Full wwPDB X-ray Structure Validation Report (i)

Sep 15, 2026 – 11:47 PM EDT

PDB ID	:	5DFE / pdb_00005dfe
Title	:	70S termination complex containing E. coli RF2
Authors	:	Hoffer, E.D.; Dunham, C.M.
Deposited on	:	2015-08-26
Resolution	:	3.10 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 (i) 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 (i)) were used in the production of this report:

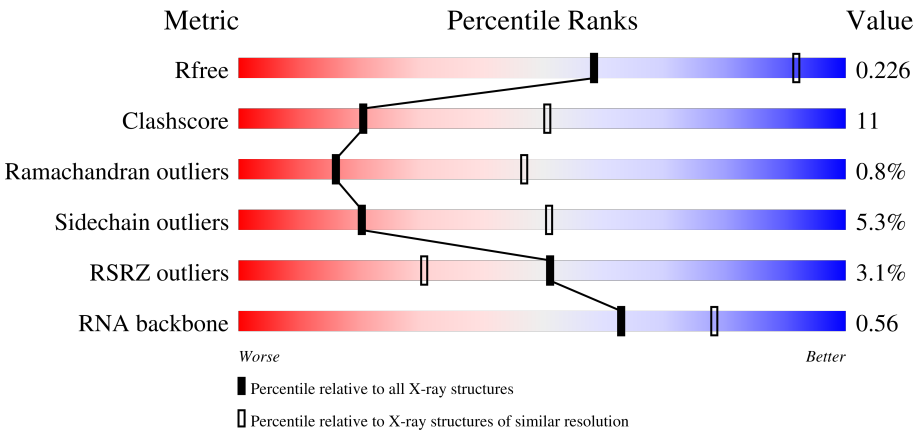
MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.015 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry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

1 Overall quality at a glance (i)

The following experimental techniques were used to determine the structure:
X-RAY DIFFRACTION

The reported resolution of this entry is 3.10 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	1456 (3.10-3.10)
Clashscore	190562	1539 (3.10-3.10)
Ramachandran outliers	187476	1467 (3.10-3.10)
Sidechain outliers	187428	1467 (3.10-3.10)
RSRZ outliers	180081	1456 (3.10-3.10)
RNA backbone	3983	1022 (3.32-2.88)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=5% The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	QV	77	3%, 58%, 34%, 6%, •
1	XV	77	3%, 65%, 26%, 9%
2	QX	25	12%, 24%, 12%, •, 60%
2	XX	25	12%, 20%, 12%, 8%, 60%

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Mol	Chain	Length	Quality of chain
3	QY	380	10% 52% 37% 6%
3	XY	380	11% 49% 38% 6% 6%
4	RA	2915	% 59% 33% 7%
4	YA	2915	2% 58% 33% 7%
5	RB	122	2% 75% 23%
5	YB	122	2% 70% 23% 5%
6	RD	276	% 78% 19%
6	YD	276	75% 20%
7	RE	206	% 74% 21%
7	YE	206	73% 21% 5%
8	RF	210	% 68% 23% 6%
8	YF	210	64% 27% 5%
9	RG	182	3% 63% 32%
9	YG	182	3% 56% 39%
10	RH	180	5% 74% 20%
10	YH	180	2% 64% 28%
11	RI	148	9% 72% 24%
11	YI	148	6% 70% 26%
12	RN	140	% 73% 24%
12	YN	140	% 76% 21%
13	RO	122	2% 77% 20%
13	YO	122	% 75% 22%
14	RP	150	% 77% 20%
14	YP	150	% 73% 22%
15	RQ	141	% 72% 24%

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Mol	Chain	Length	Quality of chain
15	YQ	141	%, 74%, 20%, 6%
16	RR	118	65%, 31%, •
16	YR	118	%, 71%, 26%, •
17	RS	112	4%, 66%, 29%, • • •
17	YS	112	2%, 62%, 31%, • • •
18	RT	146	2%, 57%, 29%, • •, 10%
18	YT	146	%, 58%, 27%, • •, 10%
19	RU	118	%, 72%, 19%, 6%, • •
19	YU	118	74%, 19%, 5%, •
20	RV	101	73%, 19%, 7%, •
20	YV	101	2%, 73%, 24%, • •
21	RW	113	3%, 78%, 19%, • ••
21	YW	113	78%, 17%, • ••
22	RX	96	%, 82%, 15%, • •
22	YX	96	%, 82%, 17%, •
23	RY	110	12%, 65%, 28%, • •
23	YY	110	3%, 67%, 26%, • • •
24	RZ	206	7%, 74%, 20%, • •
24	YZ	206	6%, 69%, 26%, • •
25	R0	85	2%, 71%, 15%, • •, 9%
25	Y0	85	4%, 68%, 18%, • •, 9%
26	R1	98	3%, 76%, 19%, • •
26	Y1	98	64%, 29%, 5%, ••
27	R2	72	3%, 69%, 26%, • •
27	Y2	72	4%, 68%, 25%, • • •

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Mol	Chain	Length	Quality of chain
28	R3	60	2% 80% 18%
28	Y3	60	3% 82% 15%
29	R4	71	% 52% 34% 10%
29	Y4	71	7% 44% 44% 6%
30	R5	60	73% 23%
30	Y5	60	2% 78% 15% 5%
31	R6	54	6% 67% 28%
31	Y6	54	2% 81% 15%
32	R7	49	6% 63% 33%
32	Y7	49	4% 73% 20%
33	R8	65	2% 63% 32%
33	Y8	65	2% 60% 37%
34	R9	37	70% 24%
34	Y9	37	5% 78% 19%
35	QA	1521	2% 52% 39% 7%
35	XA	1521	% 53% 39% 6%
36	QB	256	7% 50% 34% 10%
36	XB	256	6% 47% 35% 6% 10%
37	QC	239	3% 63% 22% 14%
37	XC	239	4% 60% 23% 14%
38	QD	209	6% 59% 36%
38	XD	209	7% 64% 30% 5%
39	QE	162	2% 62% 27% 9%
39	XE	162	% 54% 33% 9%
40	QF	101	3% 61% 29% 9%

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Mol	Chain	Length	Quality of chain
40	XF	101	66% 23% 10%
41	QG	156	4% 82% 16%
41	XG	156	3% 68% 27%
42	QH	138	2% 68% 28%
42	XH	138	% 70% 28%
43	QI	128	12% 64% 30%
43	XI	128	11% 50% 45%
44	QJ	105	7% 54% 35% 8%
44	XJ	105	10% 57% 31% 9%
45	QK	129	5% 72% 15% 12%
45	XK	129	4% 69% 17% 12%
46	QL	132	3% 65% 24% 8%
46	XL	132	5% 68% 21% 8%
47	QM	126	9% 63% 29% 8%
47	XM	126	6% 59% 31% 10%
48	QN	61	11% 66% 25% 8%
48	XN	61	10% 75% 20%
49	QO	89	69% 28%
49	XO	89	3% 72% 25%
50	QP	88	5% 55% 36% 7%
50	XP	88	5% 61% 26% 7%
51	QQ	105	5% 70% 21% 6%
51	XQ	105	2% 72% 17% 5% 6%
52	QR	88	53% 17% 6% 23%
52	XR	88	51% 20% 6% 23%

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Mol	Chain	Length	Quality of chain
53	QS	93	8% 66% 20% • 11%
53	XS	93	8% 60% 28% • 11%
54	QT	106	4% 74% 15% • 9%
54	XT	106	8% 66% 24% • 8%
55	QU	27	33% 56% 26% • 15%
55	XU	27	33% 59% 22% • 15%

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	1601	-	-	-	X
56	MG	QA	1611	-	-	-	X
56	MG	QA	1624	-	-	-	X
56	MG	QA	1657	-	-	-	X
56	MG	QA	1661	-	-	-	X
56	MG	QA	1718	-	-	-	X
56	MG	QA	1720	-	-	-	X
56	MG	QA	1725	-	-	-	X
56	MG	QA	1736	-	-	-	X
56	MG	QA	1737	-	-	-	X
56	MG	QA	1761	-	-	-	X
56	MG	QA	1762	-	-	-	X
56	MG	QA	1793	-	-	-	X
56	MG	QA	1812	-	-	-	X
56	MG	QA	1816	-	-	-	X
56	MG	QA	1831	-	-	-	X
56	MG	QA	1847	-	-	-	X
56	MG	QA	1849	-	-	-	X
56	MG	QA	1858	-	-	-	X
56	MG	QA	1866	-	-	-	X
56	MG	QN	103	-	-	-	X
56	MG	QY	403	-	-	-	X
56	MG	R0	103	-	-	-	X
56	MG	R1	102	-	-	-	X
56	MG	R3	101	-	-	-	X
56	MG	RA	3017	-	-	-	X
56	MG	RA	3058	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	RA	3076	-	-	-	X
56	MG	RA	3187	-	-	-	X
56	MG	RA	3193	-	-	-	X
56	MG	RA	3203	-	-	-	X
56	MG	RA	3212	-	-	-	X
56	MG	RA	3237	-	-	-	X
56	MG	RA	3239	-	-	-	X
56	MG	RA	3249	-	-	-	X
56	MG	RA	3252	-	-	-	X
56	MG	RA	3256	-	-	-	X
56	MG	RA	3299	-	-	-	X
56	MG	RA	3331	-	-	-	X
56	MG	RA	3367	-	-	-	X
56	MG	RA	3368	-	-	-	X
56	MG	RA	3370	-	-	-	X
56	MG	RA	3374	-	-	-	X
56	MG	RA	3444	-	-	-	X
56	MG	RA	3457	-	-	-	X
56	MG	RA	3459	-	-	-	X
56	MG	RA	3486	-	-	-	X
56	MG	RA	3511	-	-	-	X
56	MG	RA	3512	-	-	-	X
56	MG	RA	3517	-	-	-	X
56	MG	RA	3527	-	-	-	X
56	MG	RA	3564	-	-	-	X
56	MG	RA	3572	-	-	-	X
56	MG	RA	3573	-	-	-	X
56	MG	RA	3598	-	-	-	X
56	MG	RA	3625	-	-	-	X
56	MG	RA	3630	-	-	-	X
56	MG	RA	3631	-	-	-	X
56	MG	RA	3636	-	-	-	X
56	MG	RA	3639	-	-	-	X
56	MG	RA	3647	-	-	-	X
56	MG	RA	3694	-	-	-	X
56	MG	RA	3710	-	-	-	X
56	MG	RA	3727	-	-	-	X
56	MG	RA	3728	-	-	-	X
56	MG	RA	3733	-	-	-	X
56	MG	RA	3752	-	-	-	X
56	MG	RA	3777	-	-	-	X
56	MG	RA	3780	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	RA	3782	-	-	-	X
56	MG	RA	3872	-	-	-	X
56	MG	RA	3890	-	-	-	X
56	MG	RA	3951	-	-	-	X
56	MG	RA	3960	-	-	-	X
56	MG	RA	4002	-	-	-	X
56	MG	RA	4004	-	-	-	X
56	MG	RA	4015	-	-	-	X
56	MG	RA	4019	-	-	-	X
56	MG	RA	4035	-	-	-	X
56	MG	RA	4046	-	-	-	X
56	MG	RA	4058	-	-	-	X
56	MG	RB	223	-	-	-	X
56	MG	RF	301	-	-	-	X
56	MG	XA	1609	-	-	-	X
56	MG	XA	1682	-	-	-	X
56	MG	XA	1708	-	-	-	X
56	MG	XA	1719	-	-	-	X
56	MG	XA	1725	-	-	-	X
56	MG	XA	1753	-	-	-	X
56	MG	XA	1754	-	-	-	X
56	MG	XA	1773	-	-	-	X
56	MG	XA	1777	-	-	-	X
56	MG	XA	1781	-	-	-	X
56	MG	XA	1783	-	-	-	X
56	MG	XA	1787	-	-	-	X
56	MG	YA	3108	-	-	-	X
56	MG	YA	3150	-	-	-	X
56	MG	YA	3160	-	-	-	X
56	MG	YA	3164	-	-	-	X
56	MG	YA	3171	-	-	-	X
56	MG	YA	3185	-	-	-	X
56	MG	YA	3236	-	-	-	X
56	MG	YA	3239	-	-	-	X
56	MG	YA	3242	-	-	-	X
56	MG	YA	3246	-	-	-	X
56	MG	YA	3281	-	-	-	X
56	MG	YA	3311	-	-	-	X
56	MG	YA	3414	-	-	-	X
56	MG	YA	3417	-	-	-	X
56	MG	YA	3432	-	-	-	X
56	MG	YA	3455	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	YA	3465	-	-	-	X
56	MG	YA	3467	-	-	-	X
56	MG	YA	3468	-	-	-	X
56	MG	YA	3469	-	-	-	X
56	MG	YA	3490	-	-	-	X
56	MG	YA	3501	-	-	-	X
56	MG	YA	3528	-	-	-	X
56	MG	YA	3534	-	-	-	X
56	MG	YA	3582	-	-	-	X
56	MG	YA	3603	-	-	-	X
56	MG	YA	3637	-	-	-	X
56	MG	YA	3655	-	-	-	X
56	MG	YA	3662	-	-	-	X
56	MG	YA	3695	-	-	-	X
56	MG	YA	3707	-	-	-	X
56	MG	YA	3737	-	-	-	X
56	MG	YA	3747	-	-	-	X
56	MG	YB	209	-	-	-	X
56	MG	YE	303	-	-	-	X
56	MG	YF	302	-	-	-	X

2 Entry composition (i)

There are 58 unique types of molecules in this entry. The entry contains 296662 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 P-site tRNA fMet.

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

- Molecule 2 is a RNA chain called messenger RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	P			
2	QX	10	215	97	42	66	10	0	0	0
2	XX	10	215	97	42	66	10	0	0	0

- Molecule 3 is a protein called Peptide chain release factor 2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
3	QY	357	2833	1742	498	583	10	0	0	0
3	XY	357	2833	1742	498	583	10	0	0	0

There are 30 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
QY	-14	MET	-	initiating methionine	UNP P07012
QY	-13	GLY	-	expression tag	UNP P07012
QY	-12	SER	-	expression tag	UNP P07012
QY	-11	SER	-	expression tag	UNP P07012
QY	-10	HIS	-	expression tag	UNP P07012
QY	-9	HIS	-	expression tag	UNP P07012
QY	-8	HIS	-	expression tag	UNP P07012
QY	-7	HIS	-	expression tag	UNP P07012

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Chain	Residue	Modelled	Actual	Comment	Reference
QY	-6	HIS	-	expression tag	UNP P07012
QY	-5	HIS	-	expression tag	UNP P07012
QY	-4	SER	-	expression tag	UNP P07012
QY	-3	GLU	-	expression tag	UNP P07012
QY	-2	ASP	-	expression tag	UNP P07012
QY	-1	PRO	-	expression tag	UNP P07012
QY	0	ALA	-	expression tag	UNP P07012
XY	-14	MET	-	initiating methionine	UNP P07012
XY	-13	GLY	-	expression tag	UNP P07012
XY	-12	SER	-	expression tag	UNP P07012
XY	-11	SER	-	expression tag	UNP P07012
XY	-10	HIS	-	expression tag	UNP P07012
XY	-9	HIS	-	expression tag	UNP P07012
XY	-8	HIS	-	expression tag	UNP P07012
XY	-7	HIS	-	expression tag	UNP P07012
XY	-6	HIS	-	expression tag	UNP P07012
XY	-5	HIS	-	expression tag	UNP P07012
XY	-4	SER	-	expression tag	UNP P07012
XY	-3	GLU	-	expression tag	UNP P07012
XY	-2	ASP	-	expression tag	UNP P07012
XY	-1	PRO	-	expression tag	UNP P07012
XY	0	ALA	-	expression tag	UNP P07012

- Molecule 4 is a RNA chain called T23S rRNA.

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

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

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

- Molecule 6 is a protein called 50S ribosomal protein L2.

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

- Molecule 7 is a protein called 50S ribosomal protein L3.

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

- Molecule 8 is a protein called 50S ribosomal protein L4.

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

- Molecule 9 is a protein called 50S ribosomal protein L5.

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

- Molecule 10 is a protein called 50S ribosomal protein L6.

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

- Molecule 11 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
11	YI	146	1076	687	186	202	1	0	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
11	RI	147	1094	699	191	203	1	0	0	0

- Molecule 12 is a protein called 50S ribosomal protein L13.

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

- Molecule 13 is a protein called 50S ribosomal protein L14.

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

- Molecule 14 is a protein called 50S ribosomal protein L15.

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

- Molecule 15 is a protein called 50S ribosomal protein L16.

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

- Molecule 16 is a protein called 50S ribosomal protein L17.

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

- Molecule 17 is a protein called 50S ribosomal protein L18.

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

- Molecule 18 is a protein called 50S ribosomal protein L19.

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

- Molecule 19 is a protein called 50S ribosomal protein L20.

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

- Molecule 20 is a protein called 50S ribosomal protein L21.

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

- Molecule 21 is a protein called 50S ribosomal protein L22.

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

- Molecule 22 is a protein called 50S ribosomal protein L23.

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

- Molecule 23 is a protein called 50S ribosomal protein L24.

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

- Molecule 24 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
24	YZ	201	1557	995	274	286	2	0	0	0
24	RZ	203	1587	1011	282	292	2	0	0	0

- Molecule 25 is a protein called 50S ribosomal protein L27.

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

- Molecule 26 is a protein called 50S ribosomal protein L28.

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

- Molecule 27 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
27	Y2	70	592	368	119	103	2	0	0	0

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
27	R2	70	588	365	118	103	2	0	0	0

- Molecule 28 is a protein called 50S ribosomal protein L30.

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

- Molecule 29 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
29	Y4	69	536	342	98	91	5	0	0	0
29	R4	69	546	346	96	99	5	0	0	0

- Molecule 30 is a protein called 50S ribosomal protein L32.

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

- Molecule 31 is a protein called 50S ribosomal protein L33.

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

- Molecule 32 is a protein called 50S ribosomal protein L34.

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

- Molecule 33 is a protein called 50S ribosomal protein L35.

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

- Molecule 34 is a protein called 50S ribosomal protein L36.

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

- Molecule 35 is a RNA chain called 16S rRNA.

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

- Molecule 36 is a protein called 30S ribosomal protein S2.

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

- Molecule 37 is a protein called 30S ribosomal protein S3.

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

- Molecule 38 is a protein called 30S ribosomal protein S4.

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

- Molecule 39 is a protein called 30S ribosomal protein S5.

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

- Molecule 40 is a protein called 30S ribosomal protein S6.

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

- Molecule 41 is a protein called 30S ribosomal protein S7.

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

- Molecule 42 is a protein called 30S ribosomal protein S8.

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

- Molecule 43 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
43	XI	126	966	613	186	167	0	0	0

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Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
43	QI	127	986	625	193	168	0	0	0

- Molecule 44 is a protein called 30S ribosomal protein S10.

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

- Molecule 45 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
45	XK	114	833	519	156	155	3	0	0	0
			Total	C	N	O	S			
45	QK	114	834	520	156	155	3	0	0	0

- Molecule 46 is a protein called 30S ribosomal protein S12.

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

- Molecule 47 is a protein called 30S ribosomal protein S13.

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

- Molecule 48 is a protein called 30S ribosomal protein S14 type Z.

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

- Molecule 49 is a protein called 30S ribosomal protein S15.

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

- Molecule 50 is a protein called 30S ribosomal protein S16.

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

- Molecule 51 is a protein called 30S ribosomal protein S17.

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

- Molecule 52 is a protein called 30S ribosomal protein S18.

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

- Molecule 53 is a protein called 30S ribosomal protein S19.

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

- Molecule 54 is a protein called 30S ribosomal protein S20.

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

- Molecule 55 is a protein called 30S ribosomal protein Thx.

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

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	Mg		
56	QV	2	2	2	0	0
56	QY	3	3	3	0	0
56	XX	1	1	1	0	0
56	YA	760	760	760	0	0
56	YB	19	19	19	0	0
56	YD	10	10	10	0	0
56	YE	7	7	7	0	0
56	YF	3	3	3	0	0
56	YG	3	3	3	0	0
56	YI	1	1	1	0	0
56	YN	1	1	1	0	0
56	YO	1	1	1	0	0
56	YP	1	1	1	0	0
56	YQ	2	2	2	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	Mg		
56	YR	1	1	1	0	0
56	YT	3	3	3	0	0
56	YV	1	1	1	0	0
56	YW	2	2	2	0	0
56	YX	1	1	1	0	0
56	Y0	1	1	1	0	0
56	Y1	1	1	1	0	0
56	Y5	1	1	1	0	0
56	Y7	1	1	1	0	0
56	Y8	2	2	2	0	0
56	XA	190	190	190	0	0
56	XE	2	2	2	0	0
56	XF	4	4	4	0	0
56	XH	1	1	1	0	0
56	XJ	1	1	1	0	0
56	XK	1	1	1	0	0
56	XL	1	1	1	0	0
56	XR	1	1	1	0	0
56	XT	1	1	1	0	0
56	QA	279	279	279	0	0
56	QB	1	1	1	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	Mg		
56	QD	3	3	3	0	0
56	QE	2	2	2	0	0
56	QF	1	1	1	0	0
56	QG	3	3	3	0	0
56	QH	2	2	2	0	0
56	QI	1	1	1	0	0
56	QL	3	3	3	0	0
56	QM	1	1	1	0	0
56	QN	2	2	2	0	0
56	QO	1	1	1	0	0
56	QQ	2	2	2	0	0
56	QR	1	1	1	0	0
56	QT	1	1	1	0	0
56	QU	1	1	1	0	0
56	RA	1066	1066	1066	0	0
56	RB	29	29	29	0	0
56	RD	13	13	13	0	0
56	RE	6	6	6	0	0
56	RF	12	12	12	0	0
56	RG	4	4	4	0	0
56	RH	2	2	2	0	0

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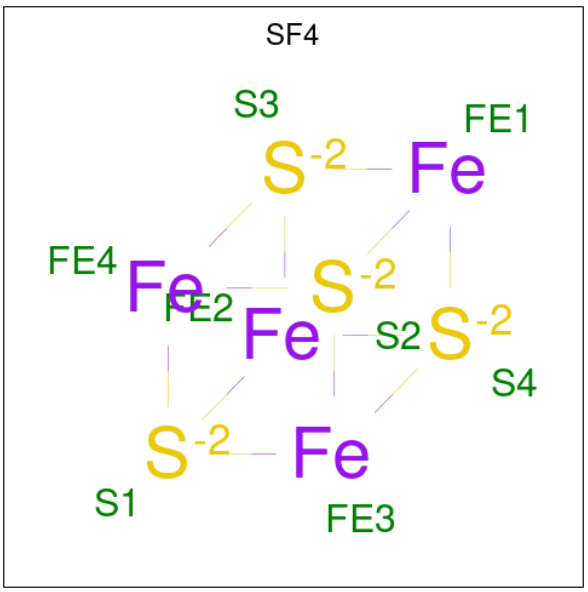
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	Mg		
56	RN	3	3	3	0	0
56	RO	1	1	1	0	0
56	RP	2	2	2	0	0
56	RQ	4	4	4	0	0
56	RR	5	5	5	0	0
56	RT	3	3	3	0	0
56	RU	3	3	3	0	0
56	RV	4	4	4	0	0
56	RW	2	2	2	0	0
56	RX	1	1	1	0	0
56	RZ	1	1	1	0	0
56	R0	4	4	4	0	0
56	R1	3	3	3	0	0
56	R3	2	2	2	0	0
56	R4	1	1	1	0	0
56	R5	3	3	3	0	0
56	R7	2	2	2	0	0
56	R8	1	1	1	0	0
56	R9	2	2	2	0	0

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

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

- Molecule 58 is IRON/SULFUR CLUSTER (CCD ID: SF4) (formula: Fe_4S_4).



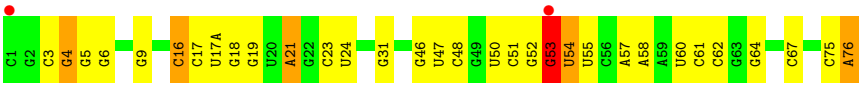
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
			Total	Fe	S		
58	XD	1	8	4	4	0	0
			Total	Fe	S		
58	QD	1	8	4	4	0	0

3 Residue-property plots (i)

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

- Molecule 1: P-site tRNA fMet

Chain QV:

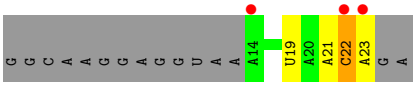


- Molecule 1: P-site tRNA fMet

Chain XV:

- Molecule 2: messenger RNA

Chain QX:

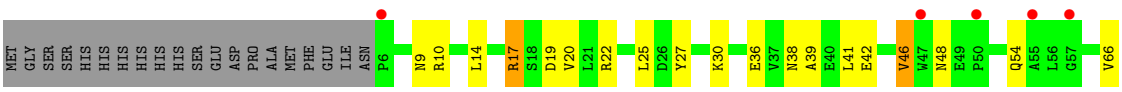


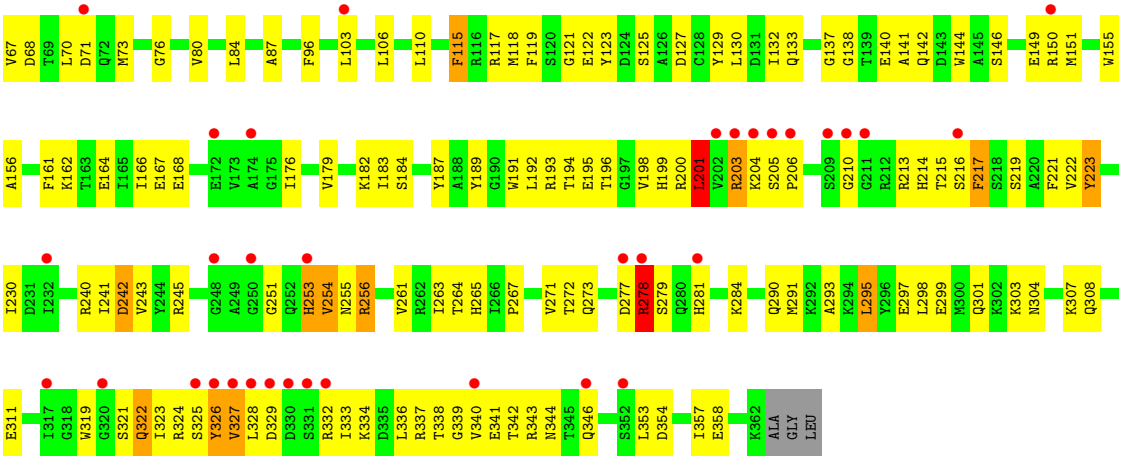
- Molecule 2: messenger RNA

Chain XX:

- Molecule 3: Peptide chain release factor 2

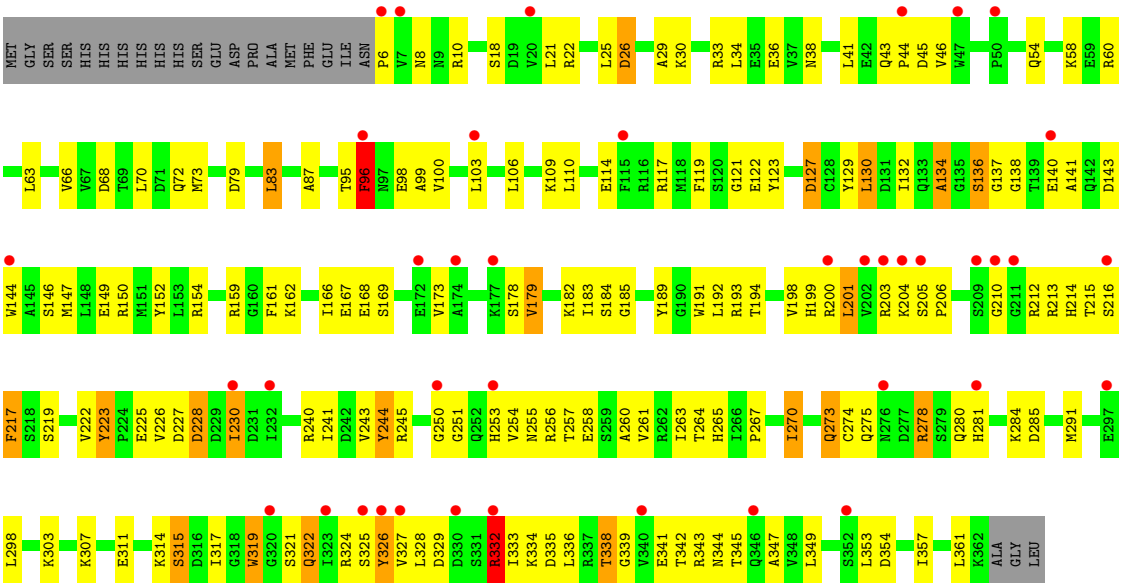
Chain QY:





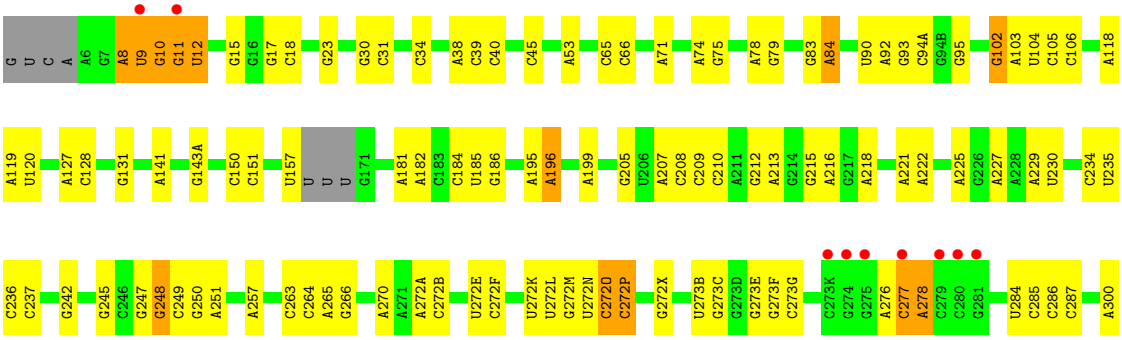
- Molecule 3: Peptide chain release factor 2

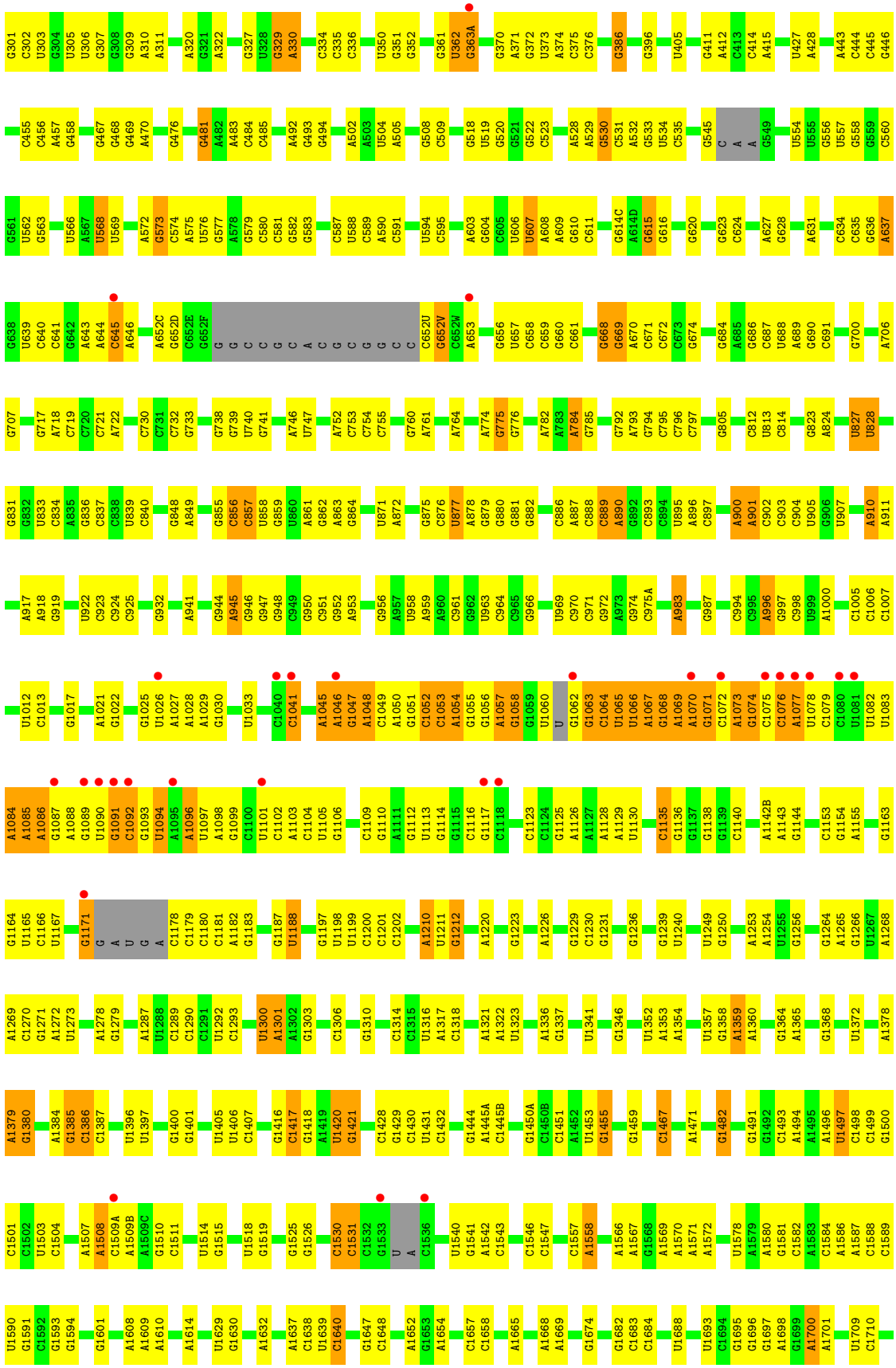
Chain XY:

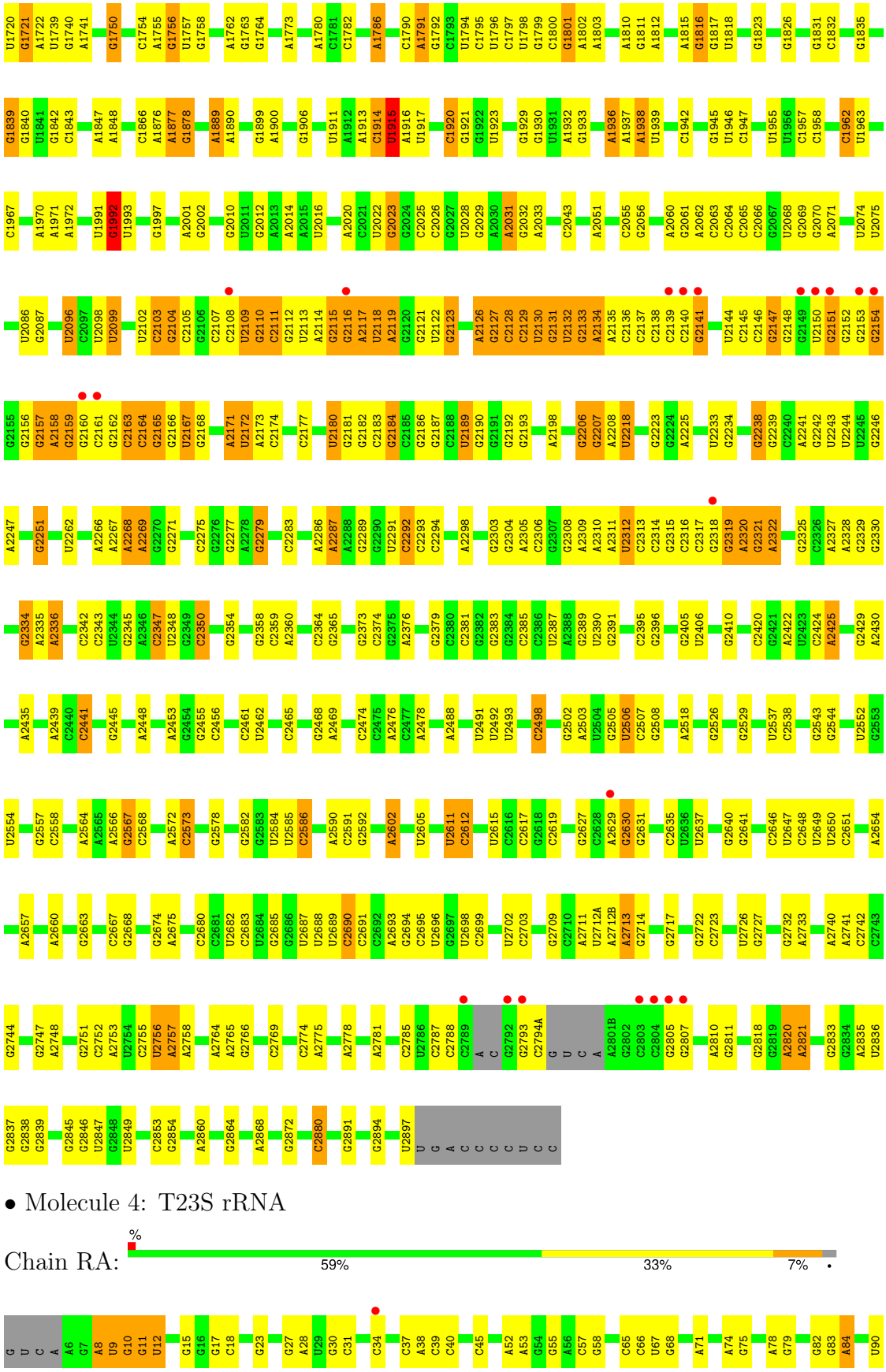


- Molecule 4: T23S rRNA

Chain YA:

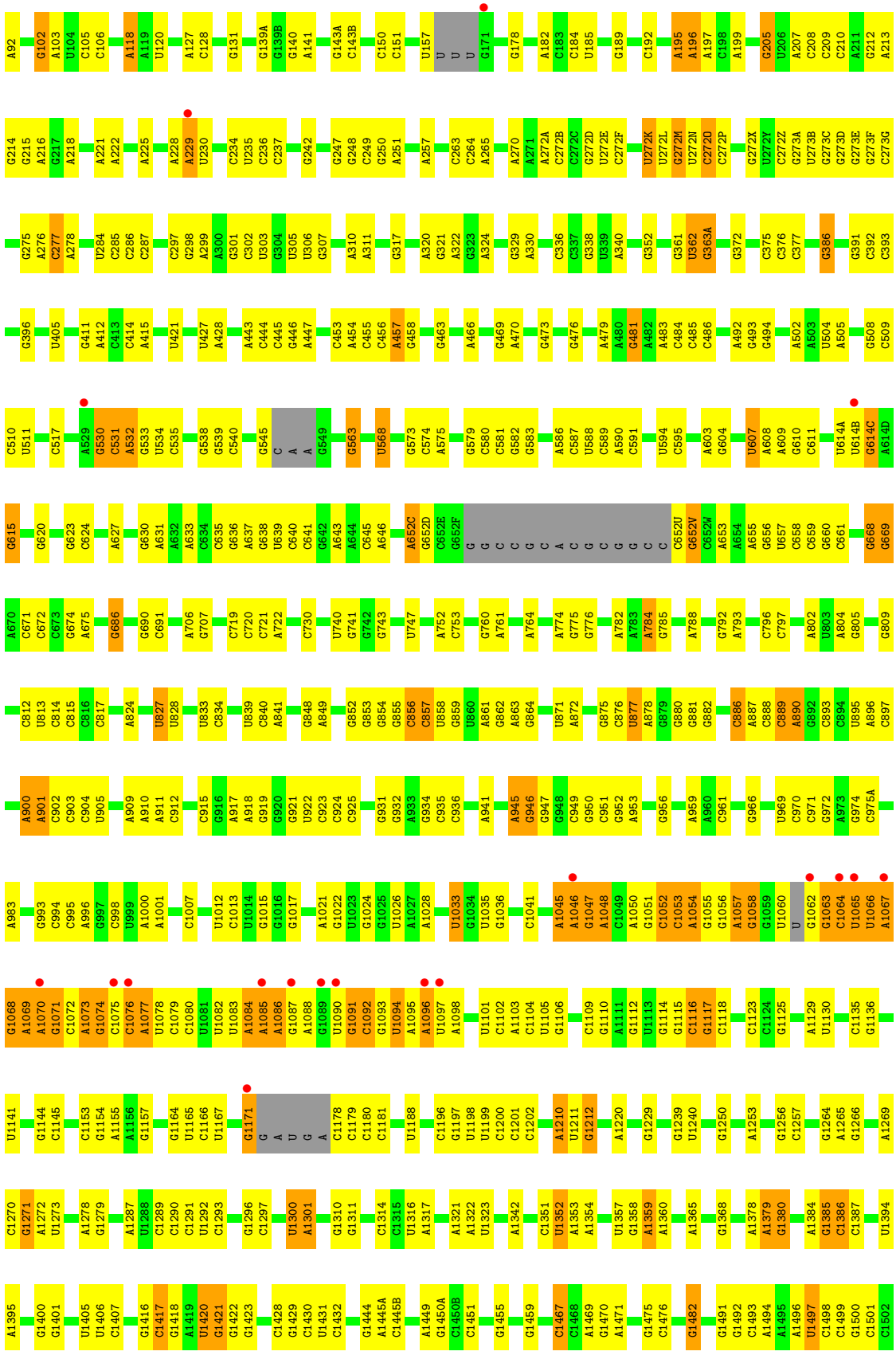



G301 C302 U303 G304 U305 U306 G307 G308 G309 A310 A311 A320 G321 A322 G327 U328 G329 A330 C334 C335 C336 U350 G351 G352 G361 U362 G363A G370 A371 G372 U373 A374 C375 C376 G386 G396 U405 G411 A412 C413 C414 A415 U427 A428 A443 C444 C445 G446
C455 C456 A457 G458 G467 G468 G469 A470 G476 G481 A482 A483 C484 C485 A492 G493 G494 A502 A503 U504 A505 G508 C509 G518 U519 G520 G521 C522 C523 A528 A529 G530 C531 A532 G533 U534 C535 G545 C A A G549 U554 U555 G556 U557 G558 G559 C560
G561 U562 G563 U566 A567 U568 U569 A572 G573 C574 A575 U576 G577 A578 G579 C580 C581 G582 G583 C587 U588 C589 A590 C591 U594 C595 A603 G604 C605 U606 U607 A608 A609 G610 C611 G614C A614D G615 G616 G620 G623 C624 A627 G628 A631 C634 C635 G636 A637
G638 U639 C640 C641 G642 A643 A644 C645 A646 A652C G652D G652E G652F G G G C C G C A C G G C C C



• Molecule 4: T23S rRNA

Chain RA:


A92 G102 A103 U104 C105 C106 A118 A119 U120 A127 C128 G131 G139A G139B G140 A141 G143A C143B C150 C151 U157 U U U G171 G178 A182 C183 C184 U185 G189 C192 A195 A196 A197 C198 A199 G205 U206 A207 C208 C209 C210 A211 G212 A213
G214 G215 A216 G217 A218 A221 A222 A225 A228 A229 U230 C234 U235 C236 C237 G242 G247 G248 G249 G250 A251 A257 C263 C264 A265 A270 A271 A272A C272B C272C G272D U272E C272F U272K U272L G272M U272N C272O C272P G272X U272Y C272Z G273A U273B G273C G273D G273E G273F C273G
G275 A276 C277 A278 U284 C285 C286 C287 C297 G298 A299 A300 G301 C302 U303 G304 U305 U306 G307 A310 A311 G317 A320 G321 A322 G323 A324 G329 A330 C336 C337 G338 U339 A340 G352 G361 U362 G363A G372 C375 C376 C377 G386 G391 C392 C393
G396 U405 G411 A412 C413 C414 A415 U421 U427 A428 A443 C444 C445 G446 A447 C453 A454 C455 C456 A457 G458 G463 A466 G469 A470 G473 G476 A479 A480 G481 A482 A483 C484 C485 C486 A492 G493 G494 A502 A503 U504 A505 G508 C509
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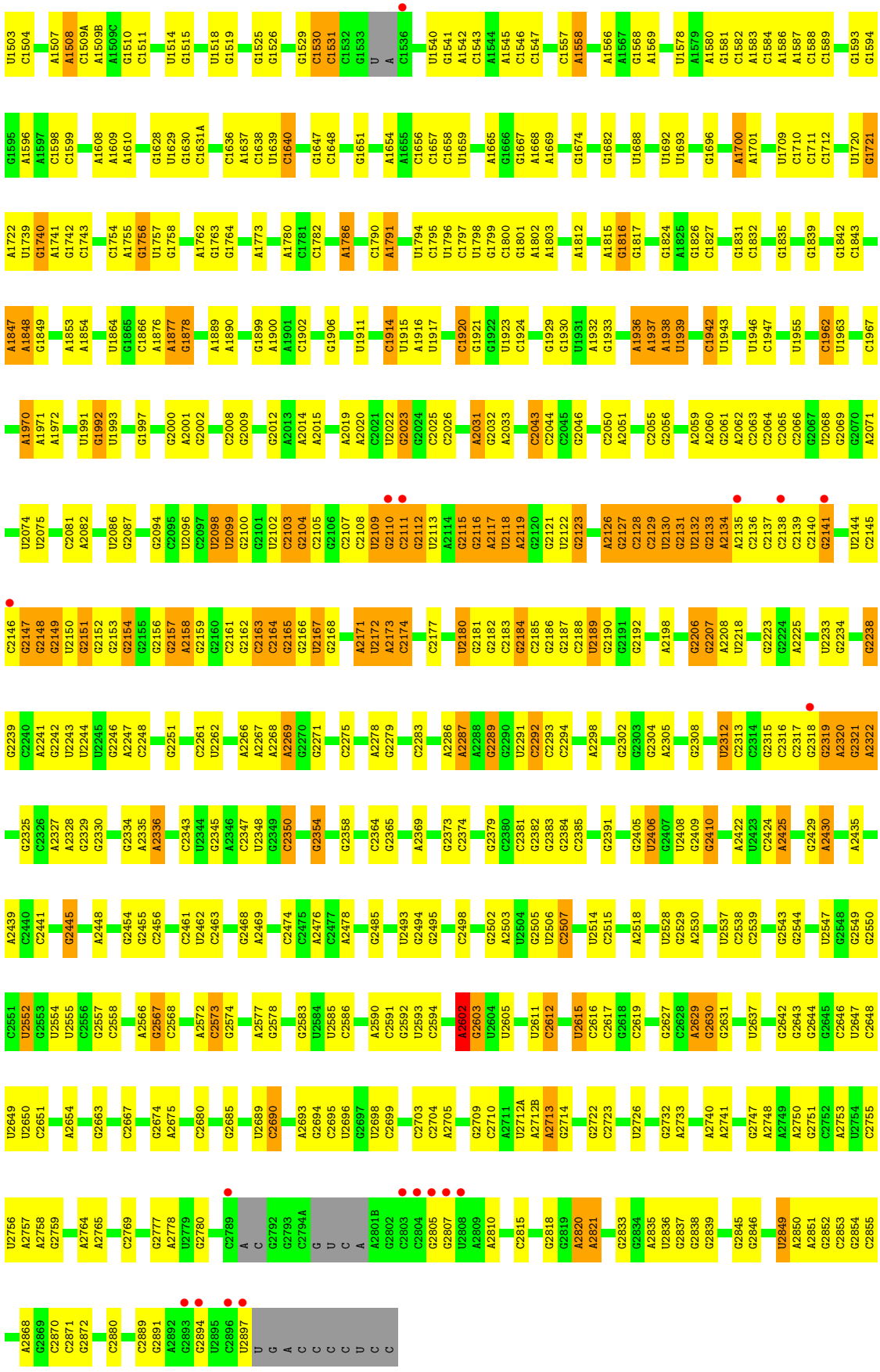
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• Molecule 5: 5S rRNA

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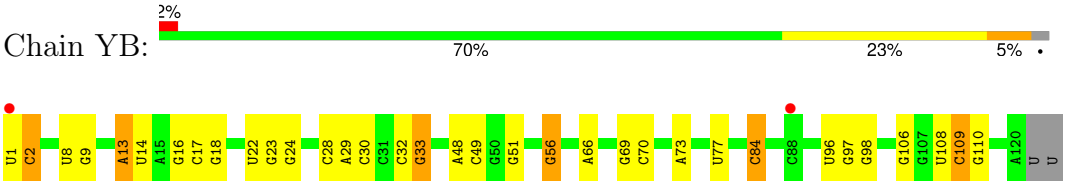

• Molecule 5: 5S rRNA

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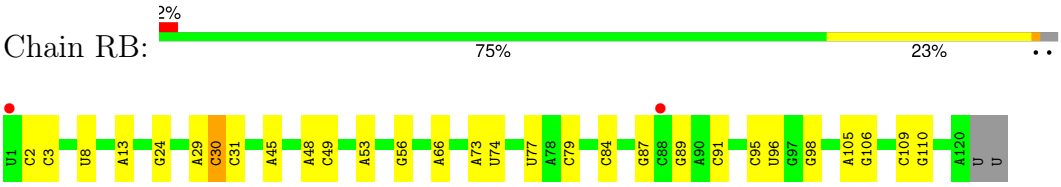
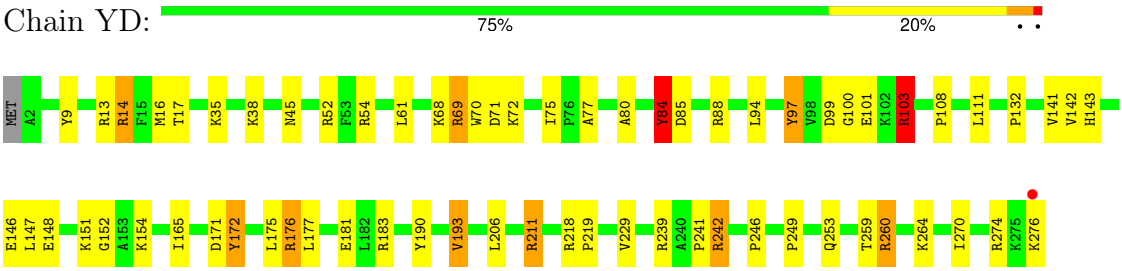


• Molecule 6: 50S ribosomal protein L2

Chain YD:



• Molecule 6: 50S ribosomal protein L2

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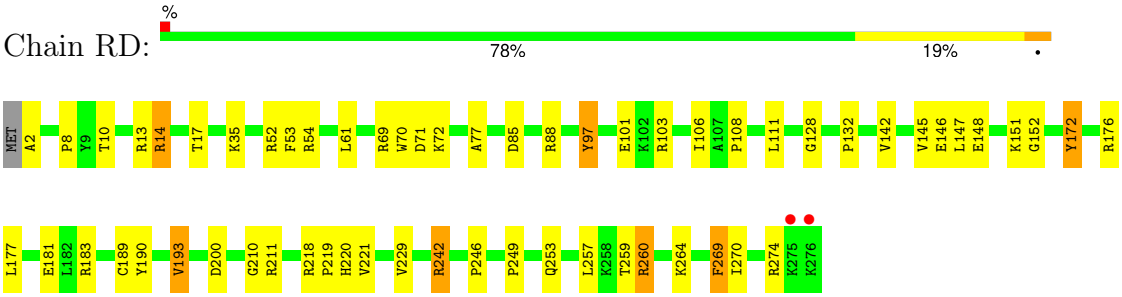
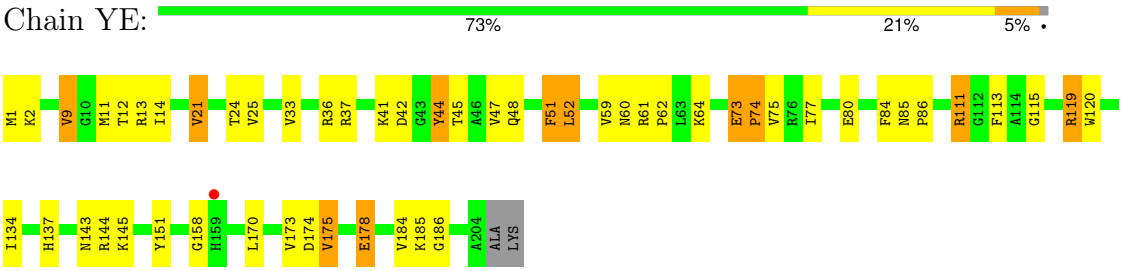


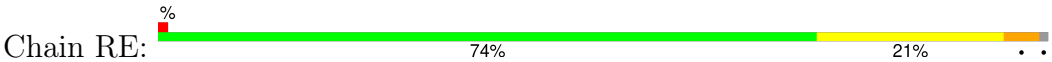
• Molecule 7: 50S ribosomal protein L3

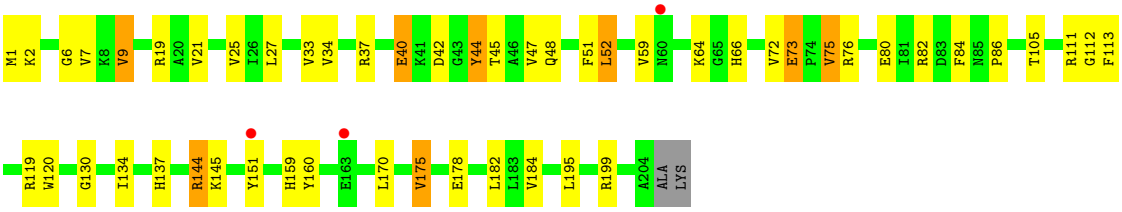
Chain YE:



• Molecule 7: 50S ribosomal protein L3

Chain RE:





• Molecule 8: 50S ribosomal protein L4

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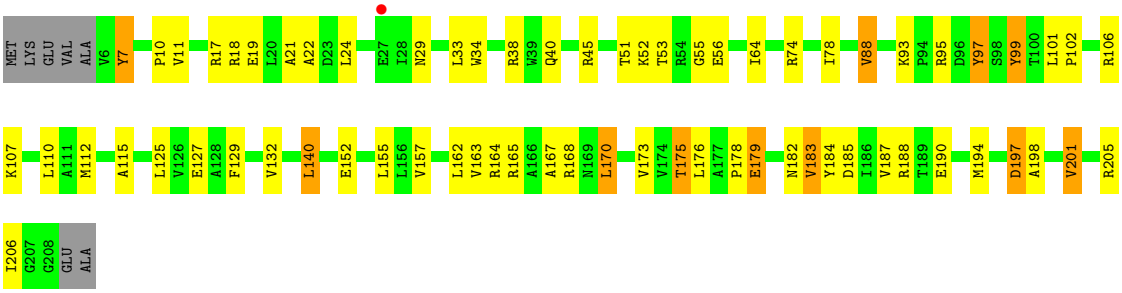

• Molecule 8: 50S ribosomal protein L4

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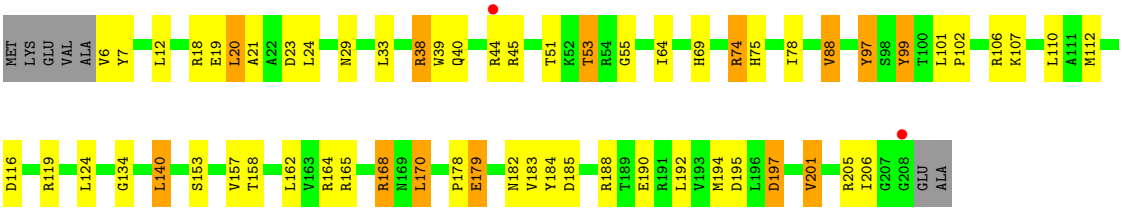
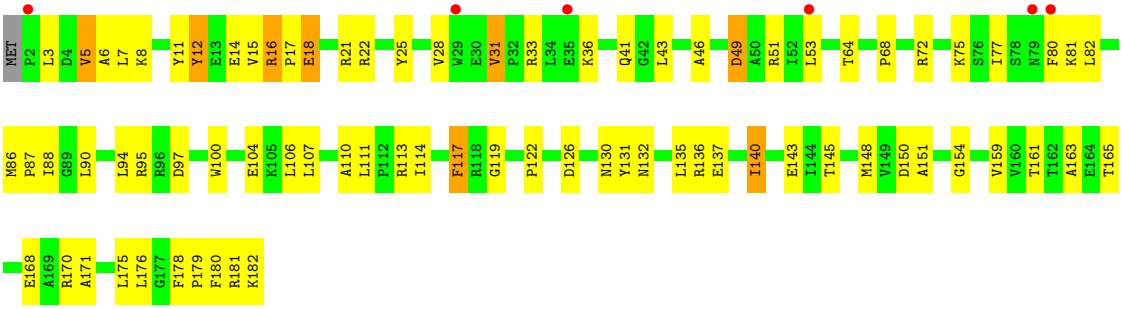


• Molecule 9: 50S ribosomal protein L5

Chain YG:



• Molecule 9: 50S ribosomal protein L5

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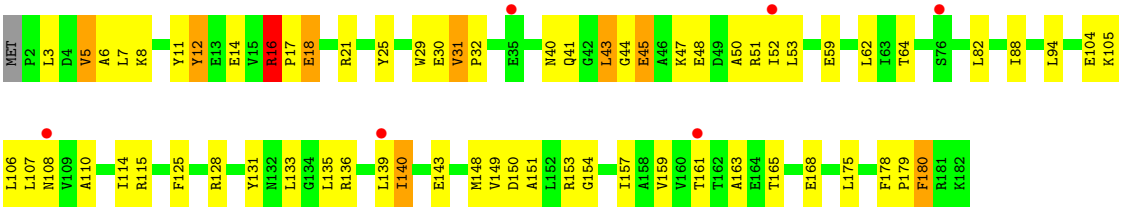
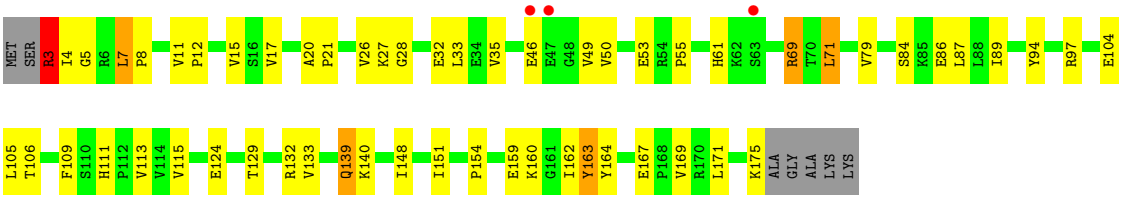


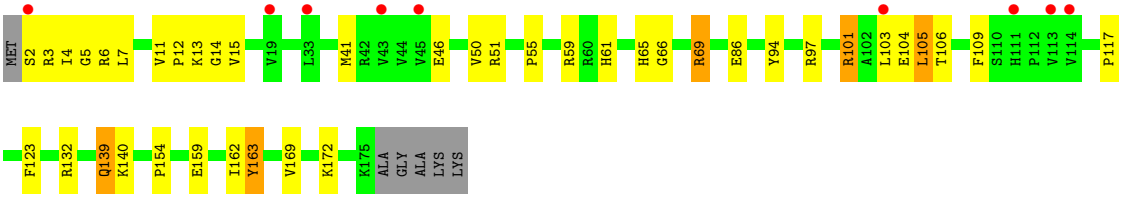
- Molecule 10: 50S ribosomal protein L6

Chain YH:



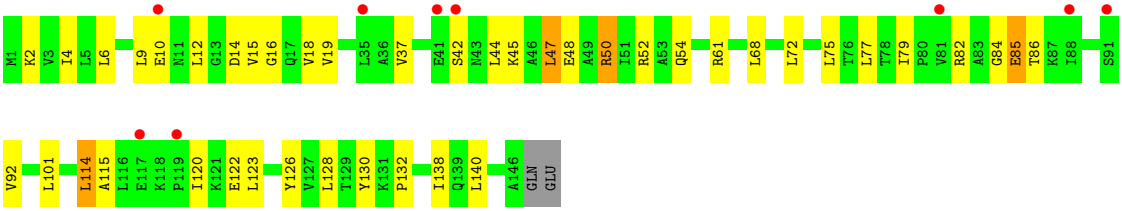
- Molecule 10: 50S ribosomal protein L6

Chain RH:



- Molecule 11: 50S ribosomal protein L9

Chain YI:



- Molecule 11: 50S ribosomal protein L9

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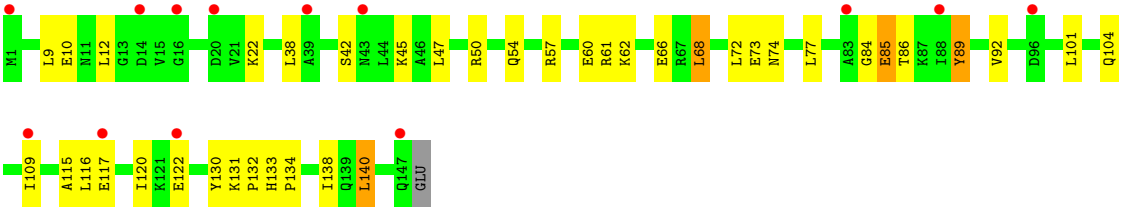
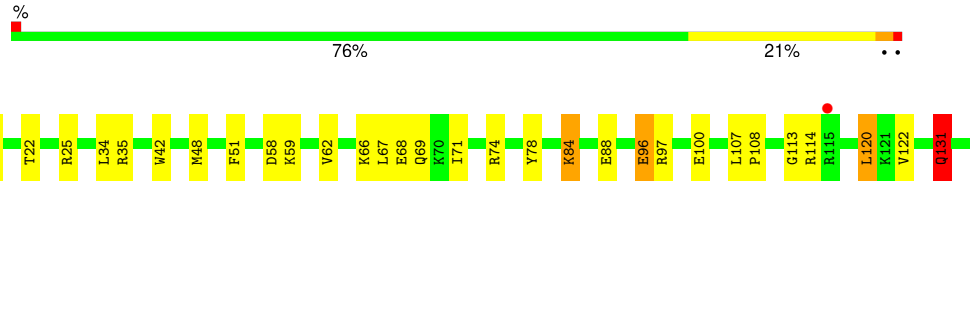


• Molecule 12: 50S ribosomal protein L13

Chain YN:



• Molecule 12: 50S ribosomal protein L13

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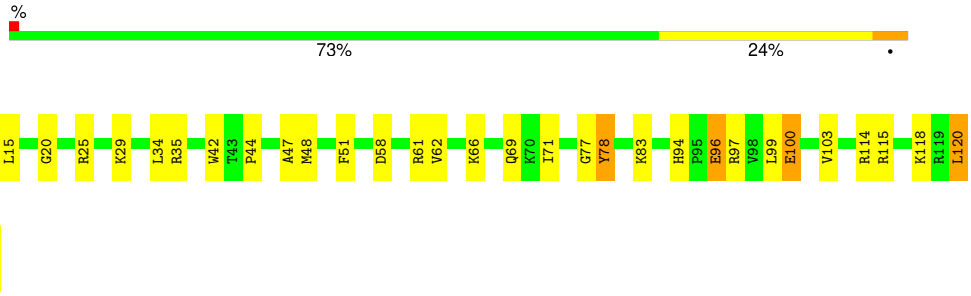
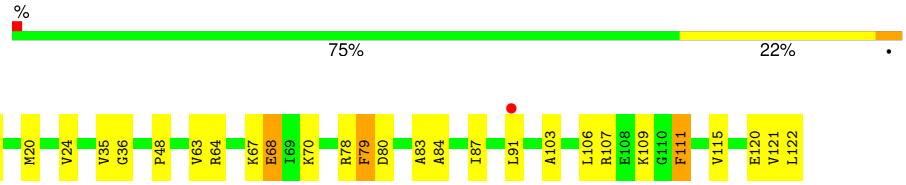


