	0.28	34,34,34,34	0
56	MG	YA	3007	1/1	0.83	0.16	38,38,38,38	0
56	MG	RA	3329	1/1	0.83	0.25	38,38,38,38	0
56	MG	XA	1724	1/1	0.83	0.36	79,79,79,79	0
56	MG	XA	1725	1/1	0.83	0.14	79,79,79,79	0
56	MG	YA	3431	1/1	0.83	0.20	47,47,47,47	0
56	MG	RA	3200	1/1	0.83	0.15	62,62,62,62	0
56	MG	RA	3758	1/1	0.83	0.36	59,59,59,59	0
56	MG	RA	3052	1/1	0.83	0.40	88,88,88,88	0
56	MG	YA	3023	1/1	0.83	0.10	55,55,55,55	0
56	MG	RA	3566	1/1	0.83	0.18	60,60,60,60	0
56	MG	YA	3250	1/1	0.83	0.18	64,64,64,64	0
56	MG	YA	3448	1/1	0.83	0.23	73,73,73,73	0
56	MG	QA	1752	1/1	0.83	0.39	85,85,85,85	0
56	MG	RA	3500	1/1	0.83	0.26	40,40,40,40	0
56	MG	RA	3235	1/1	0.83	0.25	95,95,95,95	0
56	MG	RA	3827	1/1	0.83	0.07	66,66,66,66	0
56	MG	RA	3766	1/1	0.83	0.29	67,67,67,67	0
56	MG	RA	3715	1/1	0.83	0.15	70,70,70,70	0
56	MG	RA	3459	1/1	0.83	0.13	47,47,47,47	0
56	MG	QA	1678	1/1	0.83	0.15	64,64,64,64	0
56	MG	RA	3236	1/1	0.83	0.31	90,90,90,90	0
56	MG	YA	3666	1/1	0.83	0.20	43,43,43,43	0
56	MG	RA	3027	1/1	0.83	0.20	64,64,64,64	0
56	MG	RA	3673	1/1	0.83	0.81	57,57,57,57	0
56	MG	QA	1767	1/1	0.83	0.09	62,62,62,62	0
56	MG	YA	3470	1/1	0.83	0.15	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3279	1/1	0.83	0.12	37,37,37,37	0
56	MG	YA	3165	1/1	0.83	0.32	78,78,78,78	0
56	MG	RA	3401	1/1	0.83	0.19	38,38,38,38	0
56	MG	YA	3169	1/1	0.83	0.11	64,64,64,64	0
56	MG	XA	1787	1/1	0.83	0.20	64,64,64,64	0
56	MG	YA	3287	1/1	0.83	0.38	48,48,48,48	0
56	MG	YA	3170	1/1	0.83	0.15	107,107,107,107	0
56	MG	XA	1645	1/1	0.83	0.07	54,54,54,54	0
56	MG	YA	3292	1/1	0.83	0.13	40,40,40,40	0
56	MG	RF	311	1/1	0.83	0.15	70,70,70,70	0
56	MG	YA	3687	1/1	0.83	0.44	43,43,43,43	0
56	MG	RA	3724	1/1	0.83	0.26	44,44,44,44	0
56	MG	RA	3442	1/1	0.83	0.22	52,52,52,52	0
56	MG	RA	4013	1/1	0.83	0.28	88,88,88,88	0
56	MG	QA	1627	1/1	0.83	0.27	83,83,83,83	0
56	MG	YA	3065	1/1	0.83	0.21	47,47,47,47	0
56	MG	RN	201	1/1	0.83	0.19	70,70,70,70	0
56	MG	RA	3001	1/1	0.84	0.18	39,39,39,39	0
56	MG	YA	3075	1/1	0.84	0.12	34,34,34,34	0
56	MG	RA	3199	1/1	0.84	0.16	54,54,54,54	0
56	MG	RA	3891	1/1	0.84	0.17	39,39,39,39	0
56	MG	QA	1725	1/1	0.84	0.15	55,55,55,55	0
56	MG	RA	3892	1/1	0.84	0.24	69,69,69,69	0
56	MG	RA	4023	1/1	0.84	0.44	108,108,108,108	0
56	MG	RA	3075	1/1	0.84	0.34	88,88,88,88	0
56	MG	RA	3588	1/1	0.84	0.55	78,78,78,78	0
56	MG	YA	3288	1/1	0.84	0.30	34,34,34,34	0
56	MG	YB	220	1/1	0.84	0.21	36,36,36,36	0
56	MG	YD	301	1/1	0.84	0.19	44,44,44,44	0
56	MG	QA	1671	1/1	0.84	0.29	84,84,84,84	0
56	MG	RA	3388	1/1	0.84	0.14	35,35,35,35	0
56	MG	RA	3490	1/1	0.84	0.19	34,34,34,34	0
56	MG	RA	3905	1/1	0.84	0.17	43,43,43,43	0
56	MG	RA	3661	1/1	0.84	0.25	34,34,34,34	0
56	MG	RA	3907	1/1	0.84	0.22	61,61,61,61	0
56	MG	RA	3211	1/1	0.84	0.38	83,83,83,83	0
56	MG	RA	3598	1/1	0.84	0.15	34,34,34,34	0
56	MG	YA	3630	1/1	0.84	0.31	58,58,58,58	0
56	MG	RA	3599	1/1	0.84	0.24	45,45,45,45	0
56	MG	RA	3696	1/1	0.84	0.17	66,66,66,66	0
56	MG	RV	201	1/1	0.84	0.11	58,58,58,58	0
56	MG	YT	203	1/1	0.84	0.22	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3009	1/1	0.84	0.14	35,35,35,35	0
56	MG	RA	3917	1/1	0.84	0.19	89,89,89,89	0
56	MG	YA	3323	1/1	0.84	0.22	41,41,41,41	0
56	MG	YA	3655	1/1	0.84	0.25	34,34,34,34	0
56	MG	Y8	101	1/1	0.84	0.21	53,53,53,53	0
56	MG	RA	3730	1/1	0.84	0.30	43,43,43,43	0
56	MG	RB	215	1/1	0.84	0.34	48,48,48,48	0
56	MG	YA	3209	1/1	0.84	0.08	59,59,59,59	0
56	MG	RA	3320	1/1	0.84	0.10	55,55,55,55	0
56	MG	QA	1764	1/1	0.84	0.08	62,62,62,62	0
56	MG	QA	1824	1/1	0.84	0.17	46,46,46,46	0
56	MG	YA	3334	1/1	0.84	0.11	40,40,40,40	0
56	MG	YA	3127	1/1	0.84	0.13	59,59,59,59	0
56	MG	YA	3340	1/1	0.84	0.17	34,34,34,34	0
56	MG	RA	3419	1/1	0.84	0.10	38,38,38,38	0
56	MG	YA	3496	1/1	0.84	0.18	39,39,39,39	0
56	MG	RA	3293	1/1	0.84	0.15	34,34,34,34	0
56	MG	XA	1726	1/1	0.84	0.16	62,62,62,62	0
56	MG	RA	3020	1/1	0.84	0.34	99,99,99,99	0
56	MG	XA	1620	1/1	0.84	0.11	76,76,76,76	0
56	MG	RA	3214	1/1	0.84	0.12	68,68,68,68	0
56	MG	RA	3775	1/1	0.84	0.40	86,86,86,86	0
56	MG	RD	303	1/1	0.84	0.36	85,85,85,85	0
56	MG	YA	3358	1/1	0.84	0.19	46,46,46,46	0
56	MG	YA	3143	1/1	0.84	0.43	84,84,84,84	0
56	MG	RA	3777	1/1	0.84	0.11	57,57,57,57	0
56	MG	RA	3991	1/1	0.84	0.10	42,42,42,42	0
56	MG	RA	3058	1/1	0.84	0.10	62,62,62,62	0
56	MG	YA	3229	1/1	0.84	0.31	77,77,77,77	0
56	MG	QA	1702	1/1	0.84	0.07	51,51,51,51	0
56	MG	YA	3694	1/1	0.84	0.28	34,34,34,34	0
56	MG	RA	3311	1/1	0.84	0.17	43,43,43,43	0
56	MG	RA	3941	1/1	0.84	0.20	51,51,51,51	0
56	MG	RA	3942	1/1	0.84	0.18	56,56,56,56	0
56	MG	YA	3394	1/1	0.84	0.36	34,34,34,34	0
56	MG	RA	3160	1/1	0.84	0.32	89,89,89,89	0
56	MG	XA	1771	1/1	0.84	0.31	64,64,64,64	0
56	MG	QA	1601	1/1	0.84	0.16	57,57,57,57	0
56	MG	RA	3645	1/1	0.84	0.28	54,54,54,54	0
56	MG	XA	1648	1/1	0.84	0.09	76,76,76,76	0
56	MG	QA	1782	1/1	0.84	0.13	53,53,53,53	0
56	MG	YA	3533	1/1	0.84	0.20	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3406	1/1	0.84	0.39	38,38,38,38	0
56	MG	YA	3536	1/1	0.84	0.23	35,35,35,35	0
56	MG	XA	1653	1/1	0.84	0.18	79,79,79,79	0
56	MG	YA	3161	1/1	0.84	0.29	73,73,73,73	0
56	MG	YA	3248	1/1	0.84	0.27	52,52,52,52	0
56	MG	QA	1657	1/1	0.84	0.12	71,71,71,71	0
56	MG	XF	203	1/1	0.84	0.28	80,80,80,80	0
56	MG	YA	3722	1/1	0.84	0.11	49,49,49,49	0
56	MG	YA	3061	1/1	0.84	0.13	47,47,47,47	0
56	MG	RA	3527	1/1	0.84	0.18	55,55,55,55	0
56	MG	XV	104	1/1	0.84	0.20	52,52,52,52	0
56	MG	RA	3881	1/1	0.84	0.27	41,41,41,41	0
56	MG	RA	3785	1/1	0.84	0.29	66,66,66,66	0
56	MG	QA	1788	1/1	0.84	0.24	48,48,48,48	0
56	MG	RA	3428	1/1	0.84	0.32	34,34,34,34	0
56	MG	YA	3070	1/1	0.84	0.19	63,63,63,63	0
56	MG	QA	1662	1/1	0.84	0.15	51,51,51,51	0
56	MG	YA	3173	1/1	0.84	0.27	77,77,77,77	0
56	MG	QA	1738	1/1	0.85	0.27	62,62,62,62	0
56	MG	YA	3412	1/1	0.85	0.21	48,48,48,48	0
56	MG	YA	3713	1/1	0.85	0.28	56,56,56,56	0
56	MG	QA	1741	1/1	0.85	0.08	57,57,57,57	0
56	MG	YA	3715	1/1	0.85	0.20	44,44,44,44	0
56	MG	YA	3716	1/1	0.85	0.35	34,34,34,34	0
56	MG	RR	201	1/1	0.85	0.30	79,79,79,79	0
56	MG	QA	1624	1/1	0.85	0.09	77,77,77,77	0
56	MG	RR	204	1/1	0.85	0.16	65,65,65,65	0
56	MG	YA	3091	1/1	0.85	0.13	66,66,66,66	0
56	MG	RA	3268	1/1	0.85	0.30	68,68,68,68	0
56	MG	QL	202	1/1	0.85	0.27	65,65,65,65	0
56	MG	YA	3554	1/1	0.85	0.24	68,68,68,68	0
56	MG	YA	3281	1/1	0.85	0.21	49,49,49,49	0
56	MG	YA	3561	1/1	0.85	0.44	50,50,50,50	0
56	MG	YA	3562	1/1	0.85	0.24	34,34,34,34	0
56	MG	YA	3563	1/1	0.85	0.21	35,35,35,35	0
56	MG	YB	201	1/1	0.85	0.21	51,51,51,51	0
56	MG	YA	3565	1/1	0.85	0.28	40,40,40,40	0