• Molecule 13: 50S ribosomal protein L14

Chain YO:



• Molecule 13: 50S ribosomal protein L14

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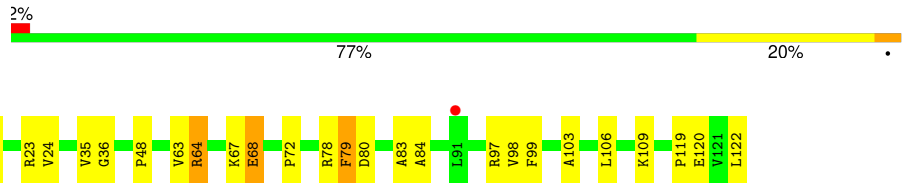

• Molecule 14: 50S ribosomal protein L15

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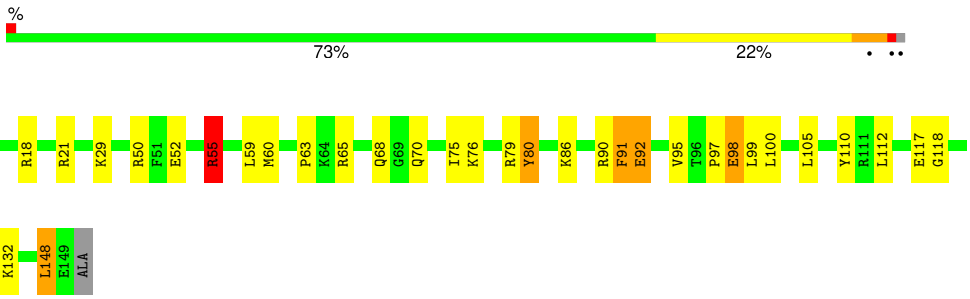
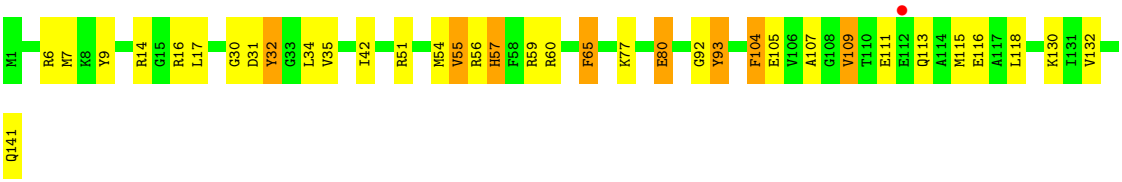


• Molecule 14: 50S ribosomal protein L15

Chain RP:

• Molecule 15: 50S ribosomal protein L16

Chain YQ:



• Molecule 15: 50S ribosomal protein L16

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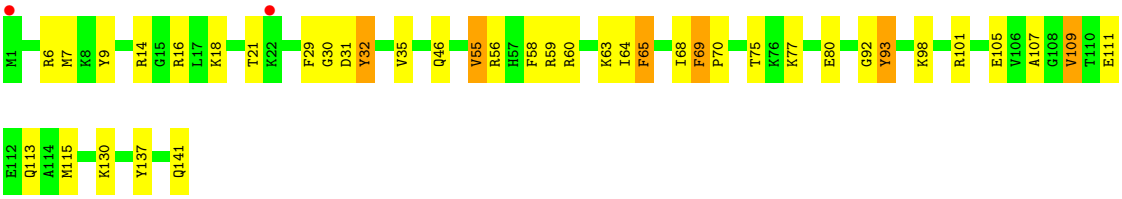

• Molecule 16: 50S ribosomal protein L17

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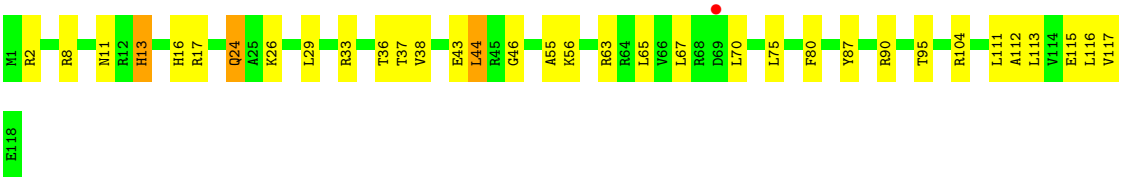

• Molecule 16: 50S ribosomal protein L17

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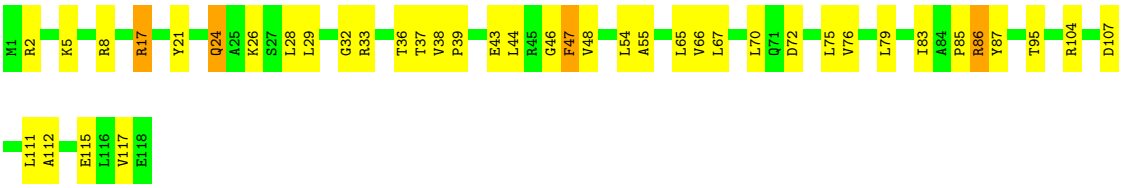

• Molecule 17: 50S ribosomal protein L18

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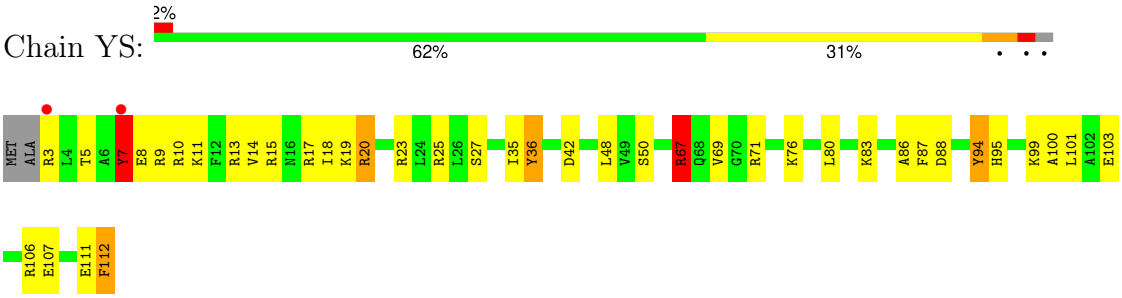

• Molecule 17: 50S ribosomal protein L18

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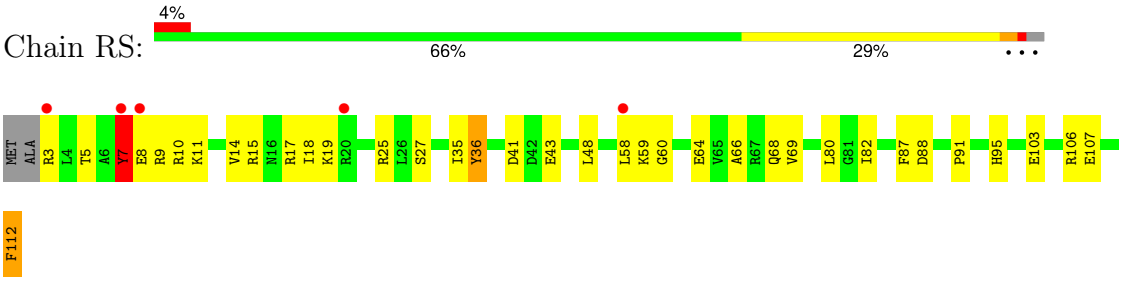
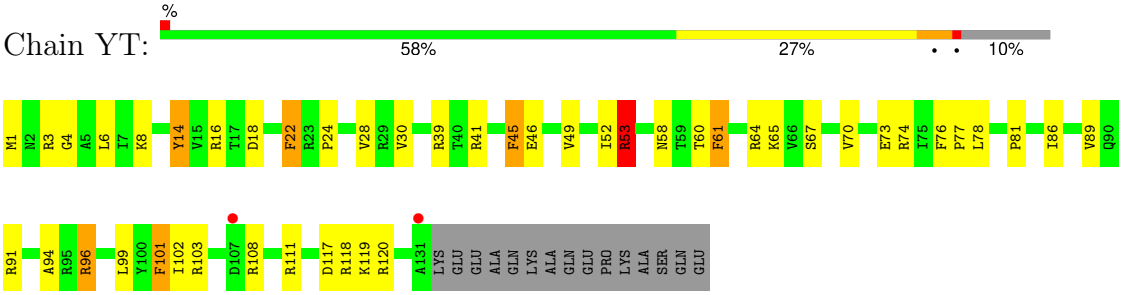


• Molecule 18: 50S ribosomal protein L19

Chain YT:



• Molecule 18: 50S ribosomal protein L19

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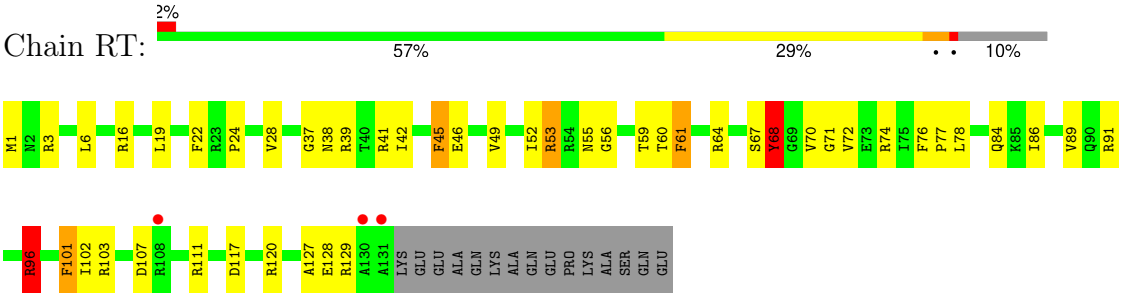

• Molecule 19: 50S ribosomal protein L20

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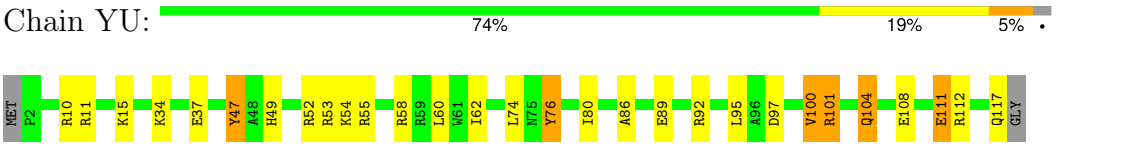

• Molecule 19: 50S ribosomal protein L20

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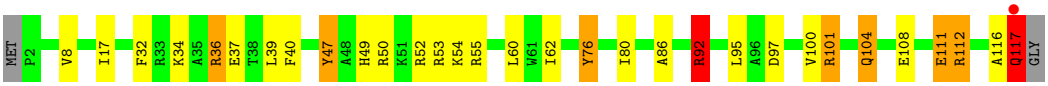
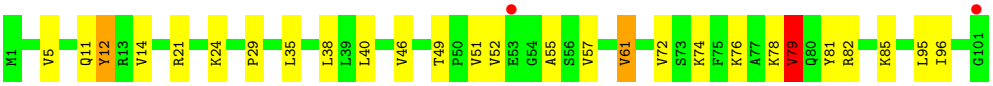


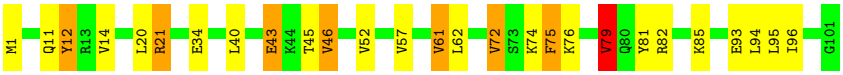
• Molecule 20: 50S ribosomal protein L21

Chain YV:



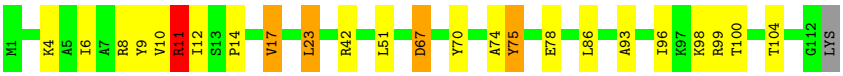
• Molecule 20: 50S ribosomal protein L21

Chain RV:



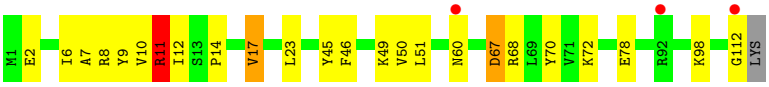
• Molecule 21: 50S ribosomal protein L22

Chain YW:



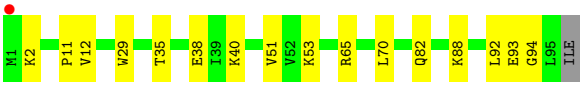
• Molecule 21: 50S ribosomal protein L22

Chain RW:



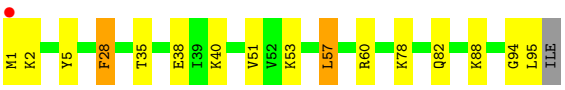
• Molecule 22: 50S ribosomal protein L23

Chain YX:



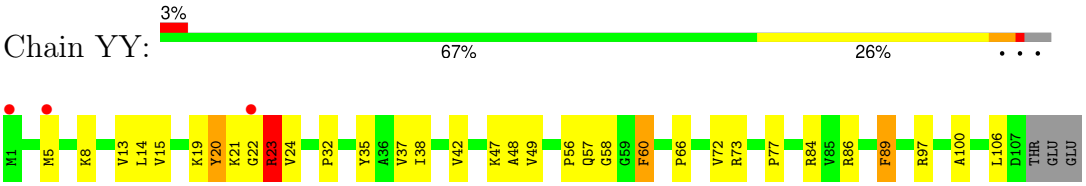
• Molecule 22: 50S ribosomal protein L23

Chain RX:



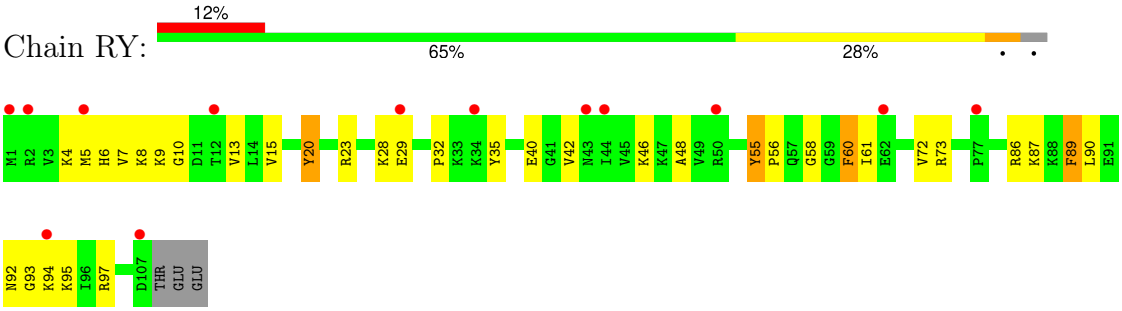
• Molecule 23: 50S ribosomal protein L24

Chain YY:



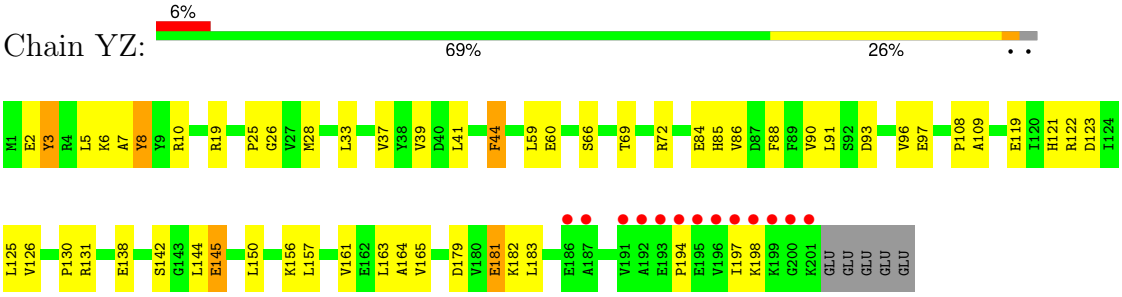
• Molecule 23: 50S ribosomal protein L24

Chain RY:



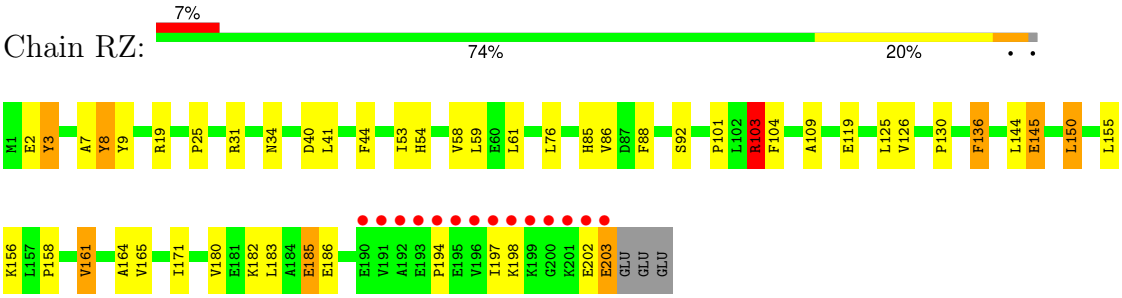
• Molecule 24: 50S ribosomal protein L25

Chain YZ:



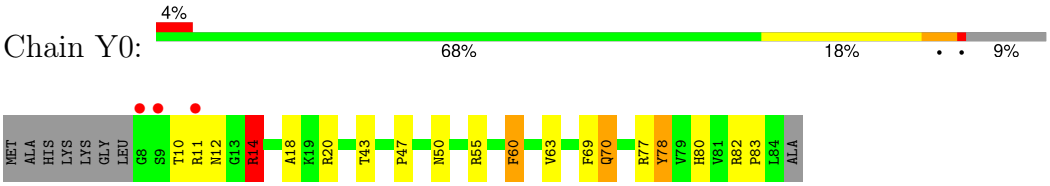
• Molecule 24: 50S ribosomal protein L25

Chain RZ:



• Molecule 25: 50S ribosomal protein L27

Chain Y0:

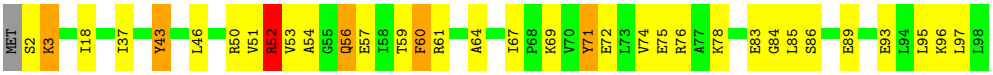


• Molecule 25: 50S ribosomal protein L27

Chain R0:

• Molecule 26: 50S ribosomal protein L28

Chain Y1:

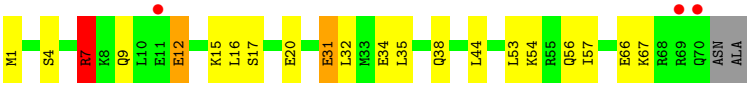


• Molecule 26: 50S ribosomal protein L28

Chain R1:

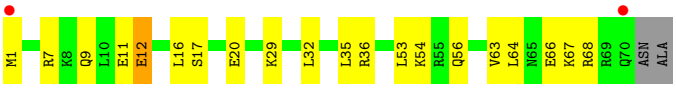
• Molecule 27: 50S ribosomal protein L29

Chain Y2:



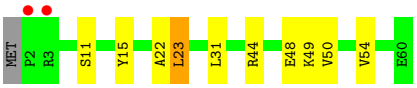
• Molecule 27: 50S ribosomal protein L29

Chain R2:



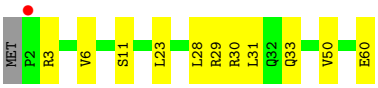
• Molecule 28: 50S ribosomal protein L30

Chain Y3:



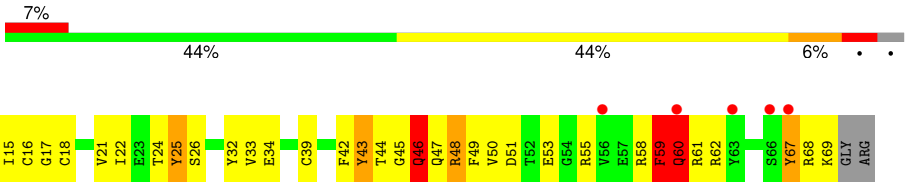
• Molecule 28: 50S ribosomal protein L30

Chain R3:



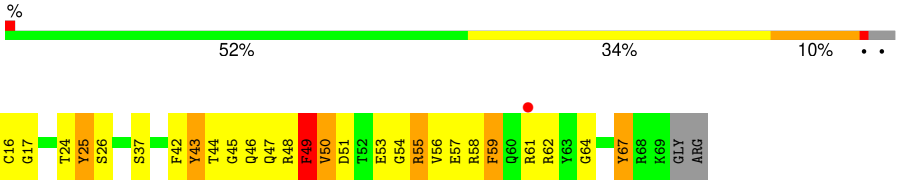
• Molecule 29: 50S ribosomal protein L31

Chain Y4:



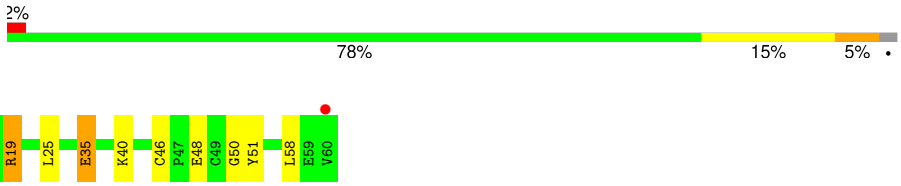
• Molecule 29: 50S ribosomal protein L31

Chain R4:



• Molecule 30: 50S ribosomal protein L32

Chain Y5:

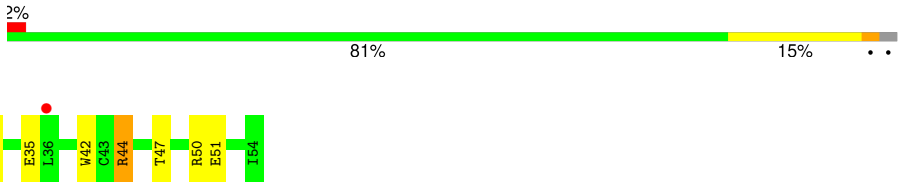


• Molecule 30: 50S ribosomal protein L32

Chain R5:

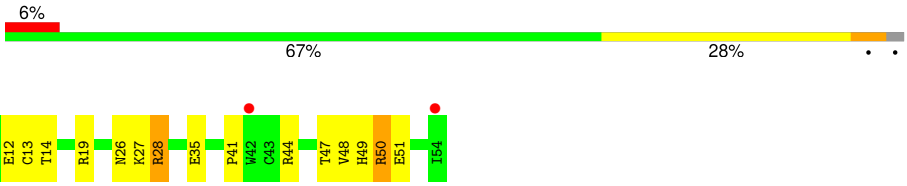
• Molecule 31: 50S ribosomal protein L33

Chain Y6:



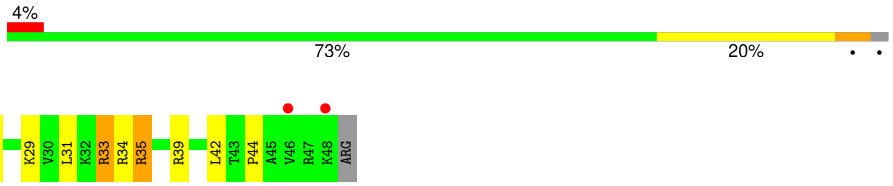
• Molecule 31: 50S ribosomal protein L33

Chain R6:



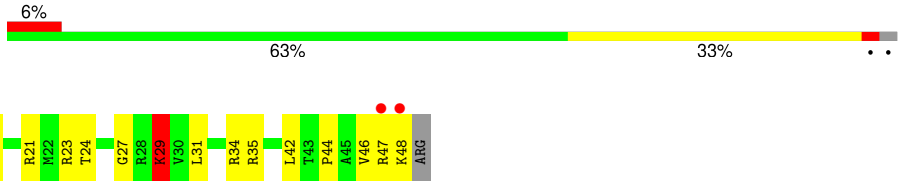
• Molecule 32: 50S ribosomal protein L34

Chain Y7:



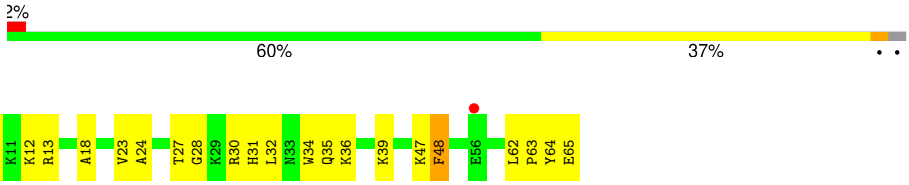
• Molecule 32: 50S ribosomal protein L34

Chain R7:



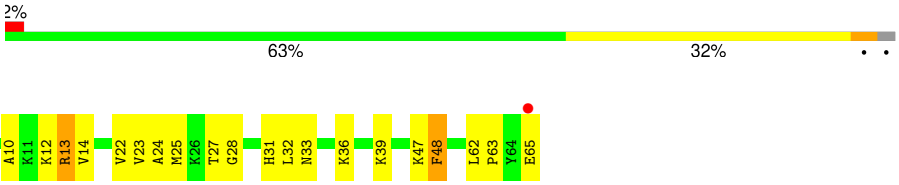
• Molecule 33: 50S ribosomal protein L35

Chain Y8:



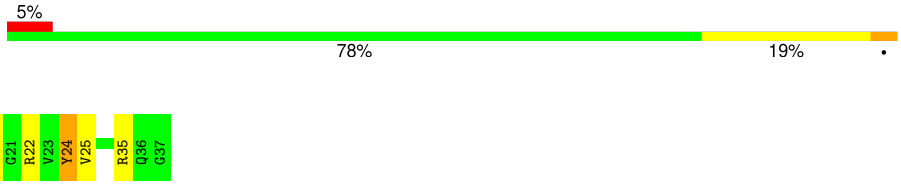
• Molecule 33: 50S ribosomal protein L35

Chain R8:



• Molecule 34: 50S ribosomal protein L36

Chain Y9:

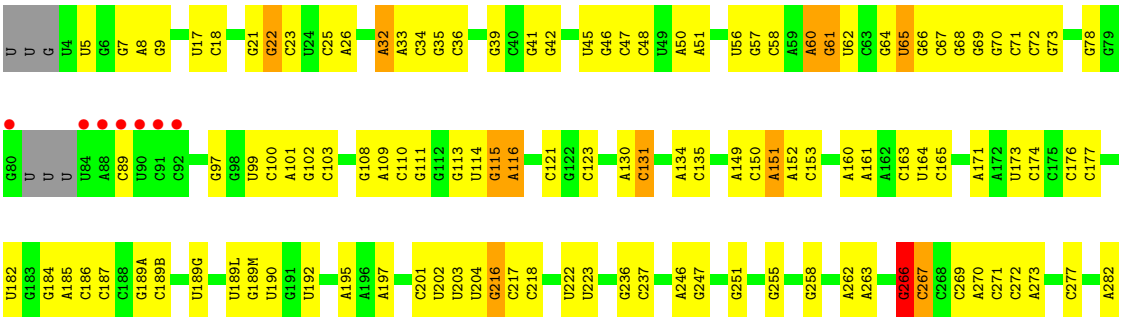


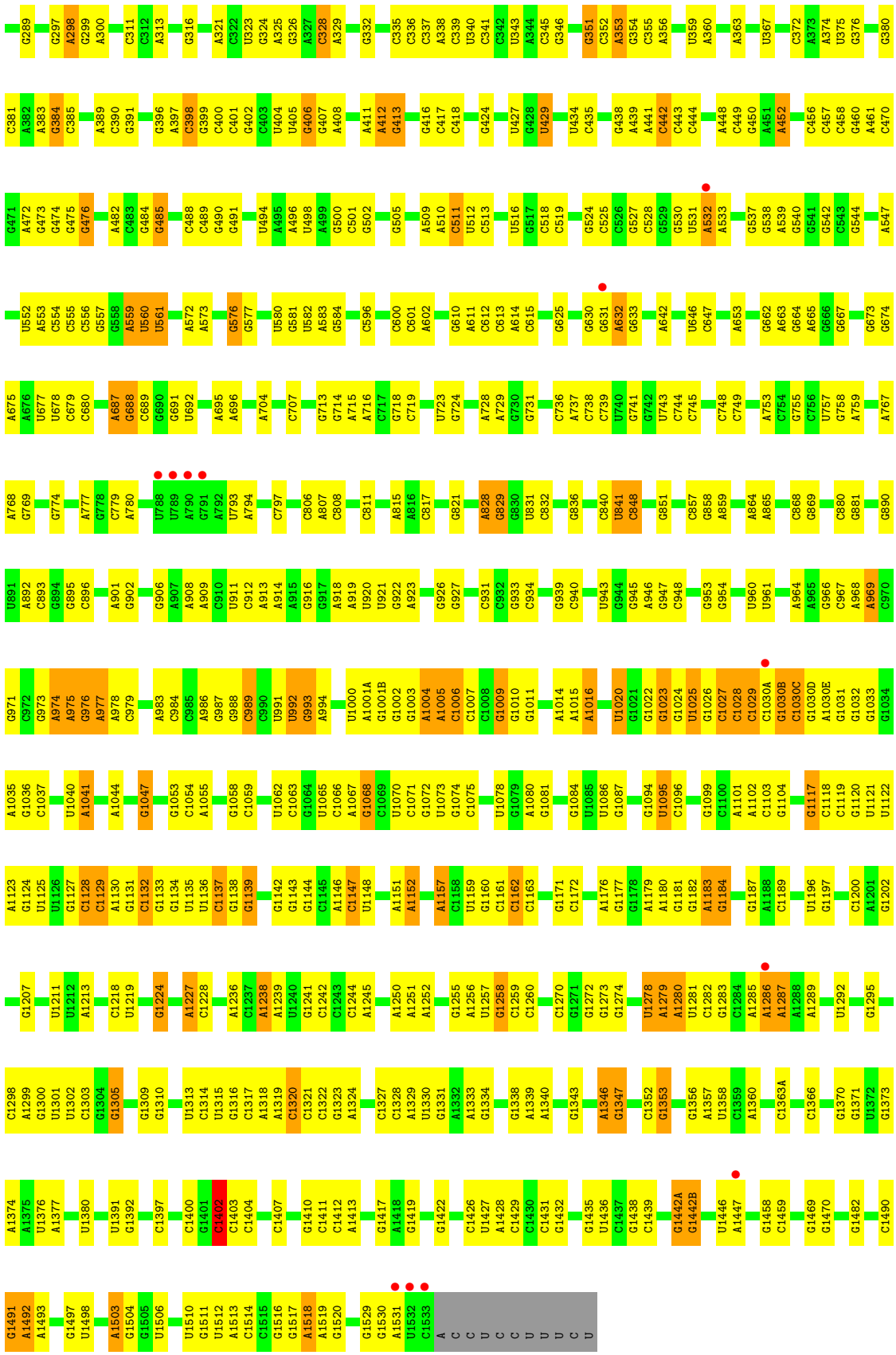
• Molecule 34: 50S ribosomal protein L36

Chain R9:

• Molecule 35: 16S rRNA

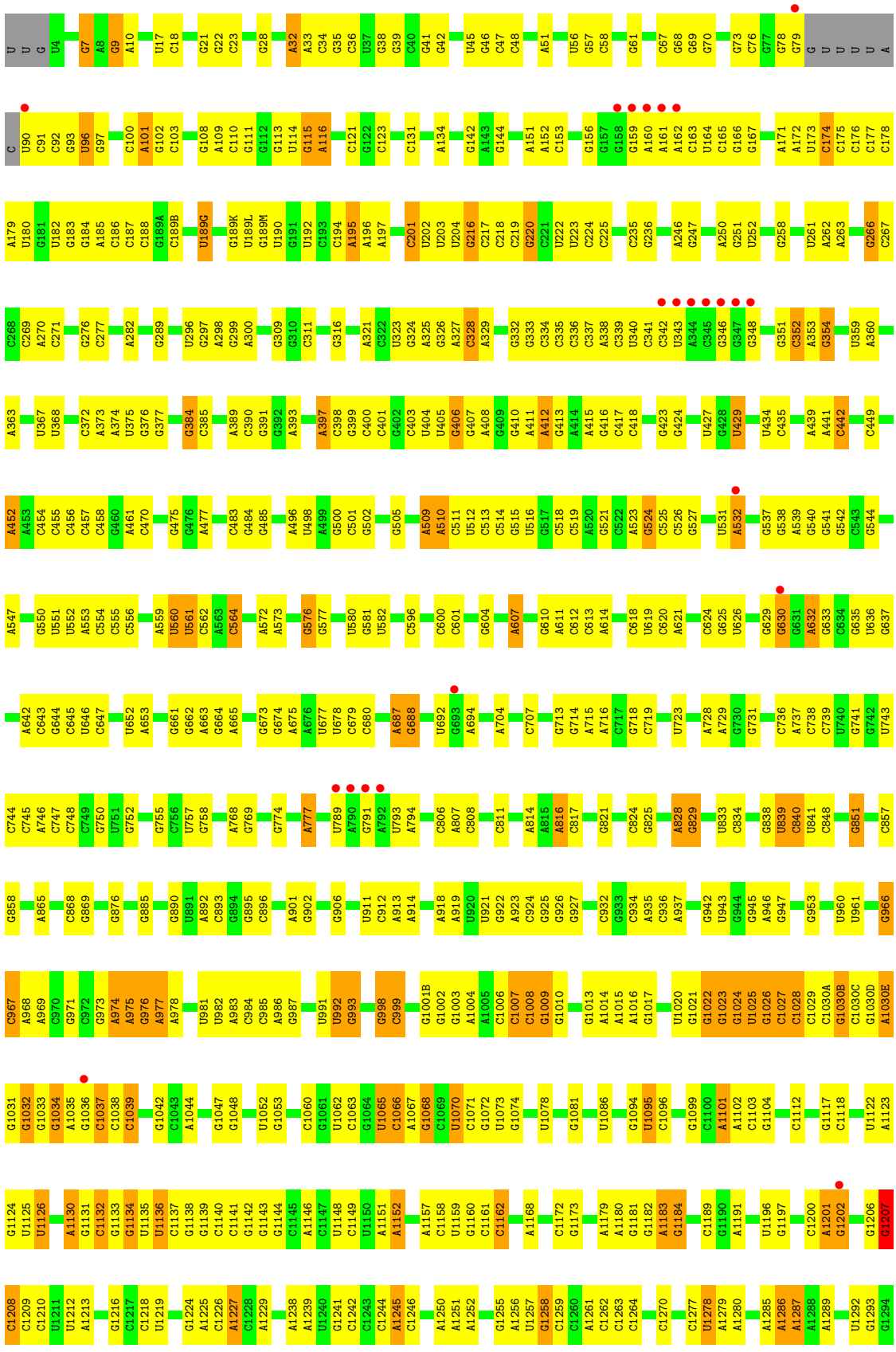
Chain XA:

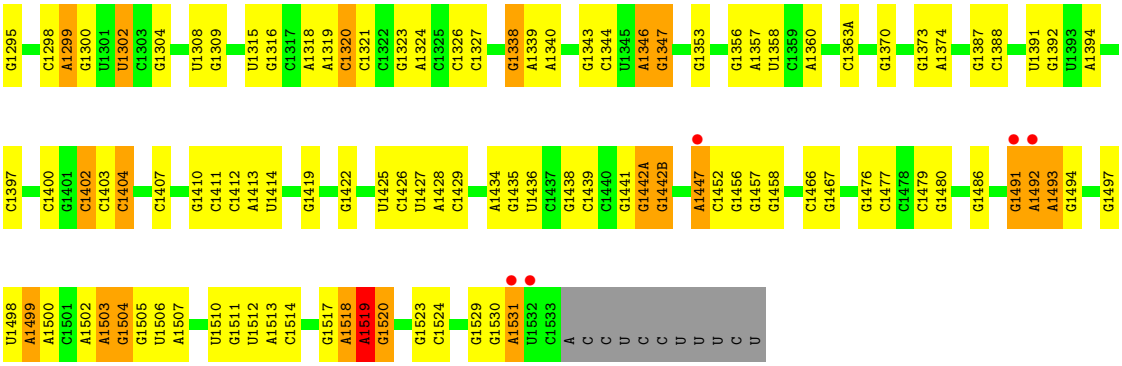




- Molecule 35: 16S rRNA

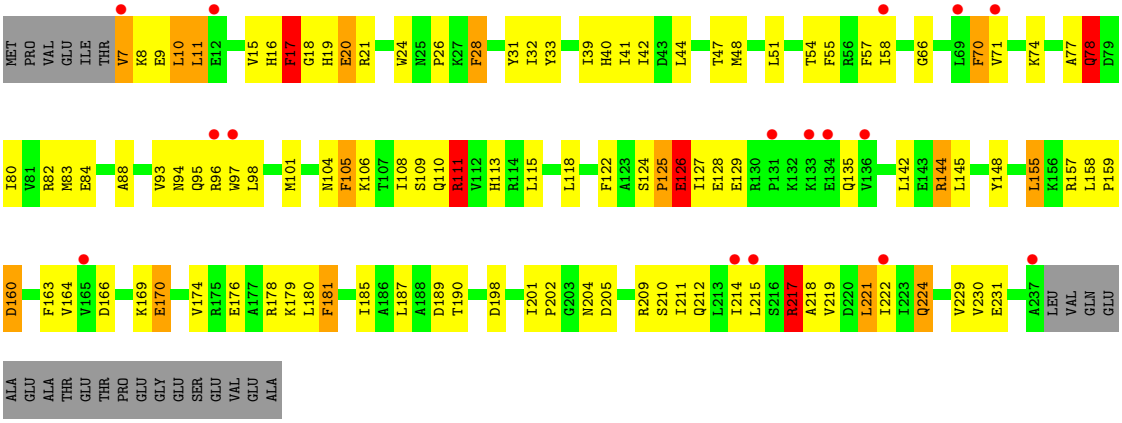
Chain QA: 2% 52% 39% 7%





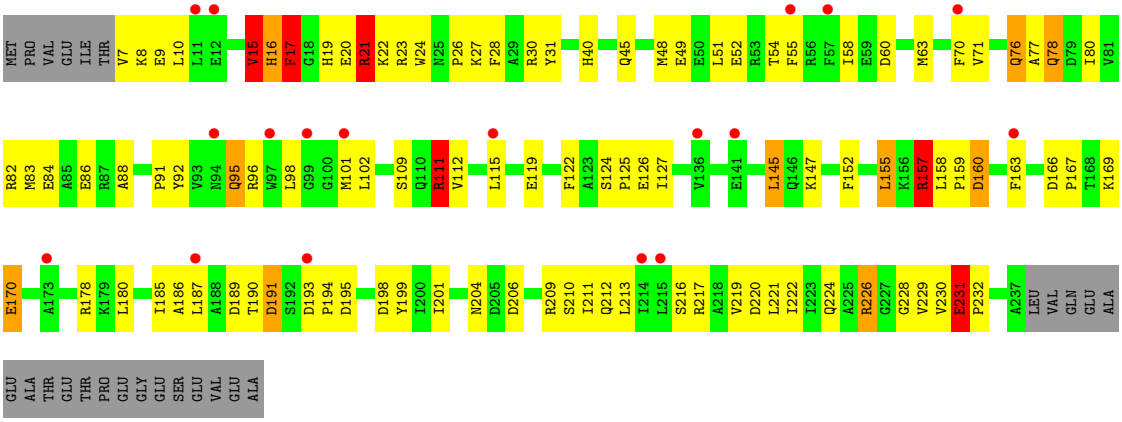
• Molecule 36: 30S ribosomal protein S2

Chain XB:



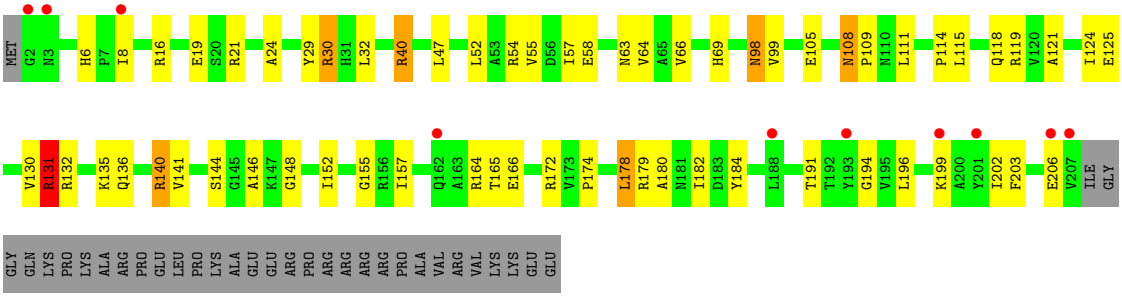
• Molecule 36: 30S ribosomal protein S2

Chain QB:



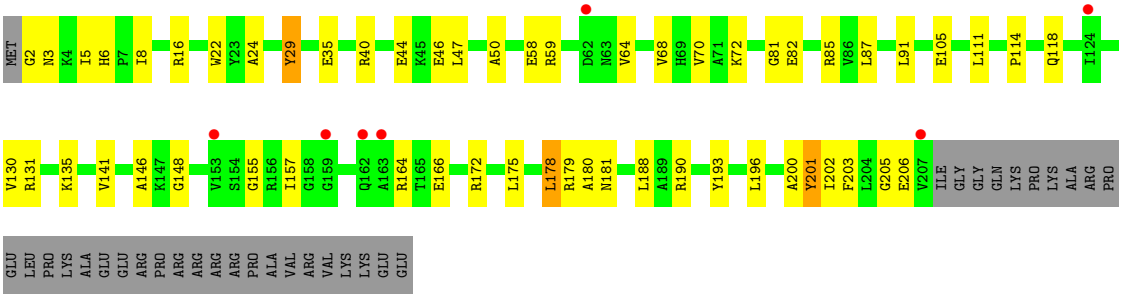
• Molecule 37: 30S ribosomal protein S3

Chain XC:



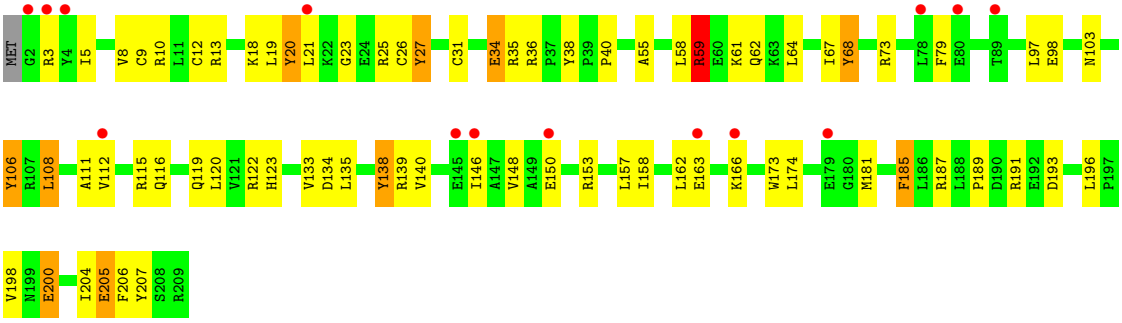
- Molecule 37: 30S ribosomal protein S3

Chain QC:



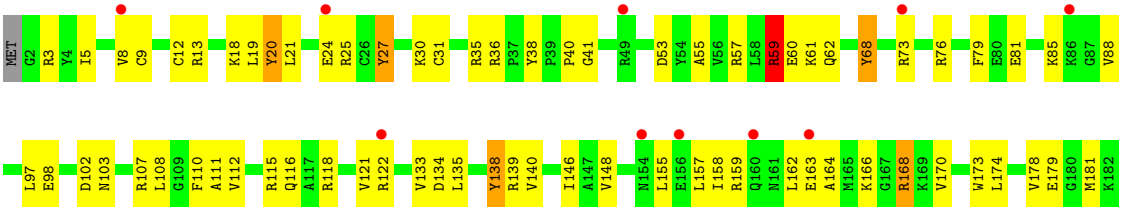
- Molecule 38: 30S ribosomal protein S4

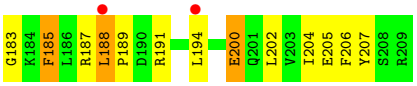
Chain XD:



- Molecule 38: 30S ribosomal protein S4

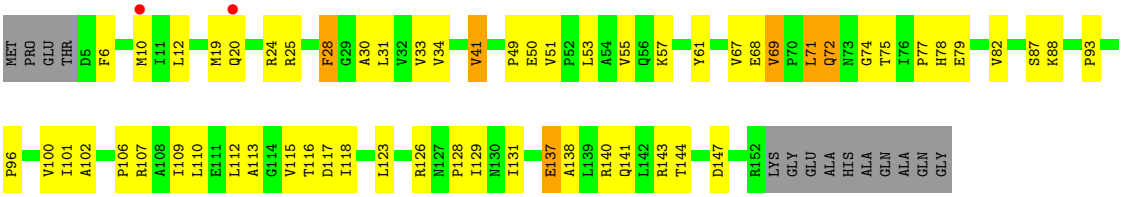
Chain QD:





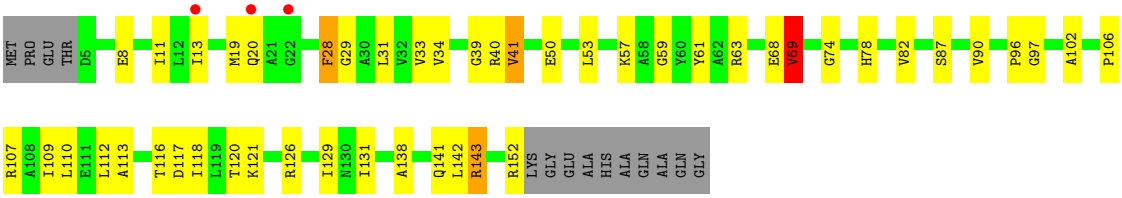
• Molecule 39: 30S ribosomal protein S5

Chain XE:



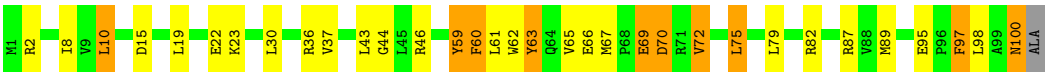
• Molecule 39: 30S ribosomal protein S5

Chain QE:



• Molecule 40: 30S ribosomal protein S6

Chain XF:

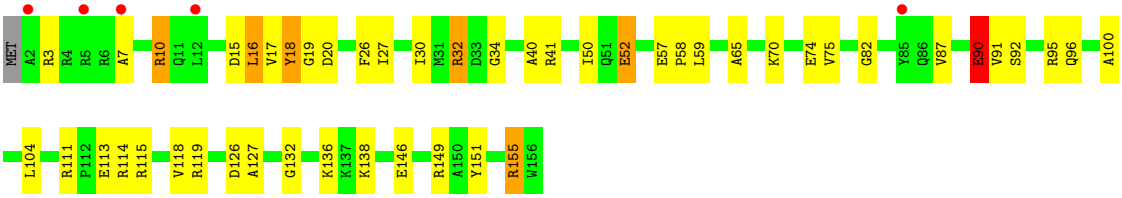


• Molecule 40: 30S ribosomal protein S6

Chain QF:

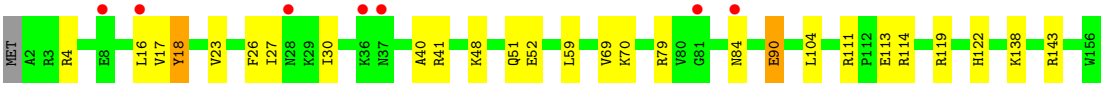
• Molecule 41: 30S ribosomal protein S7

Chain XG:



• Molecule 41: 30S ribosomal protein S7

Chain QG:

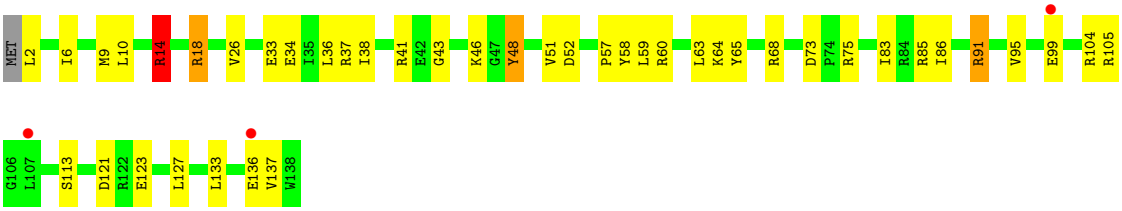


• Molecule 42: 30S ribosomal protein S8

Chain XH:

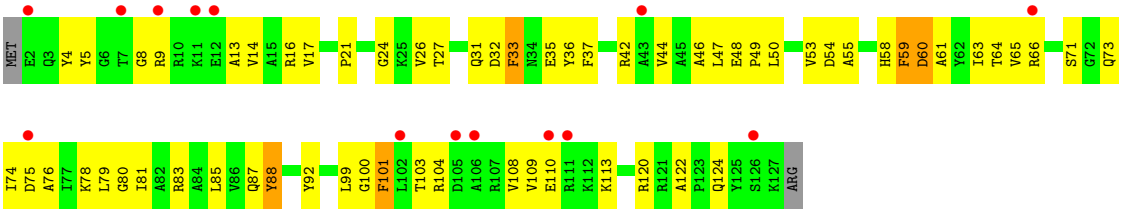
• Molecule 42: 30S ribosomal protein S8

Chain QH:



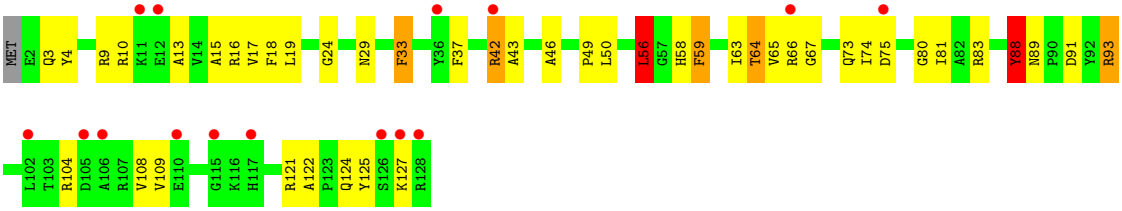
• Molecule 43: 30S ribosomal protein S9

Chain XI:



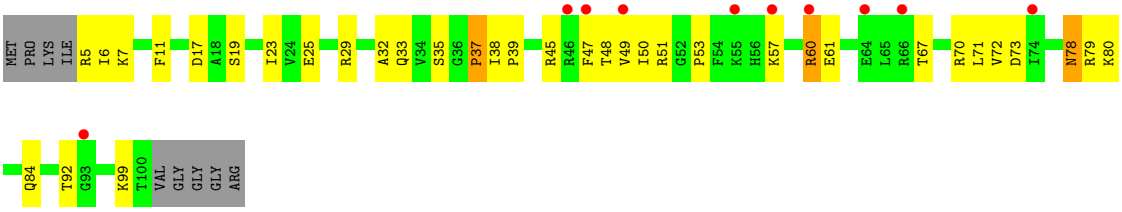
• Molecule 43: 30S ribosomal protein S9

Chain QI:



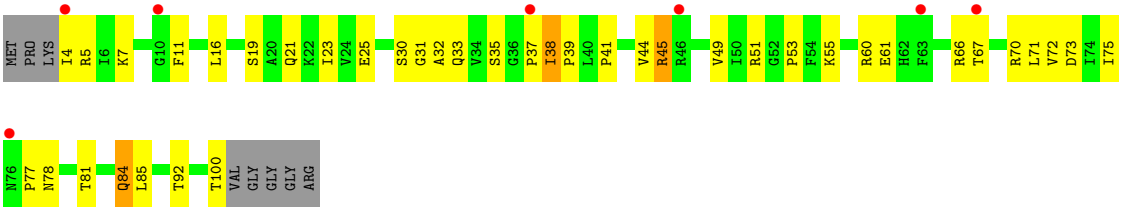
• Molecule 44: 30S ribosomal protein S10

Chain XJ:



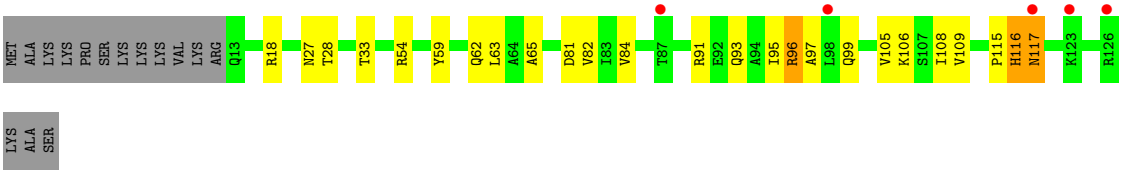
• Molecule 44: 30S ribosomal protein S10

Chain QJ:



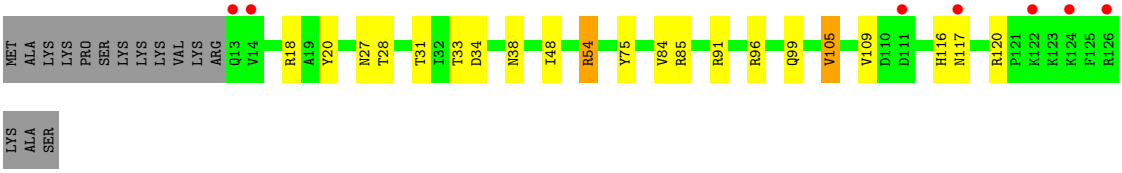
• Molecule 45: 30S ribosomal protein S11

Chain XK:



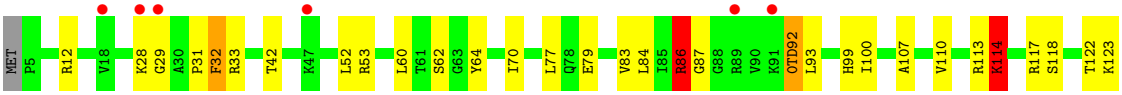
• Molecule 45: 30S ribosomal protein S11

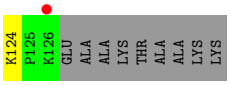
Chain QK:



• Molecule 46: 30S ribosomal protein S12

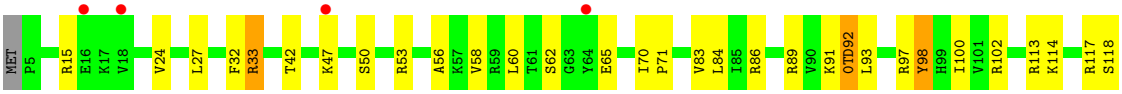
Chain XL:

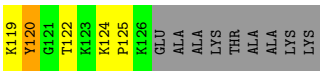




• Molecule 46: 30S ribosomal protein S12

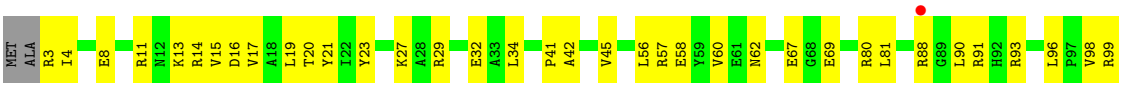
Chain QL:

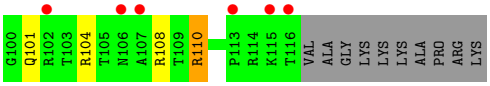




• Molecule 47: 30S ribosomal protein S13

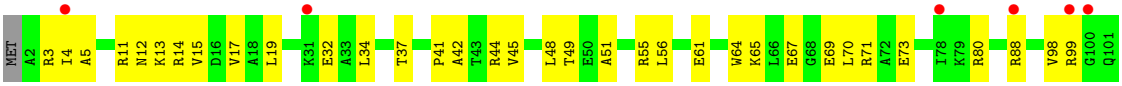
Chain XM:

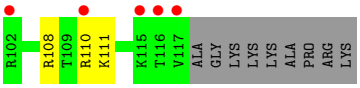




• Molecule 47: 30S ribosomal protein S13

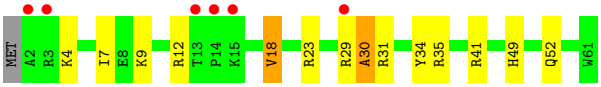
Chain QM:





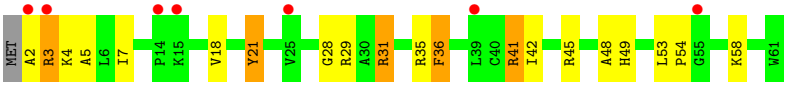
• Molecule 48: 30S ribosomal protein S14 type Z

Chain XN:



• Molecule 48: 30S ribosomal protein S14 type Z

Chain QN:



• Molecule 49: 30S ribosomal protein S15

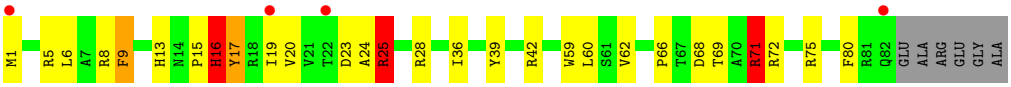
Chain XO:

• Molecule 49: 30S ribosomal protein S15

Chain QO:

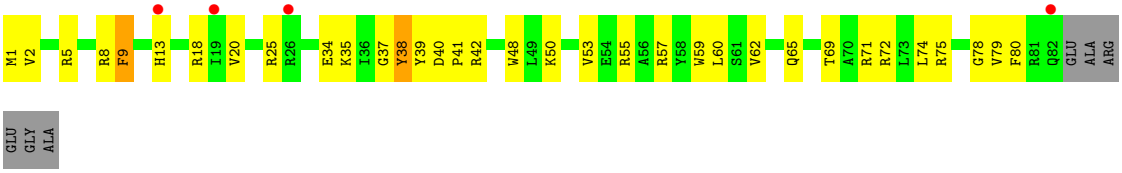
• Molecule 50: 30S ribosomal protein S16

Chain XP:



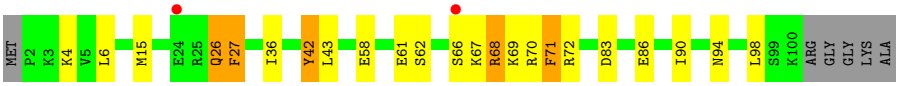
• Molecule 50: 30S ribosomal protein S16

Chain QP:



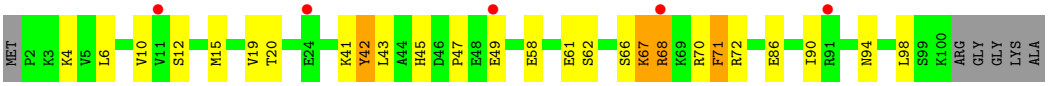
• Molecule 51: 30S ribosomal protein S17

Chain XQ:



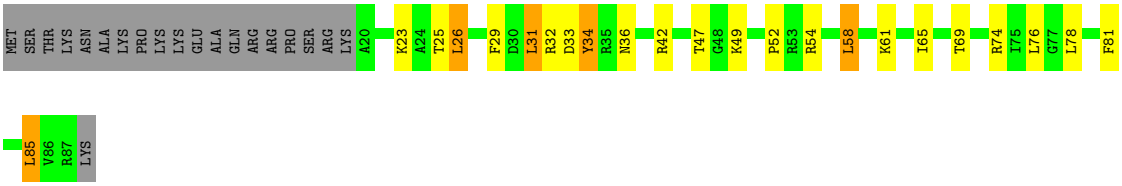
• Molecule 51: 30S ribosomal protein S17

Chain QQ:



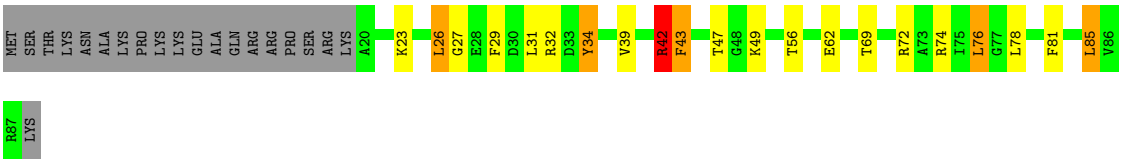
• Molecule 52: 30S ribosomal protein S18

Chain XR:



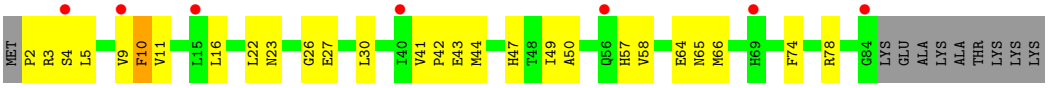
• Molecule 52: 30S ribosomal protein S18

Chain QR:



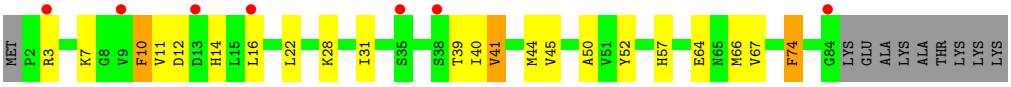
• Molecule 53: 30S ribosomal protein S19

Chain XS:



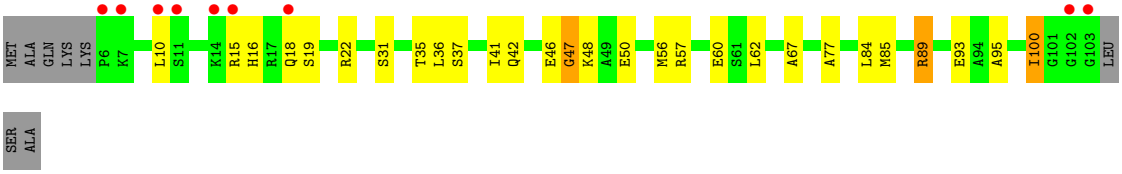
• Molecule 53: 30S ribosomal protein S19

Chain QS:



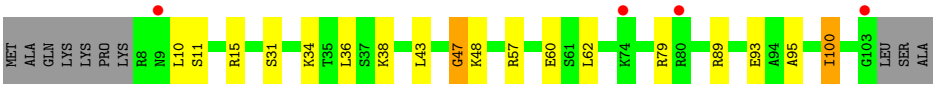
• Molecule 54: 30S ribosomal protein S20

Chain XT:



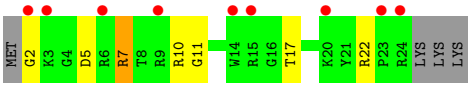
• Molecule 54: 30S ribosomal protein S20

Chain QT:



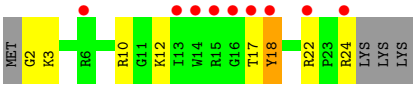
• Molecule 55: 30S ribosomal protein Thx

Chain XU:



- Molecule 55: 30S ribosomal protein Thx

Chain QU:



4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	210.48Å 450.41Å 622.55Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.88 – 3.10 49.88 – 3.10	Depositor EDS
% Data completeness (in resolution range)	100.0 (49.88-3.10) 99.9 (49.88-3.10)	Depositor EDS
R_{merge}	0.27	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.80 (at 3.12Å)	Xtriage
Refinement program	PHENIX 1.10.1_2155	Depositor
R, R_{free}	0.196 , 0.227 0.195 , 0.226	Depositor DCC
R_{free} test set	49511 reflections (4.68%)	wwPDB-VP
Wilson B-factor (Å^2)	65.2	Xtriage
Anisotropy	0.251	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.29 , 66.8	EDS
L-test for twinning[2]	$< \|L\| > = 0.40$, $< L^2 > = 0.22$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.93	EDS
Total number of atoms	296662	wwPDB-VP
Average B, all atoms (Å^2)	77.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.58% of the height of the origin peak. No significant pseudotranslation is detected.*

[1]Intensities estimated from amplitudes.

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

5 Model quality (i)

5.1 Standard geometry (i)

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\|>5$	RMSZ	$\#\|Z\|>5$
1	QV	0.17	0/1836	0.38	1/2859 (0.0%)
1	XV	0.15	0/1836	0.33	0/2859
2	QX	0.15	0/241	0.39	0/373
2	XX	0.15	0/241	0.39	0/373
3	QY	0.37	1/2873 (0.0%)	0.79	6/3870 (0.2%)
3	XY	0.36	1/2873 (0.0%)	0.79	3/3870 (0.1%)
4	RA	0.15	0/68901	0.36	6/107544 (0.0%)
4	YA	0.16	0/68901	0.36	1/107544 (0.0%)
5	RB	0.13	0/2876	0.30	0/4486
5	YB	0.14	0/2878	0.32	0/4490
6	RD	0.33	1/2181 (0.0%)	0.69	1/2940 (0.0%)
6	YD	0.44	2/2186 (0.1%)	0.82	9/2944 (0.3%)
7	RE	0.30	0/1592	0.69	1/2149 (0.0%)
7	YE	0.50	1/1592 (0.1%)	0.71	2/2149 (0.1%)
8	RF	0.28	0/1619	0.68	0/2193
8	YF	0.26	0/1615	0.68	0/2188
9	RG	0.46	4/1451 (0.3%)	0.75	1/1961 (0.1%)
9	YG	0.31	0/1449	0.75	2/1957 (0.1%)
10	RH	0.25	0/1356	0.64	0/1834
10	YH	0.35	1/1350 (0.1%)	0.77	4/1826 (0.2%)
11	RI	0.35	1/1109 (0.1%)	0.73	0/1512
11	YI	0.37	1/1091 (0.1%)	0.75	4/1490 (0.3%)
12	RN	0.59	4/1148 (0.3%)	0.79	4/1547 (0.3%)
12	YN	0.39	1/1144 (0.1%)	0.69	1/1543 (0.1%)
13	RO	0.22	0/943	0.63	2/1269 (0.2%)
13	YO	0.31	0/943	0.68	1/1269 (0.1%)
14	RP	0.28	0/1152	0.73	1/1533 (0.1%)
14	YP	0.29	0/1152	0.74	1/1533 (0.1%)
15	RQ	0.30	0/1143	0.74	0/1527
15	YQ	0.34	0/1143	0.73	1/1527 (0.1%)
16	RR	0.42	0/982	0.85	5/1312 (0.4%)
16	YR	0.41	1/982 (0.1%)	0.79	4/1312 (0.3%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	RS	0.34	0/887	0.78	1/1180 (0.1%)
17	YS	0.35	0/880	0.93	3/1172 (0.3%)
18	RT	0.34	0/1105	0.86	2/1477 (0.1%)
18	YT	0.30	0/1097	0.82	1/1468 (0.1%)
19	RU	0.61	3/977 (0.3%)	0.97	8/1301 (0.6%)
19	YU	0.61	2/977 (0.2%)	1.00	11/1301 (0.8%)
20	RV	0.45	1/786 (0.1%)	0.94	3/1053 (0.3%)
20	YV	0.33	0/782	0.77	1/1049 (0.1%)
21	RW	0.25	0/897	0.63	1/1205 (0.1%)
21	YW	0.25	0/897	0.64	1/1205 (0.1%)
22	RX	0.22	0/764	0.62	0/1025
22	YX	0.20	0/764	0.59	0/1025
23	RY	0.23	0/823	0.68	0/1099
23	YY	0.44	0/823	0.86	4/1100 (0.4%)
24	RZ	0.31	0/1620	0.76	5/2200 (0.2%)
24	YZ	0.35	0/1590	0.72	0/2162
25	R0	0.46	1/616 (0.2%)	0.97	5/821 (0.6%)
25	Y0	0.45	1/616 (0.2%)	0.86	1/821 (0.1%)
26	R1	0.27	0/761	0.72	1/1013 (0.1%)
26	Y1	0.75	3/766 (0.4%)	0.81	2/1018 (0.2%)
27	R2	0.32	0/590	0.73	0/781
27	Y2	0.54	1/594 (0.2%)	0.81	3/785 (0.4%)
28	R3	0.35	0/474	0.63	0/635
28	Y3	0.23	0/469	0.61	0/630
29	R4	0.67	3/559 (0.5%)	1.15	4/754 (0.5%)
29	Y4	0.62	2/549 (0.4%)	1.19	7/741 (0.9%)
30	R5	1.14	1/473 (0.2%)	1.14	3/639 (0.5%)
30	Y5	0.43	0/469	0.75	0/635
31	R6	0.67	3/460 (0.7%)	0.99	5/613 (0.8%)
31	Y6	0.26	0/456	0.64	0/608
32	R7	0.58	1/426 (0.2%)	0.94	0/561
32	Y7	0.33	0/426	0.83	1/561 (0.2%)
33	R8	0.26	0/525	0.68	0/691
33	Y8	0.24	0/525	0.60	0/691
34	R9	0.49	1/310 (0.3%)	0.97	2/407 (0.5%)
34	Y9	0.22	0/310	0.64	0/407
35	QA	0.14	0/35795	0.33	2/55864 (0.0%)
35	XA	0.14	1/35890 (0.0%)	0.33	2/56012 (0.0%)
36	QB	0.42	0/1876	0.94	6/2533 (0.2%)
36	XB	0.46	1/1860 (0.1%)	0.99	8/2518 (0.3%)
37	QC	0.30	0/1582	0.62	0/2137
37	XC	0.41	1/1566 (0.1%)	0.84	3/2119 (0.1%)
38	QD	0.30	0/1695	0.83	4/2274 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	XD	0.34	0/1698	0.81	1/2277 (0.0%)
39	QE	0.32	1/1149 (0.1%)	0.67	2/1548 (0.1%)
39	XE	0.35	1/1149 (0.1%)	0.66	1/1548 (0.1%)
40	QF	0.41	0/827	0.81	1/1120 (0.1%)
40	XF	0.33	0/829	0.81	1/1123 (0.1%)
41	QG	0.27	0/1254	0.67	0/1683
41	XG	0.46	1/1248 (0.1%)	0.86	4/1676 (0.2%)
42	QH	0.42	3/1118 (0.3%)	0.76	4/1506 (0.3%)
42	XH	0.37	0/1108	0.75	4/1494 (0.3%)
43	QI	0.63	1/1005 (0.1%)	0.85	4/1351 (0.3%)
43	XI	0.29	0/985	0.71	0/1329
44	QJ	0.37	0/732	0.78	3/993 (0.3%)
44	XJ	0.21	0/723	0.59	0/984
45	QK	0.30	0/849	0.74	4/1150 (0.3%)
45	XK	0.29	0/848	0.61	1/1149 (0.1%)
46	QL	0.27	0/937	0.66	1/1260 (0.1%)
46	XL	0.43	2/937 (0.2%)	0.75	2/1260 (0.2%)
47	QM	0.29	0/924	0.71	0/1242
47	XM	0.22	0/905	0.68	1/1217 (0.1%)
48	QN	0.36	0/501	0.87	1/664 (0.2%)
48	XN	0.35	0/501	0.90	5/664 (0.8%)
49	QO	0.50	0/739	1.09	9/985 (0.9%)
49	XO	0.35	0/739	0.80	1/985 (0.1%)
50	QP	0.30	0/697	0.69	0/939
50	XP	0.64	3/693 (0.4%)	1.03	6/935 (0.6%)
51	QQ	0.25	0/836	0.67	0/1117
51	XQ	0.43	1/836 (0.1%)	0.66	1/1117 (0.1%)
52	QR	0.31	0/560	0.85	1/746 (0.1%)
52	XR	0.24	0/560	0.65	0/746
53	QS	0.53	1/663 (0.2%)	0.73	1/895 (0.1%)
53	XS	0.24	0/660	0.56	0/893
54	QT	0.35	0/734	0.69	0/969
54	XT	0.40	1/736 (0.1%)	0.65	0/976
55	QU	0.29	0/203	0.77	0/266
55	XU	0.27	0/203	0.65	0/266
All	All	0.25	60/318172 (0.0%)	0.51	220/475147 (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
3	QY	0	3
8	RF	0	1
11	YI	0	1
17	RS	0	1
19	RU	0	1
25	R0	0	1
26	Y1	0	1
29	R4	0	1
29	Y4	0	1
31	R6	0	1
34	R9	0	1
36	QB	0	2
36	XB	0	2
37	QC	0	1
44	QJ	0	1
44	XJ	0	1
45	XK	0	1
46	XL	0	2
48	XN	0	1
51	XQ	0	1
All	All	0	25

All (60) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
30	R5	27	PRO	CA-C	22.46	1.64	1.51
43	QI	93	ARG	CB-CG	-16.11	1.04	1.52
7	YE	143	ASN	CA-C	-13.14	1.35	1.52
26	Y1	52	ARG	CZ-NH2	10.37	1.47	1.33
53	QS	28	LYS	CD-CE	-9.61	1.23	1.52
26	Y1	52	ARG	NE-CZ	9.32	1.43	1.33
19	RU	112	ARG	CZ-NH1	8.57	1.44	1.32
37	XC	131	ARG	CD-NE	-8.25	1.34	1.46
6	YD	69	ARG	NE-CZ	-8.19	1.24	1.33
26	Y1	52	ARG	CD-NE	-7.96	1.35	1.46
6	RD	14	ARG	CZ-NH1	7.94	1.43	1.32
10	YH	53	GLU	C-N	7.88	1.49	1.33
46	XL	114	LYS	CB-CG	-7.84	1.28	1.52
51	XQ	68	ARG	NE-CZ	-7.72	1.24	1.33
12	YN	84	LYS	CD-CE	-7.59	1.29	1.52
12	RN	121	LYS	CD-CE	7.58	1.75	1.52
36	XB	217	ARG	CG-CD	-7.56	1.29	1.52
31	R6	28	ARG	CG-CD	-7.50	1.29	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	QY	278	ARG	NE-CZ	7.49	1.41	1.33
29	Y4	46	GLN	CD-NE2	7.20	1.48	1.33
19	RU	92	ARG	NE-CZ	7.07	1.40	1.33
29	Y4	46	GLN	CD-OE1	-6.74	1.10	1.23
42	QH	14	ARG	NE-CZ	6.72	1.40	1.33
19	YU	101	ARG	CG-CD	6.67	1.72	1.52
29	R4	13	ARG	CG-CD	6.58	1.72	1.52
11	YI	50	ARG	CB-CG	-6.51	1.32	1.52
34	R9	35	ARG	NE-CZ	6.37	1.40	1.33
39	XE	69	VAL	C-N	6.36	1.48	1.33
19	YU	112	ARG	CZ-NH2	6.31	1.41	1.33
6	YD	103	ARG	NE-CZ	6.27	1.40	1.33
54	XT	89	ARG	CD-NE	6.23	1.54	1.46
3	XY	278	ARG	NE-CZ	-6.21	1.26	1.33
29	R4	13	ARG	NE-CZ	6.21	1.39	1.33
39	QE	69	VAL	C-N	6.18	1.48	1.33
31	R6	28	ARG	NE-CZ	6.16	1.39	1.33
12	RN	83	LYS	CD-CE	-6.14	1.34	1.52
32	R7	29	LYS	CG-CD	-6.00	1.34	1.52
9	RG	16	ARG	CD-NE	5.95	1.54	1.46
20	RV	21	ARG	CG-CD	-5.91	1.34	1.52
41	XG	90	GLU	C-O	5.78	1.31	1.23
27	Y2	7	ARG	CZ-NH2	5.74	1.41	1.33
9	RG	16	ARG	CG-CD	5.71	1.69	1.52
50	XP	71	ARG	CZ-NH2	-5.71	1.26	1.33
12	RN	121	LYS	CB-CG	-5.67	1.35	1.52
25	Y0	70	GLN	CB-CG	-5.58	1.35	1.52
50	XP	25	ARG	NE-CZ	5.58	1.39	1.33
25	R0	55	ARG	NE-CZ	5.54	1.39	1.33
42	QH	14	ARG	CB-CG	5.52	1.69	1.52
12	RN	121	LYS	CG-CD	-5.50	1.35	1.52
31	R6	28	ARG	CD-NE	-5.41	1.38	1.46
9	RG	21	ARG	CD-NE	5.35	1.53	1.46
50	XP	25	ARG	CD-NE	-5.31	1.38	1.46
29	R4	13	ARG	CZ-NH2	5.25	1.40	1.33
11	RI	104	GLN	CB-CG	-5.24	1.36	1.52
35	XA	1498	UR3	O3'-P	5.21	1.61	1.56
19	RU	117	GLN	CD-OE1	5.17	1.33	1.23
46	XL	114	LYS	CG-CD	-5.12	1.37	1.52
42	QH	14	ARG	CG-CD	5.03	1.67	1.52
9	RG	16	ARG	NE-CZ	5.02	1.38	1.33
16	YR	24	GLN	CG-CD	5.01	1.64	1.52

All (220) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
30	R5	27	PRO	O-C-N	18.09	129.63	121.31
37	XC	131	ARG	CG-CD-NE	-15.39	78.13	112.00
36	XB	217	ARG	NE-CZ-NH2	-14.76	105.92	119.20
20	RV	21	ARG	NE-CZ-NH2	-14.15	106.47	119.20
4	RA	2603	G	O5'-P-OP1	-13.41	67.78	108.00
4	RA	2602	A	OP1-P-O3'	-12.42	70.73	108.00
10	YH	3	ARG	CB-CG-CD	12.26	139.50	111.30
17	YS	67	ARG	CG-CD-NE	11.98	138.35	112.00
49	QO	65	ARG	CG-CD-NE	11.38	137.04	112.00
20	RV	21	ARG	CG-CD-NE	10.86	135.90	112.00
49	QO	38	ARG	CA-CB-CG	10.78	135.66	114.10
17	YS	67	ARG	CA-CB-CG	-10.72	92.67	114.10
11	YI	50	ARG	CG-CD-NE	-10.63	88.61	112.00
36	XB	78	GLN	OE1-CD-NE2	10.50	133.10	122.60
43	QI	93	ARG	CG-CD-NE	10.46	135.00	112.00
50	XP	71	ARG	NE-CZ-NH2	-10.45	109.79	119.20
34	R9	35	ARG	CB-CG-CD	10.28	134.95	111.30
6	YD	69	ARG	NE-CZ-NH2	9.60	127.84	119.20
3	QY	278	ARG	CA-CB-CG	9.59	133.28	114.10
53	QS	28	LYS	CB-CG-CD	9.43	132.98	111.30
42	QH	14	ARG	NE-CZ-NH2	-9.32	110.81	119.20
36	QB	78	GLN	OE1-CD-NE2	9.24	131.84	122.60
50	XP	71	ARG	CA-CB-CG	9.16	132.43	114.10
20	YV	21	ARG	CG-CD-NE	9.07	131.96	112.00
38	QD	168	ARG	CA-CB-CG	-9.04	96.03	114.10
12	RN	121	LYS	CG-CD-CE	8.84	131.62	111.30
24	RZ	103	ARG	CD-NE-CZ	8.81	136.74	124.40
35	QA	576	G	OP2-P-O3'	-8.73	81.82	108.00
29	R4	13	ARG	CG-CD-NE	8.72	131.18	112.00
49	QO	38	ARG	NE-CZ-NH2	-8.64	111.42	119.20
3	XY	332	ARG	CB-CG-CD	-8.64	91.43	111.30
35	QA	576	G	OP1-P-O3'	-8.61	82.17	108.00
42	QH	14	ARG	NE-CZ-NH1	8.51	130.01	121.50
44	QJ	45	ARG	CA-CB-CG	8.43	130.96	114.10
25	R0	55	ARG	CD-NE-CZ	8.41	136.17	124.40
18	RT	53	ARG	CB-CG-CD	8.40	130.62	111.30
29	R4	13	ARG	CA-CB-CG	8.40	130.90	114.10
3	QY	278	ARG	NE-CZ-NH1	8.35	129.85	121.50
15	YQ	57	HIS	CB-CA-C	-8.28	98.20	110.96
31	R6	28	ARG	NE-CZ-NH1	8.28	129.78	121.50
36	QB	226	ARG	CG-CD-NE	8.24	130.13	112.00
37	XC	30	ARG	CG-CD-NE	8.23	130.11	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
43	QI	93	ARG	NE-CZ-NH2	8.16	126.54	119.20
38	QD	168	ARG	CB-CG-CD	8.12	129.99	111.30
29	R4	13	ARG	CB-CG-CD	8.08	129.89	111.30
19	YU	117	GLN	OE1-CD-NE2	8.07	130.67	122.60
25	Y0	14	ARG	CB-CG-CD	8.03	129.76	111.30
19	RU	112	ARG	CB-CG-CD	-7.97	92.97	111.30
38	QD	168	ARG	CG-CD-NE	-7.96	94.49	112.00
25	R0	14	ARG	CB-CG-CD	7.94	129.57	111.30
27	Y2	7	ARG	CB-CG-CD	7.93	129.53	111.30
19	YU	101	ARG	CB-CG-CD	7.92	129.51	111.30
27	Y2	7	ARG	CG-CD-NE	7.84	129.25	112.00
19	YU	101	ARG	NE-CZ-NH1	7.82	129.31	121.50
3	QY	278	ARG	CB-CG-CD	-7.75	93.47	111.30
24	RZ	103	ARG	CA-CB-CG	7.63	129.37	114.10
36	XB	144	ARG	CA-CB-CG	7.59	129.28	114.10
19	RU	112	ARG	NE-CZ-NH2	-7.57	112.39	119.20
9	RG	21	ARG	CB-CG-CD	-7.51	94.02	111.30
31	R6	28	ARG	CA-CB-CG	7.50	129.10	114.10
6	YD	211	ARG	CG-CD-NE	7.50	128.49	112.00
21	RW	11	ARG	CG-CD-NE	7.45	128.39	112.00
36	QB	111	ARG	CA-CB-CG	7.42	128.95	114.10
16	RR	17	ARG	CB-CG-CD	-7.42	94.23	111.30
29	R4	13	ARG	CD-NE-CZ	7.42	134.78	124.40
42	QH	14	ARG	CB-CG-CD	7.39	128.30	111.30
19	RU	92	ARG	NE-CZ-NH2	-7.36	112.58	119.20
23	YY	57	GLN	OE1-CD-NE2	7.32	129.92	122.60
30	R5	19	ARG	CG-CD-NE	-7.32	95.89	112.00
16	RR	85	PRO	CA-C-N	7.28	132.34	120.63
16	RR	85	PRO	C-N-CA	7.28	132.34	120.63
48	XN	31	ARG	CB-CA-C	7.27	121.23	110.62
19	YU	101	ARG	CD-NE-CZ	7.24	134.53	124.40
19	RU	92	ARG	NE-CZ-NH1	7.01	128.51	121.50
46	XL	114	LYS	CG-CD-CE	6.99	127.38	111.30
50	XP	71	ARG	NE-CZ-NH1	6.98	128.48	121.50
4	RA	2602	A	O3'-P-O5'	6.97	114.45	104.00
11	YI	61	ARG	CA-CB-CG	-6.89	100.33	114.10
42	QH	14	ARG	CD-NE-CZ	6.88	134.03	124.40
6	YD	69	ARG	NE-CZ-NH1	-6.88	114.62	121.50
29	Y4	46	GLN	CA-CB-CG	-6.88	100.35	114.10
37	XC	140	ARG	CB-CG-CD	-6.84	95.56	111.30
18	YT	53	ARG	CB-CG-CD	6.82	126.98	111.30
41	XG	32	ARG	CG-CD-NE	-6.80	97.03	112.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
16	RR	86	ARG	CG-CD-NE	6.80	126.95	112.00
31	R6	28	ARG	CG-CD-NE	-6.79	97.05	112.00
16	YR	17	ARG	CB-CG-CD	-6.75	95.77	111.30
26	Y1	56	GLN	CA-CB-CG	6.74	127.58	114.10
36	XB	217	ARG	CD-NE-CZ	6.74	133.84	124.40
19	RU	112	ARG	CG-CD-NE	6.73	126.81	112.00
19	RU	117	GLN	CA-CB-CG	6.73	127.56	114.10
10	YH	3	ARG	CA-CB-CG	6.70	127.51	114.10
36	XB	217	ARG	NE-CZ-NH1	6.70	128.20	121.50
45	QK	54	ARG	N-CA-C	-6.69	105.09	113.18
4	RA	2602	A	OP2-P-O3'	-6.65	88.04	108.00
10	YH	3	ARG	NE-CZ-NH1	-6.65	114.85	121.50
16	YR	13	HIS	CB-CA-C	6.60	122.99	110.51
29	Y4	46	GLN	CG-CD-OE1	-6.56	107.69	120.80
29	Y4	46	GLN	OE1-CD-NE2	6.49	129.09	122.60
7	YE	73	GLU	CB-CG-CD	6.46	123.59	112.60
6	YD	176	ARG	CG-CD-NE	6.46	126.20	112.00
19	YU	101	ARG	CG-CD-NE	6.43	126.16	112.00
36	XB	144	ARG	CD-NE-CZ	6.43	133.40	124.40
20	RV	21	ARG	NE-CZ-NH1	6.43	127.93	121.50
48	XN	31	ARG	CG-CD-NE	6.42	126.12	112.00
41	XG	57	GLU	CB-CG-CD	6.39	123.46	112.60
49	QO	65	ARG	N-CA-CB	-6.37	100.49	110.30
13	RO	64	ARG	CB-CG-CD	-6.36	96.67	111.30
43	QI	93	ARG	NE-CZ-NH1	-6.35	115.15	121.50
3	QY	278	ARG	NE-CZ-NH2	-6.35	113.49	119.20
32	Y7	33	ARG	CB-CG-CD	-6.34	96.71	111.30
48	XN	31	ARG	CA-CB-CG	6.29	126.69	114.10
19	YU	100	VAL	CA-C-N	6.26	133.30	122.09
19	YU	100	VAL	C-N-CA	6.26	133.30	122.09
27	Y2	7	ARG	NE-CZ-NH1	-6.26	115.24	121.50
4	RA	2603	G	O5'-P-OP2	-6.20	89.41	108.00
23	YY	23	ARG	CD-NE-CZ	6.19	133.06	124.40
10	YH	3	ARG	CB-CA-C	6.18	121.85	110.10
36	QB	226	ARG	CD-NE-CZ	6.17	133.04	124.40
3	QY	278	ARG	N-CA-CB	-6.16	101.00	110.42
49	QO	65	ARG	NE-CZ-NH1	-6.07	115.43	121.50
51	XQ	26	GLN	CA-CB-CG	5.98	126.06	114.10
45	QK	96	ARG	CG-CD-NE	-5.95	98.92	112.00
36	QB	157	ARG	CB-CG-CD	-5.94	97.64	111.30
42	XH	18	ARG	NE-CZ-NH2	5.91	124.52	119.20
36	XB	111	ARG	CA-CB-CG	5.90	125.90	114.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
23	YY	23	ARG	NE-CZ-NH1	5.90	127.40	121.50
45	QK	96	ARG	CA-CB-CG	-5.89	102.32	114.10
48	XN	31	ARG	CB-CG-CD	5.89	124.84	111.30
49	QO	7	GLU	CA-CB-CG	5.87	125.84	114.10
30	R5	27	PRO	CA-C-O	-5.84	116.70	120.90
6	YD	176	ARG	CB-CG-CD	-5.84	97.88	111.30
49	XO	7	GLU	CA-CB-CG	5.83	125.75	114.10
52	QR	42	ARG	CA-CB-CG	5.82	125.73	114.10
50	XP	25	ARG	NE-CZ-NH1	5.80	127.30	121.50
26	R1	52	ARG	CA-CB-CG	5.79	125.69	114.10
11	YI	61	ARG	CG-CD-NE	-5.79	99.27	112.00
16	YR	24	GLN	CG-CD-NE2	-5.78	107.73	116.40
44	QJ	45	ARG	NE-CZ-NH2	5.74	124.36	119.20
50	XP	25	ARG	NE-CZ-NH2	-5.74	114.04	119.20
4	RA	2603	G	OP1-P-OP2	5.72	136.78	119.60
12	RN	77	GLY	CA-C-N	-5.72	113.47	124.01
12	RN	77	GLY	C-N-CA	-5.72	113.47	124.01
42	XH	84	ARG	CB-CG-CD	5.71	124.43	111.30
29	Y4	59	PHE	CA-C-N	5.71	131.97	121.70
29	Y4	59	PHE	C-N-CA	5.71	131.97	121.70
31	R6	27	LYS	CA-C-N	-5.65	111.08	120.68
31	R6	27	LYS	C-N-CA	-5.65	111.08	120.68
19	RU	92	ARG	CD-NE-CZ	5.64	132.29	124.40
25	R0	55	ARG	CA-CB-CG	-5.62	102.86	114.10
49	QO	38	ARG	N-CA-CB	5.62	118.37	110.12
13	YO	3	GLN	CA-CB-CG	5.61	125.31	114.10
21	YW	11	ARG	CG-CD-NE	5.60	124.33	112.00
49	QO	65	ARG	CA-CB-CG	5.59	125.28	114.10
14	YP	55	ARG	CB-CG-CD	-5.58	98.46	111.30
19	RU	101	ARG	CA-CB-CG	5.57	125.23	114.10
17	RS	7	TYR	CA-CB-CG	5.56	123.91	113.90
46	QL	33	ARG	CG-CD-NE	5.55	124.22	112.00
36	QB	76	GLN	CA-CB-CG	5.54	125.18	114.10
6	RD	14	ARG	NE-CZ-NH2	5.54	124.18	119.20
38	QD	59	ARG	CA-CB-CG	5.52	125.14	114.10
6	YD	68	LYS	CA-C-N	5.51	132.06	121.54
6	YD	68	LYS	C-N-CA	5.51	132.06	121.54
12	RN	83	LYS	CD-CE-NZ	-5.49	94.35	111.90
50	XP	16	HIS	N-CA-CB	5.48	120.29	110.80
3	XY	98	GLU	CA-CB-CG	5.46	125.02	114.10
12	YN	84	LYS	CA-CB-CG	5.45	124.99	114.10
17	YS	7	TYR	CA-CB-CG	5.43	123.68	113.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
46	XL	86	ARG	CG-CD-NE	5.43	123.94	112.00
16	RR	24	GLN	CG-CD-NE2	-5.43	108.26	116.40
42	XH	78	GLN	OE1-CD-NE2	-5.42	117.18	122.60
26	Y1	52	ARG	CA-CB-CG	5.40	124.90	114.10
44	QJ	45	ARG	CB-CA-C	5.39	118.75	110.62
19	YU	37	GLU	CA-CB-CG	5.38	124.87	114.10
9	YG	21	ARG	CB-CG-CD	5.38	123.68	111.30
35	XA	266	G	C2'-C3'-O3'	5.37	117.55	109.50
38	XD	59	ARG	CA-CB-CG	5.36	124.82	114.10
39	QE	143	ARG	CG-CD-NE	-5.35	100.23	112.00
24	RZ	103	ARG	CG-CD-NE	5.34	123.74	112.00
19	YU	101	ARG	CA-CB-CG	5.33	124.76	114.10
23	YY	23	ARG	CG-CD-NE	5.30	123.65	112.00
42	XH	84	ARG	NE-CZ-NH1	-5.29	116.21	121.50
45	QK	96	ARG	CB-CG-CD	5.28	123.45	111.30
25	R0	55	ARG	NE-CZ-NH2	-5.28	114.45	119.20
25	R0	55	ARG	CB-CG-CD	5.27	123.42	111.30
43	QI	88	TYR	CA-CB-CG	5.25	123.36	113.90
6	YD	14	ARG	CB-CG-CD	-5.25	99.23	111.30
6	YD	84	TYR	CA-CB-CG	5.23	123.32	113.90
29	Y4	46	GLN	CB-CA-C	5.23	120.83	110.42
29	Y4	60	GLN	N-CA-C	5.22	125.63	111.00
24	RZ	53	ILE	N-CA-C	-5.22	107.38	112.29
14	RP	55	ARG	CB-CG-CD	-5.22	99.29	111.30
35	XA	266	G	P-O3'-C3'	5.20	128.01	120.20
13	RO	64	ARG	CA-CB-CG	5.20	124.50	114.10
34	R9	35	ARG	CD-NE-CZ	5.19	131.67	124.40
18	RT	96	ARG	CD-NE-CZ	-5.18	117.14	124.40
19	YU	101	ARG	NE-CZ-NH2	-5.16	114.55	119.20
41	XG	155	ARG	CB-CG-CD	-5.15	99.46	111.30
39	XE	72	GLN	CB-CA-C	5.14	118.61	111.51
45	XK	116	HIS	N-CA-C	5.14	119.12	111.87
9	YG	16	ARG	CA-CB-CG	5.14	124.38	114.10
49	QO	65	ARG	NE-CZ-NH2	5.14	123.83	119.20
7	YE	143	ASN	O-C-N	-5.13	115.76	122.59
24	RZ	103	ARG	NE-CZ-NH1	-5.12	116.38	121.50
1	QV	53	G	O4'-C1'-N9	5.12	115.88	108.20
39	QE	143	ARG	CD-NE-CZ	5.12	131.56	124.40
3	QY	256	ARG	NE-CZ-NH1	-5.09	116.41	121.50
41	XG	155	ARG	NE-CZ-NH2	5.07	123.76	119.20
11	YI	61	ARG	CB-CG-CD	5.07	122.96	111.30
7	RE	144	ARG	CB-CG-CD	5.05	122.92	111.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
19	YU	112	ARG	NE-CZ-NH2	5.05	123.75	119.20
4	YA	1992	G	C2'-C3'-O3'	5.05	117.07	109.50
36	XB	28	PHE	CB-CA-C	5.05	119.09	110.56
40	XF	100	ASN	OD1-CG-ND2	5.05	127.65	122.60
47	XM	110	ARG	CA-CB-CG	-5.04	104.02	114.10
16	YR	13	HIS	N-CA-CB	-5.04	102.77	110.42
40	QF	73	ASN	CA-CB-CG	-5.04	107.56	112.60
3	XY	96	PHE	CA-CB-CG	5.03	118.83	113.80
48	XN	31	ARG	N-CA-CB	-5.02	103.07	110.90
48	QN	31	ARG	NH1-CZ-NH2	5.02	125.83	119.30

There are no chirality outliers.

All (25) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
36	QB	15	VAL	Peptide
36	QB	231	GLU	Peptide
37	QC	105	GLU	Peptide
44	QJ	60	ARG	Peptide
3	QY	115	PHE	Peptide
3	QY	201	LEU	Peptide
3	QY	48	ASN	Sidechain
25	R0	55	ARG	Sidechain
29	R4	12	ALA	Peptide
31	R6	28	ARG	Sidechain
34	R9	35	ARG	Sidechain
8	RF	74	ARG	Peptide
17	RS	58	LEU	Peptide
19	RU	117	GLN	Sidechain
36	XB	217	ARG	Sidechain
36	XB	7	VAL	Peptide
44	XJ	60	ARG	Peptide
45	XK	117	ASN	Peptide
46	XL	114	LYS	Mainchain
46	XL	86	ARG	Peptide
48	XN	30	ALA	Peptide
51	XQ	26	GLN	Sidechain
26	Y1	52	ARG	Sidechain
29	Y4	46	GLN	Mainchain
11	YI	84	GLY	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	QV	1644	0	836	29	0
1	XV	1644	0	836	18	0
2	QX	215	0	109	3	0
2	XX	215	0	108	6	0
3	QY	2833	0	2729	143	0
3	XY	2833	0	2729	164	0
4	RA	61758	0	31149	806	0
4	YA	61758	0	31152	802	0
5	RB	2572	0	1305	18	0
5	YB	2573	0	1306	17	0
6	RD	2131	0	2207	66	0
6	YD	2136	0	2217	66	0
7	RE	1559	0	1618	43	0
7	YE	1559	0	1618	45	0
8	RF	1584	0	1625	57	0
8	YF	1580	0	1619	69	0
9	RG	1426	0	1445	55	0
9	YG	1424	0	1441	62	0
10	RH	1330	0	1407	32	0
10	YH	1324	0	1402	43	0
11	RI	1094	0	1127	34	0
11	YI	1076	0	1094	24	0
12	RN	1121	0	1195	29	0
12	YN	1117	0	1184	23	0
13	RO	933	0	996	28	0
13	YO	933	0	996	27	0
14	RP	1135	0	1212	35	0
14	YP	1135	0	1212	47	0
15	RQ	1122	0	1179	47	0
15	YQ	1122	0	1179	44	0
16	RR	968	0	1033	32	0
16	YR	968	0	1033	22	0
17	RS	877	0	938	38	0
17	YS	870	0	923	42	0
18	RT	1091	0	1151	47	0
18	YT	1083	0	1136	55	0
19	RU	959	0	1019	32	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
19	YU	959	0	1019	30	0
20	RV	775	0	841	25	0
20	YV	771	0	830	23	0
21	RW	886	0	940	19	0
21	YW	886	0	940	21	0
22	RX	750	0	814	14	0
22	YX	750	0	814	8	0
23	RY	810	0	892	35	0
23	YY	810	0	887	34	0
24	RZ	1587	0	1598	51	0
24	YZ	1557	0	1564	57	0
25	R0	608	0	622	19	0
25	Y0	608	0	622	21	0
26	R1	754	0	823	17	0
26	Y1	759	0	837	27	0
27	R2	588	0	643	14	0
27	Y2	592	0	654	17	0
28	R3	469	0	518	8	0
28	Y3	464	0	514	5	0
29	R4	546	0	522	40	0
29	Y4	536	0	514	48	0
30	R5	459	0	476	13	0
30	Y5	455	0	465	9	0
31	R6	453	0	473	9	0
31	Y6	449	0	469	6	0
32	R7	418	0	467	16	0
32	Y7	418	0	467	11	0
33	R8	517	0	582	22	0
33	Y8	517	0	582	26	0
34	R9	307	0	335	9	0
34	Y9	307	0	335	6	0
35	QA	32246	0	16294	529	0
35	XA	32331	0	16339	491	0
36	QB	1842	0	1862	94	0
36	XB	1825	0	1828	107	0
37	QC	1558	0	1557	51	0
37	XC	1542	0	1517	49	0
38	QD	1665	0	1688	88	0
38	XD	1668	0	1704	76	0
39	QE	1133	0	1191	35	0
39	XE	1133	0	1191	44	0
40	QF	814	0	808	48	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
40	XF	816	0	808	35	0
41	QG	1235	0	1249	24	0
41	XG	1229	0	1238	36	0
42	QH	1098	0	1143	34	0
42	XH	1088	0	1126	28	0
43	QI	986	0	990	50	0
43	XI	966	0	953	68	0
44	QJ	719	0	672	35	0
44	XJ	710	0	661	29	0
45	QK	834	0	838	13	0
45	XK	833	0	836	21	0
46	QL	932	0	981	38	0
46	XL	932	0	981	31	0
47	QM	914	0	954	36	0
47	XM	895	0	920	34	0
48	QN	492	0	529	29	0
48	XN	492	0	529	16	0
49	QO	728	0	760	17	0
49	XO	728	0	760	18	0
50	QP	681	0	697	30	0
50	XP	677	0	686	33	0
51	QQ	823	0	891	23	0
51	XQ	823	0	891	20	0
52	QR	555	0	618	24	0
52	XR	555	0	618	21	0
53	QS	648	0	658	22	0
53	XS	645	0	635	27	0
54	QT	732	0	809	14	0
54	XT	733	0	795	20	0
55	QU	199	0	208	11	0
55	XU	199	0	208	5	0
56	QA	279	0	0	0	0
56	QB	1	0	0	0	0
56	QD	3	0	0	0	0
56	QE	2	0	0	0	0
56	QF	1	0	0	0	0
56	QG	3	0	0	0	0
56	QH	2	0	0	0	0
56	QI	1	0	0	0	0
56	QL	3	0	0	0	0
56	QM	1	0	0	0	0
56	QN	2	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	QO	1	0	0	0	0
56	QQ	2	0	0	0	0
56	QR	1	0	0	0	0
56	QT	1	0	0	0	0
56	QU	1	0	0	0	0
56	QV	2	0	0	0	0
56	QY	3	0	0	0	0
56	R0	4	0	0	0	0
56	R1	3	0	0	0	0
56	R3	2	0	0	0	0
56	R4	1	0	0	0	0
56	R5	3	0	0	0	0
56	R7	2	0	0	0	0
56	R8	1	0	0	0	0
56	R9	2	0	0	0	0
56	RA	1066	0	0	0	0
56	RB	29	0	0	0	0
56	RD	13	0	0	0	0
56	RE	6	0	0	0	0
56	RF	12	0	0	0	0
56	RG	4	0	0	0	0
56	RH	2	0	0	0	0
56	RN	3	0	0	0	0
56	RO	1	0	0	0	0
56	RP	2	0	0	0	0
56	RQ	4	0	0	0	0
56	RR	5	0	0	0	0
56	RT	3	0	0	0	0
56	RU	3	0	0	0	0
56	RV	4	0	0	0	0
56	RW	2	0	0	0	0
56	RX	1	0	0	0	0
56	RZ	1	0	0	0	0
56	XA	190	0	0	0	0
56	XE	2	0	0	0	0
56	XF	4	0	0	0	0
56	XH	1	0	0	0	0
56	XJ	1	0	0	0	0
56	XK	1	0	0	0	0
56	XL	1	0	0	0	0
56	XR	1	0	0	0	0
56	XT	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	XX	1	0	0	0	0
56	Y0	1	0	0	0	0
56	Y1	1	0	0	0	0
56	Y5	1	0	0	0	0
56	Y7	1	0	0	0	0
56	Y8	2	0	0	0	0
56	YA	760	0	0	0	0
56	YB	19	0	0	0	0
56	YD	10	0	0	0	0
56	YE	7	0	0	0	0
56	YF	3	0	0	0	0
56	YG	3	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	2	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	296662	0	200145	5505	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 11.