56	MG	YA	3282	1/1	0.85	0.27	34,34,34,34	0
56	MG	RA	3341	1/1	0.85	0.23	42,42,42,42	0
56	MG	RA	3865	1/1	0.85	0.18	46,46,46,46	0
56	MG	RA	3930	1/1	0.85	0.15	57,57,57,57	0
56	MG	RA	3011	1/1	0.85	0.17	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3439	1/1	0.85	0.21	65,65,65,65	0
56	MG	YA	3574	1/1	0.85	0.31	41,41,41,41	0
56	MG	RA	3028	1/1	0.85	0.38	58,58,58,58	0
56	MG	RA	3204	1/1	0.85	0.31	86,86,86,86	0
56	MG	YA	3583	1/1	0.85	0.33	34,34,34,34	0
56	MG	QA	1813	1/1	0.85	0.23	55,55,55,55	0
56	MG	QV	105	1/1	0.85	0.09	84,84,84,84	0
56	MG	RA	3370	1/1	0.85	0.36	53,53,53,53	0
56	MG	QA	1757	1/1	0.85	0.17	81,81,81,81	0
56	MG	RA	3089	1/1	0.85	0.22	73,73,73,73	0
56	MG	R0	103	1/1	0.85	0.39	72,72,72,72	0
56	MG	YA	3598	1/1	0.85	0.31	34,34,34,34	0
56	MG	RA	3749	1/1	0.85	0.31	36,36,36,36	0
56	MG	YA	3604	1/1	0.85	0.37	66,66,66,66	0
56	MG	YA	3308	1/1	0.85	0.24	34,34,34,34	0
56	MG	YG	201	1/1	0.85	0.11	40,40,40,40	0
56	MG	RA	3542	1/1	0.85	0.36	73,73,73,73	0
56	MG	RA	3995	1/1	0.85	0.27	47,47,47,47	0
56	MG	YA	3616	1/1	0.85	0.13	52,52,52,52	0
56	MG	RA	3752	1/1	0.85	0.25	54,54,54,54	0
56	MG	YA	3465	1/1	0.85	0.28	60,60,60,60	0
56	MG	YA	3121	1/1	0.85	0.32	78,78,78,78	0
56	MG	RA	3691	1/1	0.85	0.30	49,49,49,49	0
56	MG	RA	3568	1/1	0.85	0.29	78,78,78,78	0
56	MG	YA	3325	1/1	0.85	0.25	37,37,37,37	0
56	MG	YA	3636	1/1	0.85	0.43	62,62,62,62	0
56	MG	YA	3025	1/1	0.85	0.13	43,43,43,43	0
56	MG	YA	3643	1/1	0.85	0.36	39,39,39,39	0
56	MG	RA	3634	1/1	0.85	0.11	48,48,48,48	0
56	MG	RA	3173	1/1	0.85	0.19	44,44,44,44	0
56	MG	RA	4005	1/1	0.85	0.32	70,70,70,70	0
56	MG	XA	1733	1/1	0.85	0.25	58,58,58,58	0
56	MG	YA	3651	1/1	0.85	0.16	44,44,44,44	0
56	MG	QA	1703	1/1	0.85	0.25	41,41,41,41	0
56	MG	XA	1609	1/1	0.85	0.20	45,45,45,45	0
56	MG	YA	3139	1/1	0.85	0.22	80,80,80,80	0
56	MG	RA	3952	1/1	0.85	0.10	49,49,49,49	0
56	MG	YA	3037	1/1	0.85	0.32	88,88,88,88	0
56	MG	XA	1747	1/1	0.85	0.18	37,37,37,37	0
56	MG	RA	3033	1/1	0.85	0.25	90,90,90,90	0
56	MG	RA	3954	1/1	0.85	0.28	45,45,45,45	0
56	MG	XA	1750	1/1	0.85	0.25	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	4012	1/1	0.85	0.23	66,66,66,66	0
56	MG	XA	1757	1/1	0.85	0.10	58,58,58,58	0
56	MG	RA	3841	1/1	0.85	0.20	53,53,53,53	0
56	MG	XA	1760	1/1	0.85	0.21	44,44,44,44	0
56	MG	RA	3762	1/1	0.85	0.29	59,59,59,59	0
56	MG	RA	3318	1/1	0.85	0.17	56,56,56,56	0
56	MG	RA	3404	1/1	0.85	0.37	35,35,35,35	0
56	MG	RA	3429	1/1	0.85	0.42	34,34,34,34	0
56	MG	YA	3363	1/1	0.85	0.25	48,48,48,48	0
56	MG	XA	1626	1/1	0.85	0.08	55,55,55,55	0
56	MG	RA	3850	1/1	0.85	0.31	37,37,37,37	0
56	MG	RA	3482	1/1	0.85	0.20	34,34,34,34	0
56	MG	XA	1629	1/1	0.85	0.15	44,44,44,44	0
56	MG	XA	1631	1/1	0.85	0.13	41,41,41,41	0
56	MG	RA	3735	1/1	0.85	0.22	56,56,56,56	0
56	MG	RA	4027	1/1	0.85	0.37	99,99,99,99	0
56	MG	YA	3510	1/1	0.85	0.38	97,97,97,97	0
56	MG	RA	3528	1/1	0.85	0.17	58,58,58,58	0
56	MG	YA	3381	1/1	0.85	0.24	34,34,34,34	0
56	MG	RA	3059	1/1	0.85	0.20	39,39,39,39	0
56	MG	QA	1724	1/1	0.85	0.23	77,77,77,77	0
56	MG	RA	4031	1/1	0.85	0.19	58,58,58,58	0
56	MG	QA	1858	1/1	0.85	0.09	84,84,84,84	0
56	MG	RA	3770	1/1	0.85	0.22	39,39,39,39	0
56	MG	YA	3396	1/1	0.85	0.31	61,61,61,61	0
56	MG	YA	3698	1/1	0.85	0.38	43,43,43,43	0
56	MG	XV	103	1/1	0.85	0.08	55,55,55,55	0
56	MG	YA	3398	1/1	0.85	0.33	34,34,34,34	0
56	MG	QA	1795	1/1	0.85	0.20	42,42,42,42	0
56	MG	QB	301	1/1	0.85	0.14	72,72,72,72	0
56	MG	YA	3526	1/1	0.85	0.21	49,49,49,49	0
56	MG	YA	3254	1/1	0.85	0.35	45,45,45,45	0
56	MG	RA	3919	1/1	0.85	0.15	41,41,41,41	0
56	MG	RA	3114	1/1	0.85	0.23	110,110,110,110	0
56	MG	RA	3586	1/1	0.85	0.68	89,89,89,89	0
56	MG	YA	3366	1/1	0.86	0.16	58,58,58,58	0
56	MG	RA	3138	1/1	0.86	0.43	110,110,110,110	0
56	MG	YA	3225	1/1	0.86	0.17	56,56,56,56	0
56	MG	RA	3693	1/1	0.86	0.13	51,51,51,51	0
56	MG	RA	3361	1/1	0.86	0.36	59,59,59,59	0
56	MG	YA	3021	1/1	0.86	0.12	34,34,34,34	0
56	MG	YA	3129	1/1	0.86	0.32	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3017	1/1	0.86	0.26	49,49,49,49	0
56	MG	YA	3233	1/1	0.86	0.27	100,100,100,100	0
56	MG	RA	3277	1/1	0.86	0.28	81,81,81,81	0
56	MG	YA	3719	1/1	0.86	0.31	74,74,74,74	0
56	MG	RA	3813	1/1	0.86	0.32	52,52,52,52	0
56	MG	RA	3238	1/1	0.86	0.25	79,79,79,79	0
56	MG	RA	3412	1/1	0.86	0.20	74,74,74,74	0
56	MG	XA	1673	1/1	0.86	0.19	38,38,38,38	0
56	MG	XA	1674	1/1	0.86	0.16	52,52,52,52	0
56	MG	RA	3896	1/1	0.86	0.20	42,42,42,42	0
56	MG	YA	3729	1/1	0.86	0.24	34,34,34,34	0
56	MG	YA	3402	1/1	0.86	0.29	51,51,51,51	0
56	MG	QA	1674	1/1	0.86	0.08	50,50,50,50	0
56	MG	RA	3594	1/1	0.86	0.32	54,54,54,54	0
56	MG	YA	3736	1/1	0.86	0.14	65,65,65,65	0
56	MG	YA	3557	1/1	0.86	0.20	34,34,34,34	0
56	MG	YA	3244	1/1	0.86	0.21	67,67,67,67	0
56	MG	YA	3035	1/1	0.86	0.07	47,47,47,47	0
56	MG	YA	3749	1/1	0.86	0.17	64,64,64,64	0
56	MG	YA	3247	1/1	0.86	0.11	88,88,88,88	0
56	MG	RA	3899	1/1	0.86	0.23	55,55,55,55	0
56	MG	RA	3368	1/1	0.86	0.22	49,49,49,49	0
56	MG	RA	3092	1/1	0.86	0.12	89,89,89,89	0
56	MG	QA	1679	1/1	0.86	0.11	69,69,69,69	0
56	MG	QA	1761	1/1	0.86	0.17	68,68,68,68	0
56	MG	XA	1696	1/1	0.86	0.25	40,40,40,40	0
56	MG	YB	208	1/1	0.86	0.59	117,117,117,117	0
56	MG	QA	1680	1/1	0.86	0.10	48,48,48,48	0
56	MG	YA	3046	1/1	0.86	0.19	56,56,56,56	0
56	MG	RA	3903	1/1	0.86	0.27	51,51,51,51	0
56	MG	XA	1701	1/1	0.86	0.13	47,47,47,47	0
56	MG	RA	3654	1/1	0.86	0.26	72,72,72,72	0
56	MG	YA	3578	1/1	0.86	0.20	48,48,48,48	0
56	MG	YA	3257	1/1	0.86	0.23	59,59,59,59	0
56	MG	RA	3504	1/1	0.86	0.34	80,80,80,80	0
56	MG	RA	3208	1/1	0.86	0.23	67,67,67,67	0
56	MG	RA	3908	1/1	0.86	0.26	45,45,45,45	0
56	MG	YA	3436	1/1	0.86	0.18	37,37,37,37	0
56	MG	RA	3507	1/1	0.86	0.20	43,43,43,43	0
56	MG	YE	301	1/1	0.86	0.27	70,70,70,70	0
56	MG	RA	3989	1/1	0.86	0.30	87,87,87,87	0
56	MG	RA	3283	1/1	0.86	0.11	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3596	1/1	0.86	0.26	45,45,45,45	0
56	MG	YA	3273	1/1	0.86	0.36	34,34,34,34	0
56	MG	YA	3059	1/1	0.86	0.12	42,42,42,42	0
56	MG	YA	3446	1/1	0.86	0.17	34,34,34,34	0
56	MG	RA	3912	1/1	0.86	0.26	64,64,64,64	0
56	MG	RA	3830	1/1	0.86	0.20	56,56,56,56	0
56	MG	RA	3210	1/1	0.86	0.31	90,90,90,90	0
56	MG	RA	3833	1/1	0.86	0.21	36,36,36,36	0
56	MG	RA	3421	1/1	0.86	0.38	34,34,34,34	0
56	MG	RA	3999	1/1	0.86	0.35	121,121,121,121	0
56	MG	YA	3176	1/1	0.86	0.19	58,58,58,58	0
56	MG	YA	3629	1/1	0.86	0.28	49,49,49,49	0
56	MG	RA	3610	1/1	0.86	0.18	81,81,81,81	0
56	MG	XA	1735	1/1	0.86	0.14	59,59,59,59	0
56	MG	RA	3612	1/1	0.86	0.25	67,67,67,67	0
56	MG	YA	3461	1/1	0.86	0.28	34,34,34,34	0