All (5505) 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)
12:RN:121:LYS:CD	12:RN:121:LYS:CE	1.75	1.59
4:YA:2012:G:OP1	21:YW:11:ARG:NH2	1.88	1.07
36:QB:15:VAL:HG23	36:QB:209:ARG:HB3	1.36	1.06
35:XA:1003:G:H2'	35:XA:1004:A:H4'	1.33	1.05
3:XY:281:HIS:HE1	4:YA:2493:U:H1'	1.22	1.04
4:RA:2012:G:OP1	21:RW:11:ARG:NH2	1.92	1.02
29:R4:67:TYR:HD1	29:R4:67:TYR:H	1.02	0.98
27:Y2:12:GLU:OE1	27:Y2:15:LYS:NZ	1.97	0.97
36:XB:111:ARG:HA	36:XB:111:ARG:HE	1.27	0.96
46:QL:33:ARG:HH11	46:QL:62:SER:HB3	1.28	0.96
47:XM:3:ARG:HG3	47:XM:8:GLU:HG3	1.48	0.96
14:YP:52:GLU:HB3	14:YP:55:ARG:HH11	1.32	0.95
29:Y4:59:PHE:HA	29:Y4:61:ARG:N	1.83	0.94
22:RX:60:ARG:HH12	32:R7:47:ARG:HH22	1.06	0.94
4:YA:2131:G:H5"	4:YA:2132:U:H5'	1.46	0.94
35:XA:407:G:H5"	38:XD:115:ARG:HG2	1.49	0.94
4:YA:2304:G:H22	4:YA:2312:U:H3	1.13	0.93
4:RA:2131:G:H5"	4:RA:2132:U:H5'	1.48	0.93
36:QB:82:ARG:NH1	36:QB:92:TYR:OH	2.01	0.93
43:QI:17:VAL:HG21	43:QI:81:ILE:HG22	1.50	0.93
3:XY:83:LEU:HD22	3:XY:99:ALA:HB2	1.50	0.93
40:QF:97:PHE:HB2	52:QR:32:ARG:HD2	1.46	0.92
4:YA:1041:C:H42	4:YA:1114:G:H1	1.16	0.92
15:RQ:21:THR:HG21	15:RQ:101:ARG:HB2	1.49	0.92
3:XY:338:THR:HG23	3:XY:339:GLY:HA2	1.51	0.92
9:RG:41:GLN:HB3	9:RG:43:LEU:HD13	1.52	0.92
19:YU:97:ASP:O	19:YU:101:ARG:HB3	1.68	0.91
36:QB:155:LEU:HD21	36:QB:159:PRO:HG3	1.51	0.91
53:XS:50:ALA:HB1	53:XS:57:HIS:HB3	1.51	0.90
35:XA:427:U:OP1	38:XD:13:ARG:NH2	2.04	0.90
38:XD:18:LYS:NZ	38:XD:31:CYS:SG	2.44	0.90
18:RT:55:ASN:H	18:RT:59:THR:HG22	1.36	0.90
25:R0:10:THR:HG22	25:R0:12:ASN:H	1.33	0.90
6:RD:17:THR:O	6:RD:211:ARG:NH2	2.05	0.89
36:XB:17:PHE:HD1	36:XB:18:GLY:H	1.20	0.89
4:RA:1075:C:OP1	15:RQ:59:ARG:NH2	2.05	0.88
4:RA:1041:C:H42	4:RA:1114:G:H1	1.14	0.88
8:RF:29:ASN:H	8:RF:112:MET:HE3	1.38	0.88
35:QA:1086:U:H3	35:QA:1099:G:H22	1.23	0.87
35:XA:1292:U:OP2	41:XG:41:ARG:NH2	2.08	0.86
9:RG:161:THR:HG22	9:RG:163:ALA:H	1.40	0.86
38:QD:18:LYS:NZ	38:QD:31:CYS:SG	2.49	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:1798:U:OP2	6:RD:274:ARG:NH2	2.08	0.86
38:QD:59:ARG:HA	38:QD:59:ARG:HE	1.40	0.86
14:RP:52:GLU:HB3	14:RP:55:ARG:HH11	1.39	0.86
4:RA:2304:G:H22	4:RA:2312:U:H3	1.25	0.85
19:RU:49:HIS:HA	19:RU:52:ARG:HB3	1.58	0.85
36:XB:15:VAL:HB	36:XB:209:ARG:HB3	1.58	0.85
37:QC:8:ILE:HG23	37:QC:16:ARG:HD3	1.58	0.85
35:QA:981:U:H4'	48:QN:21:TYR:CE2	2.12	0.84
25:Y0:10:THR:HG22	25:Y0:12:ASN:H	1.42	0.84
37:XC:119:ARG:HD3	37:XC:140:ARG:HH21	1.41	0.84
17:RS:59:LYS:HG3	17:RS:60:GLY:H	1.41	0.84
3:QY:245:ARG:HE	4:RA:2573:C:H42	1.24	0.84
15:YQ:7:MET:HE1	15:YQ:93:TYR:HE2	1.43	0.84
18:YT:22:PHE:HD1	18:YT:22:PHE:H	1.23	0.84
7:RE:47:VAL:HG21	7:RE:86:PRO:HD2	1.59	0.84
38:QD:3:ARG:HD3	38:QD:118:ARG:HE	1.43	0.84
8:YF:29:ASN:H	8:YF:112:MET:HE3	1.42	0.84
35:QA:407:G:H5"	38:QD:115:ARG:HG2	1.59	0.84
35:QA:975:A:H4'	35:QA:976:G:H5"	1.59	0.84
4:RA:250:G:OP2	33:R8:13:ARG:NH2	2.10	0.83
35:XA:401:C:OP2	38:XD:73:ARG:NH2	2.10	0.83
52:QR:32:ARG:HA	52:QR:69:THR:HG21	1.60	0.83
40:XF:19:LEU:HD11	40:XF:59:TYR:CE2	2.14	0.83
35:QA:1422:G:H5"	13:RO:48:PRO:HB3	1.59	0.83
3:QY:168:GLU:HG2	3:QY:179:VAL:HG12	1.59	0.82
36:QB:195:ASP:O	42:QH:68:ARG:NH2	2.12	0.82
35:XA:501:C:OP1	46:XL:117:ARG:NH2	2.11	0.82
4:RA:956:G:OP2	15:RQ:14:ARG:NH2	2.12	0.82
21:RW:11:ARG:HD2	21:RW:11:ARG:C	2.03	0.82
35:QA:673:G:H2'	35:QA:674:G:C8	2.14	0.82
40:QF:19:LEU:HD11	40:QF:59:TYR:CE2	2.14	0.82
6:YD:13:ARG:NH1	6:YD:16:MET:SD	2.52	0.82
3:QY:245:ARG:NH1	4:RA:2555:U:O2	2.13	0.82
37:XC:8:ILE:HG23	37:XC:16:ARG:HD3	1.61	0.82
35:QA:1255:G:OP1	44:QJ:45:ARG:NH2	2.11	0.82
37:QC:40:ARG:O	37:QC:44:GLU:HB3	1.80	0.81
3:XY:281:HIS:CE1	4:YA:2493:U:H1'	2.12	0.81
35:QA:677:U:H3	35:QA:713:G:H22	1.27	0.81
4:RA:1754:C:H5'	18:RT:101:PHE:CE1	2.15	0.81
24:RZ:144:LEU:HD21	24:RZ:150:LEU:HD13	1.61	0.81
29:Y4:59:PHE:HA	29:Y4:61:ARG:H	1.43	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:XA:673:G:H2'	35:XA:674:G:C8	2.14	0.81
36:QB:111:ARG:HA	36:QB:111:ARG:HE	1.45	0.81
23:RY:8:LYS:HG2	23:RY:97:ARG:HH12	1.44	0.81
9:YG:41:GLN:HB3	9:YG:43:LEU:HD13	1.63	0.81
1:XV:53:G:O5'	24:YZ:198:LYS:NZ	2.13	0.81
36:QB:8:LYS:NZ	36:QB:52:GLU:HG2	1.94	0.81
3:QY:253:HIS:O	3:QY:255:ASN:N	2.12	0.81
11:YI:92:VAL:HG23	11:YI:120:ILE:HB	1.63	0.81
27:Y2:1:MET:SD	27:Y2:56:GLN:NE2	2.54	0.81
18:RT:61:PHE:CE1	18:RT:76:PHE:HB2	2.15	0.80
23:RY:92:ASN:HB2	23:RY:94:LYS:H	1.46	0.80
3:XY:201:LEU:HD12	3:XY:326:TYR:HB2	1.63	0.80
4:YA:1754:C:H5'	18:YT:101:PHE:CE1	2.15	0.80
35:XA:559:A:OP1	39:XE:126:ARG:NH2	2.14	0.80
36:XB:110:GLN:O	36:XB:113:HIS:HB2	1.82	0.80
22:RX:60:ARG:HH12	32:R7:47:ARG:NH2	1.80	0.80
4:YA:2271:G:H5"	25:Y0:20:ARG:HE	1.46	0.80
4:YA:2572:A:C8	7:YE:144:ARG:HD2	2.16	0.80
14:RP:100:LEU:HD12	14:RP:112:LEU:HD11	1.63	0.80
8:YF:10:PRO:HB3	8:YF:17:ARG:HE	1.47	0.80
6:RD:242:ARG:HB2	6:RD:242:ARG:HH11	1.46	0.80
13:YO:35:VAL:HG11	13:YO:103:ALA:HB3	1.64	0.80
44:XJ:49:VAL:HG23	48:XN:41:ARG:HG3	1.63	0.80
9:YG:111:LEU:HB3	9:YG:117:PHE:CE2	2.16	0.80
10:YH:7:LEU:HB3	10:YH:69:ARG:NH1	1.95	0.80
35:XA:582:U:OP1	49:XO:68:ARG:NH2	2.15	0.79
4:RA:2365:G:H4'	25:R0:60:PHE:CE2	2.17	0.79
4:YA:1530:C:O2'	4:YA:1531:C:O5'	1.99	0.79
9:YG:111:LEU:HB3	9:YG:117:PHE:HE2	1.47	0.79
1:QV:53:G:O6	1:QV:62:C:N4	2.15	0.79
10:YH:46:GLU:HB2	10:YH:49:VAL:HG12	1.64	0.79
49:XO:35:ARG:HH21	49:XO:59:MET:HE2	1.47	0.79
4:RA:1530:C:O2'	4:RA:1531:C:O5'	2.00	0.79
3:XY:203:ARG:HH12	3:XY:206:PRO:HD3	1.47	0.79
14:YP:100:LEU:HD12	14:YP:112:LEU:HD11	1.64	0.79
8:RF:157:VAL:HB	8:RF:194:MET:HG2	1.63	0.79
38:XD:122:ARG:NH1	38:XD:134:ASP:O	2.16	0.79
18:YT:39:ARG:NH2	35:XA:345:C:OP2	2.15	0.79
36:QB:8:LYS:HZ1	36:QB:52:GLU:HG2	1.46	0.79
50:QP:38:TYR:HD1	50:QP:38:TYR:H	1.30	0.79
4:YA:1310:G:OP2	32:Y7:9:ARG:NH1	2.15	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:XD:59:ARG:HA	38:XD:59:ARG:HE	1.45	0.79
37:XC:54:ARG:HB3	37:XC:69:HIS:HB2	1.63	0.79
13:YO:48:PRO:HB3	35:XA:1422:G:H5"	1.65	0.78
9:YG:16:ARG:HE	9:YG:31:VAL:HG21	1.48	0.78
16:YR:33:ARG:HG3	16:YR:115:GLU:HG2	1.65	0.78
18:YT:61:PHE:CE1	18:YT:76:PHE:HB2	2.17	0.78
35:QA:427:U:OP1	38:QD:13:ARG:NH2	2.16	0.78
31:Y6:35:GLU:OE2	31:Y6:50:ARG:NH1	2.17	0.78
4:RA:587:C:OP2	14:RP:21:ARG:NH2	2.15	0.78
24:YZ:5:LEU:HD11	24:YZ:44:PHE:HB2	1.64	0.78
7:YE:47:VAL:HG11	7:YE:86:PRO:HD2	1.66	0.78
15:YQ:57:HIS:HE1	15:YQ:116:GLU:HB3	1.46	0.78
35:QA:946:A:H2'	35:QA:947:G:C8	2.19	0.78
13:RO:35:VAL:HG11	13:RO:103:ALA:HB3	1.66	0.78
50:QP:38:TYR:CE1	50:QP:50:LYS:HB3	2.19	0.78
40:QF:22:GLU:OE2	40:QF:82:ARG:NH1	2.17	0.77
14:YP:59:LEU:HD11	33:Y8:10:ALA:HB2	1.65	0.77
35:XA:975:A:H4'	35:XA:976:G:H5"	1.65	0.77
31:R6:35:GLU:HG2	31:R6:50:ARG:HD2	1.66	0.77
24:YZ:28:MET:HE2	24:YZ:37:VAL:HG11	1.67	0.77
43:XI:16:ARG:HB2	43:XI:64:THR:HG22	1.65	0.77
44:QJ:61:GLU:OE2	48:QN:49:HIS:NE2	2.17	0.77
22:RX:60:ARG:NH1	32:R7:47:ARG:HH22	1.81	0.77
4:RA:2384:G:OP2	25:R0:55:ARG:NH1	2.16	0.77
35:XA:664:G:H22	35:XA:741:G:H1	1.29	0.77
36:XB:88:ALA:HB1	36:XB:222:ILE:HD11	1.67	0.77
25:R0:11:ARG:O	25:R0:14:ARG:NH2	2.18	0.77
14:RP:59:LEU:HD11	33:R8:10:ALA:HB2	1.65	0.77
13:RO:64:ARG:NH1	18:RT:70:VAL:HG21	2.00	0.77
3:XY:334:LYS:NZ	3:XY:341:GLU:OE2	2.18	0.76
4:YA:250:G:OP2	33:Y8:13:ARG:NH2	2.17	0.76
35:XA:1031:G:H2'	35:XA:1032:G:C8	2.20	0.76
8:RF:12:LEU:HD13	8:RF:124:LEU:HD11	1.68	0.76
35:XA:677:U:H3	35:XA:713:G:H22	1.34	0.76
35:XA:390:C:O3'	50:XP:28:ARG:NH2	2.19	0.76
35:XA:1189:C:OP1	44:XJ:51:ARG:NH2	2.19	0.76
35:QA:17:U:H2'	35:QA:18:C:C6	2.21	0.76
40:QF:44:GLY:HA2	40:QF:59:TYR:CE1	2.21	0.76
36:XB:155:LEU:HD21	36:XB:159:PRO:HG3	1.68	0.76
43:QI:50:LEU:HD13	43:QI:56:LEU:HA	1.67	0.76
38:QD:53:ASP:HB3	38:QD:57:ARG:HH12	1.49	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:1102:C:H2'	4:RA:1103:A:H8	1.51	0.75
11:YI:9:LEU:HD12	11:YI:12:LEU:HD12	1.68	0.75
37:QC:188:LEU:HD23	37:QC:190:ARG:HH11	1.50	0.75
35:XA:1075:C:OP1	36:XB:179:LYS:NZ	2.20	0.75
54:XT:42:GLN:NE2	54:XT:46:GLU:OE2	2.18	0.75
36:QB:185:ILE:HG22	36:QB:199:TYR:HB2	1.67	0.75
4:RA:848:G:H2'	4:RA:849:A:C8	2.21	0.75
6:YD:260:ARG:NH1	6:YD:264:LYS:HD3	2.01	0.75
3:QY:332:ARG:HH11	3:QY:334:LYS:HD2	1.52	0.75
3:XY:223:TYR:HD1	3:XY:223:TYR:H	1.33	0.75
7:YE:14:ILE:HB	18:YT:14:TYR:CE2	2.22	0.75
35:QA:1189:C:OP1	44:QJ:51:ARG:NH2	2.20	0.75
36:QB:231:GLU:HB3	36:QB:232:PRO:HD3	1.68	0.75
47:XM:81:LEU:HD13	47:XM:88:ARG:HD2	1.68	0.74
35:QA:1318:A:H4'	53:QS:10:PHE:CE2	2.22	0.74
4:RA:2150:U:H2'	4:RA:2151:G:C8	2.21	0.74
8:RF:99:TYR:H	8:RF:99:TYR:HD1	1.32	0.74
17:RS:27:SER:HA	17:RS:88:ASP:HB3	1.69	0.74
37:QC:40:ARG:O	37:QC:44:GLU:CB	2.34	0.74
35:QA:943:U:H1'	43:QI:124:GLN:HE22	1.51	0.74
25:R0:60:PHE:HD1	25:R0:60:PHE:H	1.35	0.74
23:YY:15:VAL:O	23:YY:22:GLY:N	2.15	0.74
49:XO:26:GLU:OE2	49:XO:77:ARG:NE	2.21	0.74
1:QV:54:U:H5"	24:RZ:203:GLU:OE1	1.88	0.74
3:QY:166:ILE:HG22	3:QY:167:GLU:HG3	1.68	0.74
35:XA:581:G:OP1	49:XO:65:ARG:NH2	2.21	0.74
35:XA:17:U:H2'	35:XA:18:C:C6	2.21	0.74
34:R9:22:ARG:HD3	34:R9:35:ARG:HD2	1.69	0.74
6:YD:242:ARG:HB2	6:YD:242:ARG:HH11	1.53	0.74
37:XC:40:ARG:NH2	37:XC:55:VAL:O	2.20	0.74
43:XI:50:LEU:HD23	43:XI:85:LEU:HD11	1.70	0.74
35:QA:339:C:OP2	13:RO:97:ARG:NH1	2.20	0.74
4:YA:1405:U:H2'	4:YA:1406:U:C6	2.23	0.73
4:YA:1816:G:O6	6:YD:35:LYS:NZ	2.20	0.73
36:XB:163:PHE:CE2	36:XB:215:LEU:HD22	2.23	0.73
35:QA:1435:G:H2'	35:QA:1436:U:C6	2.22	0.73
24:RZ:158:PRO:HG2	24:RZ:161:VAL:HG11	1.69	0.73
4:YA:530:G:N1	4:YA:2023:G:OP1	2.18	0.73
18:YT:45:PHE:CE2	18:YT:74:ARG:HG3	2.22	0.73
51:QQ:66:SER:O	51:QQ:70:ARG:NH1	2.21	0.73
3:QY:279:SER:OG	15:RQ:80:GLU:OE2	2.06	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:YF:33:LEU:HD13	8:YF:112:MET:HE2	1.71	0.73
54:XT:56:MET:HE1	54:XT:85:MET:HA	1.70	0.73
7:YE:11:MET:HG2	7:YE:24:THR:HG22	1.70	0.73
37:XC:140:ARG:HB2	37:XC:140:ARG:HH11	1.51	0.73
51:XQ:66:SER:O	51:XQ:70:ARG:NH1	2.21	0.73
3:XY:241:ILE:HG12	3:XY:263:ILE:HG12	1.71	0.73
20:RV:72:VAL:HG13	20:RV:85:LYS:HB3	1.69	0.73
3:QY:130:LEU:HD22	3:QY:132:ILE:HG13	1.69	0.73
44:XJ:17:ASP:OD1	44:XJ:70:ARG:NH1	2.22	0.73
48:QN:41:ARG:HG2	48:QN:42:ILE:N	2.02	0.73
8:RF:53:THR:HG22	8:RF:55:GLY:H	1.53	0.73
4:YA:1064:C:H3'	4:YA:1065:U:C5'	2.19	0.73
4:YA:1798:U:OP2	6:YD:274:ARG:NH2	2.22	0.73
15:YQ:60:ARG:NH2	24:YZ:181:GLU:HG2	2.04	0.73
39:XE:69:VAL:HG11	39:XE:113:ALA:HB1	1.70	0.73
45:XK:84:VAL:HG11	45:XK:91:ARG:HD2	1.69	0.73
47:QM:19:LEU:HD21	47:QM:56:LEU:HD21	1.69	0.73
4:RA:1102:C:H2'	4:RA:1103:A:C8	2.24	0.73
4:YA:2469:A:O2'	15:YQ:56:ARG:NH1	2.21	0.73
38:QD:162:LEU:HD13	38:QD:181:MET:HG2	1.70	0.73
4:RA:1802:A:H2'	4:RA:1803:A:C8	2.24	0.73
29:Y4:48:ARG:HD2	29:Y4:48:ARG:N	2.04	0.72
47:XM:58:GLU:O	47:XM:62:ASN:ND2	2.21	0.72
35:QA:1441:G:H5"	35:QA:1442(A):G:H5'	1.71	0.72
49:QO:54:ARG:HG2	49:QO:58:MET:HE2	1.71	0.72
40:XF:44:GLY:HA2	40:XF:59:TYR:CE1	2.23	0.72
45:QK:84:VAL:HG11	45:QK:91:ARG:HD2	1.70	0.72
8:YF:18:ARG:HG2	8:YF:19:GLU:H	1.54	0.72
18:YT:61:PHE:H	18:YT:61:PHE:HD1	1.34	0.72
35:QA:1360:A:OP2	48:QN:35:ARG:NH2	2.21	0.72
4:RA:2292:C:OP1	17:RS:17:ARG:NH1	2.22	0.72
14:RP:99:LEU:HD23	14:RP:102:ARG:HH21	1.53	0.72
17:RS:3:ARG:HH21	17:RS:9:ARG:HH12	1.38	0.72
8:YF:179:GLU:OE1	8:YF:179:GLU:N	2.22	0.72
43:XI:46:ALA:HB2	43:XI:74:ILE:HG23	1.72	0.72
49:XO:7:GLU:OE2	49:XO:38:ARG:NH2	2.23	0.72
50:XP:13:HIS:O	50:XP:42:ARG:NH1	2.22	0.72
4:RA:631:A:OP1	14:RP:65:ARG:NH1	2.22	0.72
4:RA:1064:C:H3'	4:RA:1065:U:C5'	2.20	0.72
4:RA:1310:G:OP2	32:R7:9:ARG:NH1	2.22	0.72
4:RA:1073:A:H2'	4:RA:1074:G:H8	1.54	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:Y4:67:TYR:HB3	53:XS:16:LEU:HD11	1.71	0.72
36:XB:47:THR:HA	36:XB:202:PRO:HG2	1.70	0.72
4:RA:2680:C:OP2	7:RE:111:ARG:NH2	2.22	0.72
18:RT:68:TYR:HD1	18:RT:68:TYR:H	1.36	0.72
4:YA:631:A:OP1	14:YP:65:ARG:NH1	2.21	0.72
4:YA:1801:G:OP2	6:YD:154:LYS:NZ	2.23	0.72
4:YA:2150:U:H2'	4:YA:2151:G:C8	2.25	0.72
4:RA:994:C:OP1	19:RU:53:ARG:NH2	2.23	0.72
3:XY:251:GLY:O	3:XY:255:ASN:ND2	2.23	0.72
6:YD:242:ARG:HD3	6:YD:246:PRO:HG3	1.72	0.72
1:XV:76:A:H3'	3:XY:251:GLY:HA3	1.72	0.71
8:RF:74:ARG:O	8:RF:75:HIS:CD2	2.43	0.71
8:RF:179:GLU:OE1	8:RF:179:GLU:N	2.22	0.71
24:RZ:103:ARG:HG2	24:RZ:136:PHE:CD2	2.24	0.71
3:QY:54:GLN:OE1	4:RA:1095:A:N6	2.23	0.71
21:YW:11:ARG:C	21:YW:11:ARG:HD2	2.13	0.71
27:Y2:9:GLN:HE22	27:Y2:56:GLN:HB3	1.54	0.71
44:XJ:38:ILE:HG12	44:XJ:71:LEU:HB3	1.70	0.71
7:RE:40:GLU:OE1	7:RE:40:GLU:N	2.21	0.71
35:QA:532:A:N6	35:QA:1206:G:O2'	2.22	0.71
4:RA:143(A):G:H4'	22:RX:35:THR:HG21	1.71	0.71
10:RH:159:GLU:HG2	10:RH:169:VAL:HG11	1.73	0.71
3:XY:245:ARG:HH22	4:YA:2508:G:H5'	1.56	0.71
46:QL:33:ARG:NH1	46:QL:62:SER:HB3	2.04	0.71
24:YZ:10:ARG:NH2	24:YZ:26:GLY:O	2.24	0.71
9:RG:179:PRO:HB2	29:R4:42:PHE:HE2	1.55	0.71
28:R3:3:ARG:NH1	28:R3:60:GLU:OE2	2.24	0.71
29:Y4:59:PHE:HD1	29:Y4:59:PHE:H	1.39	0.71
40:XF:100:ASN:ND2	52:XR:26:LEU:O	2.23	0.71
36:QB:16:HIS:C	36:QB:17:PHE:HD1	1.98	0.71
49:QO:25:THR:HG21	49:QO:70:LEU:HB2	1.73	0.71
4:RA:1353:A:H2'	4:RA:1354:A:C8	2.25	0.71
4:RA:660:G:H5'	8:RF:99:TYR:CD2	2.25	0.71
4:YA:587:C:OP2	14:YP:21:ARG:NH2	2.23	0.71
35:XA:946:A:H2'	35:XA:947:G:C8	2.26	0.71
6:RD:260:ARG:NH1	6:RD:264:LYS:HD3	2.05	0.71
35:XA:1435:G:H2'	35:XA:1436:U:C6	2.25	0.71
43:QI:19:LEU:HB3	43:QI:59:PHE:HD2	1.54	0.71
13:RO:68:GLU:HB3	13:RO:78:ARG:HB2	1.73	0.71
13:YO:80:ASP:OD1	18:YT:64:ARG:NH2	2.24	0.70
9:YG:12:TYR:HA	9:YG:16:ARG:HG2	1.71	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:XT:56:MET:HE3	54:XT:84:LEU:HD22	1.71	0.70
48:QN:21:TYR:HD1	48:QN:21:TYR:H	1.36	0.70
4:RA:1165:U:H2'	4:RA:1166:C:C6	2.26	0.70
9:RG:59:GLU:OE2	9:RG:153:ARG:NH2	2.24	0.70
3:XY:130:LEU:HD11	3:XY:152:TYR:CD2	2.26	0.70
8:YF:178:PRO:HB2	8:YF:201:VAL:HG21	1.71	0.70
12:YN:96:GLU:OE1	12:YN:96:GLU:N	2.23	0.70
37:XC:131:ARG:HH11	37:XC:135:LYS:HE3	1.56	0.70
53:QS:41:VAL:HG12	53:QS:44:MET:HG3	1.72	0.70
20:RV:75:PHE:HD1	20:RV:75:PHE:C	1.98	0.70
6:YD:176:ARG:HG2	6:YD:176:ARG:HH11	1.55	0.70
14:YP:91:PHE:CE2	14:YP:99:LEU:HD21	2.26	0.70
35:XA:1047:G:H5"	48:XN:4:LYS:HD3	1.72	0.70
40:QF:72:VAL:HG13	40:QF:73:ASN:H	1.55	0.70
44:QJ:35:SER:HB3	44:QJ:73:ASP:HB2	1.72	0.70
14:YP:59:LEU:HD21	33:Y8:10:ALA:HA	1.73	0.70
36:XB:28:PHE:CE1	36:XB:31:TYR:HB2	2.26	0.70
35:QA:1391:U:H2'	35:QA:1392:G:C8	2.27	0.70
36:QB:10:LEU:HA	36:QB:48:MET:HE1	1.72	0.70
4:YA:2126:A:H4'	4:YA:2127:G:O5'	1.91	0.70
35:QA:1356:G:H2'	35:QA:1357:A:C8	2.27	0.70
22:RX:53:LYS:HB3	22:RX:82:GLN:HB3	1.72	0.70
3:XY:213:ARG:HH22	35:XA:530:G:H2'	1.56	0.70
4:YA:1405:U:H2'	4:YA:1406:U:H6	1.56	0.70
19:RU:104:GLN:OE1	19:RU:104:GLN:N	2.24	0.70
40:QF:61:LEU:HB3	40:QF:63:TYR:HE1	1.57	0.70
9:YG:145:THR:HG22	9:YG:148:MET:HE3	1.74	0.70
4:RA:530:G:N1	4:RA:2023:G:OP1	2.22	0.70
24:RZ:103:ARG:HG2	24:RZ:136:PHE:HD2	1.56	0.70
20:YV:72:VAL:HG13	20:YV:85:LYS:HB3	1.74	0.69
36:XB:128:GLU:OE1	36:XB:135:GLN:NE2	2.23	0.69
45:XK:99:GLN:HG2	45:XK:105:VAL:HG21	1.72	0.69
35:QA:664:G:H22	35:QA:741:G:H1	1.38	0.69
4:YA:660:G:H5'	8:YF:99:TYR:CD2	2.27	0.69
8:YF:21:ALA:HB3	8:YF:22:ALA:HA	1.73	0.69
40:XF:61:LEU:HB3	40:XF:63:TYR:HE1	1.57	0.69
27:R2:9:GLN:HE22	27:R2:56:GLN:HB3	1.57	0.69
29:R4:67:TYR:N	29:R4:67:TYR:CD1	2.57	0.69
3:XY:38:ASN:OD1	3:XY:60:ARG:NH1	2.23	0.69
3:XY:344:ASN:HB3	3:XY:347:ALA:HB3	1.74	0.69
35:XA:1513:A:H2'	35:XA:1514:C:C6	2.27	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:XC:6:HIS:CE1	37:XC:8:ILE:HB	2.27	0.69
4:RA:11:G:H2'	4:RA:12:U:H5'	1.73	0.69
30:R5:35:GLU:HG2	30:R5:51:TYR:CD2	2.28	0.69
1:QV:53:G:N2	24:RZ:202:GLU:OE2	2.26	0.69
35:XA:559:A:H4'	35:XA:560:U:H3'	1.74	0.69
50:QP:53:VAL:HG13	50:QP:79:VAL:HG12	1.75	0.69
6:RD:2:ALA:N	6:RD:200:ASP:OD2	2.25	0.69
4:YA:1102:C:H2'	4:YA:1103:A:H8	1.57	0.69
19:YU:52:ARG:HG2	19:YU:52:ARG:HH11	1.57	0.69
35:XA:1005:A:H5"	35:XA:1006:C:C5	2.27	0.69
37:XC:152:ILE:HG12	37:XC:199:LYS:HB2	1.73	0.69
11:RI:60:GLU:HG3	11:RI:61:ARG:NH1	2.07	0.69
4:YA:1073:A:H2'	4:YA:1074:G:C8	2.28	0.69
4:YA:2365:G:H4'	25:Y0:60:PHE:CE2	2.28	0.69
35:XA:1356:G:H2'	35:XA:1357:A:C8	2.27	0.69
35:QA:524:G:H2'	35:QA:525:C:C6	2.27	0.69
6:RD:242:ARG:HD3	6:RD:246:PRO:HG3	1.75	0.69
17:RS:106:ARG:HG3	17:RS:112:PHE:CE1	2.27	0.69
33:R8:31:HIS:ND1	33:R8:32:LEU:HD13	2.08	0.69
3:XY:136:SER:O	3:XY:138:GLY:N	2.24	0.69
4:YA:1264:G:OP1	30:Y5:19:ARG:NH2	2.25	0.69
10:YH:97:ARG:NE	10:YH:104:GLU:OE1	2.22	0.69
21:YW:75:TYR:CE2	21:YW:104:THR:HB	2.28	0.69
37:XC:21:ARG:NH2	37:XC:58:GLU:OE2	2.25	0.69
35:QA:164:U:H2'	35:QA:165:C:C6	2.27	0.69
43:QI:33:PHE:CE1	43:QI:37:PHE:HD2	2.11	0.69
4:RA:1073:A:H2'	4:RA:1074:G:C8	2.26	0.69
3:QY:245:ARG:NH2	4:RA:2573:C:N3	2.36	0.69
3:XY:245:ARG:NH2	4:YA:2508:G:H5'	2.07	0.69
35:XA:262:A:H2'	35:XA:263:A:C8	2.27	0.69
35:XA:1218:C:H2'	35:XA:1219:U:C6	2.27	0.69
53:XS:41:VAL:HG12	53:XS:44:MET:HG3	1.73	0.69
6:RD:52:ARG:NH1	6:RD:249:PRO:HG2	2.08	0.69
11:RI:109:ILE:HG13	11:RI:130:TYR:CZ	2.27	0.69
40:XF:43:LEU:HD23	40:XF:46:ARG:HH22	1.57	0.69
3:QY:230:ILE:HG23	3:QY:299:GLU:HG3	1.75	0.68
38:XD:68:TYR:CE2	38:XD:97:LEU:HB3	2.28	0.68
43:XI:53:VAL:O	43:XI:55:ALA:N	2.26	0.68
9:YG:80:PHE:O	9:YG:82:LEU:N	2.26	0.68
43:XI:4:TYR:CD1	43:XI:88:TYR:HB2	2.28	0.68
38:QD:12:CYS:SG	38:QD:19:LEU:HB2	2.33	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:2126:A:H4'	4:RA:2127:G:O5'	1.91	0.68
4:RA:2507:C:O3'	4:RA:2573:C:N4	2.26	0.68
35:QA:45:U:H2'	35:QA:46:G:C8	2.28	0.68
8:RF:33:LEU:HD13	8:RF:112:MET:HE2	1.75	0.68
26:R1:50:ARG:HG2	26:R1:59:THR:HG22	1.74	0.68
4:YA:1076:C:H4'	4:YA:1077:A:OP1	1.92	0.68
4:YA:2292:C:OP1	17:YS:17:ARG:NH1	2.22	0.68
36:XB:187:LEU:HA	36:XB:201:ILE:HB	1.73	0.68
40:XF:22:GLU:OE2	40:XF:82:ARG:NH2	2.26	0.68
1:XV:63:G:H4'	25:Y0:11:ARG:HH22	1.58	0.68
4:YA:272(P):C:O2'	11:YI:42:SER:OG	2.10	0.68
4:YA:1073:A:H2'	4:YA:1074:G:H8	1.57	0.68
7:YE:51:PHE:CD2	7:YE:52:LEU:HD22	2.29	0.68
17:YS:50:SER:O	17:YS:76:LYS:NZ	2.22	0.68
39:QE:69:VAL:HG11	39:QE:113:ALA:HB1	1.74	0.68
1:QV:24:U:O2'	4:RA:1923:U:OP1	2.12	0.68
4:YA:245:G:O6	33:Y8:8:LYS:NZ	2.27	0.68
4:RA:922:U:H2'	4:RA:923:C:C6	2.27	0.68
10:RH:97:ARG:NE	10:RH:104:GLU:OE1	2.24	0.68
4:YA:1102:C:H2'	4:YA:1103:A:C8	2.29	0.68
8:YF:18:ARG:HG2	8:YF:19:GLU:N	2.09	0.68
36:QB:16:HIS:HB3	36:QB:210:SER:HB2	1.75	0.68
43:QI:16:ARG:HB2	43:QI:64:THR:HG22	1.75	0.68
10:RH:86:GLU:OE2	10:RH:132:ARG:NH2	2.26	0.68
18:RT:64:ARG:NH1	18:RT:103:ARG:HA	2.08	0.68
4:YA:2753:A:N3	34:Y9:15:LYS:NZ	2.42	0.68
38:XD:162:LEU:HD13	38:XD:181:MET:HG2	1.74	0.68
23:YY:8:LYS:HG2	23:YY:97:ARG:HH12	1.59	0.68
7:RE:72:VAL:HG22	7:RE:73:GLU:OE1	1.94	0.68
13:RO:64:ARG:HG2	13:RO:79:PHE:CD2	2.29	0.68
3:QY:9:ASN:HB3	3:QY:10:ARG:NH1	2.09	0.67
9:YG:143:GLU:OE2	29:Y4:26:SER:OG	2.12	0.67
35:XA:101:A:H5'	54:XT:10:LEU:HD21	1.75	0.67
35:XA:1086:U:H3	35:XA:1099:G:H22	1.41	0.67
4:RA:1076:C:H1'	4:RA:1077:A:H5'	1.75	0.67
4:YA:848:G:H2'	4:YA:849:A:C8	2.29	0.67
32:Y7:35:ARG:HD3	32:Y7:42:LEU:HD11	1.77	0.67
36:QB:88:ALA:O	36:QB:226:ARG:NH2	2.28	0.67
4:RA:998:C:P	19:RU:92:ARG:HH22	2.16	0.67
4:RA:1889:A:H2'	4:RA:1890:A:C8	2.28	0.67
4:YA:1657:C:H2'	4:YA:1658:C:H6	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:2064:C:H2'	4:YA:2065:C:C6	2.29	0.67
8:YF:164:ARG:HD2	8:YF:175:THR:HG23	1.76	0.67
4:RA:2152:G:H2'	4:RA:2153:G:H8	1.59	0.67
18:RT:61:PHE:HD1	18:RT:61:PHE:H	1.43	0.67
35:QA:1218:C:H2'	35:QA:1219:U:C6	2.30	0.67
10:RH:139:GLN:HG3	10:RH:140:LYS:N	2.09	0.67
4:YA:11:G:H2'	4:YA:12:U:H5'	1.77	0.67
4:YA:813:U:H2'	4:YA:814:C:C6	2.30	0.67
4:YA:1914:C:O2'	4:YA:1915:5MU:OP1	2.12	0.67
4:YA:2507:C:H5"	4:YA:2573:C:H41	1.60	0.67
35:XA:1310:G:OP2	47:XM:88:ARG:NH1	2.28	0.67
42:XH:41:ARG:NH2	42:XH:123:GLU:OE2	2.27	0.67
40:QF:44:GLY:HA2	40:QF:59:TYR:CD1	2.30	0.67
4:YA:1802:A:H2'	4:YA:1803:A:C8	2.29	0.67
18:YT:41:ARG:NH2	35:XA:346:G:OP1	2.24	0.67
47:XM:88:ARG:HG3	47:XM:98:VAL:HG11	1.76	0.67
9:RG:16:ARG:NE	9:RG:31:VAL:HG21	2.09	0.67
29:R4:67:TYR:HD1	29:R4:67:TYR:N	1.84	0.67
35:XA:539:A:H2'	35:XA:540:G:C8	2.29	0.67
48:XN:4:LYS:HA	48:XN:7:ILE:HG12	1.76	0.67
6:RD:71:ASP:HB3	6:RD:103:ARG:HH22	1.59	0.67
4:YA:1071:G:N2	4:YA:1089:G:O6	2.20	0.67
4:YA:2152:G:H2'	4:YA:2153:G:H8	1.59	0.67
10:YH:139:GLN:HG3	10:YH:140:LYS:N	2.09	0.67
35:XA:537:G:H5"	46:XL:113:ARG:NH1	2.10	0.67
38:XD:153:ARG:HH12	38:XD:181:MET:HB2	1.60	0.67
42:XH:25:ASP:HB3	42:XH:58:TYR:HD2	1.59	0.67
22:YX:53:LYS:HB3	22:YX:82:GLN:HB3	1.77	0.67
36:XB:98:LEU:O	36:XB:101:MET:HG3	1.95	0.67
35:QA:159:G:N2	35:QA:162:A:OP2	2.21	0.67
35:QA:737:A:H2'	35:QA:738:C:C6	2.30	0.67
52:QR:42:ARG:HA	52:QR:42:ARG:NE	2.09	0.67
4:RA:1101:U:H2'	4:RA:1102:C:H6	1.60	0.67
7:RE:1:MET:O	7:RE:84:PHE:HB2	1.95	0.67
45:XK:116:HIS:N	45:XK:117:ASN:HA	2.09	0.67
35:QA:998:G:H2'	35:QA:999:C:C6	2.30	0.67
38:QD:116:GLN:NE2	38:QD:157:LEU:HD11	2.09	0.67
3:XY:73:MET:HE2	3:XY:110:LEU:HB2	1.77	0.66
41:XG:111:ARG:NH2	41:XG:126:ASP:OD2	2.28	0.66
35:QA:406:G:H5'	38:QD:5:ILE:HD11	1.77	0.66
6:YD:52:ARG:NH1	6:YD:249:PRO:HG2	2.10	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:YU:104:GLN:N	19:YU:104:GLN:OE1	2.28	0.66
53:XS:10:PHE:HD1	53:XS:10:PHE:C	2.03	0.66
4:YA:286:C:H2'	4:YA:287:C:C6	2.30	0.66
8:YF:157:VAL:HB	8:YF:194:MET:HG2	1.77	0.66
24:YZ:144:LEU:HD21	24:YZ:150:LEU:HD13	1.76	0.66
33:Y8:31:HIS:ND1	33:Y8:32:LEU:HD13	2.09	0.66
38:QD:68:TYR:CE2	38:QD:97:LEU:HB3	2.30	0.66
42:QH:95:VAL:HB	42:QH:99:GLU:HG3	1.78	0.66
4:RA:1076:C:H4'	4:RA:1077:A:OP1	1.94	0.66
4:YA:1165:U:H2'	4:YA:1166:C:C6	2.30	0.66
5:YB:66:A:H61	5:YB:109:C:H5'	1.58	0.66
37:QC:6:HIS:CE1	37:QC:8:ILE:HB	2.30	0.66
41:QG:27:ILE:HD12	41:QG:40:ALA:HA	1.77	0.66
48:QN:36:PHE:O	48:QN:36:PHE:HD1	1.78	0.66
20:RV:75:PHE:C	20:RV:75:PHE:CD1	2.71	0.66
35:XA:625:G:H4'	50:XP:16:HIS:CD2	2.30	0.66
35:XA:1005:A:OP2	35:XA:1024:G:N2	2.28	0.66
46:XL:33:ARG:HD3	46:XL:62:SER:HB3	1.78	0.66
4:YA:969:U:H2'	4:YA:970:C:C6	2.30	0.66
18:YT:64:ARG:NH1	18:YT:103:ARG:HA	2.10	0.66
24:YZ:44:PHE:HD1	24:YZ:44:PHE:C	2.04	0.66
35:XA:1104:G:H4'	36:XB:111:ARG:NH1	2.10	0.66
35:QA:1030(A):C:N4	35:QA:1032:G:O6	2.28	0.66
35:QA:1103:C:OP1	36:QB:96:ARG:NH2	2.29	0.66
3:XY:281:HIS:HB2	15:YQ:80:GLU:OE2	1.96	0.66
35:XA:1318:A:H5"	53:XS:3:ARG:HH22	1.60	0.66
35:QA:1513:A:H2'	35:QA:1514:C:C6	2.31	0.66
4:YA:1076:C:H1'	4:YA:1077:A:H5'	1.77	0.66
4:YA:2685:G:H5'	13:YO:68:GLU:OE2	1.96	0.66
38:XD:106:TYR:C	38:XD:106:TYR:HD1	2.03	0.66
43:XI:5:TYR:N	43:XI:87:GLN:OE1	2.24	0.66
35:QA:673:G:H5"	40:QF:87:ARG:NH1	2.11	0.66
4:RA:2271:G:H5"	25:R0:20:ARG:HE	1.59	0.66
13:RO:8:LEU:HD12	13:RO:84:ALA:HB2	1.78	0.66
13:RO:80:ASP:OD1	18:RT:64:ARG:NH2	2.29	0.66
35:XA:1510:U:H2'	35:XA:1511:G:C8	2.31	0.66
4:RA:2753:A:N3	34:R9:15:LYS:NZ	2.44	0.66
4:YA:83:G:H1	4:YA:102:G:HO2'	1.41	0.65
7:YE:1:MET:O	7:YE:84:PHE:HB2	1.95	0.65
3:XY:311:GLU:HA	3:XY:314:LYS:HD2	1.76	0.65
24:YZ:25:PRO:O	24:YZ:85:HIS:HA	1.97	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:Y4:67:TYR:H	29:Y4:67:TYR:HD1	1.44	0.65
35:XA:1073:U:O2'	36:XB:104:ASN:OD1	2.13	0.65
45:XK:27:ASN:OD1	45:XK:28:THR:N	2.30	0.65
24:RZ:136:PHE:N	24:RZ:136:PHE:HD1	1.94	0.65
3:XY:33:ARG:NH1	3:XY:36:GLU:OE2	2.27	0.65
3:XY:265:HIS:HB2	3:XY:291:MET:HE2	1.78	0.65
36:XB:101:MET:HA	36:XB:108:ILE:HG13	1.77	0.65
42:XH:10:LEU:HD22	42:XH:83:ILE:HD11	1.76	0.65
4:RA:307:G:N1	4:RA:310:A:OP2	2.29	0.65
4:RA:1405:U:H2'	4:RA:1406:U:C6	2.31	0.65
4:RA:2140:C:H2'	4:RA:2141:G:H8	1.62	0.65
16:RR:29:LEU:HB3	16:RR:75:LEU:HD21	1.79	0.65
24:RZ:203:GLU:OE1	24:RZ:203:GLU:N	2.29	0.65
10:YH:3:ARG:HH12	10:YH:4:ILE:N	1.94	0.65
11:YI:50:ARG:O	11:YI:54:GLN:HG2	1.96	0.65
36:XB:78:GLN:NE2	36:XB:94:ASN:O	2.30	0.65
37:XC:131:ARG:NH1	37:XC:135:LYS:HE3	2.12	0.65
53:QS:50:ALA:HB1	53:QS:57:HIS:HB3	1.79	0.65
4:YA:643:A:H1'	31:Y6:44:ARG:HH21	1.60	0.65
4:YA:2785:C:OP1	7:YE:41:LYS:NZ	2.27	0.65
24:YZ:44:PHE:C	24:YZ:44:PHE:CD1	2.75	0.65
24:YZ:91:LEU:HD11	24:YZ:96:VAL:HG11	1.77	0.65
35:XA:1104:G:H4'	36:XB:111:ARG:HH11	1.61	0.65
37:XC:155:GLY:HA3	37:XC:196:LEU:HD22	1.78	0.65
39:XE:57:LYS:HG2	39:XE:61:TYR:HE2	1.62	0.65
3:QY:241:ILE:HG12	3:QY:263:ILE:HG12	1.79	0.65
4:YA:2683:C:OP1	18:YT:53:ARG:NH2	2.29	0.65
36:XB:9:GLU:O	36:XB:11:LEU:N	2.29	0.65
35:QA:343:U:O2'	35:QA:346:G:O6	2.13	0.65
8:RF:165:ARG:HG2	8:RF:168:ARG:NH1	2.10	0.65
12:RN:96:GLU:N	12:RN:96:GLU:OE1	2.28	0.65
6:YD:206:LEU:HD22	6:YD:211:ARG:HD2	1.77	0.65
50:XP:6:LEU:HB3	50:XP:17:TYR:HD2	1.61	0.65
35:QA:1414:U:H3	35:QA:1486:G:H1	1.44	0.65
4:YA:2836:U:H2'	4:YA:2837:G:C8	2.32	0.65
19:YU:76:TYR:HD1	19:YU:76:TYR:C	2.05	0.65
35:XA:524:G:H2'	35:XA:525:C:C6	2.31	0.65
53:XS:10:PHE:C	53:XS:10:PHE:CD1	2.75	0.65
35:QA:401:C:OP2	38:QD:73:ARG:NH2	2.30	0.65
4:RA:2137:C:H2'	4:RA:2138:C:C6	2.31	0.65
23:RY:55:TYR:HE2	23:RY:61:ILE:HG21	1.62	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:XV:52:G:N3	24:YZ:198:LYS:HE3	2.12	0.65
18:YT:22:PHE:N	18:YT:22:PHE:CD1	2.64	0.65
35:XA:1402:4OC:HM22	35:XA:1403:C:H5'	1.78	0.65
42:QH:51:VAL:HG11	42:QH:60:ARG:HH12	1.62	0.65
4:RA:1794:U:H2'	4:RA:1795:C:H6	1.62	0.65
3:XY:166:ILE:HG22	3:XY:167:GLU:HG3	1.79	0.64
37:XC:19:GLU:HG2	37:XC:54:ARG:HH12	1.60	0.64
3:XY:144:TRP:CE3	3:XY:201:LEU:HD13	2.32	0.64
10:YH:35:VAL:HG13	10:YH:71:LEU:HD22	1.78	0.64
18:YT:22:PHE:HD1	18:YT:22:PHE:N	1.95	0.64
29:Y4:67:TYR:N	29:Y4:67:TYR:CD1	2.65	0.64
37:XC:6:HIS:HE1	37:XC:8:ILE:HB	1.62	0.64
35:QA:1323:G:H2'	35:QA:1324:A:C8	2.31	0.64
40:QF:19:LEU:HD11	40:QF:59:TYR:HE2	1.61	0.64
4:RA:856:C:H2'	4:RA:857:C:C6	2.32	0.64
4:YA:904:C:H2'	4:YA:905:U:C6	2.32	0.64
8:YF:185:ASP:HA	8:YF:188:ARG:HD3	1.78	0.64
37:XC:109:PRO:HB3	37:XC:115:LEU:HD23	1.78	0.64
35:QA:1292:U:OP2	41:QG:41:ARG:NH2	2.28	0.64
19:RU:76:TYR:C	19:RU:76:TYR:HD1	2.06	0.64
20:RV:43:GLU:OE1	20:RV:43:GLU:N	2.30	0.64
3:QY:273:GLN:NE2	4:RA:1942:5MC:OP1	2.30	0.64
4:YA:1064:C:H3'	4:YA:1065:U:H5'	1.79	0.64
18:YT:117:ASP:OD2	18:YT:120:ARG:NE	2.29	0.64
21:YW:8:ARG:HH21	21:YW:9:TYR:HE2	1.46	0.64
35:QA:976:G:H5'	35:QA:1358:U:O2'	1.98	0.64
42:QH:86:ILE:HG13	42:QH:133:LEU:HD22	1.80	0.64
43:QI:121:ARG:NH1	43:QI:122:ALA:O	2.30	0.64
13:RO:64:ARG:HH12	18:RT:70:VAL:HG21	1.62	0.64
15:RQ:31:ASP:C	15:RQ:32:TYR:HD1	2.05	0.64
12:YN:67:LEU:O	12:YN:88:GLU:HG3	1.97	0.64
24:YZ:126:VAL:HG11	24:YZ:161:VAL:HG13	1.78	0.64
37:XC:47:LEU:HB2	37:XC:52:LEU:HD12	1.80	0.64
47:XM:20:THR:HG21	47:XM:27:LYS:HD2	1.78	0.64
3:QY:213:ARG:NH1	3:QY:329:ASP:HB2	2.13	0.64
4:YA:1709:U:H2'	4:YA:1710:C:C6	2.33	0.64
8:YF:51:THR:HB	8:YF:88:VAL:HG11	1.80	0.64
35:QA:1492:A:H3'	35:QA:1493:A:H8	1.62	0.64
4:RA:1057:A:N6	4:RA:1087:G:OP1	2.31	0.64
4:RA:1141:U:OP1	12:RN:25:ARG:NH1	2.31	0.64
4:RA:2102:U:O2	4:RA:2187:G:O6	2.15	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:2137:C:H2'	4:YA:2138:C:C6	2.33	0.64
24:YZ:44:PHE:CE2	24:YZ:86:VAL:HG21	2.32	0.64
37:XC:19:GLU:HB3	37:XC:40:ARG:HH22	1.61	0.64
4:RA:2646:C:OP2	4:RA:2732:G:O2'	2.13	0.64
11:RI:60:GLU:HG3	11:RI:61:ARG:HH12	1.62	0.64
3:XY:129:TYR:HE1	3:XY:182:LYS:HG3	1.63	0.64
4:YA:1057:A:N6	4:YA:1087:G:OP1	2.30	0.64
35:XA:976:G:H5'	35:XA:1358:U:O2'	1.97	0.64
35:QA:544:G:OP1	38:QD:59:ARG:NH2	2.30	0.64
4:YA:922:U:H2'	4:YA:923:C:C6	2.32	0.64
4:YA:1065:U:H4'	4:YA:1066:U:H5'	1.79	0.64
4:YA:1101:U:H2'	4:YA:1102:C:C6	2.33	0.64
26:Y1:69:LYS:HE2	26:Y1:72:GLU:OE1	1.96	0.64
52:XR:32:ARG:HA	52:XR:69:THR:HG21	1.79	0.64
50:QP:13:HIS:O	50:QP:42:ARG:NH1	2.31	0.64
54:QT:89:ARG:O	54:QT:93:GLU:HG2	1.98	0.64
4:RA:1064:C:H3'	4:RA:1065:U:H5'	1.79	0.64
3:XY:159:ARG:HH21	3:XY:354:ASP:CG	2.06	0.64
35:XA:865:A:H5'	35:XA:1078:U:C5	2.33	0.64
35:XA:954:G:H21	35:XA:1227:A:H62	1.45	0.64
35:QA:269:C:H2'	35:QA:270:A:C8	2.33	0.64
4:RA:657:U:H2'	4:RA:658:C:C6	2.33	0.64
1:QV:61:C:H2'	1:QV:62:C:H6	1.63	0.63
3:XY:149:GLU:HG3	3:XY:150:ARG:N	2.13	0.63
6:YD:260:ARG:HH12	6:YD:264:LYS:HD3	1.63	0.63
27:Y2:17:SER:OG	27:Y2:20:GLU:HG3	1.98	0.63
47:XM:90:LEU:HD23	47:XM:93:ARG:HH21	1.61	0.63
35:QA:1117:G:O3'	43:QI:104:ARG:NH1	2.31	0.63
4:YA:1101:U:H2'	4:YA:1102:C:H6	1.62	0.63
23:YY:5:MET:HE1	23:YY:35:TYR:HA	1.79	0.63
43:XI:26:VAL:HA	43:XI:61:ALA:O	1.98	0.63
18:RT:45:PHE:CE2	18:RT:74:ARG:HG3	2.33	0.63
20:RV:21:ARG:NH1	20:RV:93:GLU:OE1	2.31	0.63
3:XY:34:LEU:HD13	3:XY:63:LEU:HB2	1.80	0.63
29:Y4:18:CYS:SG	29:Y4:39:CYS:HB3	2.38	0.63
14:RP:60:MET:HA	33:R8:13:ARG:NH1	2.13	0.63
3:QY:144:TRP:CE3	3:QY:201:LEU:HD13	2.34	0.63
4:YA:272(E):U:H2'	4:YA:272(F):C:C6	2.34	0.63
4:YA:483:A:O2'	23:YY:49:VAL:O	2.12	0.63
4:RA:813:U:H2'	4:RA:814:C:C6	2.33	0.63
16:RR:47:PHE:O	16:RR:47:PHE:HD1	1.81	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:1587:A:H2'	4:YA:1588:C:C6	2.33	0.63
10:YH:27:LYS:HD3	10:YH:32:GLU:HG3	1.79	0.63
12:YN:97:ARG:HA	12:YN:100:GLU:HG2	1.81	0.63
9:RG:11:TYR:HD2	9:RG:12:TYR:CD1	2.16	0.63
9:YG:150:ASP:OD1	9:YG:151:ALA:N	2.32	0.63
35:XA:1318:A:H4'	53:XS:10:PHE:CE2	2.33	0.63
37:XC:119:ARG:HD3	37:XC:140:ARG:NH2	2.11	0.63
38:XD:106:TYR:C	38:XD:106:TYR:CD1	2.76	0.63
35:QA:222:U:H2'	35:QA:223:U:C6	2.34	0.63
38:QD:79:PHE:HE1	38:QD:204:ILE:HD13	1.64	0.63
42:QH:37:ARG:HH21	42:QH:38:ILE:HD11	1.64	0.63
15:RQ:16:ARG:HG2	15:RQ:18:LYS:HG3	1.80	0.63
4:YA:38:A:H2'	4:YA:39:C:C6	2.32	0.63
4:YA:1695:G:N7	6:YD:14:ARG:NH2	2.46	0.63
4:YA:2319:G:H22	17:YS:3:ARG:NH1	1.97	0.63
36:XB:127:ILE:HG12	36:XB:128:GLU:N	2.14	0.63
35:QA:90:U:H2'	35:QA:91:C:C6	2.34	0.63
4:RA:2138:C:H2'	4:RA:2139:C:C6	2.34	0.63
4:YA:1292:U:H2'	4:YA:1293:C:C6	2.33	0.63
4:YA:2152:G:H2'	4:YA:2153:G:C8	2.33	0.63
8:YF:95:ARG:HG3	8:YF:97:TYR:CE1	2.34	0.63
18:YT:53:ARG:NH1	18:YT:53:ARG:O	2.32	0.63
36:XB:88:ALA:HB2	36:XB:219:VAL:HG13	1.80	0.63
36:QB:28:PHE:CE1	36:QB:31:TYR:HB2	2.34	0.63
55:QU:18:TYR:HB3	55:QU:22:ARG:O	1.98	0.63
4:RA:582:G:H2'	4:RA:583:G:C8	2.33	0.63
4:RA:923:C:H2'	4:RA:924:C:H6	1.63	0.63
18:RT:39:ARG:HH12	18:RT:41:ARG:HD3	1.63	0.63
28:R3:3:ARG:HD3	28:R3:60:GLU:OE2	1.99	0.63
33:R8:28:GLY:O	33:R8:36:LYS:NZ	2.30	0.63
3:QY:151:MET:HE3	3:QY:353:LEU:HD21	1.80	0.62
4:YA:1798:U:H5'	6:YD:259:THR:HG22	1.80	0.62
4:YA:2140:C:H2'	4:YA:2141:G:H8	1.64	0.62
10:YH:86:GLU:OE2	10:YH:132:ARG:NH2	2.32	0.62
35:XA:441:A:H3'	35:XA:442:C:H6	1.64	0.62
35:XA:977:A:N6	35:XA:1224:G:OP1	2.28	0.62
48:XN:9:LYS:O	48:XN:12:ARG:HG2	1.99	0.62
35:QA:1143:G:H2'	35:QA:1144:G:H8	1.63	0.62
38:QD:108:LEU:HD21	38:QD:183:GLY:HA3	1.80	0.62
38:QD:116:GLN:HE21	38:QD:157:LEU:HD11	1.63	0.62
54:QT:10:LEU:HD23	54:QT:11:SER:H	1.63	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:R2:16:LEU:O	27:R2:67:LYS:NZ	2.31	0.62
3:XY:273:GLN:HG2	3:XY:274:CYS:N	2.03	0.62
35:XA:1278:U:H5"	35:XA:1279:A:H5'	1.81	0.62
46:QL:117:ARG:HG2	46:QL:122:THR:HB	1.81	0.62
4:RA:1936:A:OP2	4:RA:1962:5MC:N4	2.29	0.62
9:YG:113:ARG:HH21	29:Y4:33:VAL:HG12	1.63	0.62
23:YY:14:LEU:HD12	23:YY:22:GLY:O	1.99	0.62
35:XA:1244:C:H2'	35:XA:1245:A:C8	2.34	0.62
35:XA:1391:U:H2'	35:XA:1392:G:C8	2.34	0.62
41:XG:18:TYR:CD2	41:XG:59:LEU:HB2	2.35	0.62
38:QD:53:ASP:HB3	38:QD:57:ARG:NH1	2.14	0.62
4:RA:272(K):U:H1'	11:RI:50:ARG:NH2	2.14	0.62
4:RA:286:C:H2'	4:RA:287:C:C6	2.34	0.62
4:RA:1796:U:H2'	4:RA:1797:C:H6	1.64	0.62
4:RA:2836:U:H2'	4:RA:2837:G:C8	2.33	0.62
8:RF:185:ASP:HA	8:RF:188:ARG:HD3	1.81	0.62
12:RN:120:LEU:HD22	12:RN:122:VAL:HG23	1.81	0.62
19:RU:76:TYR:C	19:RU:76:TYR:CD1	2.77	0.62
35:XA:1117:G:H4'	43:XI:104:ARG:HH12	1.63	0.62
35:XA:1244:C:H2'	35:XA:1245:A:H8	1.64	0.62
42:XH:42:GLU:HG3	42:XH:109:ILE:HD13	1.80	0.62
40:QF:2:ARG:HB2	40:QF:4:TYR:HE1	1.63	0.62
4:RA:641:C:O2'	4:RA:2350:C:OP1	2.16	0.62
4:RA:2271:G:C5'	25:R0:20:ARG:HE	2.12	0.62
35:QA:316:G:OP2	35:QA:351:G:O2'	2.16	0.62
7:RE:48:GLN:NE2	7:RE:66:HIS:NE2	2.47	0.62
13:YO:68:GLU:HB3	13:YO:78:ARG:HB2	1.82	0.62
36:QB:76:GLN:NE2	36:QB:206:ASP:HA	2.14	0.62
4:RA:1639:U:H2'	4:RA:1640:C:H5"	1.81	0.62
3:XY:21:LEU:HD11	3:XY:114:GLU:HG2	1.81	0.62
4:YA:1249:U:H2'	14:YP:18:ARG:HH22	1.62	0.62
4:YA:1657:C:H2'	4:YA:1658:C:C6	2.34	0.62
33:Y8:6:THR:HG22	33:Y8:63:PRO:HD2	1.82	0.62
35:QA:108:G:N1	54:QT:15:ARG:HG2	2.15	0.62
35:QA:1172:C:H2'	35:QA:1173:G:H8	1.65	0.62
36:QB:98:LEU:O	36:QB:101:MET:HG3	1.99	0.62
40:QF:2:ARG:HB2	40:QF:4:TYR:CE1	2.34	0.62
43:QI:4:TYR:CD1	43:QI:88:TYR:HB2	2.35	0.62
4:RA:1065:U:H4'	4:RA:1066:U:H5'	1.81	0.62
4:RA:2206:G:H3'	4:RA:2207:G:C8	2.35	0.62
4:YA:1429:G:H2'	4:YA:1430:C:C6	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:2138:C:H2'	4:YA:2139:C:C6	2.35	0.62
6:YD:108:PRO:HG2	6:YD:111:LEU:HG	1.81	0.62
35:XA:1006:C:H2'	35:XA:1007:C:C6	2.35	0.62
35:XA:1309:G:OP1	47:XM:88:ARG:HD3	2.00	0.62
38:XD:12:CYS:SG	38:XD:19:LEU:HB2	2.39	0.62
43:XI:33:PHE:CE1	43:XI:37:PHE:HD2	2.17	0.62
4:RA:1024:G:HO2'	4:RA:1144:G:HO2'	1.44	0.62
13:RO:68:GLU:OE1	13:RO:68:GLU:N	2.31	0.62
14:RP:59:LEU:HD21	33:R8:10:ALA:HA	1.82	0.62
19:RU:76:TYR:CE1	19:RU:80:ILE:HG13	2.35	0.62
1:XV:53:G:O4'	24:YZ:198:LYS:HD2	2.00	0.62
3:XY:161:PHE:HD1	3:XY:185:GLY:HA3	1.65	0.62
4:YA:276:A:H5"	4:YA:277:C:H5'	1.82	0.62
4:YA:607:U:OP1	8:YF:102:PRO:HA	2.00	0.62
4:YA:657:U:H2'	4:YA:658:C:C6	2.35	0.62
4:YA:1823:G:OP1	6:YD:54:ARG:NH1	2.32	0.62
23:YY:13:VAL:O	23:YY:24:VAL:HA	2.00	0.62
4:RA:607:U:OP1	8:RF:102:PRO:HA	1.99	0.62
3:QY:38:ASN:O	3:QY:42:GLU:HB2	2.00	0.62
35:XA:501:C:H2'	35:XA:502:G:H8	1.64	0.62
35:XA:1002:G:N3	35:XA:1003:G:H8	1.98	0.62
36:XB:166:ASP:HB3	36:XB:169:LYS:HB3	1.80	0.62
50:XP:71:ARG:HH11	50:XP:71:ARG:HG3	1.64	0.62
36:QB:76:GLN:HE21	36:QB:206:ASP:C	2.08	0.62
43:QI:108:VAL:HG12	43:QI:109:VAL:H	1.65	0.62
53:QS:67:VAL:HG21	29:R4:59:PHE:CE1	2.35	0.62
4:RA:1101:U:H2'	4:RA:1102:C:C6	2.34	0.62
4:RA:2839:G:H5'	16:RR:46:GLY:HA2	1.80	0.62
17:RS:106:ARG:HG3	17:RS:112:PHE:HE1	1.64	0.62
4:YA:218:A:C2	4:YA:235:U:H4'	2.34	0.61
4:YA:1796:U:H2'	4:YA:1797:C:C6	2.35	0.61
4:YA:1889:A:H2'	4:YA:1890:A:C8	2.35	0.61
17:YS:35:ILE:C	17:YS:36:TYR:HD1	2.07	0.61
35:QA:713:G:H2'	35:QA:714:G:C8	2.34	0.61
4:RA:1378:A:OP1	32:R7:10:ARG:NH2	2.33	0.61
4:RA:2243:U:H2'	4:RA:2244:U:C6	2.35	0.61
4:RA:2328:A:H2'	4:RA:2329:G:C8	2.35	0.61
8:RF:51:THR:HB	8:RF:88:VAL:HG11	1.81	0.61
9:RG:150:ASP:OD1	9:RG:151:ALA:N	2.33	0.61
21:RW:8:ARG:HH21	21:RW:9:TYR:HE2	1.48	0.61
4:YA:2110:G:OP1	4:YA:2118:U:N3	2.30	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:YQ:60:ARG:HH21	24:YZ:181:GLU:HG2	1.64	0.61
46:XL:70:ILE:HG12	46:XL:100:ILE:HD12	1.82	0.61
53:QS:3:ARG:NH1	53:QS:10:PHE:HB2	2.15	0.61
8:RF:40:GLN:NE2	8:RF:182:ASN:HB2	2.15	0.61
9:RG:139:LEU:HD21	9:RG:149:VAL:HG11	1.83	0.61
3:XY:96:PHE:O	3:XY:96:PHE:HD1	1.84	0.61
4:YA:1028:A:N6	4:YA:1125:G:H2'	2.16	0.61
18:YT:101:PHE:HD2	18:YT:102:ILE:N	1.98	0.61
36:XB:16:HIS:HB2	36:XB:204:ASN:HB3	1.82	0.61
44:XJ:35:SER:HB3	44:XJ:73:ASP:H	1.65	0.61
35:QA:1003:G:H2'	35:QA:1004:A:H4'	1.82	0.61
4:RA:813:U:H2'	4:RA:814:C:H6	1.65	0.61
3:XY:303:LYS:O	3:XY:307:LYS:HG2	2.00	0.61
4:RA:2064:C:H2'	4:RA:2065:C:C6	2.35	0.61
31:R6:9:LEU:HD22	31:R6:51:GLU:OE2	1.99	0.61
4:YA:1067:A:H4'	4:YA:1068:G:OP2	2.00	0.61
35:XA:189(L):U:H2'	35:XA:189(M):G:C8	2.36	0.61
47:XM:19:LEU:HD21	47:XM:56:LEU:HD21	1.81	0.61
49:XO:35:ARG:NH2	49:XO:59:MET:HE2	2.14	0.61
4:RA:2152:G:H2'	4:RA:2153:G:C8	2.34	0.61
11:RI:84:GLY:N	11:RI:89:TYR:HE1	1.97	0.61
10:YH:28:GLY:HA3	10:YH:79:VAL:HB	1.81	0.61
15:YQ:34:LEU:HB2	15:YQ:118:LEU:HD22	1.81	0.61
37:XC:58:GLU:HB3	44:XJ:92:THR:HG21	1.81	0.61
38:XD:27:TYR:N	38:XD:27:TYR:HD1	1.98	0.61
43:XI:49:PRO:HG3	43:XI:101:PHE:HD2	1.65	0.61
49:XO:6:GLU:OE1	49:XO:6:GLU:N	2.25	0.61
35:QA:501:C:H2'	35:QA:502:G:H8	1.64	0.61
4:YA:249:C:O2	33:Y8:12:LYS:NZ	2.30	0.61
8:YF:40:GLN:NE2	8:YF:182:ASN:HB2	2.16	0.61
17:YS:27:SER:HA	17:YS:88:ASP:HB3	1.82	0.61
27:Y2:16:LEU:O	27:Y2:67:LYS:NZ	2.33	0.61
35:XA:449:C:O2	50:XP:42:ARG:HD2	2.00	0.61
35:QA:270:A:H2'	35:QA:271:C:C6	2.36	0.61
35:QA:918:A:H2'	35:QA:919:A:C8	2.36	0.61
35:QA:1207:2MG:H2'	35:QA:1208:C:H6	1.65	0.61
6:RD:69:ARG:NH2	6:RD:128:GLY:O	2.34	0.61
3:QY:195:GLU:HG2	3:QY:357:ILE:HD11	1.81	0.61
9:YG:49:ASP:OD1	9:YG:49:ASP:N	2.32	0.61
22:YX:65:ARG:HB3	22:YX:70:LEU:HD23	1.83	0.61