56	MG	RA	3925	1/1	0.86	0.19	50,50,50,50	0
56	MG	YA	3074	1/1	0.86	0.19	46,46,46,46	0
56	MG	RA	3093	1/1	0.86	0.42	84,84,84,84	0
56	MG	RA	3382	1/1	0.86	0.13	34,34,34,34	0
56	MG	YA	3077	1/1	0.86	0.19	57,57,57,57	0
56	MG	RA	3720	1/1	0.86	0.09	47,47,47,47	0
56	MG	YA	3648	1/1	0.86	0.23	35,35,35,35	0
56	MG	RA	3513	1/1	0.86	0.27	46,46,46,46	0
56	MG	XA	1752	1/1	0.86	0.20	34,34,34,34	0
56	MG	RA	3153	1/1	0.86	0.19	60,60,60,60	0
56	MG	XA	1756	1/1	0.86	0.18	42,42,42,42	0
56	MG	YA	3083	1/1	0.86	0.33	76,76,76,76	0
56	MG	YA	3193	1/1	0.86	0.11	41,41,41,41	0
56	MG	RA	3515	1/1	0.86	0.25	76,76,76,76	0
56	MG	YA	3195	1/1	0.86	0.17	58,58,58,58	0
56	MG	YA	3317	1/1	0.86	0.45	34,34,34,34	0
56	MG	YA	3088	1/1	0.86	0.15	49,49,49,49	0
56	MG	RA	3845	1/1	0.86	0.77	97,97,97,97	0
56	MG	RA	3267	1/1	0.86	0.29	96,96,96,96	0
56	MG	RA	3386	1/1	0.86	0.21	50,50,50,50	0
56	MG	RA	3227	1/1	0.86	0.43	65,65,65,65	0
56	MG	XA	1772	1/1	0.86	0.10	50,50,50,50	0
56	MG	YA	3201	1/1	0.86	0.12	65,65,65,65	0
56	MG	RA	3348	1/1	0.86	0.13	57,57,57,57	0
56	MG	YA	3678	1/1	0.86	0.21	45,45,45,45	0
56	MG	RA	3245	1/1	0.86	0.23	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3431	1/1	0.86	0.24	49,49,49,49	0
56	MG	RA	3791	1/1	0.86	0.09	38,38,38,38	0
56	MG	YA	3337	1/1	0.86	0.21	45,45,45,45	0
56	MG	RA	3480	1/1	0.86	0.24	64,64,64,64	0
56	MG	XA	1786	1/1	0.86	0.06	42,42,42,42	0
56	MG	RA	3627	1/1	0.86	0.11	62,62,62,62	0
56	MG	YA	3344	1/1	0.86	0.34	35,35,35,35	0
56	MG	RA	3678	1/1	0.86	0.18	40,40,40,40	0
56	MG	XF	202	1/1	0.86	0.10	82,82,82,82	0
56	MG	XA	1641	1/1	0.86	0.14	64,64,64,64	0
56	MG	QA	1803	1/1	0.86	0.06	61,61,61,61	0
56	MG	RA	3246	1/1	0.86	0.38	90,90,90,90	0
56	MG	RA	3018	1/1	0.86	0.32	95,95,95,95	0
56	MG	YA	3350	1/1	0.86	0.29	53,53,53,53	0
56	MG	RA	3044	1/1	0.86	0.40	74,74,74,74	0
56	MG	RA	3231	1/1	0.86	0.32	59,59,59,59	0
56	MG	RA	3530	1/1	0.86	0.21	43,43,43,43	0
56	MG	RA	3399	1/1	0.86	0.20	34,34,34,34	0
57	ZN	R6	101	1/1	0.86	0.34	170,170,170,170	0
56	MG	YA	3362	1/1	0.86	0.23	35,35,35,35	0
56	MG	YA	3703	1/1	0.86	0.35	50,50,50,50	0
56	MG	RA	3216	1/1	0.86	0.43	81,81,81,81	0
56	MG	QA	1740	1/1	0.86	0.18	52,52,52,52	0
56	MG	YA	3125	1/1	0.87	0.09	35,35,35,35	0
56	MG	YA	3586	1/1	0.87	0.23	60,60,60,60	0
56	MG	R3	101	1/1	0.87	0.21	72,72,72,72	0
56	MG	RA	3157	1/1	0.87	0.43	89,89,89,89	0
56	MG	RA	4000	1/1	0.87	0.25	102,102,102,102	0
56	MG	YB	204	1/1	0.87	0.09	55,55,55,55	0
56	MG	YA	3592	1/1	0.87	0.33	34,34,34,34	0
56	MG	QA	1837	1/1	0.87	0.24	44,44,44,44	0
56	MG	YA	3131	1/1	0.87	0.30	74,74,74,74	0
56	MG	YA	3219	1/1	0.87	0.08	63,63,63,63	0
56	MG	YB	210	1/1	0.87	0.13	40,40,40,40	0
56	MG	RD	311	1/1	0.87	0.24	63,63,63,63	0
56	MG	RD	313	1/1	0.87	0.28	71,71,71,71	0
56	MG	YA	3605	1/1	0.87	0.26	34,34,34,34	0
56	MG	RA	3213	1/1	0.87	0.34	74,74,74,74	0
56	MG	YA	3472	1/1	0.87	0.27	35,35,35,35	0
56	MG	RA	3079	1/1	0.87	0.32	90,90,90,90	0
56	MG	YA	3339	1/1	0.87	0.21	38,38,38,38	0
56	MG	YA	3618	1/1	0.87	0.26	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3479	1/1	0.87	0.36	69,69,69,69	0
56	MG	RA	3831	1/1	0.87	0.24	55,55,55,55	0
56	MG	YA	3624	1/1	0.87	0.17	54,54,54,54	0
56	MG	YA	3625	1/1	0.87	0.19	60,60,60,60	0
56	MG	YE	302	1/1	0.87	0.16	55,55,55,55	0
56	MG	RA	3521	1/1	0.87	0.14	58,58,58,58	0
56	MG	RA	3070	1/1	0.87	0.32	48,48,48,48	0
56	MG	RA	4010	1/1	0.87	0.34	108,108,108,108	0
56	MG	RA	3547	1/1	0.87	0.21	48,48,48,48	0
56	MG	YA	3632	1/1	0.87	0.33	34,34,34,34	0
56	MG	YA	3050	1/1	0.87	0.19	53,53,53,53	0
56	MG	RA	3548	1/1	0.87	0.15	53,53,53,53	0
56	MG	XA	1712	1/1	0.87	0.22	43,43,43,43	0
56	MG	RA	3625	1/1	0.87	0.16	38,38,38,38	0
56	MG	YP	201	1/1	0.87	0.27	73,73,73,73	0
56	MG	YA	3491	1/1	0.87	0.18	57,57,57,57	0
56	MG	RA	3379	1/1	0.87	0.17	34,34,34,34	0
56	MG	YA	3237	1/1	0.87	0.12	51,51,51,51	0
56	MG	QA	1729	1/1	0.87	0.12	67,67,67,67	0
56	MG	YA	3360	1/1	0.87	0.16	44,44,44,44	0
56	MG	YA	3361	1/1	0.87	0.34	34,34,34,34	0
56	MG	QA	1859	1/1	0.87	0.28	78,78,78,78	0
56	MG	RA	3248	1/1	0.87	0.22	71,71,71,71	0
56	MG	RA	3705	1/1	0.87	0.10	66,66,66,66	0
56	MG	YA	3504	1/1	0.87	0.28	34,34,34,34	0
56	MG	RA	3589	1/1	0.87	0.36	72,72,72,72	0
56	MG	RA	3360	1/1	0.87	0.31	55,55,55,55	0
56	MG	QA	1737	1/1	0.87	0.11	56,56,56,56	0
56	MG	XA	1728	1/1	0.87	0.10	58,58,58,58	0
56	MG	RA	3843	1/1	0.87	0.10	41,41,41,41	0
56	MG	RA	3476	1/1	0.87	0.24	34,34,34,34	0
56	MG	YA	3670	1/1	0.87	0.34	43,43,43,43	0
56	MG	RA	3125	1/1	0.87	0.20	48,48,48,48	0
56	MG	XA	1738	1/1	0.87	0.29	37,37,37,37	0
56	MG	RA	3846	1/1	0.87	0.28	41,41,41,41	0
56	MG	XA	1742	1/1	0.87	0.17	47,47,47,47	0
56	MG	RA	3479	1/1	0.87	0.21	61,61,61,61	0
56	MG	RA	3531	1/1	0.87	0.40	81,81,81,81	0
56	MG	RA	4032	1/1	0.87	0.34	94,94,94,94	0
56	MG	QA	1749	1/1	0.87	0.26	76,76,76,76	0
56	MG	RA	3407	1/1	0.87	0.14	55,55,55,55	0
56	MG	RA	3560	1/1	0.87	0.21	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3716	1/1	0.87	0.09	48,48,48,48	0
56	MG	YA	3524	1/1	0.87	0.23	49,49,49,49	0
56	MG	QA	1685	1/1	0.87	0.17	92,92,92,92	0
56	MG	YA	3178	1/1	0.87	0.10	41,41,41,41	0
56	MG	RA	3533	1/1	0.87	0.15	61,61,61,61	0
56	MG	RA	3266	1/1	0.87	0.09	82,82,82,82	0
56	MG	YA	3269	1/1	0.87	0.19	40,40,40,40	0
56	MG	YA	3270	1/1	0.87	0.09	43,43,43,43	0
56	MG	XA	1630	1/1	0.87	0.18	57,57,57,57	0
56	MG	RA	3036	1/1	0.87	0.22	72,72,72,72	0
56	MG	RA	3643	1/1	0.87	0.30	64,64,64,64	0
56	MG	YA	3001	1/1	0.87	0.30	86,86,86,86	0
56	MG	YA	3420	1/1	0.87	0.18	44,44,44,44	0
56	MG	YA	3542	1/1	0.87	0.30	75,75,75,75	0
56	MG	YA	3002	1/1	0.87	0.12	35,35,35,35	0
56	MG	QA	1690	1/1	0.87	0.12	76,76,76,76	0
56	MG	YA	3095	1/1	0.87	0.15	41,41,41,41	0
56	MG	YA	3189	1/1	0.87	0.25	57,57,57,57	0
56	MG	XA	1777	1/1	0.87	0.18	45,45,45,45	0
56	MG	YA	3005	1/1	0.87	0.27	69,69,69,69	0
56	MG	RA	3229	1/1	0.87	0.21	71,71,71,71	0
56	MG	QA	1818	1/1	0.87	0.13	43,43,43,43	0
56	MG	YA	3008	1/1	0.87	0.14	42,42,42,42	0
56	MG	YA	3711	1/1	0.87	0.15	62,62,62,62	0
56	MG	XA	1784	1/1	0.87	0.09	88,88,88,88	0
56	MG	YA	3558	1/1	0.87	0.20	44,44,44,44	0
56	MG	RA	3681	1/1	0.87	0.10	41,41,41,41	0
56	MG	RA	3127	1/1	0.87	0.23	57,57,57,57	0
56	MG	RA	3054	1/1	0.87	0.38	100,100,100,100	0
56	MG	RA	3435	1/1	0.87	0.17	43,43,43,43	0
56	MG	RA	3417	1/1	0.87	0.22	55,55,55,55	0
56	MG	YA	3113	1/1	0.87	0.06	40,40,40,40	0
56	MG	RB	219	1/1	0.87	0.06	43,43,43,43	0
56	MG	RA	3873	1/1	0.87	0.18	58,58,58,58	0
56	MG	RA	3936	1/1	0.87	0.28	66,66,66,66	0
56	MG	RA	3688	1/1	0.87	0.22	45,45,45,45	0
56	MG	RA	3652	1/1	0.87	0.14	48,48,48,48	0
56	MG	YA	3027	1/1	0.87	0.18	38,38,38,38	0
56	MG	YA	3028	1/1	0.87	0.21	52,52,52,52	0
56	MG	YA	3581	1/1	0.87	0.25	34,34,34,34	0
56	MG	RA	3878	1/1	0.87	0.12	60,60,60,60	0
56	MG	RA	3440	1/1	0.87	0.17	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	YA	3743	1/1	0.87	0.34	113,113,113,113	0
56	MG	YA	3745	1/1	0.87	0.23	64,64,64,64	0
56	MG	YA	3322	1/1	0.87	0.22	34,34,34,34	0
57	ZN	Y9	101	1/1	0.87	0.36	147,147,147,147	0
56	MG	YD	302	1/1	0.88	0.17	40,40,40,40	0
56	MG	YD	303	1/1	0.88	0.62	59,59,59,59	0
56	MG	RA	3590	1/1	0.88	0.24	68,68,68,68	0
56	MG	YA	3063	1/1	0.88	0.16	53,53,53,53	0
56	MG	YA	3649	1/1	0.88	0.22	39,39,39,39	0
56	MG	RA	3591	1/1	0.88	0.19	55,55,55,55	0
56	MG	YA	3654	1/1	0.88	0.28	34,34,34,34	0
56	MG	YA	3145	1/1	0.88	0.17	47,47,47,47	0
56	MG	RA	3385	1/1	0.88	0.40	34,34,34,34	0
56	MG	YA	3658	1/1	0.88	0.25	34,34,34,34	0
56	MG	YA	3303	1/1	0.88	0.13	50,50,50,50	0
56	MG	RD	301	1/1	0.88	0.27	57,57,57,57	0
56	MG	YF	302	1/1	0.88	0.47	91,91,91,91	0
56	MG	YA	3425	1/1	0.88	0.20	39,39,39,39	0
56	MG	YG	202	1/1	0.88	0.07	52,52,52,52	0
56	MG	YA	3665	1/1	0.88	0.40	60,60,60,60	0
56	MG	RA	3807	1/1	0.88	0.42	60,60,60,60	0
56	MG	YO	201	1/1	0.88	0.12	43,43,43,43	0
56	MG	YA	3309	1/1	0.88	0.22	36,36,36,36	0
56	MG	XA	1708	1/1	0.88	0.24	50,50,50,50	0
56	MG	RA	3062	1/1	0.88	0.12	42,42,42,42	0
56	MG	YA	3534	1/1	0.88	0.16	50,50,50,50	0
56	MG	YT	201	1/1	0.88	0.15	76,76,76,76	0
56	MG	YA	3430	1/1	0.88	0.20	34,34,34,34	0
56	MG	QA	1650	1/1	0.88	0.09	43,43,43,43	0
56	MG	RA	3069	1/1	0.88	0.20	48,48,48,48	0
56	MG	QV	104	1/1	0.88	0.30	63,63,63,63	0
56	MG	RA	3389	1/1	0.88	0.16	34,34,34,34	0
56	MG	YA	3321	1/1	0.88	0.46	34,34,34,34	0
56	MG	YA	3158	1/1	0.88	0.17	36,36,36,36	0
56	MG	RA	3710	1/1	0.88	0.15	41,41,41,41	0
56	MG	RA	3772	1/1	0.88	0.16	40,40,40,40	0
56	MG	RA	3282	1/1	0.88	0.14	46,46,46,46	0
56	MG	RA	4009	1/1	0.88	0.10	73,73,73,73	0
56	MG	RA	3432	1/1	0.88	0.16	37,37,37,37	0
56	MG	RA	3743	1/1	0.88	0.25	43,43,43,43	0
56	MG	YA	3556	1/1	0.88	0.20	35,35,35,35	0
56	MG	RA	3600	1/1	0.88	0.26	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3858	1/1	0.88	0.10	50,50,50,50	0
56	MG	RA	3603	1/1	0.88	0.22	38,38,38,38	0
56	MG	YA	3015	1/1	0.88	0.31	84,84,84,84	0
56	MG	RA	3963	1/1	0.88	0.13	57,57,57,57	0
56	MG	RA	3685	1/1	0.88	0.12	53,53,53,53	0
56	MG	XA	1618	1/1	0.88	0.20	57,57,57,57	0
56	MG	RA	3091	1/1	0.88	0.29	101,101,101,101	0
56	MG	YA	3019	1/1	0.88	0.20	52,52,52,52	0
56	MG	RA	3335	1/1	0.88	0.29	34,34,34,34	0
56	MG	RA	3263	1/1	0.88	0.21	63,63,63,63	0
56	MG	RA	4025	1/1	0.88	0.16	68,68,68,68	0
56	MG	YA	3099	1/1	0.88	0.13	47,47,47,47	0
56	MG	RA	3458	1/1	0.88	0.15	39,39,39,39	0
56	MG	YA	3575	1/1	0.88	0.13	46,46,46,46	0
56	MG	RA	3866	1/1	0.88	0.33	47,47,47,47	0
56	MG	RA	3790	1/1	0.88	0.20	60,60,60,60	0
56	MG	YA	3579	1/1	0.88	0.17	40,40,40,40	0
56	MG	YA	3106	1/1	0.88	0.27	77,77,77,77	0
56	MG	YA	3107	1/1	0.88	0.14	36,36,36,36	0
56	MG	YA	3474	1/1	0.88	0.26	43,43,43,43	0
56	MG	RA	3286	1/1	0.88	0.12	73,73,73,73	0
56	MG	YA	3478	1/1	0.88	0.23	35,35,35,35	0
56	MG	RA	3924	1/1	0.88	0.17	84,84,84,84	0
56	MG	RA	3692	1/1	0.88	0.42	96,96,96,96	0
56	MG	RA	3144	1/1	0.88	0.13	42,42,42,42	0
56	MG	RA	3167	1/1	0.88	0.14	62,62,62,62	0
56	MG	YA	3262	1/1	0.88	0.18	48,48,48,48	0
56	MG	YA	3485	1/1	0.88	0.29	34,34,34,34	0
56	MG	RA	3876	1/1	0.88	0.16	34,34,34,34	0
56	MG	RA	3198	1/1	0.88	0.16	45,45,45,45	0
56	MG	YA	3732	1/1	0.88	0.17	47,47,47,47	0
56	MG	YA	3599	1/1	0.88	0.14	34,34,34,34	0
56	MG	YA	3734	1/1	0.88	0.27	50,50,50,50	0
56	MG	QA	1739	1/1	0.88	0.24	37,37,37,37	0
56	MG	YA	3375	1/1	0.88	0.22	39,39,39,39	0
56	MG	YA	3739	1/1	0.88	0.23	34,34,34,34	0
56	MG	RA	3358	1/1	0.88	0.20	34,34,34,34	0
56	MG	XA	1656	1/1	0.88	0.08	52,52,52,52	0
56	MG	YA	3380	1/1	0.88	0.32	36,36,36,36	0
56	MG	YA	3744	1/1	0.88	0.43	54,54,54,54	0
56	MG	YA	3271	1/1	0.88	0.38	34,34,34,34	0
56	MG	RA	3882	1/1	0.88	0.25	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3191	1/1	0.88	0.27	76,76,76,76	0
56	MG	QA	1629	1/1	0.88	0.07	39,39,39,39	0
56	MG	YA	3388	1/1	0.88	0.24	34,34,34,34	0
56	MG	YA	3277	1/1	0.88	0.10	42,42,42,42	0
56	MG	YA	3502	1/1	0.88	0.26	72,72,72,72	0
56	MG	QA	1862	1/1	0.88	0.16	82,82,82,82	0
56	MG	QA	1744	1/1	0.88	0.10	43,43,43,43	0
56	MG	YA	3627	1/1	0.88	0.24	67,67,67,67	0
56	MG	RB	210	1/1	0.88	0.17	46,46,46,46	0
56	MG	RA	3933	1/1	0.88	0.44	95,95,95,95	0
56	MG	RA	3884	1/1	0.88	0.21	34,34,34,34	0
56	MG	RA	3990	1/1	0.88	0.34	69,69,69,69	0
57	ZN	R4	101	1/1	0.88	0.16	177,177,177,177	0
56	MG	YA	3633	1/1	0.88	0.19	45,45,45,45	0
56	MG	RA	3885	1/1	0.88	0.29	79,79,79,79	0
56	MG	RA	3993	1/1	0.88	0.30	94,94,94,94	0
56	MG	RA	3470	1/1	0.88	0.35	34,34,34,34	0
56	MG	YA	3514	1/1	0.88	0.18	48,48,48,48	0
56	MG	RA	3112	1/1	0.88	0.31	85,85,85,85	0
56	MG	QA	1643	1/1	0.88	0.18	103,103,103,103	0
56	MG	YA	3036	1/1	0.89	0.28	54,54,54,54	0
56	MG	YA	3184	1/1	0.89	0.34	101,101,101,101	0
56	MG	YA	3696	1/1	0.89	0.13	48,48,48,48	0
56	MG	RA	3465	1/1	0.89	0.22	34,34,34,34	0
56	MG	XA	1702	1/1	0.89	0.17	43,43,43,43	0
56	MG	Y5	102	1/1	0.89	0.15	75,75,75,75	0
56	MG	YA	3111	1/1	0.89	0.14	56,56,56,56	0
56	MG	YA	3699	1/1	0.89	0.18	34,34,34,34	0
56	MG	YA	3187	1/1	0.89	0.19	57,57,57,57	0
56	MG	RE	301	1/1	0.89	0.33	76,76,76,76	0
56	MG	YA	3477	1/1	0.89	0.16	57,57,57,57	0
56	MG	RA	3773	1/1	0.89	0.24	64,64,64,64	0
56	MG	RE	307	1/1	0.89	0.16	58,58,58,58	0
56	MG	YA	3265	1/1	0.89	0.34	58,58,58,58	0
56	MG	XA	1607	1/1	0.89	0.16	43,43,43,43	0
56	MG	QD	301	1/1	0.89	0.18	47,47,47,47	0
56	MG	YA	3371	1/1	0.89	0.26	34,34,34,34	0
56	MG	RA	3890	1/1	0.89	0.23	37,37,37,37	0
56	MG	R7	102	1/1	0.89	0.14	67,67,67,67	0
56	MG	RA	3356	1/1	0.89	0.30	55,55,55,55	0
56	MG	YA	3379	1/1	0.89	0.15	42,42,42,42	0
56	MG	RA	3225	1/1	0.89	0.60	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	RA	3982	1/1	0.89	0.25	66,66,66,66	0
56	MG	RA	3937	1/1	0.89	0.13	62,62,62,62	0
56	MG	RA	3893	1/1	0.89	0.23	47,47,47,47	0
56	MG	QA	1760	1/1	0.89	0.22	41,41,41,41	0
56	MG	YA	3718	1/1	0.89	0.16	37,37,37,37	0
56	MG	YA	3387	1/1	0.89	0.30	56,56,56,56	0
56	MG	RA	3376	1/1	0.89	0.24	34,34,34,34	0
56	MG	YA	3392	1/1	0.89	0.30	37,37,37,37	0
56	MG	YA	3723	1/1	0.89	0.09	64,64,64,64	0
56	MG	XA	1732	1/1	0.89	0.12	43,43,43,43	0
56	MG	RA	3262	1/1	0.89	0.19	76,76,76,76	0
56	MG	YA	3726	1/1	0.89	0.20	50,50,50,50	0
56	MG	RA	3433	1/1	0.89	0.14	59,59,59,59	0
56	MG	RA	3687	1/1	0.89	0.23	64,64,64,64	0
56	MG	YA	3397	1/1	0.89	0.38	34,34,34,34	0
56	MG	RA	3122	1/1	0.89	0.10	45,45,45,45	0
56	MG	YA	3206	1/1	0.89	0.27	86,86,86,86	0