26:Y1:50:ARG:HG2	26:Y1:59:THR:HG22	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:QA:403:C:H4'	38:QD:122:ARG:NH1	2.15	0.61
35:QA:1402:4OC:HM22	35:QA:1403:C:H5'	1.82	0.61
40:QF:70:ASP:OD1	40:QF:70:ASP:N	2.31	0.61
4:RA:2074:U:H2'	4:RA:2075:U:C6	2.36	0.61
13:RO:119:PRO:HB2	18:RT:68:TYR:CE2	2.36	0.61
3:XY:121:GLY:O	3:XY:123:TYR:N	2.33	0.61
39:XE:20:GLN:NE2	39:XE:25:ARG:HD2	2.16	0.61
43:XI:33:PHE:CD1	43:XI:37:PHE:HD2	2.18	0.61
51:XQ:4:LYS:H	51:XQ:61:GLU:HG2	1.66	0.61
35:QA:407:G:O2'	38:QD:116:GLN:HG3	2.01	0.61
35:QA:1289:A:OP1	55:QU:10:ARG:NH2	2.33	0.61
38:QD:76:ARG:HD3	38:QD:207:TYR:CE1	2.35	0.61
4:RA:1826:G:H4'	6:RD:242:ARG:NH2	2.16	0.61
7:RE:73:GLU:OE1	7:RE:73:GLU:N	2.32	0.61
4:YA:813:U:H2'	4:YA:814:C:H6	1.65	0.61
7:YE:51:PHE:O	7:YE:77:ILE:HB	2.00	0.61
12:YN:131:GLN:OE1	12:YN:131:GLN:N	2.29	0.61
36:XB:144:ARG:NH2	36:XB:148:TYR:OH	2.33	0.61
37:QC:155:GLY:HA3	37:QC:196:LEU:HD22	1.83	0.61
38:QD:88:VAL:HG22	39:QE:96:PRO:HB2	1.83	0.61
39:QE:31:LEU:HD11	39:QE:129:ILE:HA	1.82	0.61
43:QI:33:PHE:HE1	43:QI:43:ALA:HB1	1.66	0.61
4:RA:639:U:H2'	4:RA:640:C:C6	2.35	0.61
4:RA:923:C:H2'	4:RA:924:C:C6	2.36	0.61
4:RA:2138:C:H2'	4:RA:2139:C:H6	1.65	0.61
16:RR:24:GLN:HB3	16:RR:44:LEU:HD11	1.83	0.61
24:RZ:198:LYS:HB2	24:RZ:203:GLU:C	2.25	0.61
4:YA:534:U:H2'	4:YA:535:C:C6	2.36	0.60
4:YA:2134:A:N6	4:YA:2156:G:O2'	2.34	0.60
27:Y2:35:LEU:HD12	27:Y2:53:LEU:HD12	1.83	0.60
36:XB:8:LYS:HD2	36:XB:51:LEU:HD13	1.83	0.60
37:XC:119:ARG:NH1	37:XC:140:ARG:HE	1.98	0.60
37:QC:47:LEU:HD13	37:QC:68:VAL:HG11	1.83	0.60
8:YF:99:TYR:N	8:YF:99:TYR:HD1	1.99	0.60
12:YN:120:LEU:HD22	12:YN:122:VAL:HG23	1.83	0.60
18:YT:53:ARG:HB3	18:YT:53:ARG:HH11	1.66	0.60
37:XC:140:ARG:HH11	37:XC:140:ARG:CB	2.13	0.60
35:QA:1286:A:H2'	35:QA:1287:A:H4'	1.83	0.60
37:QC:6:HIS:HE1	37:QC:8:ILE:HB	1.66	0.60
4:RA:1405:U:H2'	4:RA:1406:U:H6	1.65	0.60
3:XY:130:LEU:HD22	3:XY:132:ILE:HG13	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:1721:G:H8	4:YA:1741:A:H62	1.49	0.60
6:YD:71:ASP:HB3	6:YD:103:ARG:HH22	1.65	0.60
32:Y7:34:ARG:HG3	32:Y7:39:ARG:HG3	1.82	0.60
35:XA:316:G:OP2	35:XA:351:G:O2'	2.19	0.60
35:XA:1182:G:H4'	35:XA:1183:A:H3'	1.81	0.60
37:XC:114:PRO:O	37:XC:118:GLN:HG3	2.01	0.60
35:QA:341:C:H2'	35:QA:342:C:C6	2.37	0.60
35:QA:743:U:H2'	35:QA:744:C:C6	2.36	0.60
38:QD:191:ARG:HD3	38:QD:200:GLU:OE2	2.02	0.60
41:QG:48:LYS:O	41:QG:52:GLU:HG2	2.00	0.60
15:RQ:69:PHE:HD1	15:RQ:70:PRO:N	1.98	0.60
15:RQ:92:GLY:C	15:RQ:93:TYR:HD1	2.09	0.60
3:QY:162:LYS:HB3	3:QY:184:SER:HB3	1.84	0.60
3:XY:22:ARG:HG2	3:XY:70:LEU:HD13	1.84	0.60
4:YA:958:U:OP2	15:YQ:14:ARG:NH1	2.34	0.60
12:YN:62:VAL:HG13	12:YN:66:LYS:HD2	1.81	0.60
19:YU:76:TYR:C	19:YU:76:TYR:CD1	2.78	0.60
35:XA:184:G:H2'	35:XA:185:A:H8	1.66	0.60
35:XA:738:C:OP1	40:XF:2:ARG:NH1	2.34	0.60
36:XB:28:PHE:CD1	36:XB:31:TYR:HB2	2.36	0.60
40:XF:95:GLU:O	52:XR:32:ARG:NH2	2.29	0.60
43:XI:58:HIS:C	43:XI:59:PHE:HD1	2.09	0.60
4:RA:1587:A:H2'	4:RA:1588:C:C6	2.37	0.60
7:RE:34:VAL:CG2	7:RE:48:GLN:HE21	2.14	0.60
15:YQ:31:ASP:C	15:YQ:32:TYR:HD1	2.08	0.60
19:YU:58:ARG:NH2	19:YU:92:ARG:HH12	2.00	0.60
35:XA:270:A:H2'	35:XA:271:C:C6	2.37	0.60
35:QA:201:C:H42	35:QA:216:G:H1	1.50	0.60
35:QA:974:A:OP2	48:QN:29:ARG:NH2	2.32	0.60
35:QA:1027:C:H2'	35:QA:1028:C:C5	2.37	0.60
36:QB:78:GLN:NE2	36:QB:95:GLN:OE1	2.35	0.60
4:RA:1709:U:H2'	4:RA:1710:C:C6	2.37	0.60
6:RD:10:THR:OG1	6:RD:13:ARG:HG2	2.01	0.60
4:YA:639:U:H2'	4:YA:640:C:C6	2.37	0.60
4:YA:668:G:H5'	4:YA:669:G:OP2	2.02	0.60
4:YA:1379:A:H4'	4:YA:1380:G:OP2	2.01	0.60
35:XA:407:G:H2'	35:XA:408:A:C8	2.36	0.60
35:XA:715:A:H2'	35:XA:716:A:C8	2.37	0.60
35:QA:277:C:P	51:QQ:68:ARG:HH12	2.24	0.60
4:RA:1920:4OC:HM22	4:RA:1921:G:H5'	1.83	0.60
4:YA:1530:C:O2'	4:YA:1531:C:H6	1.85	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:2328:A:H2'	4:YA:2329:G:C8	2.36	0.60
35:XA:1014:A:H2	35:XA:1219:U:H1'	1.66	0.60
35:XA:1329:A:OP2	55:XU:7:ARG:NH2	2.30	0.60
38:XD:79:PHE:HE1	38:XD:204:ILE:HD13	1.65	0.60
46:XL:86:ARG:HD2	46:XL:87:GLY:HA3	1.83	0.60
49:XO:25:THR:HG21	49:XO:70:LEU:HB2	1.83	0.60
38:QD:98:GLU:OE1	38:QD:103:ASN:ND2	2.29	0.60
4:RA:218:A:C2	4:RA:235:U:H4'	2.37	0.60
4:RA:969:U:H2'	4:RA:970:C:C6	2.37	0.60
6:RD:147:LEU:HD11	6:RD:183:ARG:HH21	1.65	0.60
7:RE:119:ARG:HD2	7:RE:120:TRP:CE2	2.37	0.60
9:RG:115:ARG:HB3	9:RG:136:ARG:HH22	1.66	0.60
11:RI:86:THR:O	11:RI:122:GLU:HB2	2.02	0.60
4:YA:641:C:O2'	4:YA:2350:C:OP1	2.18	0.60
4:YA:1353:A:H2'	4:YA:1354:A:C8	2.36	0.60
29:Y4:47:GLN:C	29:Y4:48:ARG:HD2	2.27	0.60
39:XE:57:LYS:HG2	39:XE:61:TYR:CE2	2.37	0.60
40:XF:44:GLY:HA2	40:XF:59:TYR:CD1	2.37	0.60
4:RA:1292:U:H2'	4:RA:1293:C:C6	2.37	0.60
10:RH:163:TYR:HE2	10:RH:169:VAL:HG22	1.66	0.60
19:RU:47:TYR:HE2	20:RV:74:LYS:HE2	1.66	0.60
19:RU:111:GLU:OE1	19:RU:111:GLU:HA	2.02	0.60
22:RX:5:TYR:O	27:R2:36:ARG:NH2	2.33	0.60
8:YF:197:ASP:OD1	8:YF:198:ALA:N	2.35	0.60
11:YI:14:ASP:OD1	11:YI:15:VAL:N	2.34	0.60
34:Y9:22:ARG:HB2	34:Y9:24:TYR:HE1	1.67	0.60
35:XA:1014:A:C2	35:XA:1219:U:H1'	2.35	0.60
42:QH:41:ARG:NH2	42:QH:123:GLU:OE2	2.33	0.60
49:QO:16:ALA:HB1	49:QO:21:ASP:HB3	1.82	0.60
4:RA:78:A:H2'	4:RA:79:G:H8	1.66	0.60
4:RA:1798:U:H5'	6:RD:259:THR:HG22	1.84	0.60
18:RT:55:ASN:N	18:RT:59:THR:HG22	2.12	0.60
4:YA:2243:U:H2'	4:YA:2244:U:C6	2.36	0.60
35:XA:407:G:H2'	35:XA:408:A:H8	1.65	0.60
38:XD:116:GLN:NE2	38:XD:157:LEU:HD11	2.17	0.60
39:XE:10:MET:HE2	39:XE:55:VAL:HG11	1.84	0.60
47:QM:3:ARG:HG3	47:QM:4:ILE:N	2.17	0.60
4:RA:1817:G:OP1	6:RD:88:ARG:NH2	2.34	0.60
4:YA:2646:C:OP2	4:YA:2732:G:O2'	2.14	0.59
35:XA:474:G:H2'	35:XA:475:G:H8	1.66	0.59
40:QF:100:ASN:ND2	52:QR:26:LEU:O	2.34	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:38:A:H2'	4:RA:39:C:C6	2.37	0.59
4:RA:1794:U:H2'	4:RA:1795:C:C6	2.37	0.59
23:RY:8:LYS:HG2	23:RY:97:ARG:NH1	2.14	0.59
4:YA:78:A:H2'	4:YA:79:G:H8	1.66	0.59
4:YA:857:C:OP2	25:Y0:77:ARG:NH2	2.34	0.59
4:YA:1786:A:H1'	4:YA:1938:A:N6	2.17	0.59
35:XA:67:C:H2'	35:XA:68:G:C8	2.37	0.59
36:QB:80:ILE:HD11	36:QB:212:GLN:HB2	1.83	0.59
43:QI:10:ARG:HG2	43:QI:75:ASP:HB2	1.84	0.59
4:RA:272(K):U:H1'	11:RI:50:ARG:HH21	1.67	0.59
11:RI:115:ALA:HB2	11:RI:131:LYS:HE2	1.85	0.59
1:XV:53:G:H4'	1:XV:54:U:OP1	2.01	0.59
4:YA:30:G:H2'	4:YA:31:C:C6	2.37	0.59
10:YH:7:LEU:HB3	10:YH:69:ARG:HH11	1.68	0.59
21:YW:67:ASP:N	21:YW:67:ASP:OD1	2.35	0.59
35:XA:406:G:H5'	38:XD:5:ILE:HD11	1.84	0.59
41:QG:111:ARG:NH1	41:QG:122:HIS:HB2	2.17	0.59
4:RA:1507:A:O2'	4:RA:1508:A:O5'	2.18	0.59
13:YO:64:ARG:HG2	13:YO:79:PHE:CD2	2.36	0.59
18:YT:14:TYR:N	18:YT:14:TYR:HD1	2.00	0.59
35:XA:737:A:H2'	35:XA:738:C:C6	2.37	0.59
35:QA:407:G:H2'	35:QA:408:A:C8	2.38	0.59
37:QC:131:ARG:NH1	37:QC:135:LYS:HE3	2.16	0.59
4:YA:336:C:O2'	23:YY:35:TYR:OH	2.21	0.59
4:YA:1359:A:H61	4:YA:1372:U:H3	1.50	0.59
7:YE:14:ILE:HG13	7:YE:21:VAL:HG13	1.84	0.59
9:YG:161:THR:HG22	9:YG:163:ALA:H	1.66	0.59
18:YT:45:PHE:CD1	18:YT:45:PHE:C	2.81	0.59
18:YT:65:LYS:HE2	18:YT:67:SER:HB2	1.85	0.59
43:XI:60:ASP:N	43:XI:60:ASP:OD1	2.34	0.59
4:RA:639:U:H2'	4:RA:640:C:H6	1.66	0.59
4:RA:1721:G:H8	4:RA:1741:A:H62	1.47	0.59
11:RI:101:LEU:HD11	11:RI:140:LEU:HD11	1.84	0.59
3:QY:230:ILE:HG23	3:QY:299:GLU:CG	2.31	0.59
3:QY:243:VAL:HG12	3:QY:261:VAL:HG12	1.85	0.59
10:YH:3:ARG:NH1	10:YH:3:ARG:C	2.61	0.59
29:Y4:59:PHE:N	29:Y4:59:PHE:CD1	2.71	0.59
35:XA:946:A:H2'	35:XA:947:G:H8	1.64	0.59
37:XC:141:VAL:HG11	37:XC:202:ILE:HG12	1.84	0.59
35:QA:537:G:H5"	46:QL:113:ARG:NH1	2.17	0.59
47:QM:65:LYS:HA	29:R4:50:VAL:HG11	1.83	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:660:G:H5'	8:YF:99:TYR:CE2	2.37	0.59
10:YH:159:GLU:HG2	10:YH:169:VAL:HG11	1.84	0.59
54:XT:50:GLU:HG3	54:XT:100:ILE:HD11	1.84	0.59
35:QA:642:A:N3	42:QH:113:SER:OG	2.32	0.59
4:RA:1796:U:H2'	4:RA:1797:C:C6	2.37	0.59
4:YA:2698:U:H2'	4:YA:2699:C:C6	2.37	0.59
14:YP:52:GLU:HB3	14:YP:55:ARG:NH1	2.12	0.59
15:YQ:7:MET:HE1	15:YQ:93:TYR:CE2	2.32	0.59
16:YR:29:LEU:HB3	16:YR:75:LEU:HD21	1.85	0.59
22:YX:88:LYS:HG2	22:YX:93:GLU:HG3	1.84	0.59
38:XD:27:TYR:N	38:XD:27:TYR:CD1	2.71	0.59
40:XF:8:ILE:HG22	40:XF:10:LEU:HD13	1.84	0.59
36:QB:17:PHE:HD1	36:QB:17:PHE:N	2.01	0.59
39:QE:33:VAL:HG13	39:QE:112:LEU:HD12	1.83	0.59
4:RA:2698:U:H2'	4:RA:2699:C:C6	2.37	0.59
7:RE:34:VAL:HG23	7:RE:48:GLN:HE21	1.67	0.59
4:YA:1693:U:O2	6:YD:14:ARG:NH1	2.35	0.59
4:YA:2102:U:O2	4:YA:2187:G:O6	2.21	0.59
8:YF:178:PRO:HB2	8:YF:201:VAL:CG2	2.33	0.59
17:YS:67:ARG:HG2	17:YS:100:ALA:O	2.03	0.59
38:XD:138:TYR:HD1	38:XD:139:ARG:N	2.00	0.59
38:XD:173:TRP:CD1	38:XD:189:PRO:HG3	2.38	0.59
39:XE:31:LEU:HD11	39:XE:129:ILE:HA	1.84	0.59
43:XI:88:TYR:C	43:XI:88:TYR:HD1	2.10	0.59
44:XJ:11:PHE:HE1	44:XJ:67:THR:HG22	1.67	0.59
37:QC:131:ARG:NE	37:QC:166:GLU:OE2	2.34	0.59
4:RA:660:G:H5'	8:RF:99:TYR:CE2	2.38	0.59
5:RB:77:U:OP1	24:RZ:19:ARG:NH2	2.36	0.59
18:RT:45:PHE:CD1	18:RT:45:PHE:C	2.81	0.59
27:R2:63:VAL:O	27:R2:66:GLU:HB3	2.01	0.59
29:R4:57:GLU:HB2	29:R4:58:ARG:HA	1.85	0.59
4:YA:127:A:H5"	4:YA:128:C:C6	2.38	0.59
6:YD:52:ARG:HH12	6:YD:249:PRO:HG2	1.68	0.59
38:XD:191:ARG:NE	38:XD:200:GLU:OE2	2.34	0.59
47:XM:3:ARG:HH12	47:XM:11:ARG:HE	1.50	0.59
35:QA:737:A:H2'	35:QA:738:C:H6	1.66	0.59
38:QD:59:ARG:HH21	38:QD:62:GLN:HG3	1.68	0.59
40:QF:8:ILE:HG22	40:QF:10:LEU:HD13	1.84	0.59
53:QS:10:PHE:C	53:QS:10:PHE:HD1	2.10	0.59
53:QS:10:PHE:HD1	53:QS:11:VAL:N	2.01	0.59
4:RA:210:C:OP1	32:R7:29:LYS:HE2	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:RP:63:PRO:HG2	33:R8:25:MET:HB2	1.85	0.59
3:XY:33:ARG:HD2	3:XY:36:GLU:OE2	2.02	0.58
4:YA:2740:A:H2'	4:YA:2741:A:C8	2.38	0.58
7:YE:12:THR:HG22	7:YE:13:ARG:H	1.66	0.58
8:YF:53:THR:HG23	8:YF:55:GLY:H	1.68	0.58
16:YR:36:THR:HG22	16:YR:37:THR:H	1.68	0.58
29:Y4:53:GLU:CD	29:Y4:53:GLU:H	2.10	0.58
35:XA:266:G:O2'	35:XA:267:C:OP2	2.15	0.58
35:XA:1103:C:OP1	36:XB:96:ARG:NH2	2.36	0.58
4:RA:2022:U:O2'	4:RA:2617:C:H5'	2.02	0.58
4:RA:2292:C:P	17:RS:17:ARG:HH12	2.25	0.58
26:R1:3:LYS:HG3	26:R1:4:VAL:H	1.68	0.58
4:YA:2680:C:OP2	7:YE:111:ARG:NH2	2.36	0.58
29:Y4:16:CYS:SG	29:Y4:17:GLY:N	2.76	0.58
35:XA:673:G:H5"	40:XF:87:ARG:NH1	2.17	0.58
35:XA:1002:G:H2'	35:XA:1003:G:C8	2.37	0.58
39:XE:102:ALA:HB1	39:XE:106:PRO:HG2	1.85	0.58
42:XH:37:ARG:HH21	42:XH:38:ILE:HD11	1.67	0.58
46:XL:86:ARG:NH1	46:XL:99:HIS:HB2	2.18	0.58
36:QB:76:GLN:HE21	36:QB:206:ASP:CA	2.17	0.58
36:QB:229:VAL:HG12	36:QB:230:VAL:H	1.67	0.58
43:QI:65:VAL:HG21	43:QI:73:GLN:HB3	1.85	0.58
4:RA:486:C:H4'	21:RW:60:ASN:ND2	2.18	0.58
24:RZ:136:PHE:N	24:RZ:136:PHE:CD1	2.67	0.58
3:XY:327:VAL:C	3:XY:329:ASP:H	2.10	0.58
4:YA:1385:G:O2'	4:YA:1396:U:O2	2.20	0.58
4:YA:1815:A:OP2	6:YD:54:ARG:NH2	2.36	0.58
4:YA:2138:C:H2'	4:YA:2139:C:H6	1.66	0.58
4:YA:2206:G:H8	4:YA:2207:G:N7	2.01	0.58
4:YA:2648:C:H2'	4:YA:2649:U:C6	2.38	0.58
25:Y0:60:PHE:H	25:Y0:60:PHE:HD1	1.49	0.58
27:Y2:38:GLN:HB3	27:Y2:44:LEU:HB2	1.85	0.58
37:XC:40:ARG:HH12	48:XN:52:GLN:HG2	1.69	0.58
35:QA:184:G:H2'	35:QA:185:A:H8	1.68	0.58
35:QA:1510:U:H2'	35:QA:1511:G:C8	2.37	0.58
40:QF:23:LYS:HG2	40:QF:61:LEU:HD21	1.84	0.58
3:QY:199:HIS:CD2	3:QY:324:ARG:HD2	2.38	0.58
4:YA:639:U:H2'	4:YA:640:C:H6	1.69	0.58
4:YA:1507:A:O2'	4:YA:1508:A:O5'	2.21	0.58
35:XA:1346:A:OP1	43:XI:120:ARG:NH1	2.34	0.58
43:XI:9:ARG:HG2	43:XI:14:VAL:HG12	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:272(O):C:H2'	4:RA:272(P):C:C6	2.39	0.58
4:RA:1068:G:H3'	4:RA:1096:A:OP2	2.04	0.58
3:QY:129:TYR:HB2	3:QY:223:TYR:CE1	2.39	0.58
4:YA:581:C:H2'	4:YA:582:G:H8	1.67	0.58
6:YD:108:PRO:HB3	6:YD:143:HIS:CE1	2.37	0.58
29:Y4:42:PHE:HD2	29:Y4:43:TYR:CE1	2.21	0.58
35:XA:1346:A:C5	41:XG:10:ARG:NH2	2.70	0.58
37:XC:140:ARG:HB2	37:XC:140:ARG:NH1	2.19	0.58
35:QA:1062:U:H2'	35:QA:1063:C:C6	2.38	0.58
47:QM:80:ARG:HG2	47:QM:80:ARG:HH11	1.67	0.58
53:QS:10:PHE:C	53:QS:10:PHE:CD1	2.79	0.58
21:RW:23:LEU:HD11	30:R5:25:LEU:HB2	1.86	0.58
4:YA:2023:G:H5'	4:YA:2617:C:H4'	1.86	0.58
35:XA:642:A:N3	42:XH:113:SER:OG	2.31	0.58
35:QA:614:A:OP1	38:QD:85:LYS:NZ	2.36	0.58
4:YA:300:A:OP1	23:YY:86:ARG:NH2	2.36	0.58
8:YF:101:LEU:HD12	8:YF:102:PRO:HD2	1.84	0.58
36:XB:105:PHE:CD1	36:XB:105:PHE:C	2.81	0.58
40:XF:75:LEU:HD22	40:XF:79:LEU:HG	1.85	0.58
43:XI:31:GLN:NE2	43:XI:36:TYR:HD1	2.02	0.58
35:QA:560:U:O2'	35:QA:561:U:OP2	2.18	0.58
35:QA:626:U:H4'	50:QP:38:TYR:CE2	2.37	0.58
35:QA:1014:A:C2	35:QA:1219:U:H1'	2.38	0.58
4:RA:1062:G:N7	4:RA:1070:A:H1'	2.19	0.58
12:RN:62:VAL:HG13	12:RN:66:LYS:HD2	1.85	0.58
5:YB:48:A:H2'	5:YB:49:C:C6	2.39	0.58
35:XA:1027:C:H3'	35:XA:1028:C:C6	2.38	0.58
50:XP:17:TYR:N	50:XP:17:TYR:HD1	2.01	0.58
54:XT:89:ARG:O	54:XT:93:GLU:HG2	2.03	0.58
35:QA:38:G:H22	35:QA:397:A:H5'	1.67	0.58
35:QA:714:G:H2'	35:QA:715:A:C8	2.38	0.58
35:QA:1309:G:OP1	47:QM:88:ARG:HD2	2.04	0.58
36:QB:16:HIS:HB2	36:QB:204:ASN:HB3	1.85	0.58
36:QB:24:TRP:CZ3	36:QB:26:PRO:HA	2.38	0.58
4:RA:2740:A:H2'	4:RA:2741:A:C8	2.39	0.58
6:RD:8:PRO:HB3	6:RD:14:ARG:HG3	1.85	0.58
18:RT:45:PHE:C	18:RT:45:PHE:HD1	2.11	0.58
3:QY:132:ILE:HB	3:QY:179:VAL:HG23	1.86	0.58
3:QY:245:ARG:HE	4:RA:2573:C:N4	1.99	0.58
4:YA:994:C:OP1	19:YU:53:ARG:NH2	2.36	0.58
4:YA:2591:C:H2'	4:YA:2592:G:C8	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:2787:C:H1'	7:YE:62:PRO:HG3	1.86	0.58
8:YF:99:TYR:HD1	8:YF:99:TYR:H	1.51	0.58
11:YI:85:GLU:HG3	11:YI:86:THR:H	1.67	0.58
13:YO:115:VAL:HG13	13:YO:121:VAL:HG21	1.86	0.58
29:Y4:61:ARG:HG2	53:XS:42:PRO:CG	2.34	0.58
35:XA:544:G:OP1	38:XD:59:ARG:NH2	2.35	0.58
35:XA:1062:U:H2'	35:XA:1063:C:C6	2.39	0.58
36:XB:7:VAL:O	36:XB:217:ARG:NE	2.37	0.58
40:QF:36:ARG:NH2	40:QF:66:GLU:OE1	2.37	0.58
8:RF:164:ARG:O	8:RF:168:ARG:HB3	2.03	0.58
23:RY:55:TYR:CE2	23:RY:61:ILE:HG21	2.39	0.58
3:XY:168:GLU:HG2	3:XY:179:VAL:HG12	1.85	0.58
3:XY:332:ARG:NH1	35:XA:531:U:O4	2.28	0.58
3:XY:342:THR:HG22	3:XY:344:ASN:H	1.68	0.58
4:YA:1069:A:H5'	4:YA:1096:A:H5'	1.86	0.58
4:YA:2648:C:H2'	4:YA:2649:U:H6	1.69	0.58
19:YU:76:TYR:CE1	19:YU:80:ILE:HG13	2.38	0.58
35:XA:992:U:H4'	35:XA:993:G:O5'	2.04	0.58
35:XA:1001(A):A:H2'	35:XA:1001(B):G:C8	2.38	0.58
4:RA:2291:U:H2'	4:RA:2292:C:C6	2.38	0.58
3:QY:303:LYS:O	3:QY:307:LYS:HG2	2.03	0.57
3:XY:106:LEU:HD23	3:XY:109:LYS:HD3	1.85	0.57
3:XY:132:ILE:HB	3:XY:179:VAL:HG23	1.85	0.57
4:YA:690:G:H2'	4:YA:691:C:C6	2.39	0.57
4:YA:1639:U:H2'	4:YA:1640:C:H5"	1.85	0.57
4:YA:2271:G:C5'	25:Y0:20:ARG:HE	2.16	0.57
10:YH:89:ILE:O	10:YH:129:THR:HG23	2.04	0.57
40:XF:19:LEU:HD11	40:XF:59:TYR:HE2	1.69	0.57
37:QC:29:TYR:CD2	48:QN:36:PHE:HE1	2.22	0.57
43:QI:88:TYR:HD1	43:QI:88:TYR:C	2.12	0.57
16:RR:36:THR:HG22	16:RR:37:THR:H	1.69	0.57
27:R2:32:LEU:HD11	27:R2:54:LYS:HG2	1.84	0.57
4:YA:923:C:H2'	4:YA:924:C:H6	1.69	0.57
4:YA:2074:U:H2'	4:YA:2075:U:C6	2.39	0.57
6:YD:17:THR:O	6:YD:211:ARG:NH2	2.37	0.57
19:YU:47:TYR:HE2	20:YV:74:LYS:HE2	1.70	0.57
35:XA:1030(B):G:H2'	35:XA:1030(C):C:H5"	1.87	0.57
53:XS:27:GLU:OE1	53:XS:47:HIS:NE2	2.33	0.57
35:QA:56:U:H2'	35:QA:57:G:C8	2.39	0.57
35:QA:992:U:H4'	35:QA:993:G:H5'	1.86	0.57
4:RA:2206:G:H3'	4:RA:2207:G:H8	1.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:2751:G:C8	10:RH:2:SER:HA	2.39	0.57
6:RD:132:PRO:HG3	6:RD:190:TYR:CE1	2.39	0.57
4:YA:270:A:OP2	4:YA:272(X):G:N1	2.28	0.57
4:YA:2206:G:H3'	4:YA:2207:G:H8	1.69	0.57
4:YA:2206:G:H3'	4:YA:2207:G:C8	2.38	0.57
10:YH:11:VAL:HG21	10:YH:50:VAL:HG23	1.86	0.57
18:YT:45:PHE:C	18:YT:45:PHE:HD1	2.12	0.57
29:Y4:67:TYR:HD1	29:Y4:67:TYR:N	2.00	0.57
35:XA:501:C:H2'	35:XA:502:G:C8	2.38	0.57
37:XC:108:ASN:HD21	37:XC:144:SER:HB3	1.69	0.57
44:XJ:49:VAL:HG23	48:XN:41:ARG:CG	2.33	0.57
40:QF:97:PHE:CD2	52:QR:31:LEU:HD23	2.40	0.57
40:QF:97:PHE:HD2	52:QR:31:LEU:HD23	1.69	0.57
42:QH:10:LEU:HD22	42:QH:83:ILE:HD11	1.86	0.57
48:QN:4:LYS:HA	48:QN:7:ILE:HG12	1.85	0.57
4:RA:2567:G:H2'	4:RA:2568:C:C6	2.39	0.57
1:QV:58:A:O2'	1:QV:60:U:OP2	2.17	0.57
4:YA:1429:G:H2'	4:YA:1430:C:H6	1.69	0.57
9:YG:117:PHE:HD1	9:YG:119:GLY:H	1.53	0.57
35:XA:262:A:H2'	35:XA:263:A:H8	1.67	0.57
35:XA:407:G:O2'	38:XD:116:GLN:HG3	2.05	0.57
35:XA:1302:U:OP2	47:XM:21:TYR:OH	2.17	0.57
38:XD:116:GLN:HE21	38:XD:157:LEU:HD11	1.69	0.57
35:QA:34:C:H2'	35:QA:35:G:H8	1.67	0.57
35:QA:564:C:O2'	42:QH:91:ARG:NH2	2.34	0.57
4:RA:1657:C:H2'	4:RA:1658:C:H6	1.69	0.57
4:RA:2572:A:N7	7:RE:144:ARG:HD2	2.20	0.57
10:RH:154:PRO:HG3	10:RH:163:TYR:CD1	2.39	0.57
29:R4:61:ARG:CG	29:R4:62:ARG:H	2.18	0.57
3:QY:41:LEU:HA	3:QY:46:VAL:HG21	1.86	0.57
4:YA:658:C:H2'	4:YA:659:C:C6	2.40	0.57
10:YH:115:VAL:HG11	10:YH:148:ILE:HD11	1.87	0.57
35:XA:164:U:H2'	35:XA:165:C:C6	2.40	0.57
47:XM:3:ARG:NH1	47:XM:11:ARG:HE	2.02	0.57
35:QA:1071:C:H2'	35:QA:1072:G:H8	1.69	0.57
35:QA:1183:A:H3'	35:QA:1184:G:H5"	1.87	0.57
49:QO:6:GLU:OE1	49:QO:6:GLU:N	2.26	0.57
4:RA:1067:A:H4'	4:RA:1068:G:OP2	2.03	0.57
4:RA:1467:C:C5	4:RA:1546:C:H2'	2.39	0.57
8:RF:178:PRO:HB2	8:RF:201:VAL:CG2	2.34	0.57
3:QY:230:ILE:O	3:QY:230:ILE:HG22	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:XY:243:VAL:HG12	3:XY:261:VAL:HG12	1.87	0.57
11:YI:4:ILE:HD11	11:YI:44:LEU:HD12	1.85	0.57
35:XA:1029:C:N4	35:XA:1030(A):C:H41	2.02	0.57
35:QA:341:C:H2'	35:QA:342:C:H6	1.70	0.57
4:RA:1036:G:OP2	10:RH:59:ARG:NH1	2.37	0.57
4:RA:1530:C:O2'	4:RA:1531:C:H6	1.87	0.57
6:RD:52:ARG:HH12	6:RD:249:PRO:HG2	1.68	0.57
7:RE:37:ARG:HG3	7:RE:80:GLU:OE2	2.05	0.57
19:RU:62:ILE:HG23	19:RU:76:TYR:CE2	2.40	0.57
29:R4:16:CYS:SG	29:R4:17:GLY:N	2.77	0.57
2:QX:22:C:H41	3:QY:210:GLY:HA3	1.70	0.57
3:XY:191:TRP:O	3:XY:194:THR:HG22	2.05	0.57
13:YO:8:LEU:HD12	13:YO:84:ALA:HB2	1.85	0.57
29:Y4:59:PHE:CZ	53:XS:64:GLU:HB2	2.40	0.57
41:XG:18:TYR:HD2	41:XG:59:LEU:HB2	1.70	0.57
35:QA:390:C:H2'	35:QA:391:G:C8	2.40	0.57
35:QA:1020:U:H2'	35:QA:1021:G:C8	2.39	0.57
37:QC:35:GLU:HG2	37:QC:59:ARG:HH22	1.70	0.57
43:QI:42:ARG:NH1	43:QI:75:ASP:OD1	2.35	0.57
4:RA:184:C:H2'	4:RA:185:U:C6	2.40	0.57
4:RA:848:G:H2'	4:RA:849:A:H8	1.66	0.57
4:RA:2156:G:N7	4:RA:2157:G:N2	2.52	0.57
4:YA:2156:G:N7	4:YA:2157:G:N2	2.53	0.57
4:YA:2279:G:N7	25:Y0:14:ARG:NH1	2.46	0.57
35:XA:375:U:H4'	50:XP:17:TYR:HE2	1.69	0.57
35:QA:269:C:H2'	35:QA:270:A:H8	1.70	0.57
54:QT:57:ARG:HH12	54:QT:100:ILE:HD12	1.69	0.57
8:RF:184:TYR:CE2	8:RF:188:ARG:HD2	2.39	0.57
4:YA:881:G:H2'	4:YA:882:G:C8	2.39	0.57
4:YA:1292:U:H2'	4:YA:1293:C:H6	1.67	0.57
14:YP:86:LYS:HB3	14:YP:118:GLY:HA3	1.87	0.57
21:YW:14:PRO:HG2	21:YW:78:GLU:HG3	1.85	0.57
35:XA:222:U:H2'	35:XA:223:U:C6	2.40	0.57
41:XG:113:GLU:HG2	41:XG:119:ARG:HG2	1.86	0.57
35:QA:100:C:H2'	35:QA:101:A:C8	2.40	0.57
35:QA:600:C:H2'	35:QA:601:C:H6	1.70	0.57
36:QB:17:PHE:N	36:QB:17:PHE:CD1	2.73	0.57
4:RA:876:C:H2'	4:RA:877:U:O4'	2.05	0.57
15:RQ:69:PHE:C	15:RQ:69:PHE:CD1	2.83	0.57
24:RZ:3:TYR:N	24:RZ:3:TYR:HD1	2.03	0.57
4:YA:674:G:O2'	8:YF:74:ARG:HD3	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:889:C:O2'	4:YA:890:A:O5'	2.23	0.57
4:YA:2291:U:H2'	4:YA:2292:C:C6	2.40	0.57
12:YN:4:TYR:CD2	19:YU:100:VAL:HG11	2.40	0.57
19:YU:62:ILE:HG23	19:YU:76:TYR:CE2	2.40	0.57
24:YZ:3:TYR:N	24:YZ:3:TYR:HD1	2.02	0.57
36:XB:55:PHE:CD1	36:XB:221:LEU:HD12	2.39	0.57
36:XB:78:GLN:HA	36:XB:78:GLN:HE21	1.70	0.57
47:XM:17:VAL:O	47:XM:20:THR:OG1	2.18	0.57
35:QA:1412:C:H2'	35:QA:1413:A:C8	2.39	0.57
35:QA:1492:A:OP2	46:QL:47:LYS:NZ	2.38	0.57
14:RP:90:ARG:HH12	14:RP:105:LEU:HD21	1.69	0.57
20:RV:12:TYR:CD2	20:RV:20:LEU:HD11	2.40	0.57
24:RZ:126:VAL:HG11	24:RZ:161:VAL:HG23	1.87	0.57
3:XY:244:TYR:N	3:XY:244:TYR:CD1	2.72	0.56
4:YA:2649:U:H2'	4:YA:2650:U:H6	1.70	0.56
19:YU:89:GLU:O	20:YV:11:GLN:NE2	2.32	0.56
26:Y1:86:SER:OG	26:Y1:89:GLU:OE1	2.13	0.56
36:XB:18:GLY:HA2	36:XB:42:ILE:HD12	1.86	0.56
35:QA:1072:G:H2'	35:QA:1073:U:C6	2.40	0.56
40:QF:33:TYR:HE2	40:QF:78:GLU:HG2	1.69	0.56
4:RA:1406:U:H2'	4:RA:1407:C:H6	1.70	0.56
4:RA:2023:G:H5'	4:RA:2617:C:H4'	1.85	0.56
4:RA:2110:G:OP1	4:RA:2118:U:N3	2.35	0.56
6:RD:148:GLU:HB2	6:RD:151:LYS:HD2	1.88	0.56
12:RN:4:TYR:CD2	19:RU:100:VAL:HG11	2.40	0.56
18:RT:60:THR:HG22	18:RT:77:PRO:HA	1.87	0.56
1:QV:76:A:H3'	3:QY:251:GLY:HA3	1.86	0.56
3:QY:319:TRP:HE1	35:QA:1492:A:H2'	1.68	0.56
3:QY:324:ARG:HB3	3:QY:326:TYR:HE1	1.70	0.56
3:XY:58:LYS:HD2	4:YA:1068:G:N2	2.21	0.56
3:XY:129:TYR:HB2	3:XY:223:TYR:CE1	2.39	0.56
4:YA:1062:G:H5'	4:YA:1070:A:H5"	1.87	0.56
17:YS:94:TYR:CE1	17:YS:99:LYS:HG3	2.40	0.56
38:XD:59:ARG:HH21	38:XD:62:GLN:HG3	1.69	0.56
38:XD:173:TRP:CD1	38:XD:174:LEU:HG	2.39	0.56
41:XG:146:GLU:OE2	41:XG:149:ARG:NE	2.38	0.56
43:XI:24:GLY:HA2	43:XI:59:PHE:O	2.05	0.56
35:QA:501:C:H2'	35:QA:502:G:C8	2.40	0.56
37:QC:22:TRP:CZ2	48:QN:54:PRO:HG2	2.40	0.56
4:RA:608:A:H2'	4:RA:609:A:C8	2.40	0.56
4:RA:2103:C:C4	4:RA:2104:G:N2	2.73	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:2405:G:H5'	14:RP:75:ILE:HD13	1.87	0.56
8:RF:99:TYR:HD1	8:RF:99:TYR:N	2.01	0.56
3:QY:203:ARG:HG3	3:QY:204:LYS:N	2.21	0.56
3:XY:68:ASP:O	3:XY:72:GLN:HG3	2.05	0.56
4:YA:30:G:H2'	4:YA:31:C:H6	1.70	0.56
4:YA:856:C:H2'	4:YA:857:C:C6	2.40	0.56
4:YA:1826:G:H4'	6:YD:242:ARG:NH2	2.21	0.56
4:YA:2321:G:O2'	4:YA:2322:A:OP1	2.21	0.56
11:YI:101:LEU:HD11	11:YI:140:LEU:HD11	1.86	0.56
20:YV:76:LYS:HB2	20:YV:81:TYR:HB3	1.88	0.56
35:XA:266:G:N3	35:XA:266:G:H5"	2.19	0.56
35:XA:737:A:H2'	35:XA:738:C:H6	1.69	0.56
35:XA:1129:C:H2'	35:XA:1139:G:N7	2.20	0.56
37:XC:124:ILE:HD12	37:XC:196:LEU:HD12	1.87	0.56
40:XF:70:ASP:N	40:XF:70:ASP:OD1	2.38	0.56
46:XL:28:LYS:N	46:XL:29:GLY:HA2	2.21	0.56
50:XP:17:TYR:N	50:XP:17:TYR:CD1	2.74	0.56
35:QA:412:A:C6	38:QD:35:ARG:HD3	2.41	0.56
35:QA:449:C:O2	50:QP:42:ARG:HD2	2.06	0.56
35:QA:1009:G:C2	35:QA:1010:G:C8	2.93	0.56
35:QA:1030(D):G:N7	35:QA:1031:G:N2	2.52	0.56
35:QA:1428:A:H2'	35:QA:1429:C:C6	2.40	0.56
50:QP:38:TYR:HD1	50:QP:38:TYR:N	2.02	0.56
51:QQ:62:SER:OG	51:QQ:72:ARG:HG3	2.03	0.56
4:RA:589:C:H2'	4:RA:590:A:H8	1.69	0.56
4:RA:668:G:H5'	4:RA:669:G:OP2	2.05	0.56
13:RO:7:TYR:HE1	13:RO:20:MET:HE3	1.70	0.56
14:RP:52:GLU:HB3	14:RP:55:ARG:NH1	2.16	0.56
4:YA:994:C:H3'	19:YU:54:LYS:HE3	1.85	0.56
4:YA:1406:U:H2'	4:YA:1407:C:H6	1.71	0.56
36:XB:24:TRP:CZ3	36:XB:26:PRO:HA	2.40	0.56
36:XB:105:PHE:HD1	36:XB:105:PHE:O	1.89	0.56
49:XO:54:ARG:HD3	49:XO:58:MET:HE2	1.87	0.56
35:QA:56:U:H2'	35:QA:57:G:H8	1.70	0.56
35:QA:890:G:O2'	35:QA:906:G:O6	2.19	0.56
47:QM:15:VAL:HG11	47:QM:48:LEU:HD21	1.85	0.56
53:QS:3:ARG:HH21	53:QS:7:LYS:HE3	1.70	0.56
4:RA:1265:A:H3'	30:R5:19:ARG:NH1	2.20	0.56
4:RA:2849:U:H4'	4:RA:2868:A:C2	2.40	0.56
18:RT:28:VAL:O	18:RT:46:GLU:HA	2.05	0.56
3:QY:138:GLY:O	3:QY:142:GLN:HG3	2.04	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:QY:217:PHE:N	3:QY:217:PHE:CD1	2.74	0.56
4:YA:2223:G:OP1	6:YD:172:TYR:OH	2.20	0.56
6:YD:142:VAL:HG23	6:YD:193:VAL:HA	1.87	0.56
15:YQ:92:GLY:C	15:YQ:93:TYR:HD1	2.14	0.56
31:Y6:9:LEU:HD22	31:Y6:51:GLU:OE2	2.06	0.56
35:XA:769:G:H4'	35:XA:1513:A:H4'	1.88	0.56
38:XD:8:VAL:HG22	38:XD:21:LEU:HD13	1.87	0.56
36:QB:55:PHE:HB3	36:QB:221:LEU:HD11	1.86	0.56
4:RA:590:A:H2'	4:RA:591:C:C6	2.39	0.56
4:RA:1035:U:OP1	10:RH:59:ARG:NH2	2.38	0.56
4:RA:1786:A:H1'	4:RA:1938:A:N6	2.20	0.56
4:RA:2748:A:H5'	10:RH:4:ILE:HD12	1.87	0.56
3:QY:213:ARG:HH22	3:QY:327:VAL:HG23	1.70	0.56
8:YF:99:TYR:N	8:YF:99:TYR:CD1	2.72	0.56
43:XI:21:PRO:HA	43:XI:59:PHE:HA	1.88	0.56
35:QA:600:C:H2'	35:QA:601:C:C6	2.40	0.56
50:QP:34:GLU:OE2	50:QP:55:ARG:NH2	2.38	0.56
4:RA:2180:U:H2'	4:RA:2181:G:C8	2.41	0.56
11:RI:92:VAL:HG13	11:RI:120:ILE:HB	1.88	0.56
16:RR:55:ALA:CB	16:RR:79:LEU:HD22	2.36	0.56
3:QY:325:SER:O	3:QY:333:ILE:HA	2.05	0.56
4:YA:414:C:H2'	4:YA:415:A:C8	2.40	0.56
4:YA:581:C:H2'	4:YA:582:G:C8	2.41	0.56
4:YA:1188:U:H4'	20:YV:79:VAL:HG22	1.87	0.56
35:XA:718:G:C4	45:XK:116:HIS:CD2	2.94	0.56
35:QA:1316:G:N1	35:QA:1319:A:OP2	2.38	0.56
4:RA:78:A:H2'	4:RA:79:G:C8	2.41	0.56
4:RA:2336:A:H61	25:R0:43:THR:HG22	1.70	0.56
4:RA:2649:U:H2'	4:RA:2650:U:H6	1.70	0.56
11:RI:54:GLN:HA	11:RI:57:ARG:HG2	1.87	0.56
3:XY:18:SER:O	3:XY:22:ARG:HG3	2.06	0.56
4:YA:590:A:H2'	4:YA:591:C:C6	2.41	0.56
4:YA:1378:A:OP1	32:Y7:10:ARG:NH2	2.39	0.56
25:Y0:11:ARG:O	25:Y0:14:ARG:NH2	2.39	0.56
35:XA:390:C:H2'	35:XA:391:G:C8	2.41	0.56
43:XI:53:VAL:C	43:XI:55:ALA:H	2.12	0.56
35:QA:164:U:H2'	35:QA:165:C:H6	1.70	0.56
40:QF:62:TRP:C	40:QF:63:TYR:HD1	2.14	0.56
44:QJ:45:ARG:NH1	48:QN:36:PHE:HD2	2.03	0.56
47:QM:32:GLU:HG2	47:QM:64:TRP:HZ2	1.71	0.56
4:RA:589:C:H2'	4:RA:590:A:C8	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:1497:U:H5"	4:RA:1498:C:H5	1.71	0.56
9:RG:50:ALA:C	9:RG:52:ILE:H	2.14	0.56
3:XY:34:LEU:HD11	3:XY:60:ARG:HG3	1.87	0.56
3:XY:244:TYR:HD1	3:XY:244:TYR:H	1.52	0.56
4:YA:305:U:H2'	4:YA:306:U:C6	2.40	0.56
4:YA:2115:G:H21	4:YA:2171:A:H61	1.54	0.56
6:YD:148:GLU:HB2	6:YD:151:LYS:HD2	1.87	0.56
18:YT:91:ARG:HD2	18:YT:120:ARG:NH1	2.21	0.56
23:YY:23:ARG:HH11	23:YY:23:ARG:HB2	1.71	0.56
35:XA:689:C:OP1	45:XK:27:ASN:ND2	2.35	0.56
35:XA:1410:G:H2'	35:XA:1411:C:C6	2.40	0.56
36:XB:178:ARG:NH1	36:XB:198:ASP:OD1	2.39	0.56
37:XC:121:ALA:O	37:XC:125:GLU:HG3	2.06	0.56
39:XE:141:GLN:HA	39:XE:143:ARG:HH21	1.71	0.56
35:QA:922:G:H2'	35:QA:923:A:C8	2.41	0.56
4:RA:1316:U:H2'	4:RA:1317:A:H8	1.71	0.56
4:RA:1379:A:H4'	4:RA:1380:G:OP2	2.05	0.56
18:RT:28:VAL:HG13	18:RT:86:ILE:HG23	1.88	0.56
24:RZ:25:PRO:O	24:RZ:85:HIS:HA	2.05	0.56
3:XY:136:SER:HA	35:XA:1493:A:H1'	1.88	0.56
4:YA:2099:U:H3	4:YA:2190:G:H1	1.54	0.56
4:YA:2334:G:H5'	17:YS:9:ARG:HG2	1.88	0.56
26:Y1:51:VAL:HG11	26:Y1:74:VAL:HG21	1.88	0.56
35:XA:57:G:H2'	35:XA:58:C:C6	2.41	0.56
36:XB:16:HIS:O	36:XB:18:GLY:N	2.39	0.56
35:QA:186:C:H2'	35:QA:187:C:H6	1.70	0.56
35:QA:945:G:C2	35:QA:946:A:C8	2.94	0.56
38:QD:81:GLU:OE2	38:QD:139:ARG:NH2	2.31	0.56
4:RA:674:G:H1'	8:RF:74:ARG:HD3	1.87	0.56
4:RA:1429:G:H2'	4:RA:1430:C:C6	2.41	0.56
4:RA:2128:C:H5'	4:RA:2129:C:OP2	2.06	0.56
4:RA:2206:G:H5"	4:RA:2207:G:C8	2.41	0.56
13:RO:36:GLY:HA3	13:RO:109:LYS:HD2	1.88	0.56
29:R4:53:GLU:HG3	29:R4:55:ARG:H	1.71	0.56
3:QY:115:PHE:HB3	3:QY:119:PHE:HD2	1.69	0.55
4:YA:1165:U:H2'	4:YA:1166:C:H6	1.70	0.55
4:YA:2065:C:H2'	4:YA:2066:C:H6	1.71	0.55
35:QA:1104:G:H4'	36:QB:111:ARG:NH1	2.21	0.55
35:QA:1255:G:P	44:QJ:45:ARG:NH2	2.79	0.55
4:RA:285:C:H2'	4:RA:286:C:H6	1.71	0.55
4:RA:652(U):C:H2'	4:RA:652(V):G:C8	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:904:C:H2'	4:RA:905:U:C6	2.42	0.55
8:RF:99:TYR:N	8:RF:99:TYR:CD1	2.72	0.55
14:RP:90:ARG:NH1	14:RP:105:LEU:HD11	2.22	0.55
4:YA:2180:U:H2'	4:YA:2181:G:C8	2.40	0.55
24:YZ:157:LEU:HD11	24:YZ:163:LEU:HB2	1.88	0.55
39:XE:33:VAL:HG13	39:XE:112:LEU:HD12	1.87	0.55
35:QA:123:C:OP1	35:QA:311:C:O2'	2.23	0.55
40:QF:75:LEU:HD22	40:QF:79:LEU:HG	1.88	0.55
42:QH:33:GLU:HG2	42:QH:48:TYR:HE2	1.71	0.55
4:RA:582:G:H2'	4:RA:583:G:H8	1.70	0.55
4:RA:1864:U:OP1	4:RA:2410:G:O2'	2.19	0.55
18:RT:24:PRO:HD3	18:RT:52:ILE:HD12	1.87	0.55
3:XY:315:SER:OG	4:YA:1914:C:N4	2.39	0.55
4:YA:1593:G:H2'	4:YA:1594:G:C8	2.42	0.55
6:YD:177:LEU:HD11	6:YD:183:ARG:HD3	1.87	0.55
9:YG:117:PHE:CD1	9:YG:117:PHE:C	2.84	0.55
35:QA:335:C:H2'	35:QA:336:C:C6	2.42	0.55
35:QA:1117:G:H5"	43:QI:104:ARG:HH12	1.70	0.55
39:QE:8:GLU:OE2	39:QE:63:ARG:NH2	2.39	0.55
39:QE:33:VAL:HG21	39:QE:109:ILE:HA	1.89	0.55
50:QP:37:GLY:HA3	50:QP:50:LYS:O	2.07	0.55
6:RD:177:LEU:HD11	6:RD:183:ARG:HD3	1.88	0.55
27:R2:35:LEU:HD12	27:R2:53:LEU:HD12	1.88	0.55
1:QV:51:C:H2'	1:QV:52:G:O4'	2.07	0.55
3:XY:280:GLN:HB2	4:YA:2493:U:H4'	1.88	0.55
4:YA:234:C:H2'	4:YA:235:U:H6	1.71	0.55
4:YA:2206:G:H5"	4:YA:2207:G:C8	2.41	0.55
8:YF:24:LEU:HD23	8:YF:115:ALA:HA	1.88	0.55
17:YS:36:TYR:HD1	17:YS:36:TYR:N	2.04	0.55
18:YT:14:TYR:N	18:YT:14:TYR:CD1	2.72	0.55
21:YW:12:ILE:HD13	21:YW:17:VAL:HG13	1.88	0.55
26:Y1:2:SER:HB3	26:Y1:46:LEU:HD12	1.89	0.55
33:Y8:6:THR:HG23	33:Y8:64:TYR:HD2	1.71	0.55
43:XI:42:ARG:HH12	43:XI:75:ASP:CG	2.15	0.55
35:QA:1003:G:N2	35:QA:1004:A:N3	2.54	0.55
4:RA:889:C:O2'	4:RA:890:A:O5'	2.24	0.55
4:RA:1688:U:O2	4:RA:1700:A:H5'	2.06	0.55
4:RA:1946:U:H2'	4:RA:1947:C:H6	1.72	0.55
4:RA:2130:U:H2'	4:RA:2158:A:H61	1.71	0.55
14:RP:98:GLU:OE1	14:RP:102:ARG:NH1	2.39	0.55
29:R4:54:GLY:O	29:R4:56:VAL:HA	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:QY:125:SER:HA	3:QY:187:TYR:HA	1.88	0.55
3:QY:141:ALA:HB2	3:QY:216:SER:HB2	1.88	0.55
3:XY:241:ILE:HG21	3:XY:284:LYS:HE2	1.88	0.55
3:XY:244:TYR:N	3:XY:244:TYR:HD1	2.04	0.55
3:XY:326:TYR:N	3:XY:326:TYR:HD1	2.04	0.55
24:YZ:125:LEU:HB3	24:YZ:165:VAL:HG13	1.89	0.55
29:Y4:24:THR:C	29:Y4:25:TYR:HD1	2.14	0.55
35:XA:35:G:O2'	46:XL:118:SER:O	2.25	0.55
36:XB:77:ALA:HB2	36:XB:211:ILE:HD13	1.89	0.55
45:XK:18:ARG:HB2	45:XK:33:THR:OG1	2.07	0.55
44:QJ:44:VAL:HG22	44:QJ:66:ARG:HE	1.70	0.55
4:RA:1406:U:H2'	4:RA:1407:C:C6	2.41	0.55
4:RA:2685:G:H5'	13:RO:68:GLU:OE2	2.07	0.55
3:QY:84:LEU:HD22	3:QY:96:PHE:CD1	2.42	0.55
1:XV:53:G:O6	1:XV:62:C:N4	2.39	0.55
4:YA:265:A:N1	4:YA:427:U:O2'	2.35	0.55
4:YA:1062:G:N7	4:YA:1070:A:H1'	2.22	0.55
15:YQ:59:ARG:NH1	15:YQ:60:ARG:HH11	2.04	0.55
35:XA:555:C:H2'	35:XA:556:C:C6	2.41	0.55
35:XA:1005:A:H5"	35:XA:1006:C:C6	2.41	0.55
35:QA:1068:G:OP2	35:QA:1068:G:H8	1.90	0.55
36:QB:23:ARG:O	36:QB:23:ARG:HG2	2.07	0.55
36:QB:109:SER:C	36:QB:111:ARG:H	2.15	0.55
4:RA:305:U:H2'	4:RA:306:U:C6	2.41	0.55
4:YA:247:G:H4'	4:YA:386:G:C5	2.42	0.55
4:YA:2103:C:C4	4:YA:2104:G:N2	2.75	0.55
17:YS:94:TYR:HD1	17:YS:94:TYR:C	2.15	0.55
35:XA:500:G:H2'	35:XA:501:C:C6	2.42	0.55
35:XA:743:U:H2'	35:XA:744:C:C6	2.42	0.55
54:XT:56:MET:HE1	54:XT:85:MET:HG2	1.89	0.55
35:QA:745:C:H2'	35:QA:746:A:C8	2.42	0.55
37:QC:3:ASN:N	37:QC:3:ASN:OD1	2.39	0.55
44:QJ:84:GLN:HG2	44:QJ:85:LEU:N	2.21	0.55
46:QL:120:TYR:N	46:QL:120:TYR:HD1	2.04	0.55
53:QS:45:VAL:HG21	29:R4:59:PHE:CZ	2.41	0.55
53:QS:74:PHE:N	53:QS:74:PHE:CD1	2.75	0.55
4:RA:127:A:H5"	4:RA:128:C:C6	2.42	0.55
4:RA:272(E):U:H2'	4:RA:272(F):C:C6	2.41	0.55
4:RA:1842:G:H2'	4:RA:1843:C:C6	2.41	0.55
4:RA:2304:G:N2	4:RA:2312:U:H3	2.02	0.55
7:RE:37:ARG:O	7:RE:45:THR:HA	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:RS:5:THR:OG1	17:RS:8:GLU:HG3	2.07	0.55
29:R4:13:ARG:HD3	29:R4:15:ILE:HD11	1.87	0.55
3:QY:265:HIS:CD2	3:QY:267:PRO:HD2	2.42	0.55
4:YA:1406:U:H2'	4:YA:1407:C:C6	2.42	0.55
4:YA:1588:C:H2'	4:YA:1589:C:C6	2.42	0.55
4:YA:1709:U:H2'	4:YA:1710:C:H6	1.71	0.55
4:YA:1842:G:H2'	4:YA:1843:C:C6	2.42	0.55
35:QA:411:A:OP2	38:QD:25:ARG:NH2	2.40	0.55
35:QA:1024:G:H2'	35:QA:1025:U:H5"	1.88	0.55
36:QB:167:PRO:HG3	36:QB:186:ALA:HB1	1.87	0.55
43:QI:88:TYR:C	43:QI:88:TYR:CD1	2.85	0.55
8:RF:107:LYS:HG3	8:RF:206:ILE:HA	1.88	0.55
17:RS:59:LYS:HG3	17:RS:60:GLY:N	2.18	0.55
3:QY:22:ARG:HG2	3:QY:70:LEU:HD13	1.89	0.55
4:YA:322:A:OP1	8:YF:168:ARG:HD2	2.07	0.55
4:YA:1250:G:N7	14:YP:18:ARG:NH2	2.53	0.55
4:YA:2455:G:H2'	4:YA:2456:C:C6	2.42	0.55
8:YF:152:GLU:HG2	8:YF:190:GLU:OE1	2.06	0.55
22:YX:12:VAL:HG22	22:YX:29:TRP:CE2	2.41	0.55
25:Y0:70:GLN:NE2	25:Y0:80:HIS:HE2	2.05	0.55
35:XA:922:G:H4'	39:XE:20:GLN:HA	1.87	0.55
42:XH:65:TYR:N	42:XH:65:TYR:CD1	2.75	0.55
35:QA:1143:G:H2'	35:QA:1144:G:C8	2.42	0.55
36:QB:109:SER:O	36:QB:112:VAL:HG22	2.07	0.55
37:QC:58:GLU:HB3	44:QJ:92:THR:HG21	1.89	0.55
40:QF:61:LEU:HD23	40:QF:63:TYR:OH	2.07	0.55
43:QI:16:ARG:HH11	43:QI:64:THR:HG21	1.71	0.55
46:QL:42:THR:HA	46:QL:53:ARG:O	2.07	0.55
4:RA:2319:G:H22	17:RS:3:ARG:HD2	1.71	0.55
8:RF:64:ILE:HG21	8:RF:78:ILE:HG23	1.89	0.55
23:RY:5:MET:HE1	23:RY:35:TYR:HA	1.88	0.55
24:RZ:7:ALA:C	24:RZ:8:TYR:HD1	2.15	0.55
4:YA:1796:U:H2'	4:YA:1797:C:H6	1.71	0.55
4:YA:2127:G:H2'	4:YA:2128:C:O4'	2.07	0.55
4:YA:2441:C:OP2	4:YA:2586:C:O2'	2.25	0.55
35:XA:269:C:H2'	35:XA:270:A:C8	2.42	0.55
35:XA:537:G:H5"	46:XL:113:ARG:HH12	1.71	0.55
36:XB:77:ALA:HA	36:XB:80:ILE:HG22	1.89	0.55
35:QA:376:G:H5"	50:QP:5:ARG:HD2	1.89	0.55
35:QA:629:G:H2'	35:QA:630:G:O4'	2.08	0.55
4:RA:30:G:H2'	4:RA:31:C:C6	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:414:C:H2'	4:RA:415:A:C8	2.42	0.55
3:QY:340:VAL:HG12	3:QY:341:GLU:H	1.72	0.54
4:YA:93:G:H2'	4:YA:94(A):C:C6	2.41	0.54
4:YA:2233:U:H2'	4:YA:2234:G:C8	2.42	0.54
4:YA:2304:G:N2	4:YA:2312:U:H3	1.95	0.54
17:YS:67:ARG:HG3	17:YS:100:ALA:HB1	1.88	0.54
21:YW:86:LEU:HD22	21:YW:96:ILE:HD11	1.89	0.54
35:XA:411:A:OP2	38:XD:25:ARG:NH2	2.39	0.54
35:XA:678:U:H2'	35:XA:679:C:C6	2.42	0.54
35:XA:1117:G:H4'	43:XI:104:ARG:NH1	2.22	0.54
35:XA:1285:A:H4'	35:XA:1286:A:H5'	1.88	0.54
38:XD:133:VAL:HG11	38:XD:138:TYR:CD2	2.42	0.54
45:XK:81:ASP:OD1	45:XK:106:LYS:HB2	2.07	0.54
35:QA:176:C:H2'	35:QA:177:C:H6	1.72	0.54
38:QD:173:TRP:CD2	38:QD:189:PRO:HG3	2.43	0.54
40:QF:1:MET:HE3	40:QF:66:GLU:HB3	1.89	0.54
11:RI:85:GLU:HA	11:RI:85:GLU:OE1	2.06	0.54
1:QV:53:G:H4'	1:QV:54:U:OP1	2.07	0.54
3:QY:256:ARG:NH1	4:RA:2573:C:C2	2.68	0.54
1:XV:51:C:H2'	1:XV:52:G:C8	2.42	0.54
13:YO:68:GLU:OE1	13:YO:68:GLU:N	2.34	0.54
24:YZ:3:TYR:N	24:YZ:3:TYR:CD1	2.75	0.54
35:XA:714:G:H2'	35:XA:715:A:C8	2.43	0.54
35:XA:1002:G:N3	35:XA:1003:G:C8	2.76	0.54
35:XA:1346:A:C4	41:XG:10:ARG:NH2	2.71	0.54
36:XB:84:GLU:HB3	36:XB:219:VAL:HG21	1.89	0.54
38:XD:98:GLU:HA	38:XD:103:ASN:ND2	2.21	0.54
35:QA:17:U:H2'	35:QA:18:C:H6	1.71	0.54
37:QC:29:TYR:CD2	48:QN:36:PHE:CE1	2.95	0.54
41:QG:113:GLU:HG2	41:QG:119:ARG:HG2	1.88	0.54
51:QQ:70:ARG:C	51:QQ:71:PHE:HD1	2.15	0.54
4:RA:658:C:H2'	4:RA:659:C:C6	2.41	0.54
8:RF:18:ARG:HG2	8:RF:19:GLU:N	2.22	0.54
13:RO:79:PHE:CD1	13:RO:79:PHE:N	2.76	0.54
14:RP:83:VAL:HG12	14:RP:112:LEU:HD21	1.89	0.54
15:RQ:69:PHE:HD1	15:RQ:69:PHE:C	2.15	0.54
17:RS:36:TYR:N	17:RS:36:TYR:HD1	2.04	0.54
3:XY:191:TRP:HE3	3:XY:357:ILE:HG21	1.72	0.54
3:XY:217:PHE:N	3:XY:217:PHE:CD1	2.74	0.54
3:XY:311:GLU:HA	3:XY:314:LYS:CD	2.38	0.54
4:YA:560:C:H5'	19:YU:52:ARG:HH21	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:904:C:H2'	4:YA:905:U:H6	1.71	0.54
4:YA:923:C:H2'	4:YA:924:C:C6	2.43	0.54
9:YG:11:TYR:HD2	9:YG:12:TYR:CE1	2.25	0.54
17:YS:25:ARG:HD2	17:YS:42:ASP:OD2	2.07	0.54
24:YZ:156:LYS:HG3	24:YZ:156:LYS:O	2.07	0.54
29:Y4:46:GLN:N	29:Y4:46:GLN:OE1	2.40	0.54
36:XB:181:PHE:N	36:XB:181:PHE:CD1	2.76	0.54
43:XI:88:TYR:C	43:XI:88:TYR:CD1	2.83	0.54
35:QA:328:C:H4'	35:QA:329:A:H5'	1.89	0.54
35:QA:1148:U:H2'	35:QA:1149:C:O4'	2.07	0.54
43:QI:58:HIS:C	43:QI:59:PHE:HD1	2.15	0.54
4:RA:918:A:H5"	5:RB:98:G:O2'	2.07	0.54
9:RG:3:LEU:HD22	29:R4:25:TYR:CE2	2.43	0.54
17:RS:87:PHE:CD1	17:RS:112:PHE:HE2	2.25	0.54
18:RT:68:TYR:N	18:RT:68:TYR:CD1	2.74	0.54
24:RZ:185:GLU:HG3	24:RZ:186:GLU:N	2.23	0.54
26:R1:51:VAL:HG11	26:R1:74:VAL:HG21	1.88	0.54
34:R9:35:ARG:HG2	34:R9:36:GLN:N	2.21	0.54
1:QV:54:U:OP2	24:RZ:203:GLU:HB2	2.07	0.54
3:QY:256:ARG:NH1	4:RA:2573:C:N3	2.55	0.54
4:YA:484:C:H2'	4:YA:485:C:H6	1.73	0.54
4:YA:1588:C:H2'	4:YA:1589:C:H6	1.72	0.54
8:YF:132:VAL:HG21	8:YF:163:VAL:HG22	1.89	0.54
15:YQ:57:HIS:CE1	15:YQ:116:GLU:HB3	2.35	0.54
18:YT:61:PHE:CD1	18:YT:61:PHE:N	2.74	0.54
35:XA:945:G:C2	35:XA:946:A:C8	2.95	0.54
35:QA:946:A:H2'	35:QA:947:G:H8	1.71	0.54
9:RG:114:ILE:HG12	9:RG:140:ILE:HG12	1.89	0.54
17:RS:87:PHE:HD1	17:RS:112:PHE:HE2	1.56	0.54
24:RZ:3:TYR:N	24:RZ:3:TYR:CD1	2.76	0.54
34:R9:22:ARG:HB2	34:R9:24:TYR:HE1	1.73	0.54
2:XX:22:C:H41	3:XY:210:GLY:HA3	1.72	0.54
4:YA:796:C:H2'	4:YA:797:C:C6	2.43	0.54
6:YD:84:TYR:HD1	6:YD:85:ASP:N	2.05	0.54
27:Y2:4:SER:HA	27:Y2:7:ARG:NH1	2.23	0.54
35:XA:176:C:H2'	35:XA:177:C:H6	1.73	0.54
35:XA:1148:U:O2'	43:XI:66:ARG:NH1	2.35	0.54
36:XB:105:PHE:C	36:XB:105:PHE:HD1	2.16	0.54
37:XC:54:ARG:HH11	37:XC:54:ARG:HG3	1.72	0.54
41:QG:79:ARG:HA	41:QG:84:ASN:HA	1.88	0.54
46:QL:71:PRO:O	46:QL:102:ARG:NH1	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:QM:14:ARG:NE	47:QM:42:ALA:HA	2.23	0.54
53:QS:45:VAL:HG21	29:R4:59:PHE:HZ	1.73	0.54
4:RA:652(C):A:H61	4:RA:655:A:H1'	1.72	0.54
4:RA:657:U:H2'	4:RA:658:C:H6	1.72	0.54
4:RA:2321:G:O2'	4:RA:2322:A:OP1	2.21	0.54
6:RD:269:PHE:N	6:RD:269:PHE:CD1	2.75	0.54
11:RI:77:LEU:HD12	11:RI:101:LEU:HG	1.89	0.54
34:R9:16:VAL:HG22	34:R9:25:VAL:HG22	1.88	0.54
4:YA:2727:G:O2'	13:YO:70:LYS:NZ	2.41	0.54
8:YF:184:TYR:CE2	8:YF:188:ARG:HD2	2.43	0.54