56	MG	YA	3289	1/1	0.89	0.24	34,34,34,34	0
56	MG	YA	3062	1/1	0.89	0.11	62,62,62,62	0
56	MG	YA	3291	1/1	0.89	0.16	38,38,38,38	0
56	MG	RA	3332	1/1	0.89	0.25	49,49,49,49	0
56	MG	RA	3611	1/1	0.89	0.23	63,63,63,63	0
56	MG	RA	3502	1/1	0.89	0.21	41,41,41,41	0
56	MG	RB	209	1/1	0.89	0.40	55,55,55,55	0
56	MG	RA	3825	1/1	0.89	0.11	50,50,50,50	0
56	MG	RP	202	1/1	0.89	0.33	63,63,63,63	0
56	MG	YA	3416	1/1	0.89	0.06	43,43,43,43	0
56	MG	QA	1619	1/1	0.89	0.09	77,77,77,77	0
56	MG	RA	3303	1/1	0.89	0.19	46,46,46,46	0
56	MG	YA	3639	1/1	0.89	0.23	46,46,46,46	0
56	MG	RA	3828	1/1	0.89	0.14	35,35,35,35	0
56	MG	QA	1775	1/1	0.89	0.22	56,56,56,56	0
56	MG	RA	3264	1/1	0.89	0.39	106,106,106,106	0
56	MG	XA	1766	1/1	0.89	0.26	38,38,38,38	0
56	MG	RA	3639	1/1	0.89	0.11	49,49,49,49	0
56	MG	RA	3209	1/1	0.89	0.09	37,37,37,37	0
56	MG	RA	3134	1/1	0.89	0.28	91,91,91,91	0
56	MG	YA	3529	1/1	0.89	0.16	34,34,34,34	0
56	MG	RA	3914	1/1	0.89	0.25	97,97,97,97	0
56	MG	YA	3081	1/1	0.89	0.17	75,75,75,75	0
56	MG	YA	3013	1/1	0.89	0.20	35,35,35,35	0
56	MG	RA	3564	1/1	0.89	0.15	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	QA	1732	1/1	0.89	0.10	41,41,41,41	0
56	MG	YA	3659	1/1	0.89	0.23	34,34,34,34	0
56	MG	YA	3085	1/1	0.89	0.25	81,81,81,81	0
56	MG	RA	3592	1/1	0.89	0.31	74,74,74,74	0
56	MG	YA	3090	1/1	0.89	0.11	34,34,34,34	0
56	MG	RA	3800	1/1	0.89	0.19	34,34,34,34	0
56	MG	YA	3543	1/1	0.89	0.19	49,49,49,49	0
56	MG	RA	3008	1/1	0.89	0.20	78,78,78,78	0
56	MG	YA	3167	1/1	0.89	0.22	52,52,52,52	0
56	MG	RD	302	1/1	0.89	0.12	43,43,43,43	0
56	MG	RA	3701	1/1	0.89	0.21	47,47,47,47	0
56	MG	RA	3297	1/1	0.89	0.18	78,78,78,78	0
56	MG	QA	1847	1/1	0.89	0.15	45,45,45,45	0
56	MG	QA	1637	1/1	0.89	0.08	35,35,35,35	0
56	MG	XT	201	1/1	0.89	0.17	63,63,63,63	0
56	MG	QA	1793	1/1	0.89	0.09	50,50,50,50	0
56	MG	YA	3341	1/1	0.89	0.19	45,45,45,45	0
56	MG	RA	3647	1/1	0.89	0.14	55,55,55,55	0
56	MG	YA	3559	1/1	0.89	0.22	36,36,36,36	0
56	MG	RA	4014	1/1	0.89	0.13	40,40,40,40	0
56	MG	YA	3101	1/1	0.89	0.14	35,35,35,35	0
56	MG	RA	3445	1/1	0.89	0.10	67,67,67,67	0
56	MG	YA	3348	1/1	0.89	0.35	34,34,34,34	0
56	MG	RA	3105	1/1	0.89	0.21	66,66,66,66	0
56	MG	RA	3572	1/1	0.89	0.12	58,58,58,58	0
56	MG	RA	3653	1/1	0.89	0.21	41,41,41,41	0
56	MG	YR	201	1/1	0.89	0.12	42,42,42,42	0
56	MG	YA	3108	1/1	0.89	0.26	34,34,34,34	0
56	MG	YT	202	1/1	0.89	0.09	38,38,38,38	0
56	MG	XA	1619	1/1	0.90	0.12	68,68,68,68	0
56	MG	YA	3356	1/1	0.90	0.12	38,38,38,38	0
56	MG	YA	3445	1/1	0.90	0.26	61,61,61,61	0
56	MG	YA	3641	1/1	0.90	0.28	34,34,34,34	0
56	MG	RA	3481	1/1	0.90	0.26	46,46,46,46	0
56	MG	YA	3738	1/1	0.90	0.20	59,59,59,59	0
56	MG	QA	1607	1/1	0.90	0.18	56,56,56,56	0
56	MG	RA	3426	1/1	0.90	0.19	45,45,45,45	0
56	MG	RA	3759	1/1	0.90	0.43	79,79,79,79	0
56	MG	RA	3760	1/1	0.90	0.21	54,54,54,54	0
56	MG	RA	3569	1/1	0.90	0.09	62,62,62,62	0
56	MG	YA	3541	1/1	0.90	0.23	57,57,57,57	0
56	MG	RA	3410	1/1	0.90	0.18	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	RA	3870	1/1	0.90	0.37	44,44,44,44	0
56	MG	RA	3871	1/1	0.90	0.21	49,49,49,49	0
56	MG	QA	1616	1/1	0.90	0.13	58,58,58,58	0
56	MG	RA	3571	1/1	0.90	0.25	63,63,63,63	0
56	MG	RA	3915	1/1	0.90	0.20	53,53,53,53	0
56	MG	YA	3042	1/1	0.90	0.11	62,62,62,62	0
56	MG	XA	1729	1/1	0.90	0.15	75,75,75,75	0
56	MG	YA	3376	1/1	0.90	0.29	34,34,34,34	0
56	MG	YA	3662	1/1	0.90	0.25	34,34,34,34	0
56	MG	RA	3334	1/1	0.90	0.25	47,47,47,47	0
56	MG	RA	3485	1/1	0.90	0.22	51,51,51,51	0
56	MG	RA	3071	1/1	0.90	0.20	84,84,84,84	0
56	MG	QH	201	1/1	0.90	0.16	71,71,71,71	0
56	MG	YA	3232	1/1	0.90	0.18	56,56,56,56	0
56	MG	XA	1740	1/1	0.90	0.24	38,38,38,38	0
56	MG	RA	3551	1/1	0.90	0.16	39,39,39,39	0
56	MG	RA	3880	1/1	0.90	0.09	35,35,35,35	0
56	MG	YA	3304	1/1	0.90	0.37	44,44,44,44	0
56	MG	YA	3305	1/1	0.90	0.22	54,54,54,54	0
56	MG	RA	3709	1/1	0.90	0.10	41,41,41,41	0
56	MG	YA	3675	1/1	0.90	0.29	34,34,34,34	0
56	MG	YA	3393	1/1	0.90	0.26	54,54,54,54	0
56	MG	RA	3488	1/1	0.90	0.43	38,38,38,38	0
56	MG	YA	3114	1/1	0.90	0.16	81,81,81,81	0
56	MG	YA	3312	1/1	0.90	0.29	34,34,34,34	0
56	MG	YA	3483	1/1	0.90	0.28	38,38,38,38	0
56	MG	RA	3085	1/1	0.90	0.45	122,122,122,122	0
56	MG	RA	3151	1/1	0.90	0.09	39,39,39,39	0
56	MG	YA	3399	1/1	0.90	0.32	86,86,86,86	0
56	MG	YA	3577	1/1	0.90	0.23	37,37,37,37	0
56	MG	RA	3159	1/1	0.90	0.16	75,75,75,75	0
56	MG	RA	3313	1/1	0.90	0.18	34,34,34,34	0
56	MG	XA	1668	1/1	0.90	0.10	57,57,57,57	0
56	MG	YA	3319	1/1	0.90	0.28	34,34,34,34	0
56	MG	RA	3278	1/1	0.90	0.12	47,47,47,47	0
56	MG	QA	1726	1/1	0.90	0.14	53,53,53,53	0
56	MG	RA	3776	1/1	0.90	0.13	51,51,51,51	0
56	MG	RA	3889	1/1	0.90	0.26	42,42,42,42	0
56	MG	YA	3409	1/1	0.90	0.26	48,48,48,48	0
56	MG	RE	305	1/1	0.90	0.37	70,70,70,70	0
56	MG	YA	3411	1/1	0.90	0.28	46,46,46,46	0
56	MG	RA	3234	1/1	0.90	0.26	103,103,103,103	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3849	1/1	0.90	0.27	34,34,34,34	0
56	MG	YA	3004	1/1	0.90	0.23	34,34,34,34	0
56	MG	YA	3417	1/1	0.90	0.17	44,44,44,44	0
56	MG	XA	1682	1/1	0.90	0.18	53,53,53,53	0
56	MG	QA	1735	1/1	0.90	0.30	45,45,45,45	0
56	MG	RA	3640	1/1	0.90	0.12	37,37,37,37	0
56	MG	XA	1685	1/1	0.90	0.14	76,76,76,76	0
56	MG	YA	3507	1/1	0.90	0.29	34,34,34,34	0
56	MG	YA	3602	1/1	0.90	0.28	34,34,34,34	0
56	MG	YA	3508	1/1	0.90	0.19	40,40,40,40	0
56	MG	QA	1783	1/1	0.90	0.24	47,47,47,47	0
56	MG	RA	3436	1/1	0.90	0.29	39,39,39,39	0
56	MG	XA	1691	1/1	0.90	0.23	41,41,41,41	0
56	MG	XF	204	1/1	0.90	0.07	60,60,60,60	0
56	MG	RA	3406	1/1	0.90	0.14	34,34,34,34	0
56	MG	QA	1642	1/1	0.90	0.11	55,55,55,55	0
56	MG	RA	3940	1/1	0.90	0.18	46,46,46,46	0
56	MG	RF	305	1/1	0.90	0.21	85,85,85,85	0
56	MG	RA	3055	1/1	0.90	0.19	67,67,67,67	0
56	MG	RA	3750	1/1	0.90	0.25	34,34,34,34	0
56	MG	RA	3721	1/1	0.90	0.15	58,58,58,58	0
56	MG	RA	3003	1/1	0.90	0.13	40,40,40,40	0
56	MG	YA	3147	1/1	0.90	0.24	36,36,36,36	0
56	MG	YA	3435	1/1	0.90	0.30	53,53,53,53	0
56	MG	RF	310	1/1	0.90	0.20	62,62,62,62	0
56	MG	QA	1796	1/1	0.90	0.16	60,60,60,60	0
56	MG	QA	1748	1/1	0.90	0.11	62,62,62,62	0
56	MG	RA	3522	1/1	0.90	0.22	58,58,58,58	0
56	MG	RA	3135	1/1	0.90	0.24	89,89,89,89	0
56	MG	YA	3441	1/1	0.90	0.09	41,41,41,41	0
56	MG	RA	4015	1/1	0.91	0.17	42,42,42,42	0
56	MG	YA	3266	1/1	0.91	0.23	42,42,42,42	0
56	MG	YA	3268	1/1	0.91	0.32	34,34,34,34	0
56	MG	RA	4016	1/1	0.91	0.37	101,101,101,101	0
56	MG	RD	310	1/1	0.91	0.11	40,40,40,40	0
56	MG	RA	3103	1/1	0.91	0.31	55,55,55,55	0
56	MG	YA	3634	1/1	0.91	0.25	59,59,59,59	0
56	MG	YA	3531	1/1	0.91	0.17	34,34,34,34	0
56	MG	QA	1790	1/1	0.91	0.12	68,68,68,68	0
56	MG	YA	3637	1/1	0.91	0.17	36,36,36,36	0
56	MG	QA	1845	1/1	0.91	0.30	52,52,52,52	0
56	MG	RD	312	1/1	0.91	0.35	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	RA	3078	1/1	0.91	0.19	60,60,60,60	0
56	MG	YA	3278	1/1	0.91	0.32	34,34,34,34	0
56	MG	RA	4019	1/1	0.91	0.30	84,84,84,84	0
56	MG	YA	3022	1/1	0.91	0.47	95,95,95,95	0
56	MG	YA	3364	1/1	0.91	0.27	36,36,36,36	0
56	MG	RA	3819	1/1	0.91	0.17	60,60,60,60	0
56	MG	RA	3387	1/1	0.91	0.32	34,34,34,34	0
56	MG	YA	3650	1/1	0.91	0.16	44,44,44,44	0
56	MG	YA	3544	1/1	0.91	0.17	42,42,42,42	0
56	MG	YA	3652	1/1	0.91	0.28	37,37,37,37	0
56	MG	YA	3283	1/1	0.91	0.33	49,49,49,49	0
56	MG	XA	1640	1/1	0.91	0.13	52,52,52,52	0
56	MG	RA	3331	1/1	0.91	0.15	58,58,58,58	0
56	MG	YA	3547	1/1	0.91	0.23	45,45,45,45	0
56	MG	QA	1853	1/1	0.91	0.17	50,50,50,50	0
56	MG	RA	3367	1/1	0.91	0.19	40,40,40,40	0
56	MG	RA	3753	1/1	0.91	0.28	34,34,34,34	0
56	MG	RA	3237	1/1	0.91	0.11	47,47,47,47	0
56	MG	RA	3826	1/1	0.91	0.09	34,34,34,34	0
56	MG	RA	3438	1/1	0.91	0.09	36,36,36,36	0
56	MG	RA	3161	1/1	0.91	0.23	76,76,76,76	0
56	MG	RA	3301	1/1	0.91	0.23	34,34,34,34	0
56	MG	YB	217	1/1	0.91	0.23	55,55,55,55	0
56	MG	RA	3172	1/1	0.91	0.12	58,58,58,58	0
56	MG	YA	3296	1/1	0.91	0.10	34,34,34,34	0
56	MG	XA	1655	1/1	0.91	0.06	46,46,46,46	0
56	MG	RA	3217	1/1	0.91	0.08	55,55,55,55	0
56	MG	YA	3299	1/1	0.91	0.16	35,35,35,35	0
56	MG	RA	3492	1/1	0.91	0.07	40,40,40,40	0
56	MG	XA	1755	1/1	0.91	0.15	57,57,57,57	0
56	MG	RA	3992	1/1	0.91	0.22	87,87,87,87	0
56	MG	YA	3230	1/1	0.91	0.20	85,85,85,85	0
56	MG	RA	3909	1/1	0.91	0.19	48,48,48,48	0
56	MG	RA	3573	1/1	0.91	0.26	47,47,47,47	0
56	MG	RA	3190	1/1	0.91	0.24	89,89,89,89	0
56	MG	RA	3608	1/1	0.91	0.19	34,34,34,34	0
56	MG	RA	3072	1/1	0.91	0.28	54,54,54,54	0
56	MG	RA	3377	1/1	0.91	0.24	34,34,34,34	0
56	MG	XA	1667	1/1	0.91	0.14	58,58,58,58	0
56	MG	QA	1714	1/1	0.91	0.07	62,62,62,62	0
56	MG	YA	3238	1/1	0.91	0.36	85,85,85,85	0
56	MG	XA	1770	1/1	0.91	0.23	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	RB	211	1/1	0.91	0.08	65,65,65,65	0
56	MG	RA	3956	1/1	0.91	0.11	44,44,44,44	0
56	MG	XA	1773	1/1	0.91	0.20	41,41,41,41	0
56	MG	YA	3051	1/1	0.91	0.19	52,52,52,52	0
56	MG	RA	3578	1/1	0.91	0.21	37,37,37,37	0
56	MG	XA	1776	1/1	0.91	0.22	47,47,47,47	0
56	MG	RA	4001	1/1	0.91	0.21	78,78,78,78	0
56	MG	YA	3495	1/1	0.91	0.10	38,38,38,38	0
56	MG	RQ	202	1/1	0.91	0.18	56,56,56,56	0
56	MG	RA	4002	1/1	0.91	0.26	36,36,36,36	0
56	MG	RA	3579	1/1	0.91	0.10	64,64,64,64	0
56	MG	RA	3840	1/1	0.91	0.17	61,61,61,61	0
56	MG	XA	1783	1/1	0.91	0.07	63,63,63,63	0
56	MG	YA	3060	1/1	0.91	0.12	35,35,35,35	0
56	MG	YA	3415	1/1	0.91	0.09	39,39,39,39	0
56	MG	RA	3021	1/1	0.91	0.17	53,53,53,53	0
56	MG	RA	3380	1/1	0.91	0.40	34,34,34,34	0
56	MG	YV	201	1/1	0.91	0.11	62,62,62,62	0
56	MG	YW	201	1/1	0.91	0.08	41,41,41,41	0
56	MG	RA	3473	1/1	0.91	0.19	47,47,47,47	0
56	MG	YA	3330	1/1	0.91	0.15	39,39,39,39	0
56	MG	YA	3126	1/1	0.91	0.25	46,46,46,46	0
56	MG	YA	3332	1/1	0.91	0.17	35,35,35,35	0
56	MG	RU	202	1/1	0.91	0.33	96,96,96,96	0
56	MG	RA	3474	1/1	0.91	0.29	34,34,34,34	0
56	MG	YA	3607	1/1	0.91	0.16	39,39,39,39	0
56	MG	YA	3336	1/1	0.91	0.35	34,34,34,34	0
56	MG	RA	3381	1/1	0.91	0.21	34,34,34,34	0
56	MG	RA	3164	1/1	0.91	0.14	36,36,36,36	0
56	MG	YA	3615	1/1	0.91	0.20	34,34,34,34	0
56	MG	YA	3259	1/1	0.91	0.15	63,63,63,63	0
56	MG	XA	1606	1/1	0.91	0.05	72,72,72,72	0
56	MG	RA	3477	1/1	0.91	0.10	41,41,41,41	0
56	MG	RA	3107	1/1	0.91	0.21	88,88,88,88	0
56	MG	YA	3433	1/1	0.91	0.28	34,34,34,34	0
56	MG	YA	3135	1/1	0.91	0.23	67,67,67,67	0
56	MG	QA	1633	1/1	0.91	0.05	51,51,51,51	0
56	MG	RA	3310	1/1	0.91	0.23	54,54,54,54	0
56	MG	RA	3755	1/1	0.92	0.20	48,48,48,48	0
56	MG	RA	3261	1/1	0.92	0.15	51,51,51,51	0
56	MG	QA	1856	1/1	0.92	0.07	55,55,55,55	0
56	MG	YA	3742	1/1	0.92	0.13	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	YA	3137	1/1	0.92	0.23	34,34,34,34	0
56	MG	YA	3138	1/1	0.92	0.06	45,45,45,45	0
56	MG	YA	3401	1/1	0.92	0.10	47,47,47,47	0
56	MG	YA	3746	1/1	0.92	0.31	69,69,69,69	0
56	MG	RE	304	1/1	0.92	0.26	34,34,34,34	0
56	MG	R0	101	1/1	0.92	0.12	53,53,53,53	0
56	MG	RA	3354	1/1	0.92	0.11	74,74,74,74	0
56	MG	R0	104	1/1	0.92	0.14	73,73,73,73	0
56	MG	RA	3606	1/1	0.92	0.28	36,36,36,36	0
56	MG	YA	3329	1/1	0.92	0.37	34,34,34,34	0
56	MG	RA	3095	1/1	0.92	0.10	53,53,53,53	0
56	MG	RA	3630	1/1	0.92	0.27	71,71,71,71	0
56	MG	RA	3486	1/1	0.92	0.13	41,41,41,41	0
56	MG	YA	3089	1/1	0.92	0.06	53,53,53,53	0
56	MG	YA	3664	1/1	0.92	0.23	34,34,34,34	0
56	MG	YA	3413	1/1	0.92	0.15	34,34,34,34	0
56	MG	YA	3267	1/1	0.92	0.33	87,87,87,87	0
56	MG	XA	1644	1/1	0.92	0.08	46,46,46,46	0
56	MG	YB	213	1/1	0.92	0.20	39,39,39,39	0
56	MG	RA	3853	1/1	0.92	0.18	34,34,34,34	0
56	MG	YA	3034	1/1	0.92	0.11	37,37,37,37	0
56	MG	RA	3920	1/1	0.92	0.34	34,34,34,34	0
56	MG	YA	3418	1/1	0.92	0.21	44,44,44,44	0
56	MG	QA	1727	1/1	0.92	0.23	44,44,44,44	0
56	MG	YA	3580	1/1	0.92	0.27	34,34,34,34	0
56	MG	RA	3565	1/1	0.92	0.18	34,34,34,34	0
56	MG	RA	3923	1/1	0.92	0.26	70,70,70,70	0
56	MG	YA	3039	1/1	0.92	0.06	39,39,39,39	0
56	MG	YA	3276	1/1	0.92	0.29	34,34,34,34	0
56	MG	YD	304	1/1	0.92	0.29	58,58,58,58	0
56	MG	QA	1731	1/1	0.92	0.15	59,59,59,59	0
56	MG	YA	3681	1/1	0.92	0.25	59,59,59,59	0
56	MG	RA	3962	1/1	0.92	0.15	48,48,48,48	0
56	MG	XA	1754	1/1	0.92	0.11	43,43,43,43	0
56	MG	RA	3081	1/1	0.92	0.37	68,68,68,68	0
56	MG	RA	3006	1/1	0.92	0.18	61,61,61,61	0
56	MG	YA	3429	1/1	0.92	0.14	41,41,41,41	0
56	MG	YA	3220	1/1	0.92	0.09	37,37,37,37	0
56	MG	YA	3593	1/1	0.92	0.23	37,37,37,37	0
56	MG	XA	1761	1/1	0.92	0.31	43,43,43,43	0
56	MG	RA	3635	1/1	0.92	0.22	44,44,44,44	0
56	MG	RA	3142	1/1	0.92	0.14	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3405	1/1	0.92	0.31	34,34,34,34	0
56	MG	RA	3968	1/1	0.92	0.20	64,64,64,64	0
56	MG	YA	3600	1/1	0.92	0.10	34,34,34,34	0
56	MG	YA	3286	1/1	0.92	0.18	43,43,43,43	0
56	MG	RA	3969	1/1	0.92	0.22	34,34,34,34	0
56	MG	YA	3168	1/1	0.92	0.18	39,39,39,39	0
56	MG	RA	3284	1/1	0.92	0.14	56,56,56,56	0
56	MG	YQ	201	1/1	0.92	0.22	52,52,52,52	0
56	MG	RA	3109	1/1	0.92	0.12	35,35,35,35	0
56	MG	RA	3897	1/1	0.92	0.30	74,74,74,74	0
56	MG	YA	3053	1/1	0.92	0.14	41,41,41,41	0
56	MG	YA	3612	1/1	0.92	0.26	55,55,55,55	0
56	MG	RA	3493	1/1	0.92	0.13	34,34,34,34	0
56	MG	YA	3614	1/1	0.92	0.27	34,34,34,34	0
56	MG	RA	3456	1/1	0.92	0.19	40,40,40,40	0
56	MG	RQ	201	1/1	0.92	0.12	61,61,61,61	0
56	MG	YA	3617	1/1	0.92	0.10	43,43,43,43	0