13:YO:79:PHE:N	13:YO:79:PHE:CD1	2.76	0.54
21:YW:11:ARG:HH21	21:YW:98:LYS:HA	1.72	0.54
29:Y4:1:MET:HE2	29:Y4:6:HIS:CD2	2.43	0.54
35:XA:116:A:H61	35:XA:313:A:H1'	1.72	0.54
36:XB:82:ARG:HB2	36:XB:94:ASN:ND2	2.22	0.54
4:RA:2134:A:N6	4:RA:2156:G:O2'	2.41	0.54
4:RA:2469:A:O2'	15:RQ:56:ARG:NH1	2.40	0.54
4:RA:2649:U:H2'	4:RA:2650:U:C6	2.43	0.54
10:RH:3:ARG:HE	10:RH:5:GLY:H	1.56	0.54
23:RY:86:ARG:O	23:RY:97:ARG:HA	2.08	0.54
3:QY:223:TYR:N	3:QY:223:TYR:CD1	2.75	0.54
3:XY:255:ASN:O	4:YA:2507:C:H4'	2.06	0.54
4:YA:1467:C:C5	4:YA:1546:C:H2'	2.43	0.54
4:YA:1525:G:H2'	4:YA:1526:G:C8	2.42	0.54
14:YP:70:GLN:OE1	14:YP:70:GLN:N	2.41	0.54
27:Y2:4:SER:HA	27:Y2:7:ARG:HH11	1.72	0.54
53:XS:50:ALA:HA	53:XS:58:VAL:O	2.07	0.54
35:QA:189(L):U:H2'	35:QA:189(M):G:H8	1.73	0.54
35:QA:736:C:H2'	35:QA:737:A:C8	2.42	0.54
35:QA:811:C:O2'	35:QA:901:A:N1	2.39	0.54
49:QO:55:GLY:HA2	49:QO:58:MET:HE3	1.89	0.54
4:RA:1429:G:H2'	4:RA:1430:C:H6	1.70	0.54
4:RA:2115:G:H21	4:RA:2171:A:H61	1.56	0.54
4:RA:2291:U:H2'	4:RA:2292:C:H6	1.71	0.54
7:RE:134:ILE:HA	7:RE:137:HIS:CD2	2.42	0.54
11:RI:77:LEU:CD1	11:RI:101:LEU:HG	2.38	0.54
15:RQ:68:ILE:HG22	15:RQ:101:ARG:HE	1.72	0.54
6:YD:260:ARG:NH2	6:YD:270:ILE:HD12	2.22	0.54
35:XA:189(A):G:H2'	35:XA:189(B):C:C6	2.43	0.54
35:XA:340:U:H2'	35:XA:341:C:H6	1.73	0.54
35:XA:1118:C:H1'	35:XA:1179:A:C4	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:XP:71:ARG:CG	50:XP:71:ARG:NH1	2.70	0.54
52:XR:47:THR:HG23	52:XR:49:LYS:HG3	1.89	0.54
35:QA:646:U:H2'	35:QA:647:C:C6	2.43	0.54
4:RA:8:A:H2'	4:RA:9:U:C6	2.42	0.54
4:RA:265:A:N1	4:RA:427:U:O2'	2.39	0.54
4:RA:458:G:O2'	4:RA:469:G:O6	2.26	0.54
11:RI:54:GLN:HG3	11:RI:57:ARG:HH11	1.72	0.54
3:XY:25:LEU:O	3:XY:30:LYS:NZ	2.34	0.54
4:YA:2591:C:H2'	4:YA:2592:G:H8	1.71	0.54
24:YZ:126:VAL:CG1	24:YZ:161:VAL:HG13	2.38	0.54
29:Y4:42:PHE:HD2	29:Y4:43:TYR:CD1	2.26	0.54
35:XA:41:G:H2'	35:XA:42:G:H8	1.73	0.54
35:QA:454:C:OP1	50:QP:75:ARG:NH2	2.41	0.54
36:QB:76:GLN:HE21	36:QB:206:ASP:HA	1.73	0.54
37:QC:148:GLY:HA3	37:QC:172:ARG:O	2.08	0.54
53:QS:64:GLU:HG3	29:R4:59:PHE:CE1	2.42	0.54
4:RA:1816:G:O6	6:RD:35:LYS:NZ	2.31	0.54
4:RA:2223:G:OP1	6:RD:172:TYR:OH	2.23	0.54
14:RP:63:PRO:HD3	33:R8:27:THR:HG22	1.89	0.54
24:RZ:126:VAL:CG1	24:RZ:161:VAL:HG23	2.38	0.54
3:XY:278:ARG:HG2	4:YA:2602:A:C5	2.43	0.54
3:XY:322:GLN:NE2	35:XA:519:C:O5'	2.41	0.54
4:YA:2291:U:H2'	4:YA:2292:C:H6	1.73	0.54
26:Y1:76:ARG:HH22	26:Y1:97:LEU:HB3	1.73	0.54
35:XA:189(A):G:H2'	35:XA:189(B):C:H6	1.72	0.54
35:XA:404:U:H2'	35:XA:405:U:H6	1.73	0.54
35:XA:429:U:H3'	38:XD:9:CYS:SG	2.48	0.54
35:XA:1286:A:H2'	35:XA:1287:A:H4'	1.90	0.54
36:XB:9:GLU:C	36:XB:11:LEU:H	2.14	0.54
36:XB:105:PHE:CE1	36:XB:109:SER:HB3	2.43	0.54
36:XB:124:SER:HB2	36:XB:125:PRO:HD3	1.90	0.54
35:QA:555:C:H2'	35:QA:556:C:C6	2.42	0.54
35:QA:1038:C:H2'	35:QA:1039:C:H6	1.73	0.54
35:QA:1124:G:N2	35:QA:1125:U:O4	2.40	0.54
38:QD:138:TYR:HD1	38:QD:139:ARG:N	2.06	0.54
55:QU:18:TYR:CE2	55:QU:24:ARG:HB3	2.43	0.54
4:RA:1000:A:H2'	4:RA:1001:A:C8	2.43	0.54
4:RA:1188:U:H4'	20:RV:79:VAL:HG22	1.90	0.54
9:RG:3:LEU:HD22	29:R4:25:TYR:HE2	1.72	0.54
19:RU:104:GLN:H	19:RU:104:GLN:CD	2.16	0.54
23:RY:92:ASN:N	23:RY:93:GLY:HA2	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:R4:64:GLY:O	29:R4:67:TYR:HE1	1.91	0.54
3:QY:325:SER:C	3:QY:326:TYR:HD1	2.16	0.53
4:YA:184:C:H2'	4:YA:185:U:C6	2.43	0.53
4:YA:2119:A:H61	4:YA:2168:G:H21	1.55	0.53
8:YF:179:GLU:O	8:YF:205:ARG:NH2	2.40	0.53
11:YI:72:LEU:O	11:YI:75:LEU:HB3	2.08	0.53
35:XA:192:U:O2'	54:XT:60:GLU:OE2	2.19	0.53
36:XB:8:LYS:HD2	36:XB:51:LEU:HB3	1.91	0.53
38:XD:18:LYS:HG2	38:XD:20:TYR:CE1	2.43	0.53
41:XG:114:ARG:HB2	41:XG:115:ARG:HH21	1.72	0.53
44:XJ:25:GLU:O	44:XJ:29:ARG:HG2	2.08	0.53
35:QA:192:U:O2'	54:QT:60:GLU:OE2	2.18	0.53
35:QA:769:G:H4'	35:QA:1513:A:H4'	1.90	0.53
38:QD:27:TYR:N	38:QD:27:TYR:HD1	2.06	0.53
39:QE:87:SER:HB3	39:QE:131:ILE:HD13	1.90	0.53
52:QR:47:THR:HG23	52:QR:49:LYS:HG3	1.90	0.53
4:RA:760:G:H2'	4:RA:761:A:O4'	2.08	0.53
12:RN:47:ALA:HB3	12:RN:115:ARG:HH21	1.73	0.53
19:RU:108:GLU:HG2	20:RV:45:THR:HG21	1.91	0.53
3:QY:117:ARG:NH1	3:QY:358:GLU:O	2.39	0.53
3:XY:166:ILE:HD11	3:XY:182:LYS:HE3	1.90	0.53
4:YA:65:C:H2'	4:YA:66:C:H6	1.73	0.53
4:YA:856:C:H2'	4:YA:857:C:H6	1.73	0.53
4:YA:1652:A:N6	16:YR:11:ASN:OD1	2.39	0.53
4:YA:2650:U:H2'	4:YA:2651:C:H6	1.72	0.53
4:YA:2747:G:O6	4:YA:2755:C:H5"	2.09	0.53
31:Y6:13:CYS:SG	31:Y6:47:THR:HG21	2.47	0.53
35:XA:406:G:O2'	38:XD:3:ARG:NH2	2.41	0.53
38:XD:163:GLU:O	38:XD:166:LYS:HG2	2.08	0.53
41:XG:111:ARG:HD3	41:XG:113:GLU:OE2	2.08	0.53
35:QA:73:G:H1	35:QA:96:U:H3	1.56	0.53
45:QK:109:VAL:HG23	52:QR:85:LEU:O	2.08	0.53
4:RA:1503:U:H2'	4:RA:1504:C:C6	2.43	0.53
4:RA:1657:C:H2'	4:RA:1658:C:C6	2.44	0.53
4:RA:2119:A:H61	4:RA:2168:G:H21	1.56	0.53
9:RG:108:ASN:HA	29:R4:37:SER:HB3	1.89	0.53
10:RH:41:MET:HE2	10:RH:65:HIS:HA	1.90	0.53
3:QY:217:PHE:N	3:QY:217:PHE:HD1	2.05	0.53
4:YA:657:U:H2'	4:YA:658:C:H6	1.73	0.53
4:YA:2315:G:H2'	4:YA:2316:C:C6	2.43	0.53
8:YF:165:ARG:HG2	8:YF:168:ARG:HH21	1.72	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:Y1:50:ARG:HD2	26:Y1:57:GLU:OE2	2.08	0.53
27:Y2:12:GLU:HA	27:Y2:15:LYS:NZ	2.24	0.53
35:XA:1258:G:H2'	35:XA:1259:C:C6	2.44	0.53
35:XA:1314:C:OP2	53:XS:4:SER:OG	2.14	0.53
43:XI:8:GLY:HA3	43:XI:76:ALA:O	2.09	0.53
35:QA:1304:G:OP1	55:QU:2:GLY:N	2.41	0.53
38:QD:60:GLU:HG3	38:QD:202:LEU:HD12	1.90	0.53
45:QK:27:ASN:OD1	45:QK:28:THR:N	2.40	0.53
48:QN:36:PHE:CD1	48:QN:36:PHE:C	2.86	0.53
48:QN:48:ALA:HB2	48:QN:53:LEU:HD12	1.91	0.53
4:RA:579:G:H2'	4:RA:580:C:C6	2.43	0.53
4:RA:2127:G:H2'	4:RA:2128:C:O4'	2.08	0.53
8:RF:101:LEU:O	8:RF:106:ARG:NH1	2.33	0.53
17:RS:35:ILE:C	17:RS:36:TYR:HD1	2.16	0.53
4:YA:924:C:H2'	4:YA:925:C:C6	2.44	0.53
4:YA:997:G:OP1	19:YU:92:ARG:HG3	2.08	0.53
4:YA:2364:C:OP1	25:Y0:55:ARG:NH1	2.40	0.53
18:YT:53:ARG:HH11	18:YT:53:ARG:CB	2.21	0.53
35:XA:452:A:N3	50:XP:72:ARG:NH1	2.56	0.53
35:XA:919:A:O2'	35:XA:1080:A:N1	2.33	0.53
43:XI:99:LEU:HB3	43:XI:101:PHE:HE1	1.72	0.53
54:XT:57:ARG:HH12	54:XT:100:ILE:HB	1.72	0.53
35:QA:434:U:H2'	35:QA:435:C:C6	2.42	0.53
35:QA:750:G:O2'	49:QO:22:THR:O	2.23	0.53
35:QA:1124:G:H5'	44:QJ:38:ILE:HG22	1.89	0.53
36:QB:76:GLN:NE2	36:QB:206:ASP:CA	2.71	0.53
43:QI:33:PHE:CD1	43:QI:37:PHE:HD2	2.26	0.53
47:QM:3:ARG:HG3	47:QM:4:ILE:HG22	1.90	0.53
51:QQ:86:GLU:O	51:QQ:90:ILE:HG12	2.07	0.53
4:YA:272(A):A:H8	4:YA:272(B):C:C6	2.27	0.53
4:YA:652(U):C:H2'	4:YA:652(V):G:C8	2.44	0.53
9:YG:97:ASP:HA	9:YG:100:TRP:HD1	1.74	0.53
35:XA:1025:U:H3	35:XA:1036:G:H1	1.55	0.53
45:XK:115:PRO:C	45:XK:117:ASN:HA	2.33	0.53
53:XS:22:LEU:O	53:XS:26:GLY:N	2.41	0.53
35:QA:407:G:H2'	35:QA:408:A:H8	1.72	0.53
46:QL:120:TYR:N	46:QL:120:TYR:CD1	2.77	0.53
47:QM:11:ARG:C	47:QM:13:LYS:H	2.17	0.53
4:RA:1064:C:N4	4:RA:1065:U:C2	2.76	0.53
15:RQ:65:PHE:CD1	15:RQ:65:PHE:N	2.77	0.53
18:RT:101:PHE:HD2	18:RT:102:ILE:N	2.05	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:XX:14:A:H61	41:XG:82:GLY:HA3	1.74	0.53
4:YA:1265:A:H3'	30:Y5:19:ARG:NH1	2.23	0.53
18:YT:60:THR:HG22	18:YT:77:PRO:HA	1.89	0.53
28:Y3:23:LEU:HD13	28:Y3:50:VAL:HG11	1.91	0.53
35:XA:299:G:H2'	35:XA:300:A:C8	2.43	0.53
41:XG:15:ASP:OD1	41:XG:20:ASP:N	2.32	0.53
53:XS:30:LEU:HD11	53:XS:50:ALA:HB2	1.90	0.53
35:QA:1326:C:OP1	55:QU:12:LYS:NZ	2.41	0.53
38:QD:140:VAL:HG11	38:QD:146:ILE:HD11	1.89	0.53
5:RB:91:C:OP1	15:RQ:16:ARG:HG3	2.08	0.53
23:RY:6:HIS:ND1	23:RY:7:VAL:HG23	2.24	0.53
3:XY:265:HIS:CD2	3:XY:267:PRO:HD2	2.44	0.53
4:YA:1587:A:H2'	4:YA:1588:C:H6	1.74	0.53
4:YA:1920:4OC:HM22	4:YA:1921:G:H5'	1.89	0.53
4:YA:2162:G:H2'	4:YA:2163:C:C6	2.44	0.53
4:YA:2327:A:H2'	4:YA:2328:A:C8	2.43	0.53
4:YA:2711:A:H5"	4:YA:2712(A):U:H5"	1.91	0.53
24:YZ:179:ASP:O	24:YZ:182:LYS:HG2	2.08	0.53
35:XA:17:U:H2'	35:XA:18:C:H6	1.68	0.53
42:XH:86:ILE:HG13	42:XH:133:LEU:HD22	1.90	0.53
44:XJ:61:GLU:OE2	48:XN:49:HIS:NE2	2.31	0.53
45:XK:62:GLN:HB2	45:XK:93:GLN:HG3	1.91	0.53
35:QA:21:G:H2'	35:QA:22:G:C8	2.44	0.53
35:QA:339:C:H2'	35:QA:340:U:H6	1.74	0.53
35:QA:1030(D):G:H2'	35:QA:1030(E):A:C8	2.44	0.53
35:QA:1442(A):G:N3	35:QA:1442(A):G:H2'	2.24	0.53
38:QD:159:ARG:O	38:QD:163:GLU:HG3	2.09	0.53
39:QE:90:VAL:O	39:QE:120:THR:HA	2.09	0.53
48:QN:3:ARG:HH12	48:QN:28:GLY:HA3	1.74	0.53
4:RA:105:C:H2'	4:RA:106:C:H6	1.73	0.53
4:RA:2293:C:H2'	4:RA:2294:C:H6	1.74	0.53
18:RT:68:TYR:HD1	18:RT:68:TYR:N	2.02	0.53
2:QX:19:U:O2	3:QY:137:GLY:O	2.27	0.53
3:QY:293:ALA:O	3:QY:297:GLU:HG3	2.08	0.53
3:XY:217:PHE:CZ	3:XY:319:TRP:HA	2.44	0.53
4:YA:1430:C:H2'	4:YA:1431:U:C6	2.43	0.53
25:Y0:70:GLN:NE2	25:Y0:80:HIS:NE2	2.55	0.53
29:Y4:13:ARG:NH2	29:Y4:21:VAL:HG11	2.24	0.53
35:XA:41:G:H2'	35:XA:42:G:C8	2.44	0.53
39:XE:12:LEU:O	39:XE:30:ALA:HA	2.09	0.53
35:QA:911:U:H2'	35:QA:912:C:C6	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:QG:18:TYR:CD2	41:QG:59:LEU:HB2	2.44	0.53
43:QI:16:ARG:HD3	43:QI:64:THR:HG21	1.91	0.53
50:QP:38:TYR:N	50:QP:38:TYR:CD1	2.75	0.53
52:QR:43:PHE:N	52:QR:43:PHE:CD1	2.76	0.53
4:RA:302:C:OP2	23:RY:73:ARG:NH2	2.38	0.53
4:RA:375:C:H2'	4:RA:376:C:C6	2.44	0.53
4:RA:690:G:H2'	4:RA:691:C:C6	2.43	0.53
4:RA:796:C:H2'	4:RA:797:C:C6	2.44	0.53
4:RA:911:A:H2'	15:RQ:9:TYR:OH	2.09	0.53
4:RA:1198:U:C2	4:RA:1199:U:C5	2.96	0.53
4:RA:2165:G:H2'	4:RA:2166:G:O4'	2.09	0.53
4:RA:2168:G:H22	4:RA:2171:A:H2'	1.74	0.53
10:RH:7:LEU:HD23	10:RH:69:ARG:HH12	1.74	0.53
17:RS:36:TYR:N	17:RS:36:TYR:CD1	2.77	0.53
4:YA:2001:A:H2'	4:YA:2002:G:C8	2.44	0.53
17:YS:94:TYR:C	17:YS:94:TYR:CD1	2.87	0.53
23:YY:23:ARG:HD3	23:YY:42:VAL:HG22	1.89	0.53
35:XA:679:C:H2'	35:XA:680:C:H6	1.74	0.53
35:XA:1128:C:H1'	35:XA:1147:C:H42	1.74	0.53
35:QA:404:U:H2'	35:QA:405:U:H6	1.74	0.53
35:QA:1015:A:H2'	35:QA:1016:A:C8	2.44	0.53
35:QA:1070:U:P	39:QE:20:GLN:HE22	2.31	0.53
35:QA:1132:C:H2'	35:QA:1133:G:H8	1.73	0.53
36:QB:88:ALA:HB2	36:QB:219:VAL:HG13	1.91	0.53
44:QJ:53:PRO:HA	48:QN:41:ARG:HH21	1.74	0.53
47:QM:34:LEU:HD13	47:QM:41:PRO:HA	1.90	0.53
3:XY:162:LYS:HB2	3:XY:184:SER:HB3	1.90	0.53
4:YA:78:A:H2'	4:YA:79:G:C8	2.44	0.53
4:YA:375:C:H2'	4:YA:376:C:C6	2.44	0.53
4:YA:1067:A:H5'	4:YA:1067:A:H8	1.74	0.53
4:YA:1068:G:H3'	4:YA:1096:A:OP2	2.09	0.53
4:YA:1688:U:O2	4:YA:1700:A:H5'	2.09	0.53
4:YA:1794:U:H2'	4:YA:1795:C:H6	1.74	0.53
4:YA:2128:C:H5'	4:YA:2129:C:OP2	2.09	0.53
4:YA:2649:U:H2'	4:YA:2650:U:C6	2.44	0.53
7:YE:37:ARG:HG3	7:YE:80:GLU:OE2	2.08	0.53
13:YO:7:TYR:HE1	13:YO:20:MET:HE3	1.74	0.53
14:YP:97:PRO:HA	14:YP:112:LEU:HD12	1.91	0.53
35:XA:1298:C:C4	41:XG:114:ARG:HD3	2.43	0.53
37:XC:24:ALA:HB3	37:XC:29:TYR:HB2	1.91	0.53
39:XE:79:GLU:OE1	39:XE:79:GLU:N	2.31	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:QA:876:G:O5'	42:QH:14:ARG:NH1	2.42	0.53
35:QA:1263:C:H2'	35:QA:1264:C:C6	2.43	0.53
4:RA:919:G:N2	4:RA:2269:A:OP2	2.42	0.53
4:RA:2171:A:H4'	4:RA:2172:U:OP1	2.09	0.53
4:RA:2445:G:OP1	8:RF:74:ARG:NH2	2.42	0.53
29:R4:61:ARG:NH2	29:R4:67:TYR:OH	2.42	0.53
3:QY:96:PHE:HD1	3:QY:96:PHE:O	1.93	0.52
3:QY:326:TYR:O	3:QY:328:LEU:N	2.43	0.52
3:QY:332:ARG:HG3	3:QY:343:ARG:CD	2.40	0.52
3:XY:144:TRP:HE3	3:XY:147:MET:HE3	1.72	0.52
4:YA:589:C:H2'	4:YA:590:A:C8	2.44	0.52
4:YA:1063:G:N2	4:YA:1064:C:C5	2.77	0.52
4:YA:1316:U:H2'	4:YA:1317:A:H8	1.75	0.52
24:YZ:7:ALA:C	24:YZ:8:TYR:CD1	2.87	0.52
24:YZ:93:ASP:HB2	24:YZ:131:ARG:HH22	1.74	0.52
35:XA:45:U:H2'	35:XA:46:G:C8	2.45	0.52
35:QA:1425:U:H2'	35:QA:1426:C:C6	2.44	0.52
4:RA:586:A:N1	4:RA:809:G:O2'	2.40	0.52
4:RA:1264:G:OP1	30:R5:19:ARG:NH2	2.41	0.52
16:RR:8:ARG:HG3	16:RR:43:GLU:OE2	2.10	0.52
18:RT:39:ARG:NH1	18:RT:41:ARG:HD3	2.24	0.52
4:YA:272(P):C:H5"	11:YI:45:LYS:HD2	1.91	0.52
4:YA:307:G:N1	4:YA:310:A:OP2	2.42	0.52
4:YA:2390:U:P	33:Y8:35:GLN:HE22	2.32	0.52
8:YF:29:ASN:H	8:YF:112:MET:CE	2.18	0.52
35:XA:1151:A:O2'	35:XA:1152:A:H8	1.91	0.52
41:XG:132:GLY:O	41:XG:136:LYS:HG2	2.08	0.52
43:XI:99:LEU:HB3	43:XI:101:PHE:CE1	2.44	0.52
35:QA:728:A:H2'	35:QA:729:A:C8	2.44	0.52
36:QB:91:PRO:HG2	36:QB:155:LEU:HB2	1.91	0.52
43:QI:33:PHE:O	43:QI:33:PHE:HD1	1.92	0.52
4:RA:184:C:H2'	4:RA:185:U:H6	1.74	0.52
4:RA:871:U:H2'	4:RA:872:A:C8	2.44	0.52
9:RG:179:PRO:HB2	29:R4:42:PHE:CE2	2.39	0.52
24:RZ:136:PHE:HD1	24:RZ:136:PHE:H	1.54	0.52
3:QY:201:LEU:HD21	3:QY:203:ARG:HD3	1.92	0.52
4:YA:227:A:H5"	14:YP:76:LYS:HE2	1.91	0.52
4:YA:1791:A:H5'	6:YD:206:LEU:HD12	1.90	0.52
4:YA:1843:C:H5'	6:YD:253:GLN:OE1	2.09	0.52
4:YA:2122:U:H2'	4:YA:2123:G:C8	2.45	0.52
6:YD:132:PRO:HG3	6:YD:190:TYR:CE1	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:YH:163:TYR:CE2	10:YH:169:VAL:HG22	2.44	0.52
35:XA:109:A:C6	35:XA:326:G:C6	2.97	0.52
40:XF:30:LEU:HD23	40:XF:75:LEU:HD11	1.90	0.52
35:QA:539:A:H2'	35:QA:540:G:C8	2.44	0.52
35:QA:1216:G:OP1	48:QN:2:ALA:HA	2.08	0.52
47:QM:65:LYS:HD2	29:R4:51:ASP:CB	2.40	0.52
4:RA:150:C:H2'	4:RA:151:C:H6	1.74	0.52
4:RA:2122:U:H2'	4:RA:2123:G:C8	2.45	0.52
4:RA:2233:U:H2'	4:RA:2234:G:C8	2.45	0.52
3:XY:189:TYR:CE2	3:XY:193:ARG:HD3	2.44	0.52
17:YS:36:TYR:N	17:YS:36:TYR:CD1	2.78	0.52
24:YZ:6:LYS:HA	24:YZ:60:GLU:HB3	1.91	0.52
42:XH:65:TYR:N	42:XH:65:TYR:HD1	2.07	0.52
37:QC:87:LEU:O	37:QC:91:LEU:HB2	2.10	0.52
4:RA:284:U:H2'	4:RA:285:C:H6	1.75	0.52
4:RA:674:G:O2'	8:RF:74:ARG:HD3	2.09	0.52
4:RA:2354:G:H21	25:R0:36:ILE:HD11	1.75	0.52
10:RH:11:VAL:HG21	10:RH:50:VAL:HG23	1.91	0.52
23:RY:55:TYR:N	23:RY:55:TYR:CD1	2.78	0.52
4:YA:823:G:H2'	4:YA:824:A:H8	1.75	0.52
4:YA:1230:C:H2'	4:YA:1231:G:H8	1.75	0.52
4:YA:1497:U:H5"	4:YA:1498:C:H5	1.74	0.52
4:YA:2543:G:H2'	4:YA:2544:G:C8	2.44	0.52
10:YH:12:PRO:O	10:YH:15:VAL:HG22	2.08	0.52
35:XA:64:G:H4'	35:XA:65:U:H3'	1.90	0.52
35:XA:108:G:C6	54:XT:15:ARG:HG2	2.45	0.52
35:XA:662:G:H2'	35:XA:663:A:C8	2.44	0.52
35:XA:890:G:O2'	35:XA:906:G:O6	2.22	0.52
36:XB:17:PHE:CD1	36:XB:18:GLY:N	2.72	0.52
39:XE:12:LEU:HD12	39:XE:128:PRO:HB2	1.91	0.52
40:XF:62:TRP:C	40:XF:63:TYR:HD1	2.16	0.52
46:XL:32:PHE:N	46:XL:32:PHE:CD1	2.77	0.52
35:QA:1278:U:H5'	35:QA:1279:A:O4'	2.10	0.52
40:QF:4:TYR:N	40:QF:4:TYR:HD1	2.08	0.52
40:QF:22:GLU:OE1	40:QF:84:ASN:HB2	2.09	0.52
4:RA:1063:G:N2	4:RA:1064:C:C5	2.78	0.52
4:RA:1496:A:H2'	4:RA:1498:C:C5	2.45	0.52
33:R8:62:LEU:HB3	33:R8:65:GLU:HG2	1.91	0.52
4:YA:2122:U:H2'	4:YA:2123:G:H8	1.75	0.52
4:YA:2635:C:H4'	7:YE:48:GLN:HE21	1.75	0.52
7:YE:134:ILE:HA	7:YE:137:HIS:CD2	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:YG:11:TYR:OH	9:YG:33:ARG:HG2	2.09	0.52
16:YR:8:ARG:HG3	16:YR:43:GLU:OE2	2.09	0.52
38:XD:112:VAL:HG22	38:XD:116:GLN:OE1	2.09	0.52
42:XH:46:LYS:HG3	42:XH:64:LYS:HB2	1.92	0.52
45:XK:117:ASN:OD1	45:XK:117:ASN:N	2.42	0.52
52:QR:39:VAL:O	52:QR:42:ARG:HB2	2.09	0.52
4:RA:1164:G:H2'	4:RA:1165:U:C6	2.44	0.52
4:RA:2267:A:H5"	4:RA:2268:A:H5'	1.90	0.52
12:RN:96:GLU:HB2	12:RN:122:VAL:HG12	1.92	0.52
3:XY:325:SER:O	3:XY:333:ILE:HA	2.10	0.52
3:XY:326:TYR:N	3:XY:326:TYR:CD1	2.78	0.52
4:YA:881:G:H2'	4:YA:882:G:H8	1.74	0.52
4:YA:1936:A:OP2	4:YA:1962:5MC:N4	2.40	0.52
24:YZ:44:PHE:HE2	24:YZ:86:VAL:HG11	1.74	0.52
29:Y4:58:ARG:HG3	53:XS:64:GLU:O	2.10	0.52
35:XA:1513:A:H2'	35:XA:1514:C:H6	1.75	0.52
36:XB:126:GLU:OE1	36:XB:126:GLU:N	2.43	0.52
37:XC:119:ARG:CD	37:XC:140:ARG:HH21	2.17	0.52
47:XM:88:ARG:HG3	47:XM:98:VAL:CG1	2.39	0.52
37:QC:40:ARG:O	37:QC:44:GLU:HB2	2.08	0.52
48:QN:36:PHE:HD1	48:QN:36:PHE:C	2.18	0.52
4:RA:686:G:N2	4:RA:788:A:H61	2.08	0.52
4:RA:886:C:O2'	4:RA:889:C:N4	2.38	0.52
4:RA:922:U:H2'	4:RA:923:C:H6	1.70	0.52
20:RV:11:GLN:C	20:RV:12:TYR:CD1	2.88	0.52
22:RX:2:LYS:NZ	22:RX:38:GLU:OE2	2.36	0.52
29:R4:24:THR:C	29:R4:25:TYR:HD1	2.17	0.52
1:QV:62:C:H2'	1:QV:62:C:O2	2.10	0.52
3:QY:255:ASN:OD1	4:RA:2583:G:N2	2.38	0.52
23:YY:19:LYS:HE3	23:YY:20:TYR:HE1	1.75	0.52
24:YZ:7:ALA:C	24:YZ:8:TYR:HD1	2.17	0.52
35:XA:1239:A:H62	35:XA:1299:A:H62	1.57	0.52
39:XE:28:PHE:N	39:XE:28:PHE:CD1	2.77	0.52
51:XQ:62:SER:OG	51:XQ:72:ARG:HG3	2.09	0.52
51:XQ:70:ARG:C	51:XQ:71:PHE:HD1	2.17	0.52
35:QA:384:G:H2'	35:QA:385:C:C6	2.43	0.52
38:QD:20:TYR:N	38:QD:20:TYR:HD1	2.07	0.52
38:QD:68:TYR:N	38:QD:68:TYR:HD1	2.08	0.52
4:RA:1946:U:H2'	4:RA:1947:C:C6	2.44	0.52
4:RA:2246:G:H2'	4:RA:2247:A:H8	1.75	0.52
7:RE:119:ARG:HG3	7:RE:160:TYR:HB2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:RI:42:SER:O	11:RI:45:LYS:HB2	2.09	0.52
12:RN:42:TRP:HA	12:RN:48:MET:HE1	1.92	0.52
24:RZ:54:HIS:ND1	24:RZ:101:PRO:HG3	2.25	0.52
25:R0:60:PHE:N	25:R0:60:PHE:CD1	2.75	0.52
33:R8:14:VAL:HG13	33:R8:22:VAL:HG13	1.92	0.52
4:YA:823:G:H2'	4:YA:824:A:C8	2.44	0.52
4:YA:1057:A:N7	4:YA:1086:A:H2'	2.24	0.52
4:YA:1316:U:H2'	4:YA:1317:A:C8	2.44	0.52
4:YA:1525:G:H2'	4:YA:1526:G:H8	1.75	0.52
4:YA:2640:G:O3'	12:YN:74:ARG:NH2	2.25	0.52
4:YA:2693:A:H2'	4:YA:2694:G:H8	1.75	0.52
17:YS:7:TYR:HE1	17:YS:11:LYS:CE	2.23	0.52
35:XA:323:U:H2'	35:XA:324:G:O4'	2.10	0.52
35:XA:632:A:H5'	35:XA:633:G:OP2	2.10	0.52
35:XA:911:U:H2'	35:XA:912:C:C6	2.45	0.52
35:XA:1003:G:H3'	35:XA:1003:G:N3	2.25	0.52
36:XB:28:PHE:HE1	36:XB:31:TYR:HB2	1.72	0.52
35:QA:456:C:H2'	35:QA:457:C:C6	2.44	0.52
35:QA:715:A:H2'	35:QA:716:A:C8	2.45	0.52
35:QA:838:G:H2'	35:QA:839:U:H2'	1.92	0.52
35:QA:1007:C:C2'	35:QA:1008:C:H5'	2.40	0.52
36:QB:178:ARG:NH2	36:QB:198:ASP:OD1	2.43	0.52
46:QL:97:ARG:C	46:QL:98:TYR:CD1	2.88	0.52
4:RA:336:C:O2'	23:RY:35:TYR:OH	2.28	0.52
4:RA:1525:G:H2'	4:RA:1526:G:H8	1.75	0.52
14:RP:84:ASN:HB3	14:RP:117:GLU:O	2.09	0.52
20:RV:11:GLN:C	20:RV:12:TYR:HD1	2.18	0.52
24:RZ:8:TYR:HD1	24:RZ:8:TYR:N	2.08	0.52
31:R6:12:GLU:O	31:R6:49:HIS:HA	2.10	0.52
33:R8:31:HIS:CE1	33:R8:32:LEU:HD13	2.44	0.52
1:QV:21:A:H61	1:QV:46:G:H2'	1.73	0.52
3:QY:265:HIS:HB2	3:QY:291:MET:CE	2.40	0.52
3:XY:141:ALA:HB2	3:XY:216:SER:HB2	1.92	0.52
4:YA:93:G:H2'	4:YA:94(A):C:H6	1.74	0.52
4:YA:582:G:H2'	4:YA:583:G:C8	2.45	0.52
4:YA:848:G:H2'	4:YA:849:A:H8	1.75	0.52
4:YA:1915:5MU:H2'	4:YA:1916:A:C8	2.44	0.52
13:YO:64:ARG:NH1	18:YT:70:VAL:HG21	2.24	0.52
35:XA:1004:A:N7	35:XA:1037:C:H2'	2.25	0.52
36:XB:16:HIS:CG	36:XB:210:SER:HB3	2.45	0.52
40:XF:61:LEU:HD23	40:XF:63:TYR:OH	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:XS:41:VAL:HG22	53:XS:42:PRO:HD2	1.92	0.52
35:QA:679:C:H2'	35:QA:680:C:H6	1.74	0.52
43:QI:17:VAL:HG23	43:QI:63:ILE:HG12	1.90	0.52
53:QS:74:PHE:N	53:QS:74:PHE:HD1	2.08	0.52
4:RA:1070:A:H2'	4:RA:1071:G:C8	2.45	0.52
4:RA:1667:G:O2'	4:RA:1991:U:O4	2.24	0.52
4:RA:2206:G:H5"	4:RA:2207:G:N7	2.25	0.52
6:RD:70:TRP:HB3	6:RD:190:TYR:CE2	2.44	0.52
10:RH:103:LEU:HG	10:RH:105:LEU:HD13	1.92	0.52
11:RI:130:TYR:CE2	11:RI:132:PRO:HB3	2.45	0.52
15:RQ:55:VAL:HG12	15:RQ:64:ILE:HD12	1.92	0.52
23:RY:20:TYR:N	23:RY:20:TYR:HD1	2.08	0.52
24:RZ:7:ALA:C	24:RZ:8:TYR:CD1	2.88	0.52
33:R8:24:ALA:HB3	33:R8:48:PHE:HE1	1.75	0.52
3:XY:149:GLU:OE1	3:XY:179:VAL:HG11	2.10	0.51
4:YA:309:G:N3	4:YA:329:G:O2'	2.39	0.51
4:YA:1069:A:H2'	4:YA:1073:A:N7	2.25	0.51
4:YA:2189:U:H2'	4:YA:2190:G:C8	2.44	0.51
4:YA:2206:G:H5"	4:YA:2207:G:N7	2.25	0.51
7:YE:12:THR:HG23	18:YT:58:ASN:HD21	1.75	0.51
8:YF:165:ARG:HG2	8:YF:168:ARG:NH2	2.25	0.51
35:XA:1442(A):G:H2'	35:XA:1442(A):G:N3	2.25	0.51
36:QB:28:PHE:CD1	36:QB:31:TYR:HB2	2.46	0.51
36:QB:166:ASP:HB3	36:QB:169:LYS:HB3	1.93	0.51
38:QD:61:LYS:HD2	38:QD:207:TYR:OH	2.09	0.51
54:QT:43:LEU:O	54:QT:47:GLY:N	2.43	0.51
4:RA:588:U:H2'	4:RA:589:C:C6	2.44	0.51
4:RA:1431:U:H2'	4:RA:1432:C:C6	2.44	0.51
4:RA:2246:G:H2'	4:RA:2247:A:C8	2.44	0.51
9:RG:44:GLY:N	9:RG:88:ILE:O	2.40	0.51
17:RS:7:TYR:HD1	17:RS:7:TYR:C	2.18	0.51
17:RS:11:LYS:HD3	17:RS:15:ARG:NH1	2.25	0.51
21:RW:14:PRO:HG2	21:RW:78:GLU:HG3	1.91	0.51
2:XX:22:C:N4	3:XY:210:GLY:HA3	2.25	0.51
3:XY:217:PHE:N	3:XY:217:PHE:HD1	2.08	0.51
4:YA:588:U:H2'	4:YA:589:C:C6	2.45	0.51
4:YA:876:C:H2'	4:YA:877:U:O4'	2.10	0.51
4:YA:2171:A:H4'	4:YA:2172:U:OP1	2.08	0.51
4:YA:2379:G:O2'	17:YS:17:ARG:NH2	2.30	0.51
16:YR:33:ARG:HH11	16:YR:113:LEU:HD22	1.74	0.51
35:XA:500:G:H2'	35:XA:501:C:H6	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:XA:678:U:H2'	35:XA:679:C:H6	1.75	0.51
35:XA:1431:C:H2'	35:XA:1432:G:O4'	2.10	0.51
37:XC:174:PRO:HD2	37:XC:182:ILE:HD11	1.92	0.51
38:XD:20:TYR:N	38:XD:20:TYR:HD1	2.08	0.51
47:XM:80:ARG:NH2	53:XS:65:ASN:O	2.42	0.51
40:QF:69:GLU:O	40:QF:72:VAL:HG12	2.11	0.51
4:RA:2086:U:H2'	4:RA:2087:G:C8	2.46	0.51
24:RZ:125:LEU:HB3	24:RZ:165:VAL:HG13	1.91	0.51
3:XY:281:HIS:O	3:XY:285:ASP:HB2	2.09	0.51
4:YA:286:C:H2'	4:YA:287:C:H6	1.72	0.51
4:YA:1817:G:OP1	6:YD:88:ARG:NH2	2.42	0.51
17:YS:23:ARG:HD2	17:YS:86:ALA:HB2	1.91	0.51
18:YT:28:VAL:O	18:YT:46:GLU:HA	2.09	0.51
18:YT:45:PHE:HE2	18:YT:74:ARG:HG3	1.74	0.51
18:YT:73:GLU:OE2	18:YT:103:ARG:NH2	2.35	0.51
24:YZ:145:GLU:OE1	24:YZ:145:GLU:HA	2.11	0.51
35:XA:135:C:O2	50:XP:1:MET:HB3	2.10	0.51
36:XB:127:ILE:HG12	36:XB:128:GLU:H	1.75	0.51
38:XD:23:GLY:N	38:XD:26:CYS:SG	2.76	0.51
38:XD:98:GLU:OE1	38:XD:103:ASN:ND2	2.35	0.51
53:XS:23:ASN:HA	53:XS:27:GLU:OE2	2.11	0.51
35:QA:34:C:H2'	35:QA:35:G:C8	2.45	0.51
35:QA:339:C:H2'	35:QA:340:U:C6	2.46	0.51
35:QA:1255:G:P	44:QJ:45:ARG:HH21	2.33	0.51
36:QB:55:PHE:HD1	36:QB:58:ILE:HD12	1.75	0.51
37:QC:175:LEU:HD21	37:QC:201:TYR:HD2	1.75	0.51
54:QT:34:LYS:O	54:QT:38:LYS:HG2	2.11	0.51
4:RA:286:C:H2'	4:RA:287:C:H6	1.75	0.51
4:RA:1250:G:N7	14:RP:18:ARG:NH2	2.57	0.51
4:RA:1292:U:H2'	4:RA:1293:C:H6	1.74	0.51
4:RA:1798:U:H5"	6:RD:260:ARG:HB3	1.92	0.51
10:RH:46:GLU:OE2	10:RH:51:ARG:NE	2.35	0.51
4:YA:1682:G:H2'	4:YA:1683:C:C6	2.46	0.51
10:YH:3:ARG:NH1	10:YH:4:ILE:N	2.58	0.51
14:YP:91:PHE:HE2	14:YP:99:LEU:HD21	1.75	0.51
20:YV:35:LEU:HB2	20:YV:57:VAL:HG22	1.91	0.51
29:Y4:61:ARG:NH2	53:XS:9:VAL:HG11	2.25	0.51
33:Y8:24:ALA:HB3	33:Y8:48:PHE:HE1	1.76	0.51
35:QA:632:A:H5'	35:QA:633:G:OP2	2.11	0.51
35:QA:1130:A:H2'	35:QA:1131:G:C8	2.45	0.51
36:QB:54:THR:HG21	36:QB:201:ILE:HD11	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:QC:81:GLY:O	37:QC:85:ARG:HG3	2.11	0.51
38:QD:27:TYR:N	38:QD:27:TYR:CD1	2.78	0.51
49:QO:15:PHE:N	49:QO:15:PHE:CD1	2.77	0.51
55:QU:17:THR:C	55:QU:18:TYR:HD1	2.19	0.51
4:RA:102:G:OP1	27:R2:7:ARG:NH2	2.43	0.51
4:RA:1201:C:H2'	4:RA:1202:C:H6	1.75	0.51
4:RA:1311:G:C4	32:R7:47:ARG:NH2	2.78	0.51
4:RA:1628:G:H2'	4:RA:1629:U:C6	2.45	0.51
4:RA:1937:A:H1'	4:RA:1939:5MU:H72	1.92	0.51
4:RA:2313:C:O4'	9:RG:40:ASN:ND2	2.43	0.51
4:RA:2591:C:H2'	4:RA:2592:G:C8	2.46	0.51
4:RA:2853:C:H2'	4:RA:2854:G:H8	1.76	0.51
9:RG:135:LEU:O	9:RG:154:GLY:HA3	2.11	0.51
24:RZ:145:GLU:OE1	24:RZ:145:GLU:HA	2.11	0.51
4:YA:8:A:H2'	4:YA:9:U:C6	2.46	0.51
4:YA:1075:C:H2'	4:YA:1076:C:H5'	1.93	0.51
9:YG:179:PRO:HB2	29:Y4:42:PHE:HE2	1.75	0.51
20:YV:11:GLN:C	20:YV:12:TYR:HD1	2.19	0.51
24:YZ:138:GLU:O	24:YZ:156:LYS:HE3	2.10	0.51
35:XA:70:G:H1	35:XA:99:U:H3	1.58	0.51
35:XA:663:A:H5"	52:XR:61:LYS:HZ2	1.74	0.51
35:XA:943:U:H1'	43:XI:124:GLN:HE22	1.74	0.51
35:XA:1289:A:N1	35:XA:1371:G:O2'	2.37	0.51
36:XB:127:ILE:C	36:XB:129:GLU:H	2.18	0.51
39:XE:78:HIS:ND1	42:XH:104:ARG:HD2	2.25	0.51
47:XM:4:ILE:HD11	47:XM:60:VAL:HG11	1.93	0.51
35:QA:45:U:H2'	35:QA:46:G:H8	1.71	0.51
35:QA:337:C:H2'	35:QA:338:A:C8	2.46	0.51
35:QA:519:C:OP2	46:QL:50:SER:OG	2.25	0.51
35:QA:865:A:H5'	35:QA:1078:U:C5	2.44	0.51
35:QA:1182:G:H4'	35:QA:1183:A:H5'	1.92	0.51
35:QA:1191:A:OP2	37:QC:3:ASN:ND2	2.44	0.51
4:RA:1518:U:H2'	4:RA:1519:G:O4'	2.09	0.51
23:RY:55:TYR:N	23:RY:55:TYR:HD1	2.08	0.51
29:R4:1:MET:HE2	29:R4:6:HIS:CD2	2.44	0.51
3:QY:73:MET:HE2	3:QY:110:LEU:HD13	1.92	0.51
3:XY:215:THR:HG22	3:XY:217:PHE:CE1	2.45	0.51
4:YA:608:A:H2'	4:YA:609:A:C8	2.46	0.51
4:YA:700:G:O2'	4:YA:1632:A:N3	2.40	0.51
16:YR:26:LYS:HE2	16:YR:70:LEU:O	2.10	0.51
29:Y4:25:TYR:HD1	29:Y4:25:TYR:N	2.09	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Y8:28:GLY:O	33:Y8:36:LYS:NZ	2.42	0.51
35:XA:443:C:H2'	35:XA:444:C:C6	2.46	0.51
35:XA:580:U:H2'	35:XA:581:G:O4'	2.11	0.51
35:XA:1305:G:N2	35:XA:1331:G:H1'	2.25	0.51
43:XI:9:ARG:H	43:XI:79:LEU:HD23	1.75	0.51
35:QA:134:A:H61	50:QP:25:ARG:NH1	2.08	0.51
35:QA:1013:G:N2	35:QA:1016:A:OP2	2.42	0.51
36:QB:198:ASP:HA	42:QH:68:ARG:HH12	1.76	0.51
43:QI:46:ALA:HB2	43:QI:74:ILE:HG23	1.90	0.51
4:RA:861:A:N3	5:RB:79:C:O2'	2.38	0.51
4:RA:2153:G:H2'	4:RA:2154:G:C8	2.45	0.51
8:RF:197:ASP:N	8:RF:197:ASP:OD1	2.41	0.51
17:RS:87:PHE:HB2	17:RS:112:PHE:CD2	2.46	0.51
24:RZ:92:SER:O	24:RZ:130:PRO:HG2	2.11	0.51
31:R6:13:CYS:SG	31:R6:47:THR:HG21	2.50	0.51
3:QY:223:TYR:HD1	3:QY:223:TYR:H	1.56	0.51
3:QY:326:TYR:O	3:QY:328:LEU:HG	2.10	0.51
4:YA:248:G:H5'	4:YA:250:G:N7	2.25	0.51
4:YA:335:C:H4'	23:YY:73:ARG:NE	2.26	0.51
4:YA:956:G:H5"	15:YQ:77:LYS:HD2	1.92	0.51
9:YG:106:LEU:HA	9:YG:110:ALA:HB3	1.91	0.51
42:XH:38:ILE:HG21	42:XH:111:ILE:HG12	1.91	0.51
43:XI:33:PHE:CD1	43:XI:33:PHE:C	2.89	0.51
43:XI:33:PHE:HE2	43:XI:47:LEU:HG	1.76	0.51
35:QA:266:G:O3'	51:QQ:67:LYS:HB2	2.11	0.51
35:QA:532:A:N6	37:QC:193:TYR:HA	2.25	0.51
35:QA:1125:U:O2	35:QA:1126:U:O2'	2.24	0.51
49:QO:15:PHE:N	49:QO:15:PHE:HD1	2.08	0.51
4:RA:1166:C:H2'	4:RA:1167:U:C6	2.46	0.51
4:RA:1287:A:H8	16:RR:104:ARG:HD3	1.74	0.51
4:RA:1630:G:H2'	4:RA:1631(A):C:C6	2.46	0.51
13:RO:122:LEU:HD13	18:RT:72:VAL:HG11	1.91	0.51
17:RS:15:ARG:O	17:RS:19:LYS:HG2	2.10	0.51
27:R2:64:LEU:HD21	27:R2:68:ARG:HE	1.74	0.51
4:YA:184:C:H2'	4:YA:185:U:H6	1.75	0.51
4:YA:236:C:H2'	4:YA:237:C:H6	1.76	0.51
4:YA:414:C:H2'	4:YA:415:A:H8	1.76	0.51
6:YD:69:ARG:C	6:YD:71:ASP:H	2.18	0.51
6:YD:146:GLU:HG2	6:YD:152:GLY:C	2.36	0.51
7:YE:44:TYR:H	7:YE:44:TYR:HD1	1.59	0.51
10:YH:55:PRO:HG2	10:YH:61:HIS:CE1	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YZ:119:GLU:OE1	24:YZ:122:ARG:NH1	2.43	0.51
37:XC:179:ARG:NH1	37:XC:206:GLU:OE1	2.43	0.51
38:XD:13:ARG:HH12	38:XD:36:ARG:CZ	2.23	0.51
50:XP:6:LEU:HD23	50:XP:17:TYR:CD2	2.45	0.51
35:QA:7:G:H5'	35:QA:298:A:O4'	2.11	0.51
35:QA:179:A:H2'	35:QA:180:U:H6	1.75	0.51
35:QA:455:C:C2	35:QA:456:C:C5	2.99	0.51
35:QA:646:U:H2'	35:QA:647:C:H6	1.75	0.51
35:QA:678:U:H2'	35:QA:679:C:H6	1.75	0.51
35:QA:1037:C:H2'	35:QA:1038:C:C6	2.46	0.51
35:QA:1241:G:H2'	35:QA:1242:C:C6	2.46	0.51
41:QG:111:ARG:NH1	41:QG:113:GLU:OE2	2.44	0.51
4:RA:299:A:N1	4:RA:322:A:O2'	2.37	0.51
4:RA:463:G:N2	4:RA:466:A:OP2	2.33	0.51
4:RA:881:G:H2'	4:RA:882:G:C8	2.46	0.51
4:RA:1050:A:H2'	4:RA:1051:G:H8	1.75	0.51
4:RA:1053:C:H2'	4:RA:1054:A:C8	2.46	0.51
4:RA:1075:C:H2'	4:RA:1076:C:H5'	1.93	0.51
4:RA:1588:C:H2'	4:RA:1589:C:C6	2.46	0.51
4:RA:2293:C:H2'	4:RA:2294:C:C6	2.46	0.51
15:RQ:6:ARG:NH1	24:RZ:197:ILE:HG12	2.26	0.51
16:RR:87:TYR:OH	16:RR:117:VAL:O	2.28	0.51
17:RS:103:GLU:O	17:RS:107:GLU:HG3	2.10	0.51
3:QY:223:TYR:N	3:QY:223:TYR:HD1	2.09	0.51
1:XV:16:C:O2'	1:XV:61:C:OP1	2.27	0.51
4:YA:579:G:H2'	4:YA:580:C:C6	2.46	0.51
4:YA:1721:G:N1	4:YA:1739:U:OP2	2.44	0.51
21:YW:4:LYS:HE2	21:YW:6:ILE:HD11	1.92	0.51
36:XB:181:PHE:N	36:XB:181:PHE:HD1	2.09	0.51
52:XR:33:ASP:OD2	52:XR:36:ASN:HB2	2.10	0.51
35:QA:922:G:H4'	39:QE:20:GLN:HA	1.93	0.51
35:QA:1003:G:C2'	35:QA:1004:A:H4'	2.41	0.51
35:QA:1007:C:H2'	35:QA:1008:C:H5'	1.92	0.51
36:QB:111:ARG:HA	36:QB:111:ARG:NE	2.21	0.51
4:RA:263:C:H2'	4:RA:264:C:O4'	2.11	0.51
4:RA:862:G:H2'	4:RA:863:A:O4'	2.11	0.51
4:RA:1028:A:N6	4:RA:1125:G:H2'	2.26	0.51
4:RA:1525:G:H2'	4:RA:1526:G:C8	2.46	0.51
4:RA:2810:A:N6	4:RA:2891:G:O2'	2.35	0.51
7:RE:9:VAL:HG22	7:RE:25:VAL:HB	1.92	0.51
8:RF:178:PRO:HB2	8:RF:201:VAL:HG21	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:RR:54:LEU:HD21	16:RR:65:LEU:HB3	1.93	0.51
21:RW:45:TYR:OH	21:RW:49:LYS:NZ	2.44	0.51
29:R4:25:TYR:HD1	29:R4:25:TYR:N	2.09	0.51
3:XY:152:TYR:HE1	3:XY:353:LEU:HD22	1.76	0.51
4:YA:53:A:C2	32:Y7:35:ARG:NH1	2.79	0.51
4:YA:301:G:OP2	23:YY:84:ARG:NH2	2.44	0.51
4:YA:839:U:H2'	4:YA:840:C:C6	2.46	0.51
5:YB:22:U:H2'	5:YB:23:G:C8	2.46	0.51
7:YE:37:ARG:O	7:YE:45:THR:HA	2.10	0.51
23:YY:37:VAL:HG21	23:YY:72:VAL:HG21	1.92	0.51
26:Y1:75:GLU:HA	26:Y1:78:LYS:HE2	1.93	0.51
35:XA:920:U:H2'	35:XA:921:U:C6	2.46	0.51
35:XA:986:A:H2'	35:XA:987:G:C8	2.46	0.51
36:XB:155:LEU:CD2	36:XB:159:PRO:HG3	2.39	0.51
37:XC:111:LEU:HD22	37:XC:146:ALA:HB2	1.93	0.51
40:XF:67:MET:HE1	40:XF:75:LEU:HD12	1.93	0.51
47:XM:99:ARG:HB2	47:XM:101:GLN:NE2	2.25	0.51
35:QA:441:A:H3'	35:QA:442:C:H6	1.76	0.51
38:QD:13:ARG:HG2	38:QD:38:TYR:O	2.10	0.51
40:QF:4:TYR:N	40:QF:4:TYR:CD1	2.79	0.51
41:QG:111:ARG:HH12	41:QG:122:HIS:HB2	1.75	0.51
42:QH:83:ILE:HG13	42:QH:137:VAL:HG22	1.93	0.51
46:QL:98:TYR:CD1	46:QL:98:TYR:N	2.79	0.51
11:RI:38:LEU:H	11:RI:38:LEU:HD12	1.76	0.51
4:YA:1064:C:N4	4:YA:1065:U:C2	2.79	0.50
4:YA:1210:A:H5"	4:YA:1212:G:O4'	2.11	0.50
4:YA:2022:U:O2'	4:YA:2617:C:H5'	2.11	0.50
21:YW:11:ARG:HH21	21:YW:98:LYS:CA	2.24	0.50
35:XA:8:A:N6	38:XD:205:GLU:O	2.45	0.50
39:XE:72:GLN:O	39:XE:75:THR:HG22	2.11	0.50
41:XG:16:LEU:HD11	43:XI:42:ARG:HA	1.93	0.50
43:XI:33:PHE:O	43:XI:33:PHE:HD1	1.93	0.50
50:XP:8:ARG:C	50:XP:9:PHE:HD1	2.19	0.50
35:QA:22:G:H4'	35:QA:885:G:C8	2.46	0.50
35:QA:363:A:OP1	46:QL:33:ARG:HD3	2.11	0.50
35:QA:1239:A:H62	35:QA:1299:A:N6	2.08	0.50
36:QB:115:LEU:HD13	36:QB:145:LEU:HB3	1.93	0.50
38:QD:98:GLU:HA	38:QD:103:ASN:ND2	2.26	0.50
39:QE:57:LYS:HG2	39:QE:61:TYR:CE2	2.46	0.50
43:QI:42:ARG:O	43:QI:74:ILE:HG21	2.11	0.50
4:RA:658:C:H2'	4:RA:659:C:H6	1.74	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:856:C:H2'	4:RA:857:C:H6	1.75	0.50
4:RA:909:A:H2'	4:RA:912:C:H5	1.74	0.50
4:RA:950:G:H2'	4:RA:951:C:H6	1.76	0.50
4:RA:1171:G:N2	4:RA:1178:C:O2	2.44	0.50
4:RA:2189:U:H2'	4:RA:2190:G:C8	2.46	0.50
4:RA:2590:A:H2'	4:RA:2591:C:H6	1.76	0.50
18:RT:91:ARG:HD2	18:RT:120:ARG:NH1	2.26	0.50
7:YE:119:ARG:HD2	7:YE:120:TRP:NE1	2.25	0.50
10:YH:164:TYR:HB2	10:YH:167:GLU:HB2	1.93	0.50
15:YQ:65:PHE:N	15:YQ:65:PHE:CD1	2.79	0.50
18:YT:30:VAL:HG22	18:YT:86:ILE:HG12	1.93	0.50
23:YY:60:PHE:N	23:YY:60:PHE:CD1	2.80	0.50
35:XA:25:C:H2'	35:XA:26:A:C8	2.47	0.50
35:XA:610:G:C4	35:XA:611:A:C8	2.99	0.50
35:XA:1412:C:H2'	35:XA:1413:A:C8	2.47	0.50
37:XC:180:ALA:HB1	37:XC:203:PHE:HE1	1.77	0.50
51:XQ:27:PHE:N	51:XQ:27:PHE:CD1	2.79	0.50
45:QK:99:GLN:HG2	45:QK:105:VAL:HG21	1.93	0.50
46:QL:53:ARG:HG3	46:QL:93:LEU:HD21	1.93	0.50
52:QR:34:TYR:N	52:QR:34:TYR:CD1	2.79	0.50
4:RA:105:C:H2'	4:RA:106:C:C6	2.46	0.50
4:RA:285:C:H2'	4:RA:286:C:C6	2.46	0.50
10:RH:162:ILE:C	10:RH:163:TYR:HD1	2.20	0.50
18:RT:101:PHE:HD2	18:RT:101:PHE:C	2.18	0.50
24:RZ:8:TYR:N	24:RZ:8:TYR:CD1	2.80	0.50
1:QV:54:U:C2	1:QV:58:A:N7	2.79	0.50
4:YA:784:A:C6	6:YD:229:VAL:HG11	2.46	0.50
4:YA:2134:A:H8	4:YA:2156:G:H21	1.59	0.50
7:YE:59:VAL:HG12	7:YE:64:LYS:HG3	1.93	0.50
10:YH:163:TYR:HE2	10:YH:169:VAL:HG22	1.77	0.50
14:YP:63:PRO:HD3	33:Y8:27:THR:HG22	1.93	0.50
14:YP:100:LEU:HD22	14:YP:105:LEU:HD12	1.92	0.50
19:YU:111:GLU:HA	19:YU:111:GLU:OE1	2.11	0.50
29:Y4:59:PHE:HA	29:Y4:60:GLN:C	2.37	0.50
35:XA:110:C:H2'	35:XA:111:G:O4'	2.12	0.50
35:XA:384:G:H2'	35:XA:385:C:C6	2.46	0.50
35:XA:1023:G:H3'	35:XA:1024:G:H8	1.76	0.50
35:XA:1360:A:OP2	48:XN:35:ARG:NH2	2.44	0.50
36:XB:201:ILE:HG21	36:XB:214:ILE:HG21	1.93	0.50
43:XI:42:ARG:NH2	43:XI:71:SER:OG	2.44	0.50
35:QA:189(B):C:H42	35:QA:189(K):G:H1	1.59	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:QA:824:C:H2'	35:QA:825:G:H8	1.76	0.50
46:QL:83:VAL:HG13	46:QL:100:ILE:HG23	1.92	0.50
47:QM:3:ARG:HG3	47:QM:4:ILE:H	1.77	0.50
4:RA:11:G:C2'	4:RA:12:U:H5'	2.41	0.50
4:RA:2094:G:P	11:RI:22:LYS:HD2	2.51	0.50
4:RA:2182:G:H2'	4:RA:2183:C:C6	2.46	0.50
5:RB:2:C:H2'	5:RB:3:C:C6	2.46	0.50
10:RH:163:TYR:CE2	10:RH:169:VAL:HG22	2.46	0.50
15:RQ:21:THR:CG2	15:RQ:101:ARG:HB2	2.31	0.50
17:RS:7:TYR:C	17:RS:7:TYR:CD1	2.90	0.50
3:XY:58:LYS:HD2	4:YA:1068:G:H22	1.75	0.50
3:XY:324:ARG:HA	3:XY:334:LYS:O	2.10	0.50
5:YB:14:U:OP2	5:YB:70:C:O2'	2.26	0.50
14:YP:91:PHE:N	14:YP:91:PHE:CD1	2.78	0.50
14:YP:92:GLU:OE1	14:YP:92:GLU:HA	2.12	0.50
23:YY:23:ARG:CD	23:YY:42:VAL:HG22	2.41	0.50
24:YZ:8:TYR:HD1	24:YZ:8:TYR:N	2.09	0.50
35:XA:632:A:H3'	35:XA:633:G:H8	1.75	0.50
35:XA:1151:A:O2'	35:XA:1152:A:O5'	2.29	0.50
35:QA:246:A:C2	35:QA:282:A:C5	3.00	0.50
51:QQ:15:MET:HE1	51:QQ:43:LEU:HD22	1.92	0.50
4:RA:320:A:H4'	4:RA:322:A:N7	2.26	0.50
4:RA:321:G:O2'	4:RA:340:A:N3	2.41	0.50
4:RA:1053:C:H2'	4:RA:1054:A:H8	1.76	0.50
4:RA:1141:U:P	12:RN:25:ARG:HH12	2.34	0.50
4:RA:1889:A:N1	4:RA:2234:G:H1'	2.26	0.50
4:RA:2543:G:H2'	4:RA:2544:G:C8	2.46	0.50
6:RD:108:PRO:HD2	6:RD:111:LEU:CD1	2.41	0.50
8:RF:140:LEU:CD1	8:RF:170:LEU:HD21	2.41	0.50
9:RG:11:TYR:CD2	9:RG:12:TYR:CD1	2.99	0.50
11:RI:9:LEU:HD12	11:RI:12:LEU:HD12	1.93	0.50
12:RN:97:ARG:HA	12:RN:100:GLU:HB2	1.92	0.50
18:RT:56:GLY:O	18:RT:59:THR:HG23	2.11	0.50
3:XY:223:TYR:CD1	3:XY:223:TYR:N	2.78	0.50
4:YA:218:A:H2	4:YA:235:U:H4'	1.76	0.50
4:YA:458:G:O2'	4:YA:469:G:O6	2.27	0.50
4:YA:2086:U:H2'	4:YA:2087:G:C8	2.47	0.50
4:YA:2641:G:P	12:YN:74:ARG:HH12	2.35	0.50
10:YH:162:ILE:C	10:YH:163:TYR:HD1	2.20	0.50
35:XA:416:G:H2'	35:XA:417:C:C6	2.47	0.50
35:XA:612:C:H2'	35:XA:613:C:C6	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:XA:865:A:H5'	35:XA:1078:U:H5	1.74	0.50
35:XA:1491:G:H5"	35:XA:1492:A:OP2	2.11	0.50
35:QA:679:C:H2'	35:QA:680:C:C6	2.47	0.50
35:QA:728:A:H2'	35:QA:729:A:H8	1.77	0.50
35:QA:1518:MA6:N6	35:QA:1519:MA6:H103	2.26	0.50
52:QR:43:PHE:N	52:QR:43:PHE:HD1	2.09	0.50
4:RA:2122:U:H2'	4:RA:2123:G:H8	1.76	0.50
4:RA:2164:C:H3'	4:RA:2165:G:H8	1.76	0.50
4:RA:2164:C:H5"	4:RA:2165:G:OP2	2.12	0.50
18:RT:42:ILE:HD13	18:RT:84:GLN:OE1	2.11	0.50
19:RU:47:TYR:CD1	19:RU:47:TYR:C	2.90	0.50
3:XY:136:SER:CA	35:XA:1493:A:H1'	2.41	0.50
4:YA:1171:G:N2	4:YA:1178:C:O2	2.43	0.50
4:YA:1991:U:H2'	4:YA:1992:G:H5"	1.92	0.50
4:YA:2162:G:O3'	4:YA:2172:U:O2'	2.25	0.50
29:Y4:14:ILE:HB	29:Y4:22:ILE:HB	1.93	0.50
35:XA:184:G:H2'	35:XA:185:A:C8	2.46	0.50
35:XA:922:G:H2'	35:XA:923:A:C8	2.47	0.50
39:XE:28:PHE:N	39:XE:28:PHE:HD1	2.09	0.50
40:XF:15:ASP:HB3	38:QD:20:TYR:CE2	2.47	0.50
41:XG:113:GLU:HG3	41:XG:118:VAL:HG12	1.93	0.50
44:XJ:80:LYS:O	44:XJ:84:GLN:HB2	2.12	0.50
55:XU:17:THR:O	55:XU:22:ARG:NH1	2.41	0.50
35:QA:69:G:H2'	35:QA:70:G:H8	1.77	0.50
36:QB:163:PHE:CD1	36:QB:185:ILE:HG13	2.46	0.50
39:QE:28:PHE:N	39:QE:28:PHE:CD1	2.78	0.50
39:QE:96:PRO:HA	39:QE:117:ASP:OD2	2.11	0.50
4:RA:863:A:H2'	4:RA:864:G:H8	1.76	0.50
4:RA:1991:U:H2'	4:RA:1992:G:H5"	1.94	0.50
4:RA:2266:A:H4'	4:RA:2267:A:N3	2.27	0.50
9:RG:125:PHE:HE2	9:RG:180:PHE:HE2	1.57	0.50
22:RX:28:PHE:N	22:RX:28:PHE:CD1	2.80	0.50
1:QV:50:U:H3	1:QV:64:G:H1	1.59	0.50
4:YA:747:U:O2	4:YA:2014:A:H1'	2.12	0.50
4:YA:1444:G:H2'	4:YA:1445(B):C:C5	2.47	0.50
4:YA:2752:C:OP2	10:YH:4:ILE:HD11	2.12	0.50
15:YQ:54:MET:HE1	15:YQ:104:PHE:CD2	2.46	0.50
15:YQ:54:MET:HE1	15:YQ:104:PHE:HD2	1.76	0.50
20:YV:11:GLN:C	20:YV:12:TYR:CD1	2.89	0.50
24:YZ:8:TYR:CD1	24:YZ:8:TYR:N	2.80	0.50
43:XI:59:PHE:HD1	43:XI:59:PHE:N	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:XK:109:VAL:HG23	52:XR:85:LEU:O	2.12	0.50
52:XR:23:LYS:HD2	52:XR:58:LEU:HD12	1.93	0.50
35:QA:678:U:H2'	35:QA:679:C:C6	2.47	0.50
35:QA:1020:U:H2'	35:QA:1021:G:H8	1.76	0.50
43:QI:33:PHE:CD1	43:QI:33:PHE:C	2.90	0.50
4:RA:143(A):G:H2'	4:RA:143(B):C:C6	2.47	0.50
4:RA:249:C:O2	33:R8:12:LYS:NZ	2.40	0.50
4:RA:1022:G:N7	12:RN:66:LYS:HE2	2.26	0.50
4:RA:1084:A:H3'	4:RA:1085:A:C4'	2.42	0.50
4:RA:1316:U:H2'	4:RA:1317:A:C8	2.47	0.50
4:RA:2690:C:N4	4:RA:2713:A:H1'	2.27	0.50
16:RR:33:ARG:NH1	16:RR:115:GLU:OE2	2.44	0.50
22:RX:57:LEU:CD1	22:RX:78:LYS:HG3	2.41	0.50
1:QV:54:U:P	24:RZ:203:GLU:HB2	2.52	0.50
3:QY:164:GLU:O	3:QY:182:LYS:N	2.41	0.50
3:QY:326:TYR:HD1	3:QY:326:TYR:N	2.10	0.50
4:YA:1230:C:H2'	4:YA:1231:G:C8	2.46	0.50
15:YQ:57:HIS:CE1	15:YQ:116:GLU:CG	2.95	0.50
17:YS:87:PHE:HB2	17:YS:112:PHE:CD2	2.47	0.50
36:XB:32:ILE:HD13	36:XB:40:HIS:CD2	2.47	0.50
36:XB:155:LEU:HD13	36:XB:157:ARG:O	2.10	0.50
38:XD:138:TYR:CD1	38:XD:138:TYR:C	2.90	0.50
50:XP:68:ASP:O	50:XP:71:ARG:HB2	2.11	0.50
53:XS:10:PHE:HD1	53:XS:11:VAL:N	2.09	0.50