56	MG	RA	3900	1/1	0.92	0.29	80,80,80,80	0
56	MG	YA	3450	1/1	0.92	0.13	42,42,42,42	0
56	MG	Y5	101	1/1	0.92	0.11	43,43,43,43	0
56	MG	RA	3110	1/1	0.92	0.27	46,46,46,46	0
56	MG	QA	1792	1/1	0.92	0.17	37,37,37,37	0
56	MG	RA	3035	1/1	0.92	0.15	61,61,61,61	0
56	MG	RA	3019	1/1	0.92	0.34	85,85,85,85	0
56	MG	XA	1692	1/1	0.92	0.28	49,49,49,49	0
56	MG	XF	201	1/1	0.92	0.07	53,53,53,53	0
56	MG	RA	3411	1/1	0.92	0.27	89,89,89,89	0
56	MG	YA	3064	1/1	0.92	0.25	67,67,67,67	0
56	MG	RA	3325	1/1	0.92	0.10	52,52,52,52	0
56	MG	RA	3601	1/1	0.92	0.21	40,40,40,40	0
56	MG	YA	3460	1/1	0.92	0.19	55,55,55,55	0
56	MG	RA	3397	1/1	0.92	0.19	40,40,40,40	0
56	MG	YA	3384	1/1	0.92	0.31	34,34,34,34	0
56	MG	YA	3463	1/1	0.92	0.22	43,43,43,43	0
56	MG	RA	3725	1/1	0.92	0.14	34,34,34,34	0
56	MG	YA	3310	1/1	0.92	0.26	34,34,34,34	0
56	MG	QA	1849	1/1	0.92	0.15	42,42,42,42	0
56	MG	YA	3730	1/1	0.92	0.21	66,66,66,66	0
56	MG	YA	3640	1/1	0.92	0.40	34,34,34,34	0
56	MG	RA	3987	1/1	0.92	0.25	87,87,87,87	0
56	MG	XA	1707	1/1	0.92	0.16	53,53,53,53	0
56	MG	RA	3815	1/1	0.92	0.40	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RV	203	1/1	0.92	0.14	55,55,55,55	0
56	MG	RA	3700	1/1	0.92	0.10	41,41,41,41	0
56	MG	YA	3645	1/1	0.92	0.25	61,61,61,61	0
56	MG	RA	3934	1/1	0.93	0.15	50,50,50,50	0
56	MG	RS	201	1/1	0.93	0.15	41,41,41,41	0
56	MG	RT	201	1/1	0.93	0.08	46,46,46,46	0
56	MG	RA	3935	1/1	0.93	0.16	46,46,46,46	0
56	MG	RA	3015	1/1	0.93	0.41	97,97,97,97	0
56	MG	YA	3552	1/1	0.93	0.21	49,49,49,49	0
56	MG	XA	1734	1/1	0.93	0.17	39,39,39,39	0
56	MG	YA	3030	1/1	0.93	0.19	66,66,66,66	0
56	MG	YA	3079	1/1	0.93	0.20	37,37,37,37	0
56	MG	RA	3168	1/1	0.93	0.07	46,46,46,46	0
56	MG	YA	3132	1/1	0.93	0.12	39,39,39,39	0
56	MG	RE	303	1/1	0.93	0.25	68,68,68,68	0
56	MG	RA	3971	1/1	0.93	0.21	35,35,35,35	0
56	MG	RA	3182	1/1	0.93	0.15	59,59,59,59	0
56	MG	RA	3794	1/1	0.93	0.20	77,77,77,77	0
56	MG	RA	3416	1/1	0.93	0.24	34,34,34,34	0
56	MG	YA	3357	1/1	0.93	0.05	36,36,36,36	0
56	MG	RA	3703	1/1	0.93	0.14	58,58,58,58	0
56	MG	QL	201	1/1	0.93	0.17	55,55,55,55	0
56	MG	YA	3724	1/1	0.93	0.35	48,48,48,48	0
56	MG	YA	3246	1/1	0.93	0.26	68,68,68,68	0
56	MG	YA	3141	1/1	0.93	0.08	41,41,41,41	0
56	MG	RA	3662	1/1	0.93	0.24	47,47,47,47	0
56	MG	QN	102	1/1	0.93	0.07	57,57,57,57	0
56	MG	RA	3799	1/1	0.93	0.12	34,34,34,34	0
56	MG	YA	3573	1/1	0.93	0.13	36,36,36,36	0
56	MG	RA	3529	1/1	0.93	0.17	40,40,40,40	0
56	MG	YA	3653	1/1	0.93	0.21	36,36,36,36	0
56	MG	QA	1663	1/1	0.93	0.15	64,64,64,64	0
56	MG	YA	3367	1/1	0.93	0.26	41,41,41,41	0
56	MG	RA	3461	1/1	0.93	0.11	34,34,34,34	0
56	MG	XA	1681	1/1	0.93	0.28	46,46,46,46	0
56	MG	XA	1764	1/1	0.93	0.23	50,50,50,50	0
56	MG	YA	3737	1/1	0.93	0.22	68,68,68,68	0
56	MG	RA	3390	1/1	0.93	0.14	65,65,65,65	0
56	MG	RA	3774	1/1	0.93	0.06	49,49,49,49	0
56	MG	RA	3403	1/1	0.93	0.14	35,35,35,35	0
56	MG	YA	3741	1/1	0.93	0.06	38,38,38,38	0
56	MG	YA	3153	1/1	0.93	0.06	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3233	1/1	0.93	0.34	89,89,89,89	0
56	MG	YA	3377	1/1	0.93	0.27	46,46,46,46	0
56	MG	XA	1612	1/1	0.93	0.08	42,42,42,42	0
56	MG	RA	3344	1/1	0.93	0.09	34,34,34,34	0
56	MG	QA	1630	1/1	0.93	0.21	44,44,44,44	0
56	MG	YA	3316	1/1	0.93	0.34	34,34,34,34	0
56	MG	QA	1843	1/1	0.93	0.14	42,42,42,42	0
56	MG	XA	1617	1/1	0.93	0.14	34,34,34,34	0
56	MG	YA	3318	1/1	0.93	0.12	34,34,34,34	0
56	MG	YA	3447	1/1	0.93	0.22	39,39,39,39	0
56	MG	RA	3778	1/1	0.93	0.12	42,42,42,42	0
56	MG	YA	3449	1/1	0.93	0.14	35,35,35,35	0
56	MG	RA	3393	1/1	0.93	0.40	34,34,34,34	0
56	MG	RA	3895	1/1	0.93	0.35	55,55,55,55	0
56	MG	YA	3597	1/1	0.93	0.15	35,35,35,35	0
56	MG	QA	1718	1/1	0.93	0.33	37,37,37,37	0
56	MG	RA	3129	1/1	0.93	0.06	43,43,43,43	0
56	MG	YA	3389	1/1	0.93	0.21	35,35,35,35	0
56	MG	YA	3390	1/1	0.93	0.17	34,34,34,34	0
56	MG	RA	3649	1/1	0.93	0.12	39,39,39,39	0
56	MG	RA	3811	1/1	0.93	0.23	37,37,37,37	0
56	MG	YA	3528	1/1	0.93	0.21	34,34,34,34	0
56	MG	YA	3606	1/1	0.93	0.18	34,34,34,34	0
56	MG	RA	3469	1/1	0.93	0.21	34,34,34,34	0
56	MG	YA	3608	1/1	0.93	0.18	34,34,34,34	0
56	MG	RA	3084	1/1	0.93	0.09	45,45,45,45	0
56	MG	RA	3048	1/1	0.93	0.08	41,41,41,41	0
56	MG	RA	4028	1/1	0.93	0.17	89,89,89,89	0
56	MG	RD	309	1/1	0.93	0.08	47,47,47,47	0
56	MG	RQ	203	1/1	0.93	0.15	41,41,41,41	0
56	MG	QA	1728	1/1	0.93	0.24	54,54,54,54	0
56	MG	RA	3576	1/1	0.93	0.07	51,51,51,51	0
56	MG	RA	3306	1/1	0.93	0.20	34,34,34,34	0
56	MG	YD	308	1/1	0.93	0.13	49,49,49,49	0
56	MG	YA	3469	1/1	0.93	0.16	60,60,60,60	0
56	MG	YA	3403	1/1	0.93	0.21	34,34,34,34	0
56	MG	YA	3335	1/1	0.93	0.23	34,34,34,34	0
56	MG	RA	3043	1/1	0.93	0.17	34,34,34,34	0
56	MG	RR	202	1/1	0.93	0.14	71,71,71,71	0
56	MG	RA	3733	1/1	0.94	0.17	40,40,40,40	0
56	MG	RA	3171	1/1	0.94	0.17	46,46,46,46	0
56	MG	YA	3532	1/1	0.94	0.15	37,37,37,37	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3347	1/1	0.94	0.20	35,35,35,35	0
56	MG	RA	3981	1/1	0.94	0.15	39,39,39,39	0
56	MG	RA	3250	1/1	0.94	0.44	91,91,91,91	0
56	MG	RA	4007	1/1	0.94	0.23	85,85,85,85	0
56	MG	YA	3537	1/1	0.94	0.18	36,36,36,36	0
56	MG	QA	1632	1/1	0.94	0.07	38,38,38,38	0
56	MG	YA	3391	1/1	0.94	0.24	34,34,34,34	0
56	MG	YA	3342	1/1	0.94	0.33	34,34,34,34	0
56	MG	RA	3651	1/1	0.94	0.17	53,53,53,53	0
56	MG	YA	3105	1/1	0.94	0.16	34,34,34,34	0
56	MG	YA	3603	1/1	0.94	0.39	34,34,34,34	0
56	MG	RA	3554	1/1	0.94	0.24	37,37,37,37	0
56	MG	YA	3490	1/1	0.94	0.11	36,36,36,36	0
56	MG	RA	3496	1/1	0.94	0.24	43,43,43,43	0
56	MG	YA	3443	1/1	0.94	0.41	41,41,41,41	0
56	MG	RA	3466	1/1	0.94	0.29	34,34,34,34	0
56	MG	YA	3609	1/1	0.94	0.17	38,38,38,38	0
56	MG	RA	3321	1/1	0.94	0.34	36,36,36,36	0
56	MG	QV	106	1/1	0.94	0.06	50,50,50,50	0
56	MG	RA	3613	1/1	0.94	0.23	41,41,41,41	0
56	MG	YA	3674	1/1	0.94	0.22	34,34,34,34	0
56	MG	YA	3497	1/1	0.94	0.15	50,50,50,50	0
56	MG	RA	3375	1/1	0.94	0.17	41,41,41,41	0
56	MG	YW	202	1/1	0.94	0.19	62,62,62,62	0
56	MG	YA	3311	1/1	0.94	0.30	35,35,35,35	0
56	MG	RA	3220	1/1	0.94	0.20	69,69,69,69	0
56	MG	YA	3680	1/1	0.94	0.28	36,36,36,36	0
56	MG	YA	3501	1/1	0.94	0.19	45,45,45,45	0
56	MG	RA	3460	1/1	0.94	0.11	39,39,39,39	0
56	MG	QA	1613	1/1	0.94	0.30	48,48,48,48	0
56	MG	RA	3786	1/1	0.94	0.09	42,42,42,42	0
56	MG	QA	1704	1/1	0.94	0.20	40,40,40,40	0
56	MG	YA	3274	1/1	0.94	0.19	34,34,34,34	0
56	MG	QA	1829	1/1	0.94	0.22	34,34,34,34	0
56	MG	RA	3660	1/1	0.94	0.35	43,43,43,43	0
56	MG	RE	302	1/1	0.94	0.21	60,60,60,60	0
56	MG	YA	3459	1/1	0.94	0.12	44,44,44,44	0
56	MG	YA	3011	1/1	0.94	0.07	37,37,37,37	0
56	MG	RA	3312	1/1	0.94	0.25	34,34,34,34	0