44:QJ:11:PHE:HE1	44:QJ:67:THR:HG22	1.77	0.50
54:QT:57:ARG:HH22	54:QT:100:ILE:HD12	1.76	0.50
15:RQ:32:TYR:HD1	15:RQ:32:TYR:N	2.09	0.50
3:QY:183:ILE:HG13	3:QY:192:LEU:CD1	2.42	0.50
3:XY:198:VAL:HB	3:XY:321:SER:O	2.12	0.50
4:YA:1417:C:H2'	4:YA:1418:G:O4'	2.11	0.50
4:YA:2065:C:H2'	4:YA:2066:C:C6	2.46	0.50
6:YD:70:TRP:HB3	6:YD:190:TYR:CE2	2.47	0.50
9:YG:117:PHE:HD1	9:YG:117:PHE:C	2.19	0.50
15:YQ:51:ARG:O	15:YQ:55:VAL:HG12	2.11	0.50
35:XA:719:C:O2'	52:XR:49:LYS:HB3	2.12	0.50
35:XA:757:U:H2'	35:XA:758:G:O4'	2.12	0.50
35:XA:1376:U:H2'	35:XA:1377:A:H8	1.77	0.50
37:XC:63:ASN:HB2	37:XC:98:ASN:HB2	1.94	0.50
41:XG:15:ASP:OD1	41:XG:19:GLY:N	2.45	0.50
41:XG:65:ALA:HB1	41:XG:127:ALA:HB3	1.94	0.50
35:QA:452:A:H4'	50:QP:72:ARG:NH1	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:QA:807:A:H2'	35:QA:808:C:C6	2.46	0.50
35:QA:848:C:O5'	35:QA:848:C:H6	1.95	0.50
44:QJ:5:ARG:HD2	44:QJ:71:LEU:HD11	1.94	0.50
4:RA:2206:G:H8	4:RA:2207:G:N7	2.10	0.50
5:RB:2:C:H2'	5:RB:3:C:H6	1.77	0.50
8:RF:192:LEU:HD22	8:RF:194:MET:HE2	1.93	0.50
12:RN:62:VAL:CG1	12:RN:66:LYS:HB2	2.42	0.50
31:R6:41:PRO:O	31:R6:44:ARG:HG3	2.12	0.50
3:XY:200:ARG:HB2	3:XY:322:GLN:HB3	1.92	0.49
3:XY:200:ARG:NH2	3:XY:325:SER:OG	2.38	0.49
4:YA:284:U:H2'	4:YA:285:C:H6	1.77	0.49
4:YA:483:A:O4'	23:YY:48:ALA:HB1	2.12	0.49
4:YA:1503:U:H2'	4:YA:1504:C:C6	2.47	0.49
4:YA:2218:U:C2	26:Y1:52:ARG:NH2	2.80	0.49
4:YA:2849:U:H4'	4:YA:2868:A:C2	2.46	0.49
13:YO:64:ARG:HB2	13:YO:83:ALA:HB3	1.94	0.49
34:Y9:19:ARG:HG2	34:Y9:20:HIS:ND1	2.27	0.49
35:XA:1179:A:H2'	35:XA:1180:A:O4'	2.11	0.49
35:XA:1241:G:H2'	35:XA:1242:C:C6	2.47	0.49
52:XR:52:PRO:HB2	52:XR:54:ARG:HG2	1.92	0.49
35:QA:90:U:H2'	35:QA:91:C:H6	1.77	0.49
36:QB:187:LEU:HA	36:QB:201:ILE:HB	1.93	0.49
38:QD:200:GLU:N	38:QD:200:GLU:OE1	2.45	0.49
39:QE:8:GLU:HG2	39:QE:34:VAL:HG22	1.94	0.49
4:RA:272(M):G:H21	11:RI:50:ARG:HD3	1.77	0.49
4:RA:272(O):C:H2'	4:RA:272(P):C:H6	1.77	0.49
4:RA:1086:A:OP1	4:RA:1104:C:O2'	2.29	0.49
4:RA:2315:G:H2'	4:RA:2316:C:C6	2.47	0.49
4:RA:2648:C:H2'	4:RA:2649:U:H6	1.76	0.49
16:RR:33:ARG:HD2	16:RR:115:GLU:HG2	1.94	0.49
4:YA:1799:G:H8	6:YD:181:GLU:OE1	1.94	0.49
33:Y8:31:HIS:CE1	33:Y8:32:LEU:HD13	2.47	0.49
35:XA:160:A:H2'	35:XA:161:A:O4'	2.11	0.49
35:QA:35:G:O2'	46:QL:118:SER:O	2.28	0.49
38:QD:55:ALA:O	38:QD:59:ARG:HB2	2.12	0.49
38:QD:68:TYR:N	38:QD:68:TYR:CD1	2.80	0.49
39:QE:50:GLU:HB2	39:QE:53:LEU:HD13	1.94	0.49
4:RA:774:A:H2'	4:RA:774:A:N3	2.27	0.49
4:RA:2064:C:H2'	4:RA:2065:C:H6	1.74	0.49
4:YA:285:C:H2'	4:YA:286:C:H6	1.77	0.49
4:YA:2165:G:H2'	4:YA:2166:G:O4'	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:2182:G:H2'	4:YA:2183:C:C6	2.47	0.49
6:YD:84:TYR:CD1	6:YD:84:TYR:C	2.89	0.49
9:YG:36:LYS:HD3	9:YG:95:ARG:NH1	2.26	0.49
11:YI:114:LEU:HD11	11:YI:128:LEU:HB3	1.95	0.49
35:XA:1490:C:H2'	35:XA:1491:G:O4'	2.12	0.49
42:XH:49:GLU:OE2	42:XH:62:TYR:OH	2.18	0.49
35:QA:512:U:H2'	35:QA:513:C:C6	2.47	0.49
35:QA:1308:U:H5'	47:QM:110:ARG:HH11	1.78	0.49
36:QB:231:GLU:HB3	36:QB:232:PRO:CD	2.36	0.49
39:QE:74:GLY:HA3	39:QE:116:THR:HG22	1.95	0.49
46:QL:27:LEU:HD13	46:QL:98:TYR:CE2	2.46	0.49
4:RA:607:U:C5	4:RA:620:G:C5	3.00	0.49
4:RA:1386:C:H2'	4:RA:1387:C:C6	2.46	0.49
18:RT:101:PHE:C	18:RT:101:PHE:CD2	2.90	0.49
1:QV:16:C:O2'	1:QV:61:C:OP1	2.27	0.49
3:QY:198:VAL:HB	3:QY:321:SER:O	2.12	0.49
4:YA:1029:A:N1	4:YA:2465:C:O2'	2.45	0.49
4:YA:1050:A:C2	4:YA:2751:G:C2	3.00	0.49
4:YA:1946:U:H2'	4:YA:1947:C:H6	1.75	0.49
4:YA:2130:U:H2'	4:YA:2158:A:H61	1.77	0.49
4:YA:2246:G:H2'	4:YA:2247:A:C8	2.48	0.49
13:YO:87:ILE:HD12	13:YO:91:LEU:HA	1.94	0.49
24:YZ:72:ARG:NH2	24:YZ:97:GLU:O	2.40	0.49
35:XA:186:C:H2'	35:XA:187:C:H6	1.76	0.49
36:XB:174:VAL:O	36:XB:178:ARG:HG2	2.12	0.49
38:XD:79:PHE:CE1	38:XD:204:ILE:HD13	2.47	0.49
43:XI:9:ARG:C	43:XI:104:ARG:HE	2.19	0.49
43:XI:17:VAL:HG11	43:XI:80:GLY:C	2.37	0.49
43:XI:80:GLY:O	43:XI:83:ARG:HB2	2.12	0.49
47:XM:14:ARG:NE	47:XM:42:ALA:HA	2.28	0.49
35:QA:134:A:H1'	35:QA:325:A:C5	2.47	0.49
38:QD:20:TYR:N	38:QD:20:TYR:CD1	2.78	0.49
38:QD:173:TRP:CD1	38:QD:173:TRP:H	2.29	0.49
4:RA:276:A:H5"	4:RA:277:C:H5'	1.94	0.49
4:RA:484:C:H2'	4:RA:485:C:H6	1.77	0.49
4:RA:2408:U:H2'	4:RA:2409:G:C8	2.47	0.49
9:RG:62:LEU:O	9:RG:143:GLU:HG2	2.12	0.49
18:RT:16:ARG:HD3	18:RT:19:LEU:HG	1.93	0.49
3:QY:342:THR:HG22	3:QY:344:ASN:H	1.77	0.49
4:YA:922:U:H2'	4:YA:923:C:H6	1.76	0.49
4:YA:2461:C:H2'	4:YA:2462:U:C6	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:2650:U:H2'	4:YA:2651:C:C6	2.48	0.49
9:YG:18:GLU:O	9:YG:22:ARG:HG2	2.12	0.49
17:YS:69:VAL:HG13	17:YS:101:LEU:HD12	1.93	0.49
24:YZ:181:GLU:OE1	24:YZ:181:GLU:HA	2.12	0.49
35:XA:473:G:H2'	35:XA:474:G:H8	1.77	0.49
52:XR:34:TYR:N	52:XR:34:TYR:CD1	2.80	0.49
35:QA:1158:C:C4	35:QA:1160:G:C8	3.00	0.49
37:QC:141:VAL:HG11	37:QC:202:ILE:HG12	1.95	0.49
38:QD:8:VAL:HG22	38:QD:21:LEU:HD13	1.93	0.49
39:QE:40:ARG:HG2	39:QE:68:GLU:OE1	2.12	0.49
47:QM:13:LYS:HA	47:QM:44:ARG:HH11	1.76	0.49
4:RA:852:G:H2'	4:RA:853:G:C8	2.48	0.49
4:RA:1084:A:H3'	4:RA:1085:A:H4'	1.93	0.49
4:RA:1289:C:H2'	4:RA:1290:C:H6	1.76	0.49
4:RA:2025:C:H2'	4:RA:2026:C:C6	2.47	0.49
18:RT:101:PHE:CD2	18:RT:102:ILE:N	2.80	0.49
3:XY:144:TRP:CE3	3:XY:147:MET:HE3	2.47	0.49
3:XY:203:ARG:HG2	3:XY:204:LYS:O	2.13	0.49
3:XY:321:SER:H	3:XY:322:GLN:HG3	1.76	0.49
4:YA:1179:C:H2'	4:YA:1180:C:C6	2.47	0.49
4:YA:2311:A:H3'	4:YA:2312:U:C6	2.47	0.49
4:YA:2698:U:H2'	4:YA:2699:C:H6	1.77	0.49
15:YQ:7:MET:HE3	24:YZ:194:PRO:HB3	1.93	0.49
24:YZ:93:ASP:HB2	24:YZ:131:ARG:NH2	2.28	0.49
26:Y1:56:GLN:HA	26:Y1:56:GLN:HE21	1.77	0.49
35:XA:21:G:H2'	35:XA:22:G:C8	2.46	0.49
38:XD:55:ALA:O	38:XD:59:ARG:HB2	2.11	0.49
39:XE:6:PHE:HB2	39:XE:34:VAL:HG13	1.93	0.49
41:XG:27:ILE:HD12	41:XG:40:ALA:HA	1.93	0.49
43:XI:65:VAL:HG21	43:XI:73:GLN:HB3	1.94	0.49
35:QA:186:C:H2'	35:QA:187:C:C6	2.47	0.49
35:QA:789:U:O2'	35:QA:791:G:N7	2.42	0.49
36:QB:27:LYS:HD2	36:QB:193:ASP:OD1	2.13	0.49
38:QD:107:ARG:HG3	38:QD:173:TRP:HH2	1.76	0.49
38:QD:107:ARG:HH21	38:QD:194:LEU:HD21	1.78	0.49
38:QD:185:PHE:C	38:QD:185:PHE:CD1	2.91	0.49
4:RA:270:A:OP2	4:RA:272(X):G:N1	2.36	0.49
4:RA:272(A):A:H8	4:RA:272(B):C:C6	2.30	0.49
4:RA:863:A:H2'	4:RA:864:G:C8	2.48	0.49
4:RA:2001:A:H2'	4:RA:2002:G:C8	2.48	0.49
6:RD:147:LEU:HD11	6:RD:183:ARG:NH2	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:RN:62:VAL:HG11	12:RN:66:LYS:HB2	1.94	0.49
13:RO:120:GLU:OE1	18:RT:67:SER:OG	2.24	0.49
15:RQ:141:GLN:NE2	24:RZ:76:LEU:HD13	2.27	0.49
19:RU:62:ILE:HG12	19:RU:76:TYR:CE2	2.47	0.49
24:RZ:198:LYS:HB3	24:RZ:202:GLU:HB3	1.93	0.49
1:QV:54:U:H2'	1:QV:55:U:O4'	2.12	0.49
3:XY:143:ASP:O	3:XY:146:SER:OG	2.26	0.49
4:YA:658:C:H2'	4:YA:659:C:H6	1.78	0.49
4:YA:1431:U:H2'	4:YA:1432:C:C6	2.48	0.49
4:YA:2364:C:H2'	4:YA:2365:G:O4'	2.12	0.49
6:YD:69:ARG:C	6:YD:71:ASP:N	2.70	0.49
35:XA:713:G:H2'	35:XA:714:G:C8	2.48	0.49
35:XA:974:A:OP2	48:XN:29:ARG:NH2	2.42	0.49
38:XD:59:ARG:HA	38:XD:59:ARG:NE	2.22	0.49
35:QA:92:C:H2'	35:QA:93:G:C8	2.48	0.49
35:QA:610:G:C4	35:QA:611:A:C8	3.00	0.49
35:QA:744:C:O2'	35:QA:851:G:N2	2.44	0.49
35:QA:1241:G:H2'	35:QA:1242:C:H6	1.78	0.49
35:QA:1504:G:OP1	35:QA:1507:A:H4'	2.13	0.49
4:RA:690:G:H2'	4:RA:691:C:H6	1.77	0.49
4:RA:740:U:H2'	4:RA:741:G:C8	2.48	0.49
4:RA:1815:A:OP2	6:RD:54:ARG:NH2	2.46	0.49
6:RD:269:PHE:N	6:RD:269:PHE:HD1	2.10	0.49
31:R6:6:ARG:NH1	31:R6:26:ASN:HB2	2.27	0.49
1:QV:55:U:O2'	1:QV:57:A:N7	2.43	0.49
8:YF:29:ASN:N	8:YF:112:MET:HE3	2.21	0.49
8:YF:40:GLN:HE22	8:YF:182:ASN:HB2	1.78	0.49
8:YF:53:THR:HG22	8:YF:56:GLU:HG2	1.94	0.49
12:YN:69:GLN:O	12:YN:71:ILE:HD12	2.13	0.49
21:YW:78:GLU:OE2	21:YW:99:ARG:NH1	2.42	0.49
33:Y8:23:VAL:HG11	33:Y8:47:LYS:HD3	1.95	0.49
35:XA:601:C:H2'	35:XA:602:A:H8	1.78	0.49
35:XA:1458:G:OP1	54:XT:35:THR:OG1	2.25	0.49
50:XP:8:ARG:NH2	50:XP:15:PRO:HG3	2.28	0.49
35:QA:1014:A:H2	35:QA:1219:U:H1'	1.77	0.49
39:QE:28:PHE:N	39:QE:28:PHE:HD1	2.11	0.49
50:QP:38:TYR:CD1	50:QP:50:LYS:HB3	2.47	0.49
51:QQ:45:HIS:NE2	51:QQ:47:PRO:HG3	2.28	0.49
4:RA:1942:5MC:OP2	4:RA:1943:U:O2'	2.25	0.49
6:RD:260:ARG:HH12	6:RD:264:LYS:HD3	1.75	0.49
8:RF:184:TYR:O	8:RF:188:ARG:HG3	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:R8:4:MET:HE2	33:R8:63:PRO:HG3	1.94	0.49
3:QY:87:ALA:CB	3:QY:96:PHE:HB2	2.42	0.49
7:YE:51:PHE:CE2	7:YE:52:LEU:HD22	2.47	0.49
7:YE:174:ASP:OD1	7:YE:175:VAL:N	2.46	0.49
9:YG:114:ILE:HG23	9:YG:136:ARG:NH2	2.28	0.49
33:Y8:65:GLU:OE1	33:Y8:65:GLU:HA	2.13	0.49
35:XA:696:A:N1	35:XA:797:C:O2'	2.38	0.49
43:XI:26:VAL:HG22	43:XI:61:ALA:HB3	1.94	0.49
37:QC:24:ALA:HB3	37:QC:29:TYR:HB2	1.94	0.49
41:QG:26:PHE:CE2	41:QG:30:ILE:HD11	2.47	0.49
51:QQ:6:LEU:O	51:QQ:58:GLU:HA	2.12	0.49
4:RA:661:C:H5'	8:RF:38:ARG:HH12	1.78	0.49
4:RA:674:G:H1'	8:RF:74:ARG:CD	2.42	0.49
4:RA:855:G:H2'	4:RA:856:C:C6	2.48	0.49
9:RG:106:LEU:HA	9:RG:110:ALA:HB3	1.93	0.49
14:RP:84:ASN:OD1	14:RP:117:GLU:HB3	2.13	0.49
20:RV:12:TYR:CD1	20:RV:12:TYR:N	2.81	0.49
4:YA:143(A):G:H4'	22:YX:35:THR:HG21	1.95	0.49
4:YA:674:G:H1'	8:YF:74:ARG:CD	2.43	0.49
4:YA:911:A:H2'	15:YQ:9:TYR:OH	2.12	0.49
4:YA:1050:A:H2'	4:YA:1051:G:H8	1.78	0.49
4:YA:1665:A:H4'	13:YO:67:LYS:HB2	1.95	0.49
4:YA:2168:G:H22	4:YA:2171:A:H2'	1.78	0.49
7:YE:170:LEU:HD23	7:YE:184:VAL:HG11	1.94	0.49
8:YF:107:LYS:HG3	8:YF:206:ILE:HA	1.94	0.49
35:XA:679:C:H2'	35:XA:680:C:C6	2.48	0.49
35:XA:1183:A:H1'	35:XA:1184:G:OP1	2.13	0.49
35:XA:1323:G:H2'	35:XA:1324:A:C8	2.48	0.49
36:XB:55:PHE:CG	36:XB:221:LEU:HD12	2.47	0.49
42:XH:34:GLU:O	42:XH:37:ARG:HB3	2.13	0.49
47:XM:15:VAL:HG12	47:XM:45:VAL:HG22	1.94	0.49
35:QA:923:A:H2'	35:QA:924:C:C6	2.48	0.49
35:QA:1452:C:H4'	35:QA:1457:G:C8	2.48	0.49
36:QB:84:GLU:HB3	36:QB:219:VAL:HG21	1.93	0.49
4:RA:1721:G:N1	4:RA:1739:U:OP2	2.46	0.49
4:RA:2647:U:H2'	4:RA:2648:C:C6	2.48	0.49
4:RA:2815:C:H5'	30:R5:29:THR:HG21	1.95	0.49
19:RU:86:ALA:HB2	19:RU:116:ALA:HB2	1.95	0.49
19:RU:108:GLU:OE2	19:RU:112:ARG:NH1	2.46	0.49
29:R4:59:PHE:C	29:R4:61:ARG:H	2.20	0.49
3:QY:256:ARG:NH1	4:RA:2573:C:C4	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:XY:219:SER:CB	4:YA:1914:C:H42	2.26	0.48
4:YA:919:G:N2	4:YA:2269:A:OP2	2.46	0.48
4:YA:2286:A:H4'	4:YA:2287:A:O4'	2.13	0.48
4:YA:2748:A:H5'	10:YH:4:ILE:HD12	1.94	0.48
7:YE:9:VAL:HG22	7:YE:25:VAL:HB	1.93	0.48
9:YG:165:THR:OG1	9:YG:168:GLU:HG3	2.13	0.48
18:YT:101:PHE:HD2	18:YT:101:PHE:C	2.20	0.48
23:YY:20:TYR:N	23:YY:20:TYR:HD1	2.11	0.48
30:Y5:40:LYS:HD3	30:Y5:46:CYS:HA	1.95	0.48
35:XA:806:C:H2'	35:XA:807:A:H8	1.77	0.48
35:XA:973:G:H3'	35:XA:974:A:H5"	1.94	0.48
35:XA:1001(A):A:H2'	35:XA:1001(B):G:H8	1.78	0.48
35:XA:1135:U:H2'	35:XA:1137:C:N3	2.28	0.48
36:XB:74:LYS:HE3	36:XB:166:ASP:HB2	1.95	0.48
38:XD:200:GLU:O	38:XD:204:ILE:HG12	2.13	0.48
35:QA:407:G:OP1	38:QD:115:ARG:HD3	2.13	0.48
35:QA:692:U:O2'	35:QA:694:A:N7	2.40	0.48
35:QA:1151:A:H5"	44:QJ:41:PRO:HA	1.95	0.48
35:QA:1492:A:O4'	46:QL:47:LYS:NZ	2.37	0.48
43:QI:17:VAL:HG11	43:QI:80:GLY:C	2.38	0.48
4:RA:1581:G:H2'	4:RA:1582:C:O4'	2.12	0.48
4:YA:1682:G:H2'	4:YA:1683:C:H6	1.77	0.48
4:YA:1946:U:H2'	4:YA:1947:C:C6	2.48	0.48
4:YA:2266:A:H4'	4:YA:2267:A:N3	2.28	0.48
4:YA:2455:G:H2'	4:YA:2456:C:H6	1.78	0.48
6:YD:176:ARG:HH11	6:YD:176:ARG:CG	2.21	0.48
9:YG:72:ARG:HG2	9:YG:87:PRO:HA	1.94	0.48
20:YV:12:TYR:HD1	20:YV:12:TYR:N	2.11	0.48
21:YW:75:TYR:CD2	21:YW:104:THR:HB	2.47	0.48
25:Y0:60:PHE:CD1	25:Y0:60:PHE:N	2.81	0.48
25:Y0:77:ARG:C	25:Y0:78:TYR:HD1	2.21	0.48
35:XA:340:U:H2'	35:XA:341:C:C6	2.47	0.48
35:XA:1238:A:N7	35:XA:1303:C:H1'	2.28	0.48
35:XA:1318:A:H5"	53:XS:3:ARG:NH2	2.28	0.48
39:XE:74:GLY:HA3	39:XE:116:THR:HG22	1.94	0.48
43:XI:5:TYR:OH	43:XI:16:ARG:HG2	2.13	0.48
43:XI:8:GLY:HA2	43:XI:79:LEU:HD23	1.96	0.48
35:QA:1016:A:H2'	35:QA:1017:G:O4'	2.13	0.48
36:QB:28:PHE:HE1	36:QB:31:TYR:HB2	1.76	0.48
40:QF:3:ARG:HA	40:QF:65:VAL:O	2.14	0.48
46:QL:119:LYS:C	46:QL:120:TYR:HD1	2.20	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:247:G:H4'	4:RA:386:G:C5	2.48	0.48
4:RA:1588:C:H2'	4:RA:1589:C:H6	1.78	0.48
7:RE:170:LEU:HB3	7:RE:184:VAL:CG2	2.43	0.48
15:RQ:7:MET:HE2	24:RZ:194:PRO:HB2	1.94	0.48
27:R2:7:ARG:O	27:R2:11:GLU:HG3	2.12	0.48
3:QY:221:PHE:HB2	4:RA:1914:C:H41	1.78	0.48
3:XY:200:ARG:HG2	3:XY:201:LEU:N	2.27	0.48
3:XY:326:TYR:O	3:XY:328:LEU:HG	2.12	0.48
4:YA:1510:G:H2'	4:YA:1511:C:C6	2.48	0.48
9:YG:135:LEU:O	9:YG:154:GLY:HA3	2.14	0.48
21:YW:75:TYR:O	21:YW:75:TYR:HD2	1.95	0.48
33:Y8:9:GLY:O	33:Y8:13:ARG:HG3	2.14	0.48
35:XA:8:A:H5'	39:XE:101:ILE:HG22	1.95	0.48
35:XA:663:A:H5"	52:XR:61:LYS:NZ	2.28	0.48
35:XA:1053:G:N7	35:XA:1200:C:H5"	2.28	0.48
35:XA:1068:G:H8	35:XA:1068:G:OP2	1.96	0.48
35:XA:1171:G:H2'	35:XA:1172:C:C6	2.48	0.48
39:XE:87:SER:HB3	39:XE:131:ILE:HD13	1.95	0.48
46:XL:53:ARG:HG3	46:XL:93:LEU:HD21	1.94	0.48
46:XL:86:ARG:NH1	46:XL:99:HIS:CB	2.76	0.48
35:QA:18:C:H4'	35:QA:1078:U:O2	2.12	0.48
35:QA:340:U:H2'	35:QA:341:C:H6	1.77	0.48
35:QA:1239:A:O2'	41:QG:114:ARG:O	2.28	0.48
35:QA:1434:A:H2'	35:QA:1435:G:O4'	2.13	0.48
55:QU:18:TYR:CE2	55:QU:24:ARG:HD3	2.47	0.48
4:RA:218:A:H2	4:RA:235:U:H4'	1.76	0.48
4:RA:950:G:H2'	4:RA:951:C:C6	2.48	0.48
4:RA:1530:C:HO2'	4:RA:1531:C:P	2.34	0.48
4:RA:2019:A:O4'	19:RU:34:LYS:HE3	2.13	0.48
4:RA:2065:C:H2'	4:RA:2066:C:H6	1.79	0.48
4:RA:2648:C:H2'	4:RA:2649:U:C6	2.49	0.48
8:RF:74:ARG:O	8:RF:75:HIS:HD2	1.91	0.48
10:RH:3:ARG:HB3	10:RH:6:ARG:HG2	1.95	0.48
14:RP:50:ARG:HD3	33:R8:7:HIS:CD2	2.48	0.48
21:RW:67:ASP:N	21:RW:67:ASP:OD1	2.45	0.48
23:RY:20:TYR:N	23:RY:20:TYR:CD1	2.80	0.48
23:RY:60:PHE:N	23:RY:60:PHE:CD1	2.81	0.48
3:XY:270:ILE:HG22	3:XY:291:MET:HE1	1.94	0.48
4:YA:576:U:H2'	4:YA:577:G:C8	2.49	0.48
4:YA:1514:U:H2'	4:YA:1515:G:C8	2.49	0.48
4:YA:1932:A:H2'	4:YA:1933:G:O4'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:YF:140:LEU:CD1	8:YF:170:LEU:HD21	2.44	0.48
8:YF:188:ARG:HA	14:YP:3:LEU:HD13	1.95	0.48
24:YZ:39:VAL:HG21	24:YZ:44:PHE:HD2	1.79	0.48
35:XA:130:A:N3	35:XA:263:A:O2'	2.44	0.48
37:XC:191:THR:OG1	37:XC:194:GLY:O	2.18	0.48
41:XG:70:LYS:O	41:XG:138:LYS:HE2	2.13	0.48
47:XM:3:ARG:HA	47:XM:57:ARG:HH21	1.79	0.48
35:QA:580:U:H2'	35:QA:581:G:O4'	2.13	0.48
35:QA:983:A:H2	35:QA:984:C:C6	2.32	0.48
35:QA:1512:U:H2'	35:QA:1513:A:C8	2.49	0.48
4:RA:615:G:OP1	8:RF:40:GLN:HG2	2.13	0.48
4:RA:623:G:H2'	4:RA:624:C:H6	1.78	0.48
6:RD:77:ALA:HB2	6:RD:97:TYR:CD1	2.48	0.48
24:RZ:2:GLU:C	24:RZ:3:TYR:HD1	2.21	0.48
3:QY:195:GLU:CG	3:QY:357:ILE:HD11	2.43	0.48
3:XY:240:ARG:NH2	3:XY:264:THR:HG21	2.29	0.48
4:YA:1187:G:H5'	20:YV:81:TYR:CE1	2.48	0.48
4:YA:1287:A:H8	16:YR:104:ARG:HD3	1.79	0.48
4:YA:1518:U:H2'	4:YA:1519:G:O4'	2.14	0.48
4:YA:1794:U:H2'	4:YA:1795:C:C6	2.49	0.48
4:YA:2109:U:H2'	4:YA:2110:G:C8	2.48	0.48
4:YA:2336:A:H61	25:Y0:43:THR:HG22	1.78	0.48
4:YA:2741:A:H5"	34:Y9:22:ARG:HH12	1.77	0.48
6:YD:108:PRO:HD2	6:YD:111:LEU:HD12	1.94	0.48
7:YE:119:ARG:HH21	7:YE:158:GLY:HA3	1.78	0.48
17:YS:7:TYR:O	17:YS:7:TYR:HD1	1.96	0.48
29:Y4:25:TYR:N	29:Y4:25:TYR:CD1	2.82	0.48
35:XA:646:U:H2'	35:XA:647:C:C6	2.48	0.48
36:XB:109:SER:O	36:XB:113:HIS:CD2	2.66	0.48
38:XD:68:TYR:N	38:XD:68:TYR:HD1	2.11	0.48
35:QA:399:G:H2'	35:QA:400:C:C6	2.49	0.48
35:QA:523:A:N1	46:QL:92:0TD:H6	2.28	0.48
35:QA:1491:G:O2'	35:QA:1492:A:H5'	2.13	0.48
41:QG:69:VAL:HG21	41:QG:104:LEU:HD13	1.95	0.48
44:QJ:49:VAL:HG23	48:QN:41:ARG:HB2	1.95	0.48
4:RA:210:C:P	32:R7:29:LYS:HE2	2.52	0.48
4:RA:639:U:C2	4:RA:640:C:C5	3.01	0.48
4:RA:1057:A:N7	4:RA:1086:A:H2'	2.27	0.48
4:RA:1514:U:H2'	4:RA:1515:G:H8	1.79	0.48
11:RI:68:LEU:HD12	11:RI:68:LEU:O	2.14	0.48
25:R0:46:LYS:HD2	25:R0:78:TYR:CE1	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:R4:46:GLN:O	29:R4:48:ARG:N	2.46	0.48
4:YA:774:A:H2'	4:YA:774:A:N3	2.29	0.48
4:YA:1300:U:H4'	4:YA:1301:A:H5'	1.95	0.48
11:YI:77:LEU:HD22	11:YI:79:ILE:HG13	1.94	0.48
15:YQ:6:ARG:NH2	24:YZ:197:ILE:HG12	2.29	0.48
18:YT:45:PHE:HD1	18:YT:46:GLU:N	2.11	0.48
32:Y7:12:ARG:NH2	32:Y7:44:PRO:HB3	2.29	0.48
35:XA:416:G:H2'	35:XA:417:C:H6	1.79	0.48
38:XD:61:LYS:HD2	38:XD:207:TYR:OH	2.14	0.48
35:QA:455:C:H2'	35:QA:456:C:H6	1.79	0.48
35:QA:501:C:OP1	46:QL:117:ARG:NH2	2.46	0.48
35:QA:1024:G:N2	35:QA:1025:U:O4'	2.42	0.48
36:QB:212:GLN:O	36:QB:216:SER:OG	2.32	0.48
42:QH:37:ARG:HH21	42:QH:38:ILE:CD1	2.26	0.48
4:RA:1201:C:H2'	4:RA:1202:C:C6	2.48	0.48
4:RA:1266:G:O2'	4:RA:2012:G:O6	2.31	0.48
4:RA:2854:G:H2'	4:RA:2855:C:H6	1.79	0.48
6:RD:85:ASP:OD2	6:RD:88:ARG:NH1	2.40	0.48
14:RP:130:PHE:HB2	14:RP:135:LEU:HG	1.95	0.48
16:RR:67:LEU:HD13	16:RR:76:VAL:HG21	1.94	0.48
18:RT:117:ASP:OD2	18:RT:120:ARG:NE	2.46	0.48
21:RW:6:ILE:HG22	21:RW:8:ARG:HG3	1.95	0.48
3:QY:36:GLU:HA	3:QY:39:ALA:HB3	1.95	0.48
3:XY:26:ASP:HB3	3:XY:29:ALA:HB3	1.94	0.48
3:XY:96:PHE:O	3:XY:96:PHE:CD1	2.66	0.48
3:XY:319:TRP:O	3:XY:322:GLN:HG2	2.13	0.48
4:YA:760:G:H2'	4:YA:761:A:O4'	2.14	0.48
4:YA:1336:A:H2'	4:YA:1337:G:C8	2.49	0.48
4:YA:1514:U:H2'	4:YA:1515:G:H8	1.79	0.48
4:YA:2590:A:H2'	4:YA:2591:C:H6	1.77	0.48
5:YB:84:C:OP1	28:Y3:15:TYR:OH	2.21	0.48
8:YF:184:TYR:O	8:YF:188:ARG:HG3	2.13	0.48
19:YU:58:ARG:NH2	19:YU:92:ARG:NH1	2.60	0.48
35:XA:33:A:H2'	35:XA:34:C:C6	2.48	0.48
35:XA:176:C:H2'	35:XA:177:C:C6	2.48	0.48
40:XF:43:LEU:CD2	40:XF:46:ARG:HH22	2.24	0.48
40:XF:59:TYR:CD1	40:XF:59:TYR:C	2.92	0.48
35:QA:624:C:H2'	35:QA:625:G:H8	1.79	0.48
35:QA:1036:G:H5"	35:QA:1037:C:C5	2.49	0.48
36:QB:101:MET:HE2	36:QB:152:PHE:CD1	2.49	0.48
36:QB:160:ASP:OD1	36:QB:160:ASP:N	2.45	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:QI:59:PHE:HD1	43:QI:59:PHE:N	2.11	0.48
4:RA:362:U:O2'	4:RA:363(A):G:H5'	2.14	0.48
4:RA:1069:A:C4	4:RA:1095:A:H4'	2.48	0.48
4:RA:1199:U:H2'	4:RA:1200:C:H6	1.79	0.48
4:RA:1351:C:H2'	4:RA:1352:U:C6	2.49	0.48
4:RA:1568:G:H5"	6:RD:61:LEU:HD13	1.96	0.48
4:RA:1587:A:H2'	4:RA:1588:C:H6	1.77	0.48
3:QY:149:GLU:HG3	3:QY:150:ARG:N	2.29	0.48
3:QY:261:VAL:HG21	3:QY:284:LYS:HA	1.95	0.48
3:QY:332:ARG:HD2	3:QY:334:LYS:HD2	1.96	0.48
4:YA:492:A:H2'	4:YA:493:G:O4'	2.14	0.48
4:YA:2567:G:H2'	4:YA:2568:C:C6	2.49	0.48
4:YA:2627:G:O2'	4:YA:2781:A:N1	2.36	0.48
9:YG:51:ARG:HD3	9:YG:87:PRO:HD2	1.94	0.48
17:YS:11:LYS:HD3	17:YS:15:ARG:CZ	2.44	0.48
35:XA:189(L):U:H2'	35:XA:189(M):G:H8	1.77	0.48
35:XA:1015:A:H2'	35:XA:1016:A:C8	2.49	0.48
35:XA:1072:G:H2'	35:XA:1073:U:C6	2.49	0.48
35:XA:1162:C:H2'	35:XA:1163:C:C6	2.49	0.48
36:XB:118:LEU:HB3	36:XB:142:LEU:HD12	1.95	0.48
37:XC:63:ASN:CB	37:XC:98:ASN:HB2	2.43	0.48
46:XL:117:ARG:NH2	46:XL:124:LYS:HB2	2.29	0.48
53:XS:66:MET:HB2	53:XS:74:PHE:CZ	2.48	0.48
35:QA:142:G:O2'	35:QA:196:A:N1	2.42	0.48
35:QA:335:C:H2'	35:QA:336:C:H6	1.79	0.48
35:QA:1151:A:O2'	35:QA:1152:A:H8	1.96	0.48
35:QA:1239:A:H62	35:QA:1299:A:H61	1.60	0.48
35:QA:1404:5MC:O2	35:QA:1519:MA6:O2'	2.24	0.48
36:QB:115:LEU:O	36:QB:119:GLU:HG2	2.13	0.48
38:QD:81:GLU:O	38:QD:85:LYS:HB2	2.14	0.48
44:QJ:45:ARG:HH11	48:QN:36:PHE:HD2	1.57	0.48
45:QK:84:VAL:CG1	45:QK:91:ARG:HD2	2.40	0.48
47:QM:67:GLU:O	47:QM:71:ARG:HG3	2.14	0.48
4:RA:297:C:H2'	4:RA:298:G:O4'	2.14	0.48
4:RA:1045:A:H5"	4:RA:1046:A:OP1	2.14	0.48
4:RA:1423:G:OP1	4:RA:1492:G:O2'	2.31	0.48
29:R4:61:ARG:CG	29:R4:62:ARG:N	2.76	0.48
1:XV:52:G:H2'	24:YZ:198:LYS:HE3	1.95	0.48
3:XY:33:ARG:O	3:XY:36:GLU:HG2	2.14	0.48
3:XY:334:LYS:HG3	3:XY:341:GLU:HG2	1.96	0.48
10:YH:20:ALA:HB1	10:YH:21:PRO:HD2	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:YP:50:ARG:HD3	33:Y8:7:HIS:CD2	2.49	0.48
14:YP:126:VAL:HG12	14:YP:148:LEU:HD22	1.95	0.48
24:YZ:28:MET:HA	24:YZ:88:PHE:O	2.13	0.48
35:XA:246:A:C2	35:XA:282:A:C5	3.01	0.48
35:XA:674:G:H2'	35:XA:675:A:H8	1.78	0.48
35:XA:1030(D):G:H2'	35:XA:1030(E):A:C8	2.49	0.48
35:XA:1132:C:C2	35:XA:1133:G:C8	3.02	0.48
35:XA:1352:C:H2'	35:XA:1353:G:C8	2.48	0.48
36:XB:111:ARG:HE	36:XB:111:ARG:CA	2.06	0.48
38:XD:20:TYR:N	38:XD:20:TYR:CD1	2.79	0.48
42:XH:20:TYR:HA	42:XH:65:TYR:CE2	2.49	0.48
35:QA:28:G:O2'	35:QA:296:U:OP1	2.26	0.48
35:QA:981:U:H4'	48:QN:21:TYR:HE2	1.71	0.48
35:QA:1036:G:H5'	35:QA:1037:C:OP2	2.13	0.48
40:QF:63:TYR:HD1	40:QF:63:TYR:N	2.11	0.48
48:QN:21:TYR:CD1	48:QN:21:TYR:N	2.75	0.48
4:RA:904:C:H2'	4:RA:905:U:H6	1.79	0.48
4:RA:1843:C:H5'	6:RD:253:GLN:OE1	2.13	0.48
6:RD:146:GLU:HB2	6:RD:189:CYS:HB3	1.96	0.48
9:RG:143:GLU:OE2	29:R4:26:SER:OG	2.22	0.48
11:RI:84:GLY:N	11:RI:89:TYR:CE1	2.81	0.48
18:RT:45:PHE:HD1	18:RT:46:GLU:N	2.12	0.48
30:R5:40:LYS:HD3	30:R5:46:CYS:HA	1.95	0.48
3:QY:151:MET:CE	3:QY:353:LEU:HD21	2.44	0.48
3:QY:324:ARG:HA	3:QY:334:LYS:O	2.13	0.48
4:YA:607:U:C5	4:YA:620:G:C5	3.02	0.48
4:YA:1025:G:C4	4:YA:1135:C:H1'	2.49	0.48
8:YF:107:LYS:HE2	8:YF:205:ARG:O	2.14	0.48
26:Y1:54:ALA:HB1	26:Y1:83:GLU:HG3	1.95	0.48
27:Y2:32:LEU:HD11	27:Y2:54:LYS:HG2	1.96	0.48
35:XA:601:C:H2'	35:XA:602:A:C8	2.48	0.48
35:XA:739:C:O2'	49:XO:42:HIS:ND1	2.45	0.48
35:XA:1251:A:H2'	35:XA:1252:A:C8	2.49	0.48
35:XA:1315:U:H2'	35:XA:1316:G:O4'	2.13	0.48
40:XF:89:MET:HE2	52:XR:76:LEU:HD13	1.94	0.48
35:QA:1227:A:OP2	47:QM:111:LYS:NZ	2.47	0.48
35:QA:1425:U:H2'	35:QA:1426:C:H6	1.79	0.48
36:QB:19:HIS:O	36:QB:20:GLU:HB3	2.14	0.48
46:QL:70:ILE:HG12	46:QL:100:ILE:HD12	1.95	0.48
4:RA:30:G:H2'	4:RA:31:C:H6	1.77	0.48
4:RA:1062:G:H5'	4:RA:1070:A:H5"	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:2780:G:OP1	12:RN:118:LYS:HE2	2.14	0.48
8:RF:101:LEU:HD12	8:RF:102:PRO:HD2	1.95	0.48
19:RU:32:PHE:CZ	19:RU:36:ARG:HD3	2.48	0.48
20:RV:12:TYR:HD1	20:RV:12:TYR:N	2.10	0.48
4:YA:574:C:N3	7:YE:145:LYS:NZ	2.49	0.47
4:YA:637:A:H8	14:YP:117:GLU:HG3	1.79	0.47
4:YA:1086:A:OP1	4:YA:1104:C:O2'	2.31	0.47
4:YA:1341:U:OP1	4:YA:1397:U:N3	2.40	0.47
4:YA:1386:C:H2'	4:YA:1387:C:C6	2.48	0.47
4:YA:2389:G:H5"	4:YA:2390:U:O4'	2.13	0.47
8:YF:101:LEU:O	8:YF:106:ARG:NH1	2.42	0.47
14:YP:90:ARG:HG2	14:YP:91:PHE:CE1	2.49	0.47
19:YU:86:ALA:O	20:YV:49:THR:HG23	2.14	0.47
41:XG:52:GLU:OE1	41:XG:52:GLU:HA	2.14	0.47
55:XU:5:ASP:O	55:XU:11:GLY:HA3	2.14	0.47
35:QA:403:C:O2'	38:QD:122:ARG:NH1	2.47	0.47
35:QA:646:U:C2	35:QA:647:C:C5	3.01	0.47
36:QB:16:HIS:C	36:QB:17:PHE:CD1	2.85	0.47
38:QD:133:VAL:HG11	38:QD:138:TYR:CD2	2.49	0.47
47:QM:32:GLU:HG2	47:QM:64:TRP:CZ2	2.48	0.47
50:QP:9:PHE:N	50:QP:9:PHE:CD1	2.82	0.47
51:QQ:68:ARG:H	51:QQ:70:ARG:NH1	2.12	0.47
4:RA:143(A):G:H2'	4:RA:143(B):C:H6	1.78	0.47
4:RA:414:C:H2'	4:RA:415:A:H8	1.79	0.47
4:RA:793:A:OP2	4:RA:2071:A:O2'	2.32	0.47
4:RA:2298:A:H62	4:RA:2318:G:H8	1.62	0.47
8:RF:101:LEU:HB3	8:RF:106:ARG:HD3	1.95	0.47
3:QY:115:PHE:HB3	3:QY:119:PHE:CD2	2.48	0.47
3:QY:200:ARG:HB3	3:QY:324:ARG:O	2.14	0.47
3:QY:245:ARG:NE	4:RA:2573:C:H42	2.01	0.47
3:QY:336:LEU:O	3:QY:336:LEU:HD12	2.14	0.47
3:XY:326:TYR:HD2	3:XY:349:LEU:HD21	1.79	0.47
4:YA:606:U:H4'	4:YA:658:C:H4'	1.96	0.47
4:YA:674:G:H1'	8:YF:74:ARG:HD2	1.96	0.47
4:YA:1063:G:N3	4:YA:1063:G:O2'	2.42	0.47
4:YA:1143:A:OP1	12:YN:25:ARG:NH2	2.47	0.47
4:YA:1839:G:C2	4:YA:1840:G:C8	3.02	0.47
4:YA:2115:G:H3'	4:YA:2116:G:C5'	2.45	0.47
4:YA:2153:G:H2'	4:YA:2154:G:C8	2.48	0.47
6:YD:75:ILE:HD13	6:YD:99:ASP:OD2	2.15	0.47
8:YF:34:TRP:CH2	14:YP:8:PRO:HB3	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:YG:64:THR:HB	9:YG:94:LEU:HD21	1.96	0.47
17:YS:112:PHE:N	17:YS:112:PHE:CD1	2.80	0.47
18:YT:101:PHE:CD2	18:YT:102:ILE:N	2.80	0.47
20:YV:12:TYR:CD1	20:YV:12:TYR:N	2.82	0.47
35:XA:134:A:H1'	35:XA:325:A:C5	2.49	0.47
43:XI:9:ARG:HA	43:XI:13:ALA:O	2.14	0.47
44:XJ:78:ASN:O	44:XJ:80:LYS:N	2.47	0.47
35:QA:159:G:O2'	35:QA:161:A:N7	2.46	0.47
35:QA:1112:C:O2	37:QC:179:ARG:HG2	2.13	0.47
35:QA:1245:A:H2'	35:QA:1246:C:C6	2.50	0.47
35:QA:1277:C:O2'	35:QA:1279:A:H1'	2.14	0.47
35:QA:1343:G:H4'	43:QI:122:ALA:HB3	1.96	0.47
36:QB:102:LEU:HB3	36:QB:180:LEU:HD12	1.96	0.47
40:QF:59:TYR:CD1	40:QF:59:TYR:C	2.93	0.47
4:RA:234:C:H2'	4:RA:235:U:H6	1.79	0.47
4:RA:1084:A:C8	4:RA:1085:A:H4'	2.49	0.47
4:RA:2327:A:H2'	4:RA:2328:A:C8	2.49	0.47
4:RA:2391:G:O6	4:RA:2425:A:H8	1.98	0.47
17:RS:66:ALA:O	17:RS:69:VAL:HG22	2.13	0.47
3:XY:150:ARG:O	3:XY:154:ARG:HG3	2.14	0.47
4:YA:284:U:H2'	4:YA:285:C:C6	2.49	0.47
4:YA:1070:A:H2'	4:YA:1071:G:C8	2.49	0.47
4:YA:2329:G:H2'	4:YA:2330:G:C8	2.49	0.47
4:YA:2572:A:N7	7:YE:144:ARG:HD2	2.27	0.47
4:YA:2839:G:H5'	16:YR:46:GLY:HA2	1.96	0.47
9:YG:113:ARG:NH2	29:Y4:33:VAL:HG12	2.27	0.47
35:XA:375:U:H4'	50:XP:17:TYR:CE2	2.47	0.47
35:XA:474:G:H2'	35:XA:475:G:C8	2.46	0.47
35:XA:539:A:H2'	35:XA:540:G:H8	1.74	0.47
35:XA:1035:A:H2'	35:XA:1036:G:C8	2.49	0.47
35:XA:1295:G:O2'	47:XM:14:ARG:NH1	2.48	0.47
39:XE:50:GLU:HB2	39:XE:53:LEU:HD13	1.97	0.47
35:QA:923:A:H2'	35:QA:924:C:H6	1.79	0.47
35:QA:1207:2MG:H2'	35:QA:1208:C:C6	2.48	0.47
43:QI:125:TYR:CE1	43:QI:127:LYS:HB2	2.49	0.47
4:RA:587:C:P	14:RP:21:ARG:NH2	2.87	0.47
4:RA:854:G:H2'	4:RA:855:G:H8	1.79	0.47
4:RA:1593:G:H2'	4:RA:1594:G:C8	2.49	0.47
15:RQ:65:PHE:N	15:RQ:65:PHE:HD1	2.12	0.47
17:RS:7:TYR:HE1	17:RS:11:LYS:CE	2.27	0.47
32:R7:24:THR:HG23	32:R7:27:GLY:H	1.78	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:QY:189:TYR:CE2	3:QY:193:ARG:HD3	2.49	0.47
3:QY:303:LYS:HE2	3:QY:307:LYS:NZ	2.29	0.47
4:YA:998:C:P	19:YU:92:ARG:HH22	2.37	0.47
4:YA:1084:A:H3'	4:YA:1085:A:H4'	1.96	0.47
4:YA:2445:G:OP1	8:YF:74:ARG:NH2	2.47	0.47
4:YA:2788:C:OP1	7:YE:61:ARG:NH2	2.47	0.47
17:YS:103:GLU:O	17:YS:107:GLU:HG3	2.14	0.47
24:YZ:144:LEU:HD21	24:YZ:150:LEU:CD1	2.44	0.47
35:QA:513:C:H2'	35:QA:514:C:H6	1.78	0.47
35:QA:526:C:OP2	46:QL:91:LYS:HE3	2.15	0.47
35:QA:1003:G:N2	35:QA:1004:A:H1'	2.30	0.47
4:RA:17:G:H2'	4:RA:18:C:C6	2.50	0.47
4:RA:2852:G:H2'	4:RA:2853:C:C6	2.49	0.47
14:RP:130:PHE:N	14:RP:130:PHE:CD1	2.83	0.47
19:RU:47:TYR:C	19:RU:47:TYR:HD1	2.22	0.47
1:QV:54:U:OP1	24:RZ:203:GLU:N	2.39	0.47
4:YA:105:C:H2'	4:YA:106:C:H6	1.79	0.47
4:YA:272(O):C:H2'	4:YA:272(P):C:C6	2.50	0.47
4:YA:1500:G:O2'	6:YD:100:GLY:O	2.28	0.47
4:YA:2313:C:H2'	4:YA:2314:C:C6	2.49	0.47
4:YA:2687:U:H2'	4:YA:2688:U:O4'	2.13	0.47
11:YI:130:TYR:CE2	11:YI:132:PRO:HB3	2.50	0.47
19:YU:47:TYR:C	19:YU:47:TYR:CD1	2.92	0.47
20:YV:35:LEU:HB2	20:YV:57:VAL:CG2	2.45	0.47
24:YZ:59:LEU:O	24:YZ:66:SER:HA	2.15	0.47
35:XA:34:C:H2'	35:XA:35:G:H8	1.80	0.47
36:XB:77:ALA:O	36:XB:78:GLN:C	2.57	0.47
36:XB:163:PHE:HA	36:XB:185:ILE:O	2.15	0.47
51:XQ:27:PHE:CE1	51:XQ:36:ILE:HG13	2.49	0.47
35:QA:337:C:H2'	35:QA:338:A:H8	1.79	0.47
35:QA:645:C:H2'	35:QA:646:U:C6	2.49	0.47
35:QA:1158:C:C5	35:QA:1160:G:C8	3.02	0.47
35:QA:1318:A:H4'	53:QS:10:PHE:CD2	2.49	0.47
47:QM:14:ARG:HE	47:QM:42:ALA:HA	1.78	0.47
47:QM:65:LYS:O	47:QM:70:LEU:HD12	2.15	0.47
51:QQ:4:LYS:H	51:QQ:61:GLU:HG2	1.79	0.47
4:RA:1198:U:H2'	4:RA:1199:U:C6	2.49	0.47
4:RA:1431:U:H2'	4:RA:1432:C:H6	1.78	0.47
4:RA:2134:A:C5	4:RA:2157:G:H5'	2.50	0.47
4:RA:2320:A:N3	4:RA:2320:A:H2'	2.29	0.47
4:RA:2650:U:H2'	4:RA:2651:C:H6	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:RP:130:PHE:N	14:RP:130:PHE:HD1	2.13	0.47
1:QV:3:C:H2'	1:QV:4:G:H5'	1.97	0.47
3:QY:326:TYR:N	3:QY:326:TYR:CD1	2.83	0.47
4:YA:833:U:H2'	4:YA:834:C:C6	2.49	0.47
4:YA:2805:G:H2'	4:YA:2807:G:C8	2.50	0.47
10:YH:46:GLU:HB2	10:YH:49:VAL:CG1	2.41	0.47
18:YT:22:PHE:CD2	18:YT:28:VAL:HG21	2.50	0.47
35:XA:1086:U:C2	35:XA:1087:G:C8	3.02	0.47
35:XA:1161:C:C2	35:XA:1162:C:C5	3.02	0.47
36:XB:17:PHE:HD1	36:XB:18:GLY:N	2.01	0.47
42:XH:37:ARG:HH21	42:XH:38:ILE:CD1	2.28	0.47
47:XM:29:ARG:HA	47:XM:32:GLU:HB3	1.97	0.47
47:XM:81:LEU:CD1	47:XM:88:ARG:HD2	2.43	0.47
35:QA:1302:U:H5	47:QM:17:VAL:HG21	1.79	0.47
35:QA:1497:G:H1'	35:QA:1518:MA6:H2	1.97	0.47
4:RA:65:C:H2'	4:RA:66:C:H6	1.79	0.47
4:RA:284:U:H2'	4:RA:285:C:C6	2.49	0.47
4:RA:852:G:H2'	4:RA:853:G:H8	1.80	0.47
4:RA:2615:U:H2'	4:RA:2616:C:H6	1.80	0.47
9:RG:107:LEU:HD21	9:RG:178:PHE:CD1	2.50	0.47
16:RR:28:LEU:HD12	16:RR:48:VAL:HG21	1.95	0.47
17:RS:7:TYR:HB2	17:RS:10:ARG:NH2	2.29	0.47
18:RT:107:ASP:O	18:RT:111:ARG:HB2	2.14	0.47
29:R4:25:TYR:N	29:R4:25:TYR:CD1	2.82	0.47
1:XV:24:U:O2'	4:YA:1923:U:OP1	2.30	0.47
3:XY:30:LYS:HD3	3:XY:66:VAL:HG11	1.97	0.47
3:XY:322:GLN:NE2	35:XA:519:C:P	2.88	0.47
3:XY:328:LEU:HD22	3:XY:345:THR:HB	1.96	0.47
4:YA:11:G:C2'	4:YA:12:U:H5'	2.44	0.47
4:YA:534:U:H2'	4:YA:535:C:H6	1.79	0.47
4:YA:689:A:H2'	4:YA:690:G:C8	2.50	0.47
4:YA:1266:G:O2'	4:YA:2012:G:O6	2.29	0.47
4:YA:2028:U:H2'	4:YA:2029:G:O4'	2.14	0.47
4:YA:2119:A:H61	4:YA:2168:G:N2	2.13	0.47
4:YA:2267:A:H5"	4:YA:2268:A:H5'	1.96	0.47
4:YA:2317:C:H2'	4:YA:2318:G:H5'	1.96	0.47
4:YA:2469:A:O3'	15:YQ:56:ARG:HD2	2.15	0.47
4:YA:2811:G:OP1	7:YE:60:ASN:HB2	2.15	0.47
5:YB:13:A:N1	5:YB:69:G:O2'	2.39	0.47
10:YH:3:ARG:HH12	10:YH:5:GLY:H	1.63	0.47
14:YP:98:GLU:OE1	14:YP:98:GLU:N	2.35	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:YQ:59:ARG:NH1	15:YQ:60:ARG:HG3	2.29	0.47
17:YS:15:ARG:O	17:YS:19:LYS:HG2	2.15	0.47
35:XA:32:A:H2'	35:XA:33:A:C8	2.50	0.47
35:XA:363:A:OP1	46:XL:33:ARG:HG3	2.15	0.47
35:XA:1151:A:O4'	44:XJ:39:PRO:HB2	2.14	0.47
35:XA:1435:G:H2'	35:XA:1436:U:H6	1.77	0.47
36:XB:57:PHE:CE2	36:XB:185:ILE:HD11	2.49	0.47
36:XB:78:GLN:O	36:XB:94:ASN:ND2	2.48	0.47
36:XB:111:ARG:HA	36:XB:111:ARG:NE	2.11	0.47
38:XD:61:LYS:HD3	38:XD:206:PHE:CD2	2.50	0.47
38:XD:68:TYR:N	38:XD:68:TYR:CD1	2.83	0.47
40:XF:60:PHE:CE2	52:XR:78:LEU:HD21	2.49	0.47
41:XG:32:ARG:O	41:XG:34:GLY:N	2.47	0.47
51:XQ:27:PHE:N	51:XQ:27:PHE:HD1	2.13	0.47
35:QA:35:G:H2'	35:QA:36:C:C6	2.49	0.47
35:QA:604:G:C6	35:QA:635:G:C6	3.03	0.47
35:QA:953:G:C6	35:QA:1229:A:C6	3.03	0.47
35:QA:1131:G:H2'	35:QA:1132:C:C6	2.49	0.47
35:QA:1251:A:H2'	35:QA:1252:A:C8	2.49	0.47
38:QD:59:ARG:HA	38:QD:59:ARG:NE	2.20	0.47
38:QD:112:VAL:HG22	38:QD:116:GLN:OE1	2.14	0.47
43:QI:89:ASN:OD1	43:QI:91:ASP:N	2.47	0.47
46:QL:98:TYR:N	46:QL:98:TYR:HD1	2.13	0.47
4:RA:492:A:H2'	4:RA:493:G:O4'	2.15	0.47
4:RA:623:G:H2'	4:RA:624:C:C6	2.50	0.47
4:RA:900:A:C4	4:RA:901:A:C8	3.03	0.47
4:RA:1045:A:H5'	4:RA:1047:G:O5'	2.14	0.47
4:RA:1198:U:H2'	4:RA:1199:U:H6	1.79	0.47
4:RA:1296:G:OP1	4:RA:2709:G:O2'	2.31	0.47
4:RA:1444:G:H2'	4:RA:1445(B):C:C5	2.50	0.47
4:RA:2365:G:H4'	25:R0:60:PHE:CZ	2.50	0.47
4:RA:2494:G:H2'	4:RA:2495:G:H8	1.79	0.47
4:RA:2629:A:H1'	4:RA:2630:G:H5"	1.97	0.47
5:RB:87:G:N2	5:RB:89:G:H3'	2.30	0.47
6:RD:72:LYS:HD3	6:RD:97:TYR:CE2	2.50	0.47
9:RG:25:TYR:HB3	9:RG:30:GLU:HG3	1.97	0.47
14:RP:127:ALA:O	14:RP:147:LEU:HA	2.14	0.47
16:RR:47:PHE:CD1	16:RR:47:PHE:C	2.92	0.47
20:RV:1:MET:HE3	20:RV:40:LEU:HB3	1.96	0.47
24:RZ:180:VAL:HG13	24:RZ:183:LEU:HD12	1.96	0.47
26:R1:69:LYS:HE2	26:R1:72:GLU:OE1	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:QY:200:ARG:HB2	3:QY:322:GLN:CB	2.45	0.47
4:YA:84:A:C2	4:YA:103:A:C5	3.03	0.47
4:YA:467:G:OP1	32:Y7:33:ARG:HD2	2.15	0.47
4:YA:589:C:H2'	4:YA:590:A:H8	1.79	0.47
4:YA:615:G:OP1	8:YF:40:GLN:HG2	2.15	0.47
4:YA:994:C:O2'	4:YA:996:A:OP1	2.23	0.47
4:YA:1047:G:O2'	4:YA:1048:A:O5'	2.32	0.47
4:YA:1503:U:H2'	4:YA:1504:C:H6	1.79	0.47
4:YA:1571:A:H2'	4:YA:1572:A:C8	2.49	0.47
4:YA:1683:C:H2'	4:YA:1684:C:H6	1.79	0.47
4:YA:2016:U:H1'	30:Y5:6:VAL:HG13	1.96	0.47
10:YH:94:TYR:HA	10:YH:106:THR:O	2.14	0.47
13:YO:63:VAL:HG12	13:YO:106:LEU:HD11	1.97	0.47
24:YZ:28:MET:HE2	24:YZ:37:VAL:CG1	2.42	0.47
34:Y9:16:VAL:HG22	34:Y9:25:VAL:HG22	1.97	0.47
35:XA:612:C:H2'	35:XA:613:C:H6	1.80	0.47
35:XA:614:A:H2'	35:XA:615:C:C6	2.50	0.47
35:XA:1273:G:H3'	35:XA:1274:G:H8	1.80	0.47
35:XA:1410:G:H2'	35:XA:1411:C:H6	1.77	0.47
38:XD:13:ARG:HG2	38:XD:38:TYR:O	2.15	0.47
35:QA:96:U:H2'	35:QA:97:G:C8	2.48	0.47
35:QA:532:A:H61	37:QC:193:TYR:HA	1.80	0.47
38:QD:170:VAL:HG12	38:QD:174:LEU:HB2	1.95	0.47
43:QI:59:PHE:CZ	43:QI:88:TYR:CE2	3.02	0.47
4:RA:534:U:H2'	4:RA:535:C:C6	2.50	0.47
4:RA:538:G:H2'	4:RA:539:G:H8	1.79	0.47
4:RA:1057:A:O2'	4:RA:1058:G:OP1	2.29	0.47
4:RA:1711:C:H2'	4:RA:1712:C:C6	2.49	0.47
4:RA:1831:G:H2'	4:RA:1832:C:C6	2.49	0.47
4:RA:2319:G:H22	17:RS:3:ARG:NH1	2.12	0.47
17:RS:112:PHE:N	17:RS:112:PHE:CD1	2.82	0.47
32:R7:12:ARG:NH2	32:R7:44:PRO:HB3	2.30	0.47
3:QY:41:LEU:HD23	3:QY:46:VAL:HG21	1.96	0.47
4:YA:827:U:O2'	4:YA:2068:U:C2	2.65	0.47
4:YA:1364:G:OP2	26:Y1:3:LYS:HG3	2.15	0.47
4:YA:2298:A:H62	4:YA:2318:G:H8	1.59	0.47
9:YG:107:LEU:HD11	9:YG:178:PHE:CE1	2.48	0.47
12:YN:58:ASP:OD1	12:YN:58:ASP:N	2.48	0.47
27:Y2:32:LEU:HD12	27:Y2:57:ILE:HD12	1.97	0.47
29:Y4:68:ARG:O	29:Y4:69:LYS:HB3	2.15	0.47
35:XA:338:A:H2'	35:XA:339:C:H6	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:XA:538:G:H5"	46:XL:114:LYS:HB2	1.97	0.47
35:XA:728:A:H2'	35:XA:729:A:C8	2.50	0.47
35:XA:743:U:H2'	35:XA:744:C:H6	1.78	0.47
35:XA:1030(B):G:H1'	35:XA:1030(D):G:N7	2.30	0.47
35:XA:1305:G:OP1	55:XU:2:GLY:N	2.48	0.47
36:XB:28:PHE:CD2	36:XB:190:THR:HA	2.50	0.47
47:XM:91:ARG:HB2	47:XM:98:VAL:HG22	1.97	0.47
47:XM:96:LEU:C	47:XM:110:ARG:HD3	2.40	0.47
35:QA:96:U:H2'	35:QA:97:G:H8	1.78	0.47
35:QA:824:C:H2'	35:QA:825:G:C8	2.49	0.47
35:QA:1160:G:C5	35:QA:1161:C:C5	3.03	0.47
4:RA:479:A:N3	4:RA:481:G:H5"	2.30	0.47
4:RA:1503:U:H2'	4:RA:1504:C:H6	1.77	0.47
4:RA:2099:U:H3	4:RA:2190:G:H1	1.62	0.47
4:RA:2647:U:H2'	4:RA:2648:C:H6	1.80	0.47
1:QV:3:C:C2'	1:QV:4:G:H5'	2.44	0.47
4:YA:65:C:H2'	4:YA:66:C:C6	2.50	0.47
4:YA:1182:A:H2'	4:YA:1183:G:C8	2.50	0.47
4:YA:1842:G:H2'	4:YA:1843:C:H6	1.79	0.47
4:YA:2118:U:O2'	4:YA:2119:A:H5"	2.14	0.47
5:YB:96:U:H2'	5:YB:97:G:C8	2.50	0.47
6:YD:84:TYR:HD1	6:YD:84:TYR:C	2.22	0.47
9:YG:6:ALA:N	9:YG:104:GLU:OE2	2.48	0.47
9:YG:41:GLN:HG2	9:YG:154:GLY:O	2.15	0.47
23:YY:56:PRO:C	23:YY:58:GLY:H	2.23	0.47
26:Y1:43:TYR:N	26:Y1:43:TYR:HD1	2.12	0.47
28:Y3:44:ARG:O	28:Y3:48:GLU:HG3	2.14	0.47
29:Y4:47:GLN:C	29:Y4:49:PHE:H	2.22	0.47
30:Y5:16:ARG:NH1	30:Y5:17:ASP:OD1	2.48	0.47
35:XA:71:C:H2'	35:XA:72:C:C6	2.50	0.47
35:XA:222:U:H2'	35:XA:223:U:H6	1.79	0.47
35:XA:542:G:OP1	38:XD:10:ARG:NH1	2.48	0.47
43:XI:31:GLN:HE21	43:XI:36:TYR:HD1	1.63	0.47
43:XI:59:PHE:N	43:XI:59:PHE:CD1	2.83	0.47
45:XK:65:ALA:HB3	45:XK:97:ALA:HB3	1.97	0.47
46:XL:110:VAL:HB	46:XL:113:ARG:HG2	1.97	0.47
35:QA:189(L):U:H2'	35:QA:189(M):G:C8	2.50	0.47
35:QA:235:C:H2'	35:QA:236:G:H8	1.79	0.47
35:QA:340:U:H2'	35:QA:341:C:C6	2.50	0.47
43:QI:42:ARG:O	43:QI:42:ARG:HD3	2.15	0.47
46:QL:27:LEU:HD13	46:QL:98:TYR:HE2	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:594:U:H2'	4:RA:595:C:C6	2.50	0.47
4:RA:995:C:N4	12:RN:2:LYS:HG3	2.29	0.47
4:RA:1291:C:H2'	4:RA:1292:U:C6	2.50	0.47
4:RA:1321:A:H2'	4:RA:1322:A:H8	1.80	0.47
4:RA:1629:U:H2'	4:RA:1630:G:C8	2.50	0.47
7:RE:6:GLY:O	7:RE:195:LEU:HD12	2.15	0.47
11:RI:89:TYR:N	11:RI:89:TYR:CD1	2.83	0.47
21:RW:12:ILE:HD13	21:RW:17:VAL:HG13	1.96	0.47
3:QY:196:THR:HG23	3:QY:222:VAL:HB	1.97	0.46
1:XV:52:G:C2	1:XV:63:G:C2	3.02	0.46
4:YA:1278:A:H2'	4:YA:1279:G:C8	2.51	0.46
4:YA:2064:C:H2'	4:YA:2065:C:H6	1.78	0.46
4:YA:2167:U:H2'	4:YA:2168:G:C4	2.50	0.46
12:YN:22:THR:HB	12:YN:25:ARG:HB2	1.96	0.46
17:YS:7:TYR:HE1	17:YS:11:LYS:HE3	1.80	0.46
35:XA:69:G:H2'	35:XA:70:G:H8	1.80	0.46
35:XA:1119:C:H2'	35:XA:1120:G:H8	1.80	0.46
35:XA:1376:U:O4	41:XG:10:ARG:NH1	2.48	0.46
35:XA:1512:U:H2'	35:XA:1513:A:C8	2.50	0.46
42:XH:65:TYR:HA	42:XH:79:VAL:HG23	1.98	0.46
50:XP:59:TRP:HA	50:XP:62:VAL:HG12	1.96	0.46
52:XR:61:LYS:O	52:XR:65:ILE:HG12	2.15	0.46
37:QC:201:TYR:N	37:QC:201:TYR:HD1	2.13	0.46
38:QD:20:TYR:HD2	38:QD:27:TYR:CE1	2.32	0.46
38:QD:133:VAL:HG11	38:QD:138:TYR:HD2	1.79	0.46
39:QE:78:HIS:ND1	42:QH:104:ARG:HD2	2.30	0.46
39:QE:142:LEU:C	39:QE:143:ARG:HG3	2.40	0.46
40:QF:63:TYR:N	40:QF:63:TYR:CD1	2.82	0.46
49:QO:24:SER:O	49:QO:28:GLN:HG3	2.15	0.46
4:RA:140:G:N2	4:RA:1596:A:H4'	2.30	0.46
4:RA:1847:A:H3'	4:RA:1848:A:H5'	1.96	0.46
7:RE:34:VAL:HG22	7:RE:48:GLN:HG2	1.97	0.46
9:RG:131:TYR:HB3	9:RG:159:VAL:HG13	1.98	0.46
14:RP:79:ARG:C	14:RP:80:TYR:HD1	2.22	0.46
14:RP:80:TYR:HD1	14:RP:80:TYR:N	2.13	0.46
14:RP:95:VAL:HG22	14:RP:125:VAL:HA	1.97	0.46
24:RZ:156:LYS:HG3	24:RZ:156:LYS:O	2.14	0.46
4:YA:468:G:N7	32:Y7:39:ARG:NH2	2.54	0.46
4:YA:1201:C:H2'	4:YA:1202:C:H6	1.80	0.46
4:YA:1754:C:C5	18:YT:96:ARG:NH2	2.83	0.46