56	MG	YA	3695	1/1	0.94	0.23	43,43,43,43	0
56	MG	YA	3571	1/1	0.94	0.17	34,34,34,34	0
56	MG	XJ	201	1/1	0.94	0.05	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3729	1/1	0.94	0.11	40,40,40,40	0
56	MG	YA	3242	1/1	0.94	0.20	56,56,56,56	0
56	MG	YA	3370	1/1	0.94	0.27	34,34,34,34	0
56	MG	YA	3087	1/1	0.94	0.25	38,38,38,38	0
56	MG	YA	3373	1/1	0.94	0.08	47,47,47,47	0
56	MG	XA	1736	1/1	0.94	0.21	55,55,55,55	0
56	MG	RA	3879	1/1	0.94	0.15	41,41,41,41	0
56	MG	YA	3468	1/1	0.94	0.33	34,34,34,34	0
56	MG	RA	3854	1/1	0.94	0.30	62,62,62,62	0
56	MG	RA	3088	1/1	0.94	0.06	49,49,49,49	0
56	MG	RA	3550	1/1	0.94	0.21	35,35,35,35	0
56	MG	RR	203	1/1	0.94	0.08	46,46,46,46	0
56	MG	RA	3680	1/1	0.94	0.24	42,42,42,42	0
56	MG	R5	102	1/1	0.94	0.20	41,41,41,41	0
56	MG	YA	3058	1/1	0.94	0.12	42,42,42,42	0
56	MG	YA	3134	1/1	0.94	0.07	42,42,42,42	0
56	MG	YA	3515	1/1	0.95	0.24	34,34,34,34	0
56	MG	YB	209	1/1	0.95	0.10	55,55,55,55	0
56	MG	YA	3476	1/1	0.95	0.10	54,54,54,54	0
56	MG	YA	3560	1/1	0.95	0.13	35,35,35,35	0
56	MG	YA	3124	1/1	0.95	0.12	34,34,34,34	0
56	MG	QA	1696	1/1	0.95	0.22	56,56,56,56	0
56	MG	QA	1834	1/1	0.95	0.33	37,37,37,37	0
56	MG	YA	3564	1/1	0.95	0.23	34,34,34,34	0
56	MG	RG	203	1/1	0.95	0.05	45,45,45,45	0
56	MG	RA	3582	1/1	0.95	0.12	35,35,35,35	0
56	MG	RA	3378	1/1	0.95	0.41	34,34,34,34	0
56	MG	YA	3295	1/1	0.95	0.10	38,38,38,38	0
56	MG	RA	3369	1/1	0.95	0.19	34,34,34,34	0
56	MG	YA	3297	1/1	0.95	0.25	34,34,34,34	0
56	MG	RA	3499	1/1	0.95	0.30	46,46,46,46	0
56	MG	YA	3372	1/1	0.95	0.11	37,37,37,37	0
56	MG	YA	3721	1/1	0.95	0.18	34,34,34,34	0
56	MG	YA	3071	1/1	0.95	0.13	70,70,70,70	0
56	MG	YA	3102	1/1	0.95	0.10	34,34,34,34	0
56	MG	QA	1605	1/1	0.95	0.22	34,34,34,34	0
56	MG	RA	3117	1/1	0.95	0.17	68,68,68,68	0
56	MG	QA	1705	1/1	0.95	0.20	34,34,34,34	0
56	MG	YA	3628	1/1	0.95	0.13	59,59,59,59	0
56	MG	YA	3677	1/1	0.95	0.23	42,42,42,42	0
56	MG	RA	3111	1/1	0.95	0.16	49,49,49,49	0
56	MG	RA	3787	1/1	0.95	0.08	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3252	1/1	0.95	0.06	36,36,36,36	0
56	MG	RA	3864	1/1	0.95	0.30	34,34,34,34	0
56	MG	YA	3419	1/1	0.95	0.10	35,35,35,35	0
56	MG	YA	3343	1/1	0.95	0.24	34,34,34,34	0
56	MG	RA	3413	1/1	0.95	0.19	57,57,57,57	0
56	MG	RA	3155	1/1	0.95	0.11	47,47,47,47	0
56	MG	YA	3686	1/1	0.95	0.22	34,34,34,34	0
56	MG	YA	3385	1/1	0.95	0.27	34,34,34,34	0
56	MG	RA	3947	1/1	0.95	0.11	54,54,54,54	0
56	MG	YA	3588	1/1	0.95	0.34	45,45,45,45	0
56	MG	RA	3290	1/1	0.95	0.17	44,44,44,44	0
56	MG	RD	305	1/1	0.95	0.12	39,39,39,39	0
56	MG	RA	3366	1/1	0.95	0.32	41,41,41,41	0
56	MG	RA	3950	1/1	0.95	0.19	56,56,56,56	0
56	MG	YA	3548	1/1	0.95	0.36	34,34,34,34	0
56	MG	YA	3148	1/1	0.95	0.30	99,99,99,99	0
56	MG	YA	3550	1/1	0.95	0.17	53,53,53,53	0
56	MG	RA	3869	1/1	0.95	0.30	37,37,37,37	0
56	MG	QA	1745	1/1	0.95	0.22	34,34,34,34	0
56	MG	RA	3852	1/1	0.95	0.33	45,45,45,45	0
56	MG	RA	3042	1/1	0.95	0.10	41,41,41,41	0
56	MG	RA	3872	1/1	0.95	0.34	56,56,56,56	0
56	MG	RA	3292	1/1	0.95	0.29	55,55,55,55	0
57	ZN	Y4	101	1/1	0.95	0.11	133,133,133,133	0
56	MG	YA	3704	1/1	0.95	0.08	38,38,38,38	0
56	MG	RA	3824	1/1	0.95	0.19	37,37,37,37	0
56	MG	XA	1758	1/1	0.95	0.21	34,34,34,34	0
56	MG	RA	3128	1/1	0.96	0.08	40,40,40,40	0
56	MG	XA	1741	1/1	0.96	0.30	35,35,35,35	0
56	MG	RA	3330	1/1	0.96	0.14	38,38,38,38	0
56	MG	RB	214	1/1	0.96	0.09	46,46,46,46	0
56	MG	RA	3983	1/1	0.96	0.09	52,52,52,52	0
56	MG	R0	102	1/1	0.96	0.10	54,54,54,54	0
56	MG	RA	3595	1/1	0.96	0.08	53,53,53,53	0
56	MG	RA	3139	1/1	0.96	0.47	84,84,84,84	0
56	MG	QA	1700	1/1	0.96	0.20	41,41,41,41	0
56	MG	YA	3589	1/1	0.96	0.33	38,38,38,38	0
56	MG	YA	3211	1/1	0.96	0.19	34,34,34,34	0
56	MG	XA	1751	1/1	0.96	0.23	34,34,34,34	0
56	MG	YA	3621	1/1	0.96	0.15	49,49,49,49	0
56	MG	YA	3623	1/1	0.96	0.60	67,67,67,67	0
56	MG	RA	3040	1/1	0.96	0.07	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3166	1/1	0.96	0.11	69,69,69,69	0
56	MG	RA	3904	1/1	0.96	0.14	40,40,40,40	0
56	MG	YA	3594	1/1	0.96	0.24	34,34,34,34	0
56	MG	RB	203	1/1	0.96	0.06	58,58,58,58	0
56	MG	YA	3728	1/1	0.96	0.53	56,56,56,56	0
56	MG	RA	3795	1/1	0.96	0.16	46,46,46,46	0
56	MG	RA	4020	1/1	0.96	0.12	52,52,52,52	0
56	MG	YA	3014	1/1	0.96	0.11	64,64,64,64	0
56	MG	RA	3946	1/1	0.96	0.10	42,42,42,42	0
56	MG	QA	1857	1/1	0.96	0.18	34,34,34,34	0
56	MG	QA	1708	1/1	0.96	0.04	38,38,38,38	0
56	MG	YA	3516	1/1	0.96	0.24	35,35,35,35	0
56	MG	RA	3437	1/1	0.96	0.24	34,34,34,34	0
56	MG	RA	3359	1/1	0.96	0.22	47,47,47,47	0
56	MG	YA	3020	1/1	0.96	0.15	40,40,40,40	0
56	MG	YA	3045	1/1	0.96	0.09	38,38,38,38	0
56	MG	RA	3741	1/1	0.96	0.26	34,34,34,34	0
56	MG	RA	3328	1/1	0.96	0.28	45,45,45,45	0
56	MG	RA	3602	1/1	0.96	0.05	42,42,42,42	0
56	MG	YA	3442	1/1	0.96	0.12	45,45,45,45	0
56	MG	XA	1635	1/1	0.96	0.08	51,51,51,51	0
58	SF4	QD	302	8/8	0.96	0.06	50,73,103,107	0
56	MG	RA	3108	1/1	0.97	0.10	36,36,36,36	0
56	MG	RA	3877	1/1	0.97	0.21	34,34,34,34	0
56	MG	RA	3145	1/1	0.97	0.07	50,50,50,50	0
56	MG	QA	1820	1/1	0.97	0.15	41,41,41,41	0
56	MG	RA	3287	1/1	0.97	0.04	41,41,41,41	0
56	MG	YD	306	1/1	0.97	0.13	60,60,60,60	0
56	MG	XA	1731	1/1	0.97	0.04	44,44,44,44	0
56	MG	YA	3086	1/1	0.97	0.16	46,46,46,46	0
56	MG	RA	3365	1/1	0.97	0.27	35,35,35,35	0
56	MG	YA	3307	1/1	0.97	0.12	34,34,34,34	0
56	MG	RA	3921	1/1	0.97	0.08	38,38,38,38	0
56	MG	YB	211	1/1	0.97	0.21	40,40,40,40	0
56	MG	RT	202	1/1	0.97	0.04	43,43,43,43	0
56	MG	RA	3506	1/1	0.97	0.12	39,39,39,39	0
56	MG	YA	3012	1/1	0.97	0.08	67,67,67,67	0
56	MG	RA	3959	1/1	0.97	0.10	40,40,40,40	0
56	MG	RA	3783	1/1	0.97	0.23	87,87,87,87	0
56	MG	RA	3013	1/1	0.97	0.10	35,35,35,35	0
56	MG	XA	1637	1/1	0.97	0.08	64,64,64,64	0
56	MG	YA	3657	1/1	0.97	0.06	34,34,34,34	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3622	1/1	0.97	0.32	34,34,34,34	0
56	MG	YA	3224	1/1	0.97	0.07	47,47,47,47	0
58	SF4	XD	301	8/8	0.97	0.05	59,70,92,92	0
56	MG	YA	3208	1/1	0.98	0.07	46,46,46,46	0
56	MG	YA	3355	1/1	0.98	0.24	38,38,38,38	0
57	ZN	QN	101	1/1	0.98	0.04	105,105,105,105	0
56	MG	YA	3693	1/1	0.98	0.15	34,34,34,34	0
56	MG	YA	3152	1/1	0.98	0.15	35,35,35,35	0
56	MG	QA	1838	1/1	0.98	0.31	34,34,34,34	0
56	MG	YA	3190	1/1	0.98	0.10	41,41,41,41	0
56	MG	RA	3336	1/1	0.98	0.13	34,34,34,34	0
56	MG	RA	3046	1/1	0.98	0.04	40,40,40,40	0
56	MG	YA	3353	1/1	0.98	0.43	34,34,34,34	0
57	ZN	XN	101	1/1	0.99	0.03	93,93,93,93	0
56	MG	YA	3352	1/1	0.99	0.32	34,34,34,34	0
56	MG	YA	3638	1/1	0.99	0.19	38,38,38,38	0

6.5 Other polymers [i](#)

There are no such residues in this entry.