4:YA:1812:A:O2'	6:YD:45:ASN:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:1915:5MU:H2'	4:YA:1916:A:H8	1.80	0.46
4:YA:2647:U:H2'	4:YA:2648:C:C6	2.51	0.46
6:YD:70:TRP:HB3	6:YD:190:TYR:CZ	2.50	0.46
15:YQ:57:HIS:HE1	15:YQ:116:GLU:CB	2.22	0.46
23:YY:20:TYR:N	23:YY:20:TYR:CD1	2.83	0.46
24:YZ:125:LEU:HG	24:YZ:164:ALA:HB3	1.98	0.46
35:XA:201:C:H42	35:XA:216:G:H1	1.63	0.46
35:XA:1202:G:O4'	48:XN:29:ARG:NH1	2.49	0.46
35:XA:1346:A:H61	35:XA:1374:A:H3'	1.80	0.46
50:XP:75:ARG:HG3	50:XP:80:PHE:CD2	2.49	0.46
51:XQ:6:LEU:O	51:XQ:58:GLU:HA	2.14	0.46
35:QA:973:G:H3'	35:QA:974:A:H5"	1.96	0.46
35:QA:1037:C:H2'	35:QA:1038:C:H6	1.79	0.46
35:QA:1292:U:P	41:QG:41:ARG:NH2	2.88	0.46
47:QM:108:ARG:HD3	47:QM:108:ARG:HA	1.62	0.46
4:RA:580:C:H2'	4:RA:581:C:C6	2.50	0.46
4:RA:581:C:H2'	4:RA:582:G:H8	1.79	0.46
4:RA:1720:U:H2'	4:RA:1721:G:O4'	2.16	0.46
4:RA:2051:A:H5'	4:RA:2578:G:O4'	2.16	0.46
4:RA:2162:G:H2'	4:RA:2163:C:C6	2.50	0.46
4:RA:2591:C:H2'	4:RA:2592:G:H8	1.80	0.46
7:RE:175:VAL:HG12	7:RE:182:LEU:HD12	1.98	0.46
16:RR:21:TYR:HB3	16:RR:47:PHE:CD2	2.50	0.46
20:RV:40:LEU:HB2	20:RV:46:VAL:HG13	1.97	0.46
23:RY:20:TYR:HB3	23:RY:23:ARG:HG3	1.96	0.46
24:RZ:155:LEU:HD11	24:RZ:171:ILE:HD13	1.96	0.46
29:R4:61:ARG:HG2	29:R4:62:ARG:H	1.80	0.46
2:QX:22:C:N4	3:QY:210:GLY:HA3	2.30	0.46
3:QY:30:LYS:HD2	3:QY:66:VAL:HG11	1.97	0.46
3:QY:304:ASN:O	3:QY:308:GLN:HG2	2.15	0.46
3:XY:159:ARG:NH2	3:XY:354:ASP:OD2	2.46	0.46
3:XY:255:ASN:ND2	4:YA:2584:U:O2'	2.42	0.46
3:XY:335:ASP:O	3:XY:339:GLY:HA3	2.16	0.46
4:YA:320:A:H4'	4:YA:322:A:N7	2.30	0.46
4:YA:950:G:H2'	4:YA:951:C:C6	2.51	0.46
4:YA:2864:G:OP1	18:YT:119:LYS:HE3	2.15	0.46
9:YG:11:TYR:HD2	9:YG:12:TYR:CD1	2.33	0.46
18:YT:28:VAL:HG13	18:YT:86:ILE:HG23	1.97	0.46
19:YU:34:LYS:HD3	19:YU:34:LYS:HA	1.64	0.46
26:Y1:60:PHE:N	26:Y1:60:PHE:HD1	2.13	0.46
35:XA:255:G:OP1	51:XQ:69:LYS:NZ	2.44	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:XA:646:U:H2'	35:XA:647:C:H6	1.80	0.46
35:XA:1002:G:C2	35:XA:1003:G:C8	3.03	0.46
38:XD:64:LEU:HB2	38:XD:198:VAL:HG11	1.97	0.46
38:XD:196:LEU:O	38:XD:198:VAL:N	2.45	0.46
44:XJ:57:LYS:HE3	44:XJ:60:ARG:NH2	2.29	0.46
35:QA:352:C:O2'	35:QA:354:G:OP1	2.27	0.46
35:QA:1343:G:H2'	35:QA:1344:C:C6	2.50	0.46
38:QD:57:ARG:NE	38:QD:205:GLU:HG2	2.30	0.46
43:QI:13:ALA:HA	43:QI:66:ARG:O	2.15	0.46
4:RA:273(E):G:C2	4:RA:273(F):G:C8	3.03	0.46
4:RA:1199:U:H2'	4:RA:1200:C:C6	2.50	0.46
4:RA:1269:A:H2'	4:RA:1270:C:C6	2.50	0.46
6:RD:52:ARG:H	6:RD:52:ARG:HG2	1.43	0.46
6:RD:70:TRP:HB3	6:RD:190:TYR:CZ	2.51	0.46
15:RQ:32:TYR:N	15:RQ:32:TYR:CD1	2.83	0.46
16:RR:95:THR:HA	16:RR:115:GLU:O	2.16	0.46
3:QY:191:TRP:O	3:QY:194:THR:HG22	2.14	0.46
3:QY:254:VAL:H	4:RA:2602:A:N6	2.14	0.46
3:QY:265:HIS:HB2	3:QY:291:MET:HE1	1.96	0.46
2:XX:22:C:C6	3:XY:212:ARG:HD3	2.50	0.46
4:YA:1094:U:O2'	4:YA:1096:A:N7	2.46	0.46
4:YA:1278:A:H2'	4:YA:1279:G:H8	1.81	0.46
4:YA:1289:C:H2'	4:YA:1290:C:H6	1.81	0.46
4:YA:2693:A:H2'	4:YA:2694:G:C8	2.51	0.46
14:YP:90:ARG:NH1	14:YP:105:LEU:HD11	2.30	0.46
15:YQ:16:ARG:HG3	15:YQ:17:LEU:N	2.30	0.46
35:XA:115:G:H4'	35:XA:116:A:O5'	2.16	0.46
35:XA:269:C:H2'	35:XA:270:A:H8	1.79	0.46
35:XA:270:A:H2'	35:XA:271:C:H6	1.77	0.46
35:XA:828:A:H2'	35:XA:829:G:O4'	2.15	0.46
35:XA:1162:C:H2'	35:XA:1163:C:H6	1.80	0.46
36:XB:113:HIS:CD2	36:XB:113:HIS:H	2.33	0.46
43:XI:49:PRO:HG3	43:XI:101:PHE:CD2	2.48	0.46
36:QB:7:VAL:HG12	36:QB:217:ARG:HD2	1.97	0.46
40:QF:59:TYR:C	40:QF:59:TYR:HD1	2.23	0.46
46:QL:89:ARG:HA	46:QL:97:ARG:HA	1.96	0.46
4:RA:38:A:H2'	4:RA:39:C:H6	1.80	0.46
4:RA:197:A:N6	4:RA:2430:A:H2'	2.30	0.46
4:RA:1417:C:H2'	4:RA:1418:G:O4'	2.16	0.46
4:RA:1421:G:C2	4:RA:1422:G:C8	3.03	0.46
7:RE:178:GLU:H	7:RE:178:GLU:CD	2.23	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:RN:94:HIS:HB3	12:RN:97:ARG:HD3	1.97	0.46
12:RN:121:LYS:CE	12:RN:121:LYS:HD2	2.20	0.46
22:RX:28:PHE:N	22:RX:28:PHE:HD1	2.13	0.46
26:R1:3:LYS:HG3	26:R1:4:VAL:N	2.29	0.46
3:QY:264:THR:HB	3:QY:271:VAL:HG12	1.98	0.46
4:YA:484:C:H2'	4:YA:485:C:C6	2.51	0.46
4:YA:566:U:H5"	14:YP:29:LYS:HE3	1.98	0.46
4:YA:637:A:H5"	14:YP:117:GLU:HG2	1.97	0.46
4:YA:639:U:C2	4:YA:640:C:C5	3.02	0.46
4:YA:971:C:H2'	4:YA:972:G:O4'	2.16	0.46
4:YA:1639:U:C2'	4:YA:1640:C:H5"	2.45	0.46
4:YA:2506:U:OP1	7:YE:144:ARG:NH2	2.48	0.46
6:YD:108:PRO:HD2	6:YD:111:LEU:CD1	2.45	0.46
7:YE:24:THR:HG23	7:YE:186:GLY:O	2.16	0.46
8:YF:129:PHE:O	8:YF:132:VAL:HG22	2.16	0.46
8:YF:155:LEU:HD11	8:YF:176:LEU:HD12	1.97	0.46
16:YR:24:GLN:HE22	16:YR:36:THR:HG21	1.81	0.46
23:YY:60:PHE:N	23:YY:60:PHE:HD1	2.14	0.46
23:YY:89:PHE:N	23:YY:89:PHE:CD1	2.83	0.46
26:Y1:43:TYR:N	26:Y1:43:TYR:CD1	2.84	0.46
35:XA:552:U:H4'	46:XL:87:GLY:HA2	1.96	0.46
35:XA:858:G:O6	35:XA:869:G:H3'	2.16	0.46
36:XB:122:PHE:CG	36:XB:127:ILE:HD12	2.51	0.46
35:QA:1428:A:H2'	35:QA:1429:C:H6	1.80	0.46
38:QD:155:LEU:HB3	38:QD:158:ILE:HG12	1.97	0.46
38:QD:178:VAL:HG12	38:QD:179:GLU:H	1.80	0.46
39:QE:152:ARG:HB2	42:QH:43:GLY:O	2.15	0.46
40:QF:3:ARG:C	40:QF:4:TYR:HD1	2.23	0.46
47:QM:4:ILE:HA	47:QM:5:ALA:HA	1.61	0.46
47:QM:65:LYS:NZ	47:QM:73:GLU:OE1	2.41	0.46
4:RA:84:A:C2	4:RA:103:A:C5	3.04	0.46
4:RA:719:C:H2'	4:RA:720:C:H6	1.81	0.46
4:RA:871:U:H4'	15:RQ:69:PHE:CE2	2.51	0.46
4:RA:1164:G:H2'	4:RA:1165:U:H6	1.80	0.46
4:RA:1628:G:H2'	4:RA:1629:U:H6	1.80	0.46
4:RA:1848:A:C4	4:RA:1849:G:C8	3.03	0.46
11:RI:89:TYR:N	11:RI:89:TYR:HD1	2.13	0.46
19:RU:34:LYS:HA	19:RU:34:LYS:HD3	1.67	0.46
31:R6:14:THR:HG21	31:R6:48:VAL:HG13	1.97	0.46
4:YA:273(E):G:C2	4:YA:273(F):G:C8	3.03	0.46
4:YA:634:C:H2'	4:YA:635:C:C6	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:706:A:H2'	4:YA:707:G:O4'	2.16	0.46
4:YA:1420:U:O2'	4:YA:1421:G:OP1	2.31	0.46
4:YA:1629:U:H2'	4:YA:1630:G:C8	2.50	0.46
4:YA:2373:G:H2'	4:YA:2374:C:C6	2.51	0.46
7:YE:44:TYR:CD1	7:YE:44:TYR:N	2.84	0.46
17:YS:7:TYR:C	17:YS:7:TYR:CD1	2.94	0.46
17:YS:87:PHE:HB2	17:YS:112:PHE:CE2	2.51	0.46
18:YT:101:PHE:C	18:YT:101:PHE:CD2	2.93	0.46
28:Y3:11:SER:HA	28:Y3:31:LEU:HD21	1.97	0.46
35:XA:881:G:OP2	46:XL:12:ARG:NH2	2.49	0.46
36:XB:16:HIS:CB	36:XB:210:SER:HB3	2.46	0.46
46:XL:32:PHE:N	46:XL:32:PHE:HD1	2.14	0.46
35:QA:176:C:H2'	35:QA:177:C:C6	2.50	0.46
35:QA:1118:C:H1'	35:QA:1179:A:C4	2.50	0.46
42:QH:63:LEU:HD23	42:QH:65:TYR:OH	2.16	0.46
42:QH:83:ILE:HA	42:QH:136:GLU:O	2.15	0.46
45:QK:18:ARG:HB2	45:QK:33:THR:OG1	2.16	0.46
49:QO:64:ARG:NH1	49:QO:68:ARG:HH21	2.13	0.46
4:RA:236:C:H2'	4:RA:237:C:H6	1.80	0.46
4:RA:614(A):U:H2'	4:RA:614(B):U:O4'	2.16	0.46
4:RA:747:U:O2	4:RA:2014:A:H1'	2.16	0.46
4:RA:2103:C:N3	4:RA:2104:G:N2	2.63	0.46
4:RA:2109:U:H2'	4:RA:2110:G:C8	2.50	0.46
4:RA:2313:C:C4'	9:RG:40:ASN:HD22	2.29	0.46
7:RE:170:LEU:HB3	7:RE:184:VAL:HG22	1.97	0.46
8:RF:158:THR:OG1	8:RF:195:ASP:OD2	2.30	0.46
11:RI:130:TYR:HB3	11:RI:138:ILE:HB	1.96	0.46
20:RV:61:VAL:HA	20:RV:94:LEU:HD23	1.97	0.46
23:RY:9:LYS:HA	23:RY:10:GLY:HA2	1.62	0.46
26:R1:50:ARG:NH1	26:R1:57:GLU:OE2	2.49	0.46
26:R1:56:GLN:NE2	26:R1:87:PRO:HD3	2.31	0.46
1:QV:54:U:N3	1:QV:58:A:C8	2.81	0.46
3:QY:242:ASP:OD1	3:QY:242:ASP:N	2.48	0.46
4:YA:836:G:H2'	4:YA:837:C:C6	2.50	0.46
4:YA:1084:A:H3'	4:YA:1085:A:C4'	2.44	0.46
9:YG:5:VAL:HG22	9:YG:8:LYS:HB3	1.97	0.46
9:YG:16:ARG:HB2	9:YG:17:PRO:HD3	1.96	0.46
12:YN:14:VAL:HG11	12:YN:138:LEU:HD12	1.98	0.46
12:YN:108:PRO:O	12:YN:113:GLY:HA3	2.16	0.46
15:YQ:65:PHE:N	15:YQ:65:PHE:HD1	2.12	0.46
22:YX:40:LYS:HG3	22:YX:51:VAL:HB	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:XA:272:C:C2	35:XA:273:A:C8	3.04	0.46
35:XA:1346:A:N1	35:XA:1374:A:H5"	2.30	0.46
35:QA:171:A:H2'	35:QA:172:A:C8	2.51	0.46
35:QA:455:C:H2'	35:QA:456:C:C6	2.50	0.46
35:QA:1034:G:H3'	35:QA:1035:A:C8	2.51	0.46
35:QA:1038:C:H2'	35:QA:1039:C:C6	2.51	0.46
47:QM:64:TRP:C	29:R4:50:VAL:HG21	2.39	0.46
49:QO:29:VAL:HG11	49:QO:67:LEU:HD21	1.98	0.46
50:QP:1:MET:SD	50:QP:65:GLN:HG3	2.56	0.46
53:QS:22:LEU:HD12	53:QS:31:ILE:HD11	1.98	0.46
4:RA:338:G:OP1	23:RY:4:LYS:NZ	2.46	0.46
4:RA:1092:C:H2'	4:RA:1092:C:O2	2.15	0.46
4:RA:1514:U:H2'	4:RA:1515:G:C8	2.51	0.46
10:RH:3:ARG:CG	10:RH:6:ARG:HG2	2.46	0.46
13:RO:79:PHE:N	13:RO:79:PHE:HD1	2.14	0.46
14:RP:8:PRO:HB2	14:RP:12:ALA:HB3	1.98	0.46
20:RV:40:LEU:HB2	20:RV:46:VAL:CG1	2.46	0.46
3:QY:295:LEU:HD12	3:QY:295:LEU:O	2.16	0.46
4:YA:361:G:O2'	4:YA:362:U:H5'	2.16	0.46
4:YA:950:G:H2'	4:YA:951:C:H6	1.80	0.46
4:YA:1496:A:H2'	4:YA:1498:C:C5	2.51	0.46
4:YA:1756:G:H4'	4:YA:1758:G:O4'	2.16	0.46
4:YA:2115:G:H22	4:YA:2119:A:H5'	1.80	0.46
4:YA:2164:C:H5"	4:YA:2165:G:OP2	2.16	0.46
4:YA:2262:U:OP1	4:YA:2387:U:O2'	2.27	0.46
4:YA:2793:G:H2'	4:YA:2794(A):C:O4'	2.15	0.46
8:YF:187:VAL:HG12	14:YP:3:LEU:HD12	1.98	0.46
9:YG:14:GLU:C	9:YG:17:PRO:HD2	2.41	0.46
10:YH:87:LEU:HD23	10:YH:164:TYR:HA	1.98	0.46
11:YI:82:ARG:HD2	35:QA:368:U:O4	2.15	0.46
26:Y1:71:TYR:N	26:Y1:71:TYR:HD1	2.14	0.46
35:XA:35:G:H2'	35:XA:36:C:C6	2.51	0.46
35:XA:600:C:H2'	35:XA:601:C:C6	2.51	0.46
35:XA:831:U:H2'	35:XA:832:C:H6	1.80	0.46
35:XA:1171:G:H2'	35:XA:1172:C:H6	1.81	0.46
38:XD:133:VAL:HG11	38:XD:138:TYR:HD2	1.81	0.46
39:XE:68:GLU:HG3	39:XE:68:GLU:O	2.15	0.46
50:XP:75:ARG:HG3	50:XP:80:PHE:HD2	1.81	0.46
35:QA:108:G:H1	54:QT:15:ARG:HG2	1.80	0.46
35:QA:410:G:OP1	38:QD:30:LYS:NZ	2.35	0.46
35:QA:1258:G:H2'	35:QA:1259:C:C6	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:QA:1410:G:H2'	35:QA:1411:C:C6	2.50	0.46
36:QB:82:ARG:NH1	36:QB:86:GLU:OE2	2.49	0.46
38:QD:138:TYR:CD1	38:QD:138:TYR:C	2.94	0.46
41:QG:70:LYS:O	41:QG:138:LYS:HE2	2.16	0.46
42:QH:6:ILE:HB	42:QH:85:ARG:NH1	2.31	0.46
43:QI:80:GLY:O	43:QI:83:ARG:HB2	2.16	0.46
4:RA:55:G:O2'	4:RA:127:A:N1	2.44	0.46
4:RA:1866:C:H2'	4:RA:1876:A:O4'	2.16	0.46
4:RA:2115:G:H3'	4:RA:2116:G:H5'	1.98	0.46
4:RA:2537:U:H2'	4:RA:2538:C:C6	2.51	0.46
11:RI:130:TYR:HE2	11:RI:132:PRO:HB3	1.81	0.46
13:RO:64:ARG:HG2	13:RO:79:PHE:CG	2.50	0.46
15:RQ:109:VAL:HG13	15:RQ:113:GLN:HB2	1.97	0.46
23:RY:89:PHE:N	23:RY:89:PHE:CD1	2.84	0.46
3:XY:152:TYR:OH	3:XY:199:HIS:NE2	2.39	0.46
4:YA:185:U:H4'	4:YA:218:A:H4'	1.98	0.46
4:YA:443:A:H1'	4:YA:1201:C:O4'	2.16	0.46
4:YA:1269:A:H2'	4:YA:1270:C:C6	2.50	0.46
15:YQ:35:VAL:HG12	15:YQ:130:LYS:O	2.15	0.46
16:YR:87:TYR:OH	16:YR:117:VAL:O	2.29	0.46
20:YV:81:TYR:C	20:YV:82:ARG:HG3	2.41	0.46
27:Y2:31:GLU:OE1	27:Y2:53:LEU:HD11	2.15	0.46
35:XA:953:G:N7	47:XM:104:ARG:NH2	2.55	0.46
40:XF:59:TYR:C	40:XF:59:TYR:HD1	2.23	0.46
35:QA:32:A:H2'	35:QA:33:A:C8	2.51	0.46
35:QA:333:G:H2'	35:QA:334:C:H6	1.81	0.46
35:QA:417:C:H2'	35:QA:418:C:H6	1.80	0.46
35:QA:1161:C:C2	35:QA:1162:C:C5	3.04	0.46
37:QC:180:ALA:HB1	37:QC:203:PHE:CE1	2.51	0.46
43:QI:88:TYR:HD1	43:QI:88:TYR:O	1.99	0.46
50:QP:8:ARG:C	50:QP:9:PHE:HD1	2.24	0.46
4:RA:192:C:O2'	4:RA:802:A:N3	2.43	0.46
4:RA:1803:A:O2'	6:RD:259:THR:HG21	2.16	0.46
4:RA:1827:C:O2'	4:RA:1970:A:N3	2.45	0.46
4:RA:2619:C:H4'	7:RE:151:TYR:O	2.15	0.46
9:RG:16:ARG:NE	9:RG:31:VAL:CG2	2.78	0.46
23:RY:87:LYS:HB3	23:RY:95:LYS:HD2	1.97	0.46
3:QY:14:LEU:HD23	3:QY:17:ARG:NH1	2.30	0.46
4:YA:1084:A:C8	4:YA:1085:A:H4'	2.51	0.46
4:YA:1097:U:O2	4:YA:1097:U:H2'	2.15	0.46
4:YA:1239:G:H2'	4:YA:1240:U:O4'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:1431:U:H2'	4:YA:1432:C:H6	1.82	0.46
4:YA:2507:C:C5'	4:YA:2573:C:H41	2.29	0.46
4:YA:2637:U:H5'	7:YE:44:TYR:CE2	2.51	0.46
16:YR:95:THR:HG22	16:YR:116:LEU:HD23	1.98	0.46
29:Y4:59:PHE:CA	29:Y4:61:ARG:H	2.23	0.46
41:XG:90:GLU:CD	41:XG:90:GLU:H	2.24	0.46
47:XM:99:ARG:HB2	47:XM:101:GLN:HE22	1.80	0.46
35:QA:22:G:H2'	35:QA:23:C:H6	1.80	0.46
35:QA:41:G:H2'	35:QA:42:G:H8	1.81	0.46
35:QA:299:G:H2'	35:QA:300:A:C8	2.51	0.46
35:QA:359:U:H2'	35:QA:360:A:C8	2.51	0.46
35:QA:1410:G:C4	35:QA:1491:G:N2	2.84	0.46
38:QD:185:PHE:HE1	38:QD:187:ARG:O	1.99	0.46
40:QF:60:PHE:CE2	52:QR:78:LEU:HD21	2.51	0.46
42:QH:121:ASP:N	42:QH:121:ASP:OD1	2.49	0.46
4:RA:39:C:H2'	4:RA:40:C:C6	2.51	0.46
4:RA:833:U:H2'	4:RA:834:C:C6	2.51	0.46
4:RA:1024:G:O2'	4:RA:1144:G:O2'	2.22	0.46
4:RA:1638:C:O3'	4:RA:2709:G:N2	2.49	0.46
11:RI:72:LEU:C	11:RI:74:ASN:H	2.23	0.46
17:RS:7:TYR:HD1	17:RS:7:TYR:O	1.99	0.46
17:RS:64:GLU:O	17:RS:68:GLN:HG3	2.15	0.46
25:R0:77:ARG:C	25:R0:78:TYR:HD1	2.23	0.46
26:R1:18:ILE:HG12	26:R1:37:ILE:HG12	1.98	0.46
32:R7:46:VAL:HG13	32:R7:48:LYS:NZ	2.31	0.46
3:QY:133:GLN:HG2	4:RA:1914:C:O2	2.16	0.45
3:QY:219:SER:HB2	4:RA:1914:C:H42	1.81	0.45
3:XY:134:ALA:O	3:XY:317:ILE:HD13	2.16	0.45
3:XY:201:LEU:HG	3:XY:203:ARG:HB2	1.96	0.45
3:XY:332:ARG:HG3	3:XY:343:ARG:HG2	1.99	0.45
4:YA:250:G:P	33:Y8:13:ARG:HH22	2.39	0.45
4:YA:1683:C:H2'	4:YA:1684:C:C6	2.51	0.45
4:YA:2109:U:N3	4:YA:2110:G:O6	2.50	0.45
4:YA:2420:C:OP1	33:Y8:34:TRP:HB3	2.16	0.45
4:YA:2717:G:H1'	18:YT:96:ARG:NH2	2.31	0.45
4:YA:2838:G:C4	4:YA:2839:G:C8	3.05	0.45
7:YE:37:ARG:HA	7:YE:42:ASP:OD2	2.16	0.45
8:YF:167:ALA:HB1	8:YF:173:VAL:HG11	1.98	0.45
18:YT:4:GLY:O	18:YT:8:LYS:HG2	2.16	0.45
42:XH:73:ASP:OD1	42:XH:75:ARG:HG3	2.16	0.45
47:XM:34:LEU:HD13	47:XM:41:PRO:HA	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:XQ:15:MET:HE1	51:XQ:43:LEU:HD22	1.97	0.45
35:QA:115:G:H4'	35:QA:116:A:O5'	2.16	0.45
35:QA:736:C:H2'	35:QA:737:A:H8	1.82	0.45
35:QA:1245:A:H2'	35:QA:1246:C:H6	1.81	0.45
41:QG:18:TYR:CE2	41:QG:59:LEU:HB2	2.51	0.45
43:QI:24:GLY:HA2	43:QI:59:PHE:O	2.16	0.45
44:QJ:5:ARG:CD	44:QJ:71:LEU:HD11	2.46	0.45
53:QS:39:THR:HG22	53:QS:40:ILE:O	2.16	0.45
4:RA:1709:U:H2'	4:RA:1710:C:H6	1.77	0.45
9:RG:5:VAL:HG22	9:RG:8:LYS:HB3	1.97	0.45
9:RG:131:TYR:HB3	9:RG:159:VAL:CG1	2.46	0.45
15:RQ:137:TYR:O	15:RQ:141:GLN:HG2	2.16	0.45
16:RR:17:ARG:HE	16:RR:17:ARG:HB2	1.56	0.45
18:RT:96:ARG:HH11	18:RT:96:ARG:HD2	1.48	0.45
4:YA:493:G:H2'	4:YA:494:G:O4'	2.16	0.45
4:YA:2246:G:H2'	4:YA:2247:A:H8	1.80	0.45
4:YA:2839:G:H5'	16:YR:46:GLY:CA	2.47	0.45
6:YD:77:ALA:HB2	6:YD:97:TYR:CD1	2.52	0.45
8:YF:110:LEU:HA	8:YF:183:VAL:HG12	1.98	0.45
9:YG:137:GLU:HG3	9:YG:140:ILE:HD12	1.97	0.45
17:YS:10:ARG:HA	17:YS:13:ARG:HH21	1.82	0.45
19:YU:92:ARG:HA	19:YU:95:LEU:HB2	1.98	0.45
35:XA:102:G:O2'	35:XA:151:A:N3	2.36	0.45
35:XA:108:G:N1	54:XT:15:ARG:HG2	2.31	0.45
35:XA:744:C:H2'	35:XA:745:C:C6	2.51	0.45
35:XA:744:C:H2'	35:XA:745:C:H6	1.81	0.45
35:XA:1006:C:H2'	35:XA:1007:C:H6	1.80	0.45
37:XC:57:ILE:HG12	37:XC:66:VAL:HG22	1.97	0.45
39:XE:28:PHE:CD2	39:XE:51:VAL:HG22	2.51	0.45
41:XG:17:VAL:HG12	41:XG:18:TYR:CD1	2.51	0.45
50:XP:19:ILE:HD11	50:XP:39:TYR:HB2	1.98	0.45
50:XP:23:ASP:OD1	50:XP:24:ALA:N	2.49	0.45
52:XR:74:ARG:HD3	52:XR:81:PHE:CD1	2.51	0.45
54:XT:36:LEU:HD12	54:XT:62:LEU:HD12	1.98	0.45
35:QA:9:G:OP2	39:QE:121:LYS:NZ	2.41	0.45
35:QA:33:A:N3	46:QL:32:PHE:HE2	2.14	0.45
42:QH:46:LYS:HG3	42:QH:64:LYS:HB2	1.98	0.45
43:QI:49:PRO:HD2	43:QI:81:ILE:HD11	1.98	0.45
43:QI:59:PHE:N	43:QI:59:PHE:CD1	2.84	0.45
47:QM:37:THR:HB	47:QM:55:ARG:HD2	1.98	0.45
4:RA:610:G:H2'	4:RA:611:C:H6	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:875:G:H2'	4:RA:876:C:O4'	2.16	0.45
4:RA:1180:C:H2'	4:RA:1181:C:C6	2.52	0.45
4:RA:1636:C:H2'	4:RA:1637:A:C8	2.52	0.45
4:RA:1658:C:H2'	4:RA:1659:U:C6	2.51	0.45
4:RA:1790:C:H2'	4:RA:1791:A:C5	2.51	0.45
4:RA:2140:C:H2'	4:RA:2141:G:C8	2.47	0.45
4:RA:2286:A:H4'	4:RA:2287:A:O4'	2.16	0.45
4:RA:2698:U:H2'	4:RA:2699:C:H6	1.80	0.45
6:RD:218:ARG:HB3	6:RD:219:PRO:HD2	1.98	0.45
9:RG:178:PHE:HB2	9:RG:180:PHE:HE1	1.81	0.45
15:RQ:59:ARG:HG2	15:RQ:59:ARG:HH11	1.81	0.45
16:RR:26:LYS:HE2	16:RR:70:LEU:O	2.16	0.45
3:QY:329:ASP:O	35:QA:1052:U:H4'	2.16	0.45
3:XY:21:LEU:O	3:XY:25:LEU:HB2	2.16	0.45
3:XY:270:ILE:CG2	3:XY:291:MET:HE1	2.46	0.45
4:YA:285:C:H2'	4:YA:286:C:C6	2.51	0.45
4:YA:350:U:H2'	4:YA:351:G:O4'	2.16	0.45
4:YA:568:U:H5'	4:YA:945:A:N6	2.32	0.45
4:YA:2115:G:H3'	4:YA:2116:G:H5'	1.97	0.45
4:YA:2164:C:H3'	4:YA:2165:G:H8	1.81	0.45
9:YG:11:TYR:CZ	9:YG:16:ARG:HD2	2.52	0.45
13:YO:79:PHE:N	13:YO:79:PHE:HD1	2.15	0.45
14:YP:60:MET:HA	33:Y8:13:ARG:NH1	2.30	0.45
16:YR:55:ALA:HA	16:YR:80:PHE:CE1	2.51	0.45
17:YS:7:TYR:HD1	17:YS:7:TYR:C	2.24	0.45
29:Y4:43:TYR:CD1	29:Y4:43:TYR:N	2.84	0.45
35:XA:266:G:H3'	51:XQ:67:LYS:HB2	1.98	0.45
35:XA:335:C:H2'	35:XA:336:C:C6	2.51	0.45
35:XA:512:U:H2'	35:XA:513:C:C6	2.51	0.45
35:XA:687:A:N3	35:XA:688:G:H1'	2.31	0.45
35:XA:1512:U:H2'	35:XA:1513:A:H8	1.82	0.45
38:XD:122:ARG:HD2	38:XD:122:ARG:HA	1.49	0.45
43:XI:17:VAL:HG23	43:XI:63:ILE:HG12	1.99	0.45
44:XJ:37:PRO:HA	44:XJ:72:VAL:HG12	1.98	0.45
35:QA:250:A:O4'	35:QA:252:U:C6	2.69	0.45
35:QA:266:G:H2'	35:QA:266:G:N3	2.32	0.45
35:QA:901:A:O2'	35:QA:1513:A:OP1	2.28	0.45
35:QA:1002:G:C2	35:QA:1039:C:C2	3.05	0.45
35:QA:1073:U:C2	35:QA:1074:G:C8	3.04	0.45
35:QA:1132:C:C2	35:QA:1133:G:C8	3.04	0.45
35:QA:1263:C:H2'	35:QA:1264:C:H6	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:QB:40:HIS:HB3	36:QB:190:THR:HG21	1.97	0.45
48:QN:41:ARG:HE	48:QN:42:ILE:HG13	1.80	0.45
4:RA:207:A:H2'	4:RA:208:C:O4'	2.17	0.45
4:RA:1155:A:H5"	19:RU:55:ARG:HH11	1.82	0.45
4:RA:1430:C:H2'	4:RA:1431:U:C6	2.51	0.45
16:RR:2:ARG:O	16:RR:2:ARG:HG2	2.16	0.45
16:RR:28:LEU:O	16:RR:32:GLY:N	2.47	0.45
21:RW:68:ARG:HH12	21:RW:112:GLY:H	1.63	0.45
28:R3:11:SER:HA	28:R3:31:LEU:HD21	1.99	0.45
4:YA:212:G:H2'	4:YA:213:A:O4'	2.17	0.45
4:YA:528:A:H2	12:YN:114:ARG:NH1	2.15	0.45
4:YA:910:A:N1	4:YA:2277:G:H1'	2.31	0.45
4:YA:1164:G:H2'	4:YA:1165:U:C6	2.51	0.45
4:YA:1188:U:C4'	20:YV:79:VAL:HG22	2.45	0.45
4:YA:2619:C:H4'	7:YE:151:TYR:O	2.17	0.45
15:YQ:104:PHE:N	15:YQ:104:PHE:CD1	2.85	0.45
23:YY:19:LYS:HE3	23:YY:20:TYR:CE1	2.51	0.45
35:XA:36:C:H5"	46:XL:123:LYS:HD3	1.98	0.45
35:XA:438:G:O2'	35:XA:494:U:O4	2.27	0.45
35:XA:1127:G:H5'	35:XA:1280:A:O2'	2.16	0.45
35:XA:1376:U:H2'	35:XA:1377:A:C8	2.52	0.45
42:XH:51:VAL:HG11	42:XH:60:ARG:HH11	1.82	0.45
49:XO:16:ALA:HB1	49:XO:21:ASP:HB3	1.99	0.45
35:QA:159:G:N2	35:QA:161:A:H3'	2.31	0.45
35:QA:262:A:H2'	35:QA:263:A:C8	2.51	0.45
35:QA:514:C:C2	35:QA:515:G:C8	3.05	0.45
35:QA:936:C:C2	35:QA:937:A:C8	3.05	0.45
35:QA:1158:C:H5	35:QA:1181:G:H1	1.60	0.45
35:QA:1295:G:O2'	47:QM:14:ARG:NH1	2.50	0.45
36:QB:71:VAL:HG12	36:QB:170:GLU:HG3	1.98	0.45
36:QB:224:GLN:HA	36:QB:228:GLY:O	2.16	0.45
37:QC:181:ASN:HB3	37:QC:205:GLY:O	2.16	0.45
38:QD:13:ARG:NH2	38:QD:40:PRO:HA	2.31	0.45
49:QO:18:PHE:HB2	49:QO:19:PRO:HD2	1.99	0.45
50:QP:74:LEU:O	50:QP:79:VAL:HG22	2.17	0.45
4:RA:635:C:H2'	4:RA:636:G:O4'	2.17	0.45
4:RA:924:C:H2'	4:RA:925:C:C6	2.52	0.45
4:RA:934:G:H2'	4:RA:935:C:H6	1.82	0.45
4:RA:1166:C:H2'	4:RA:1167:U:H6	1.82	0.45
4:RA:1482:G:C6	4:RA:1507:A:C6	3.04	0.45
4:RA:1500:G:H2'	4:RA:1501:C:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:1639:U:C2'	4:RA:1640:C:H5"	2.45	0.45
4:RA:2455:G:H2'	4:RA:2456:C:C6	2.52	0.45
9:RG:50:ALA:C	9:RG:52:ILE:N	2.74	0.45
3:QY:140:GLU:OE1	3:QY:206:PRO:HD2	2.17	0.45
3:QY:324:ARG:HB3	3:QY:326:TYR:CE1	2.51	0.45
4:YA:362:U:O2'	4:YA:363(A):G:H5'	2.17	0.45
4:YA:2690:C:N4	4:YA:2713:A:H1'	2.31	0.45
6:YD:72:LYS:NZ	6:YD:99:ASP:OD2	2.36	0.45
15:YQ:59:ARG:HH12	15:YQ:60:ARG:HH11	1.63	0.45
26:Y1:53:VAL:HG22	26:Y1:74:VAL:HG13	1.97	0.45
35:XA:1187:G:H5'	43:XI:113:LYS:HE2	1.99	0.45
36:XB:170:GLU:OE1	36:XB:170:GLU:HA	2.17	0.45
42:XH:64:LYS:C	42:XH:65:TYR:CD1	2.94	0.45
43:XI:5:TYR:HH	43:XI:16:ARG:HG2	1.82	0.45
43:XI:53:VAL:HG11	43:XI:92:TYR:CE1	2.51	0.45
46:XL:83:VAL:HG13	46:XL:100:ILE:HG23	1.99	0.45
35:QA:110:C:H2'	35:QA:111:G:O4'	2.17	0.45
35:QA:636:U:H2'	35:QA:637:G:H8	1.81	0.45
35:QA:839:U:H1'	35:QA:840:C:OP1	2.16	0.45
37:QC:59:ARG:H	44:QJ:92:THR:CG2	2.30	0.45
37:QC:82:GLU:OE1	37:QC:85:ARG:NH2	2.48	0.45
37:QC:180:ALA:HB1	37:QC:203:PHE:HE1	1.81	0.45
39:QE:102:ALA:HB1	39:QE:106:PRO:HG2	1.98	0.45
44:QJ:45:ARG:HH11	44:QJ:45:ARG:HD3	1.53	0.45
47:QM:88:ARG:HG3	47:QM:98:VAL:CG1	2.47	0.45
4:RA:250:G:H2'	4:RA:251:A:C8	2.52	0.45
4:RA:272(D):G:H2'	4:RA:272(E):U:C6	2.52	0.45
4:RA:1055:G:H2'	4:RA:1056:G:O4'	2.17	0.45
4:RA:1165:U:H2'	4:RA:1166:C:H6	1.74	0.45
4:RA:2118:U:O2'	4:RA:2119:A:H5"	2.16	0.45
5:RB:48:A:H4'	17:RS:95:HIS:HD2	1.79	0.45
9:RG:32:PRO:HB3	9:RG:163:ALA:HB2	1.97	0.45
13:RO:64:ARG:HB2	13:RO:83:ALA:HB3	1.98	0.45
15:RQ:93:TYR:HD1	15:RQ:93:TYR:N	2.13	0.45
3:QY:215:THR:HG22	3:QY:217:PHE:CE1	2.51	0.45
1:XV:3:C:C2'	1:XV:4:G:H5'	2.46	0.45
4:YA:273(F):G:H2'	4:YA:273(G):C:H6	1.81	0.45
4:YA:1092:C:O2	4:YA:1092:C:H2'	2.16	0.45
4:YA:2328:A:H2'	4:YA:2329:G:H8	1.81	0.45
4:YA:2359:C:H2'	4:YA:2360:A:O4'	2.16	0.45
6:YD:9:TYR:CZ	6:YD:13:ARG:HG3	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:YS:71:ARG:NH1	17:YS:107:GLU:OE1	2.50	0.45
26:Y1:3:LYS:HB2	26:Y1:61:ARG:NH1	2.32	0.45
30:Y5:35:GLU:HG3	30:Y5:51:TYR:CD2	2.52	0.45
35:XA:475:G:C2'	35:XA:476:G:H5'	2.46	0.45
35:XA:531:U:O3'	35:XA:532:A:H4'	2.17	0.45
35:XA:1143:G:H2'	35:XA:1144:G:C8	2.52	0.45
36:XB:178:ARG:NH2	42:XH:74:PRO:HB3	2.31	0.45
39:XE:72:GLN:OE1	39:XE:77:PRO:HB3	2.17	0.45
49:XO:24:SER:O	49:XO:28:GLN:HG3	2.16	0.45
35:QA:652:U:O4	35:QA:752:G:O2'	2.26	0.45
35:QA:687:A:C2	35:QA:704:A:C5	3.05	0.45
4:RA:581:C:H2'	4:RA:582:G:C8	2.51	0.45
4:RA:839:U:H2'	4:RA:840:C:C6	2.51	0.45
4:RA:1651:G:H5'	16:RR:39:PRO:HG2	1.98	0.45
4:RA:2462:U:H2'	4:RA:2463:C:C6	2.51	0.45
15:RQ:31:ASP:C	15:RQ:32:TYR:CD1	2.91	0.45
21:RW:11:ARG:HH21	21:RW:98:LYS:HA	1.81	0.45
23:RY:55:TYR:HE2	23:RY:61:ILE:HD13	1.82	0.45
3:XY:87:ALA:HB2	3:XY:95:THR:HB	1.98	0.45
3:XY:327:VAL:C	3:XY:329:ASP:N	2.75	0.45
4:YA:740:U:H2'	4:YA:741:G:C8	2.52	0.45
4:YA:1057:A:HO2'	4:YA:1058:G:P	2.39	0.45
4:YA:1791:A:H3'	4:YA:1792:G:H8	1.82	0.45
4:YA:2113:U:H2'	4:YA:2114:A:O4'	2.17	0.45
4:YA:2722:G:H2'	4:YA:2723:C:C6	2.52	0.45
8:YF:178:PRO:HG2	8:YF:179:GLU:OE1	2.16	0.45
15:YQ:16:ARG:HG3	15:YQ:17:LEU:H	1.82	0.45
35:XA:667:G:H4'	49:XO:51:HIS:ND1	2.31	0.45
35:XA:1241:G:H2'	35:XA:1242:C:H6	1.80	0.45
35:XA:1338:G:H2'	35:XA:1339:A:C8	2.51	0.45
38:XD:148:VAL:HG11	38:XD:158:ILE:HG21	1.99	0.45
35:QA:828:A:H2'	35:QA:829:G:O4'	2.17	0.45
35:QA:1279:A:H5"	44:QJ:7:LYS:NZ	2.32	0.45
36:QB:16:HIS:CB	36:QB:210:SER:HB2	2.43	0.45
40:QF:67:MET:HE1	40:QF:75:LEU:HD12	1.98	0.45
44:QJ:61:GLU:OE1	48:QN:58:LYS:NZ	2.49	0.45
47:QM:11:ARG:O	47:QM:13:LYS:N	2.49	0.45
50:QP:18:ARG:HD3	50:QP:35:LYS:HD2	1.98	0.45
4:RA:273(A):G:N7	4:RA:421:U:H2'	2.31	0.45
4:RA:2630:G:H2'	4:RA:2631:G:C8	2.52	0.45
9:RG:64:THR:HB	9:RG:94:LEU:HD21	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:RQ:111:GLU:O	15:RQ:115:MET:HG2	2.17	0.45
23:RY:15:VAL:HG21	23:RY:42:VAL:HG11	1.97	0.45
3:QY:96:PHE:CD1	3:QY:96:PHE:O	2.69	0.45
3:XY:6:PRO:O	3:XY:10:ARG:HG2	2.17	0.45
3:XY:321:SER:N	3:XY:322:GLN:HG3	2.32	0.45
4:YA:616:G:H5'	8:YF:205:ARG:HD3	1.99	0.45
4:YA:2183:C:H2'	4:YA:2184:G:C8	2.51	0.45
8:YF:56:GLU:OE2	8:YF:93:LYS:NZ	2.50	0.45
15:YQ:32:TYR:HD1	15:YQ:32:TYR:N	2.13	0.45
20:YV:5:VAL:HG11	20:YV:57:VAL:HG21	1.99	0.45
23:YY:19:LYS:CE	23:YY:20:TYR:HE1	2.29	0.45
35:XA:1074:G:H2'	35:XA:1075:C:H6	1.81	0.45
38:XD:140:VAL:HG11	38:XD:146:ILE:HD11	1.98	0.45
38:XD:200:GLU:OE1	38:XD:200:GLU:N	2.50	0.45
35:QA:217:C:H2'	35:QA:218:C:C6	2.51	0.45
35:QA:376:G:H2'	35:QA:377:G:H8	1.82	0.45
35:QA:924:C:H2'	35:QA:925:G:C8	2.51	0.45
35:QA:1298:C:C6	41:QG:114:ARG:NH1	2.85	0.45
47:QM:65:LYS:N	29:R4:50:VAL:HG21	2.32	0.45
50:QP:79:VAL:HG23	50:QP:80:PHE:CD1	2.51	0.45
4:RA:881:G:H2'	4:RA:882:G:H8	1.80	0.45
4:RA:1257:C:OP1	8:RF:75:HIS:HE1	1.99	0.45
4:RA:2115:G:H3'	4:RA:2116:G:C5'	2.46	0.45
4:RA:2238:G:H2'	4:RA:2238:G:N3	2.32	0.45
13:RO:63:VAL:HG12	13:RO:106:LEU:HD11	1.97	0.45
13:RO:68:GLU:CB	13:RO:78:ARG:HB2	2.42	0.45
15:RQ:92:GLY:C	15:RQ:93:TYR:CD1	2.93	0.45
16:RR:47:PHE:HD1	16:RR:47:PHE:C	2.25	0.45
4:YA:583:G:OP2	19:YU:10:ARG:HD2	2.17	0.45
4:YA:587:C:P	14:YP:21:ARG:NH2	2.90	0.45
4:YA:855:G:H2'	4:YA:856:C:C6	2.52	0.45
4:YA:1045:A:H2'	4:YA:1045:A:N3	2.31	0.45
4:YA:1321:A:C4	4:YA:1322:A:C8	3.05	0.45
4:YA:1581:G:H2'	4:YA:1582:C:O4'	2.16	0.45
4:YA:2774:C:H2'	4:YA:2775:A:O4'	2.17	0.45
4:YA:2820:A:O2'	4:YA:2821:A:OP1	2.32	0.45
6:YD:70:TRP:NE1	6:YD:146:GLU:OE2	2.40	0.45
8:YF:11:VAL:HA	8:YF:125:LEU:O	2.17	0.45
10:YH:124:GLU:HB2	10:YH:132:ARG:HB3	1.98	0.45
15:YQ:93:TYR:HD1	15:YQ:93:TYR:N	2.15	0.45
23:YY:89:PHE:N	23:YY:89:PHE:HD1	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Y0:70:GLN:HE21	25:Y0:80:HIS:CD2	2.35	0.45
35:XA:113:G:H2'	35:XA:114:U:C6	2.52	0.45
35:XA:1148:U:C2'	43:XI:66:ARG:HH12	2.29	0.45
37:XC:148:GLY:HA3	37:XC:172:ARG:O	2.17	0.45
38:XD:185:PHE:CD1	38:XD:185:PHE:C	2.95	0.45
50:XP:66:PRO:HG2	50:XP:71:ARG:HG2	1.99	0.45
54:XT:47:GLY:HA2	54:XT:48:LYS:C	2.42	0.45
35:QA:103:C:O2'	35:QA:172:A:N1	2.38	0.45
35:QA:611:A:C4	35:QA:612:C:C5	3.05	0.45
35:QA:611:A:H2'	35:QA:612:C:H6	1.82	0.45
38:QD:102:ASP:OD1	38:QD:103:ASN:N	2.50	0.45
42:QH:18:ARG:HA	42:QH:18:ARG:HD2	1.63	0.45
42:QH:33:GLU:HG2	42:QH:48:TYR:CE2	2.52	0.45
44:QJ:30:SER:OG	44:QJ:81:THR:HG22	2.17	0.45
50:QP:57:ARG:NH2	50:QP:78:GLY:O	2.49	0.45
4:RA:189:G:H2'	4:RA:205:G:N2	2.32	0.45
4:RA:208:C:H2'	4:RA:209:C:C6	2.52	0.45
4:RA:903:C:H2'	4:RA:904:C:H6	1.82	0.45
4:RA:921:G:H2'	4:RA:922:U:C6	2.51	0.45
4:RA:1179:C:H2'	4:RA:1180:C:C6	2.52	0.45
4:RA:1798:U:H5	6:RD:274:ARG:NH1	2.14	0.45
4:RA:1899:G:H2'	4:RA:1899:G:N3	2.32	0.45
4:RA:2271:G:OP1	25:R0:18:ALA:HB1	2.17	0.45
6:RD:146:GLU:HG2	6:RD:152:GLY:C	2.41	0.45
14:RP:80:TYR:N	14:RP:80:TYR:CD1	2.85	0.45
16:RR:83:ILE:O	16:RR:86:ARG:HB2	2.17	0.45
26:R1:60:PHE:N	26:R1:60:PHE:HD1	2.15	0.45
33:R8:23:VAL:HG11	33:R8:47:LYS:HD3	1.97	0.45
3:QY:240:ARG:HB3	3:QY:264:THR:HG23	1.99	0.45
1:XV:3:C:H2'	1:XV:4:G:H5'	1.99	0.45
3:XY:144:TRP:CD2	3:XY:201:LEU:HD13	2.52	0.45
4:YA:643:A:H1'	31:Y6:44:ARG:NH2	2.31	0.45
4:YA:1180:C:H2'	4:YA:1181:C:C6	2.52	0.45
9:YG:11:TYR:HA	9:YG:15:VAL:HB	1.99	0.45
14:YP:130:PHE:N	14:YP:130:PHE:CD1	2.85	0.45
17:YS:87:PHE:CD1	17:YS:112:PHE:HE2	2.35	0.45
21:YW:23:LEU:HD11	30:Y5:25:LEU:HB2	1.99	0.45
35:XA:434:U:H2'	35:XA:435:C:C6	2.52	0.45
35:XA:1146:A:H3'	35:XA:1147:C:H5"	1.98	0.45
36:XB:160:ASP:OD1	36:XB:160:ASP:N	2.50	0.45
36:XB:218:ALA:O	36:XB:222:ILE:HG23	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:XC:178:LEU:HD12	37:XC:178:LEU:HA	1.77	0.45
39:XE:71:LEU:HD11	39:XE:115:VAL:HG22	1.98	0.45
40:XF:63:TYR:N	40:XF:63:TYR:CD1	2.85	0.45
41:XG:100:ALA:O	41:XG:104:LEU:HD13	2.17	0.45
43:XI:50:LEU:HD11	43:XI:81:ILE:HD11	1.97	0.45
44:XJ:32:ALA:HB1	44:XJ:33:GLN:CD	2.42	0.45
46:XL:42:THR:HA	46:XL:53:ARG:O	2.17	0.45
35:QA:662:G:H2'	35:QA:663:A:C8	2.52	0.45
36:QB:167:PRO:HD3	36:QB:187:LEU:O	2.17	0.45
37:QC:201:TYR:N	37:QC:201:TYR:CD1	2.83	0.45
44:QJ:39:PRO:HA	44:QJ:70:ARG:HD3	1.99	0.45
52:QR:29:PHE:HE1	52:QR:31:LEU:HD13	1.81	0.45
4:RA:630:G:N2	4:RA:633:A:OP2	2.45	0.45
4:RA:2262:U:H4'	4:RA:2328:A:C2	2.53	0.45
4:RA:2693:A:H2'	4:RA:2694:G:H8	1.82	0.45
9:RG:11:TYR:HD2	9:RG:12:TYR:CE1	2.34	0.45
23:RY:55:TYR:CE2	23:RY:61:ILE:HD13	2.52	0.45
24:RZ:44:PHE:CZ	24:RZ:86:VAL:HG11	2.52	0.45
4:YA:306:U:H2'	4:YA:307:G:O4'	2.17	0.44
4:YA:1051:G:H2'	4:YA:1052:C:H6	1.81	0.44
4:YA:1057:A:O2'	4:YA:1058:G:OP1	2.32	0.44
4:YA:1179:C:H2'	4:YA:1180:C:H6	1.82	0.44
4:YA:2845:G:H2'	4:YA:2846:G:H8	1.82	0.44
7:YE:2:LYS:HA	7:YE:84:PHE:CD1	2.52	0.44
9:YG:119:GLY:HA3	9:YG:181:ARG:HB2	1.98	0.44
12:YN:34:LEU:HD23	12:YN:107:LEU:HD11	1.98	0.44
26:Y1:60:PHE:N	26:Y1:60:PHE:CD1	2.84	0.44
26:Y1:83:GLU:HA	26:Y1:84:GLY:HA2	1.72	0.44
35:XA:807:A:H2'	35:XA:808:C:C6	2.51	0.44
35:XA:1157:A:C2	35:XA:1181:G:C4	3.05	0.44
35:XA:1343:G:H4'	43:XI:122:ALA:HB3	1.99	0.44
35:XA:1426:C:H2'	35:XA:1427:U:H6	1.82	0.44
51:XQ:42:TYR:N	51:XQ:42:TYR:HD1	2.14	0.44
38:QD:61:LYS:HD3	38:QD:206:PHE:CD2	2.51	0.44
41:QG:23:VAL:O	41:QG:27:ILE:HG12	2.17	0.44
43:QI:108:VAL:HG12	43:QI:109:VAL:N	2.31	0.44
44:QJ:45:ARG:NH1	48:QN:36:PHE:CD2	2.82	0.44
49:QO:28:GLN:OE1	49:QO:66:LEU:HD21	2.16	0.44
51:QQ:42:TYR:N	51:QQ:42:TYR:HD1	2.14	0.44
4:RA:83:G:H1	4:RA:102:G:HO2'	1.62	0.44
4:RA:2328:A:H2'	4:RA:2329:G:H8	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:RD:106:ILE:O	6:RD:108:PRO:HD3	2.16	0.44
3:XY:144:TRP:CG	3:XY:201:LEU:HD22	2.52	0.44
3:XY:161:PHE:CD1	3:XY:185:GLY:HA3	2.51	0.44
4:YA:900:A:C4	4:YA:901:A:C8	3.05	0.44
4:YA:1051:G:C4	4:YA:1052:C:C5	3.05	0.44
4:YA:1357:U:H2'	4:YA:1358:G:O4'	2.17	0.44
4:YA:1957:C:H2'	4:YA:1958:C:C6	2.52	0.44
4:YA:2144:U:H1'	4:YA:2147:G:O6	2.17	0.44
5:YB:77:U:OP1	24:YZ:19:ARG:NH2	2.49	0.44
29:Y4:24:THR:C	29:Y4:25:TYR:CD1	2.95	0.44
35:XA:277:C:H5"	51:XQ:68:ARG:HH22	1.80	0.44
35:XA:411:A:O2'	35:XA:413:G:H5'	2.17	0.44
35:XA:979:C:H42	48:XN:18:VAL:HG12	1.82	0.44
35:XA:1314:C:N4	53:XS:2:PRO:O	2.46	0.44
36:XB:8:LYS:CD	36:XB:51:LEU:HB3	2.47	0.44
37:XC:131:ARG:CZ	39:XE:50:GLU:OE1	2.66	0.44
38:XD:59:ARG:NH2	38:XD:62:GLN:HG3	2.32	0.44
40:XF:60:PHE:N	40:XF:60:PHE:HD1	2.15	0.44
43:XI:108:VAL:HG12	43:XI:109:VAL:H	1.82	0.44
45:XK:84:VAL:HG21	45:XK:95:ILE:HD11	1.99	0.44
47:XM:16:ASP:OD1	47:XM:16:ASP:N	2.48	0.44
54:XT:18:GLN:O	54:XT:22:ARG:HG3	2.16	0.44
35:QA:22:G:H2'	35:QA:23:C:C6	2.52	0.44
35:QA:38:G:N2	35:QA:397:A:H5'	2.32	0.44
35:QA:384:G:H2'	35:QA:385:C:H6	1.82	0.44
35:QA:393:A:H5'	35:QA:483:C:O2'	2.18	0.44
35:QA:645:C:H2'	35:QA:646:U:H6	1.83	0.44
35:QA:977:A:H1'	35:QA:982:U:O4	2.16	0.44
35:QA:1047:G:H5"	48:QN:4:LYS:HD3	2.00	0.44
36:QB:95:GLN:HG3	36:QB:147:LYS:HG2	1.98	0.44
38:QD:205:GLU:OE2	39:QE:107:ARG:NE	2.50	0.44
4:RA:52:A:H2'	4:RA:53:A:C8	2.52	0.44
4:RA:956:G:H5"	15:RQ:77:LYS:HD2	1.99	0.44
4:RA:971:C:H2'	4:RA:972:G:O4'	2.17	0.44
4:RA:1824:G:O3'	6:RD:249:PRO:HD3	2.17	0.44
4:RA:1923:U:H2'	4:RA:1924:C:C6	2.52	0.44
15:RQ:58:PHE:O	15:RQ:60:ARG:N	2.50	0.44
18:RT:127:ALA:C	18:RT:129:ARG:H	2.25	0.44
20:RV:14:VAL:HB	20:RV:96:ILE:HG13	1.98	0.44
27:R2:17:SER:OG	27:R2:20:GLU:HG2	2.16	0.44
30:R5:58:LEU:HD23	30:R5:59:GLU:O	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:XY:146:SER:O	3:XY:149:GLU:HG2	2.16	0.44
4:YA:1359:A:N6	4:YA:1372:U:H3	2.15	0.44
4:YA:1818:U:O4	6:YD:154:LYS:HD2	2.17	0.44
4:YA:2023:G:H4'	4:YA:2617:C:O3'	2.17	0.44
4:YA:2119:A:N6	4:YA:2168:G:H21	2.15	0.44
4:YA:2391:G:O6	4:YA:2425:A:H8	2.01	0.44
10:YH:35:VAL:CG1	10:YH:71:LEU:HD22	2.46	0.44
12:YN:71:ILE:HG21	12:YN:84:LYS:HB3	1.99	0.44
14:YP:65:ARG:O	14:YP:68:GLN:NE2	2.50	0.44
15:YQ:30:GLY:HA2	15:YQ:107:ALA:HB2	1.97	0.44
15:YQ:109:VAL:HG13	15:YQ:113:GLN:HB2	1.99	0.44
22:YX:11:PRO:HB3	22:YX:92:LEU:HD11	1.99	0.44
35:XA:1176:A:H2'	35:XA:1177:G:C8	2.52	0.44
36:XB:9:GLU:C	36:XB:11:LEU:N	2.74	0.44
40:XF:63:TYR:HD1	40:XF:63:TYR:N	2.15	0.44
44:XJ:38:ILE:CG1	44:XJ:71:LEU:HB3	2.45	0.44
50:XP:9:PHE:N	50:XP:9:PHE:CD1	2.85	0.44
35:QA:509:A:H2'	35:QA:510:A:C8	2.52	0.44
35:QA:553:A:H2'	35:QA:554:C:C6	2.52	0.44
35:QA:1513:A:H2'	35:QA:1514:C:H6	1.78	0.44
38:QD:13:ARG:HH12	38:QD:36:ARG:CZ	2.30	0.44
38:QD:173:TRP:CG	38:QD:189:PRO:HG3	2.52	0.44
42:QH:57:PRO:C	42:QH:58:TYR:HD1	2.25	0.44
45:QK:20:TYR:HB2	45:QK:31:THR:HG23	2.00	0.44
4:RA:250:G:P	33:R8:13:ARG:HH22	2.39	0.44
4:RA:858:U:O2	4:RA:2268:A:H2'	2.17	0.44
4:RA:993:G:OP1	19:RU:50:ARG:HD2	2.16	0.44
4:RA:1115:G:H2'	4:RA:1116:C:C6	2.52	0.44
4:RA:1188:U:C4'	20:RV:79:VAL:HG22	2.48	0.44
4:RA:2128:C:H3'	4:RA:2129:C:H5"	1.99	0.44
4:RA:2406:U:C2	14:RP:72:PRO:HG2	2.52	0.44
4:RA:2538:C:H2'	4:RA:2539:C:H6	1.82	0.44
4:RA:2820:A:O2'	4:RA:2821:A:OP1	2.35	0.44
4:RA:2854:G:H2'	4:RA:2855:C:C6	2.52	0.44
6:RD:142:VAL:HG23	6:RD:193:VAL:HA	1.99	0.44
21:RW:11:ARG:HH21	21:RW:98:LYS:CA	2.30	0.44
32:R7:34:ARG:HB2	32:R7:42:LEU:HD22	1.99	0.44
2:XX:14:A:H61	41:XG:82:GLY:CA	2.30	0.44
4:YA:573:G:O2'	4:YA:574:C:H3'	2.18	0.44
4:YA:690:G:H2'	4:YA:691:C:H6	1.79	0.44
4:YA:878:A:C6	4:YA:900:A:C8	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:1155:A:H5"	19:YU:55:ARG:HD3	1.99	0.44
4:YA:2320:A:H2'	4:YA:2320:A:N3	2.31	0.44
4:YA:2507:C:H5"	4:YA:2573:C:N4	2.30	0.44
5:YB:32:C:C4	5:YB:33:G:N7	2.86	0.44
15:YQ:32:TYR:N	15:YQ:32:TYR:CD1	2.85	0.44
35:XA:186:C:C2	35:XA:187:C:C5	3.06	0.44
35:XA:964:A:N3	35:XA:969:A:O2'	2.46	0.44
35:XA:975:A:N1	44:XJ:48:THR:HB	2.32	0.44
35:XA:1030(A):C:N3	35:XA:1031:G:N2	2.65	0.44
35:XA:1353:G:OP1	55:XU:10:ARG:NH1	2.50	0.44
40:XF:60:PHE:N	40:XF:60:PHE:CD1	2.85	0.44
42:XH:9:MET:HG3	42:XH:26:VAL:HG11	2.00	0.44
35:QA:677:U:O2	35:QA:777:A:O2'	2.35	0.44
36:QB:155:LEU:HD12	36:QB:157:ARG:H	1.81	0.44
37:QC:164:ARG:HE	37:QC:164:ARG:HB3	1.65	0.44
37:QC:178:LEU:HA	37:QC:178:LEU:HD12	1.73	0.44
38:QD:59:ARG:HE	38:QD:59:ARG:CA	2.20	0.44
4:RA:610:G:H2'	4:RA:611:C:C6	2.53	0.44
4:RA:2358:G:N2	14:RP:55:ARG:HH22	2.15	0.44
4:RA:2405:G:C5'	14:RP:75:ILE:HD13	2.47	0.44
6:RD:69:ARG:C	6:RD:71:ASP:H	2.24	0.44
7:RE:44:TYR:HD2	7:RE:82:ARG:HE	1.65	0.44
22:RX:40:LYS:HG3	22:RX:51:VAL:HB	2.00	0.44
24:RZ:125:LEU:HG	24:RZ:164:ALA:HB3	2.00	0.44
4:YA:754:C:H2'	4:YA:755:C:C6	2.53	0.44
4:YA:862:G:H2'	4:YA:863:A:O4'	2.18	0.44
4:YA:1049:C:O2	4:YA:1113:U:H4'	2.17	0.44
4:YA:2241:A:H2'	4:YA:2242:G:C8	2.52	0.44
5:YB:1:U:H2'	5:YB:2:C:H6	1.82	0.44
8:YF:7:TYR:O	8:YF:22:ALA:N	2.50	0.44
9:YG:77:ILE:HG21	9:YG:80:PHE:CD2	2.52	0.44
11:YI:130:TYR:HB3	11:YI:138:ILE:HB	2.00	0.44
16:YR:2:ARG:HG2	16:YR:2:ARG:O	2.17	0.44
18:YT:64:ARG:HH12	18:YT:103:ARG:HA	1.81	0.44
20:YV:52:VAL:CG2	20:YV:55:ALA:HB3	2.48	0.44
24:YZ:69:THR:HG22	24:YZ:90:VAL:HA	1.99	0.44
29:Y4:15:ILE:HD12	29:Y4:21:VAL:HG22	1.99	0.44
35:XA:152:A:C8	35:XA:153:C:C5	3.06	0.44
35:XA:881:G:P	46:XL:12:ARG:HH22	2.41	0.44
39:XE:19:MET:SD	39:XE:24:ARG:HB3	2.58	0.44
39:XE:100:VAL:HA	39:XE:118:ILE:HG22	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:XF:69:GLU:O	40:XF:72:VAL:HG13	2.17	0.44
46:XL:31:PRO:HB2	46:XL:32:PHE:HD1	1.83	0.44
35:QA:174:C:H2'	35:QA:175:C:C6	2.52	0.44
35:QA:309:G:O2'	35:QA:607:A:N1	2.49	0.44
35:QA:895:G:H2'	35:QA:896:C:C6	2.52	0.44
35:QA:1095:U:H2'	35:QA:1096:C:C6	2.52	0.44
35:QA:1289:A:P	55:QU:10:ARG:HH22	2.41	0.44
46:QL:92:0TD:OD2	46:QL:92:0TD:C	2.65	0.44
46:QL:117:ARG:CG	46:QL:122:THR:HB	2.46	0.44
52:QR:31:LEU:HD21	52:QR:62:GLU:HB3	1.99	0.44
4:RA:361:G:O2'	4:RA:362:U:H5'	2.17	0.44
4:RA:375:C:H2'	4:RA:376:C:H6	1.82	0.44
4:RA:1065:U:H4'	4:RA:1066:U:C5'	2.46	0.44
4:RA:2063:C:C4	4:RA:2064:C:C5	3.06	0.44
4:RA:2287:A:C8	4:RA:2289:G:C8	3.06	0.44
4:RA:2590:A:H2'	4:RA:2591:C:C6	2.53	0.44
4:RA:2612:C:OP2	30:R5:2:ALA:N	2.51	0.44
4:RA:2674:G:H2'	4:RA:2675:A:C8	2.53	0.44
23:RY:89:PHE:N	23:RY:89:PHE:HD1	2.16	0.44
26:R1:3:LYS:O	26:R1:12:PRO:HD3	2.17	0.44
1:XV:49:G:H1	1:XV:65:C:H42	1.64	0.44
3:XY:203:ARG:CG	3:XY:204:LYS:N	2.80	0.44
4:YA:250:G:H2'	4:YA:251:A:C8	2.51	0.44
4:YA:302:C:H2'	4:YA:303:U:C6	2.53	0.44
4:YA:518:G:H2'	4:YA:519:U:C6	2.53	0.44
4:YA:1006:C:C2	4:YA:1138:G:N2	2.86	0.44
5:YB:1:U:H2'	5:YB:2:C:C6	2.52	0.44
13:YO:111:PHE:N	13:YO:111:PHE:CD1	2.86	0.44
18:YT:24:PRO:HD3	18:YT:52:ILE:HD12	2.00	0.44
26:Y1:85:LEU:HD23	26:Y1:89:GLU:HB3	1.99	0.44
29:Y4:15:ILE:HB	29:Y4:32:TYR:CD1	2.53	0.44
35:XA:1005:A:H1'	35:XA:1025:U:C2	2.53	0.44
35:XA:1030(B):G:H21	35:XA:1030(D):G:H3'	1.80	0.44
36:XB:20:GLU:O	36:XB:39:ILE:HG12	2.17	0.44
37:XC:30:ARG:HH11	37:XC:30:ARG:HD3	1.62	0.44
38:XD:185:PHE:HE1	38:XD:187:ARG:O	2.01	0.44
43:XI:53:VAL:HG21	43:XI:92:TYR:CE1	2.52	0.44
47:XM:15:VAL:O	47:XM:19:LEU:HD13	2.17	0.44
54:XT:37:SER:O	54:XT:41:ILE:HG12	2.17	0.44
35:QA:10:A:OP2	39:QE:126:ARG:HD3	2.16	0.44
35:QA:297:G:N2	35:QA:300:A:OP2	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:QA:978:A:C4	35:QA:1319:A:C2	3.06	0.44
36:QB:19:HIS:NE2	36:QB:189:ASP:OD2	2.50	0.44
36:QB:55:PHE:CD1	36:QB:58:ILE:HD12	2.53	0.44
38:QD:121:VAL:O	38:QD:134:ASP:HA	2.18	0.44
4:RA:574:C:N3	7:RE:145:LYS:NZ	2.65	0.44
4:RA:1069:A:H5'	4:RA:1096:A:H5'	2.00	0.44
4:RA:1196:C:C2	4:RA:1197:G:C8	3.05	0.44
4:RA:1668:A:H4'	4:RA:1669:A:O5'	2.18	0.44
4:RA:2557:G:H2'	4:RA:2558:C:C6	2.53	0.44
9:RG:47:LYS:HG3	9:RG:48:GLU:N	2.33	0.44
24:RZ:104:PHE:CE2	24:RZ:119:GLU:HG2	2.53	0.44
3:XY:100:VAL:HA	3:XY:103:LEU:HB3	1.99	0.44
4:YA:443:A:N7	8:YF:45:ARG:HG2	2.33	0.44
4:YA:484:C:C2	4:YA:485:C:C5	3.05	0.44
4:YA:522:G:H2'	4:YA:523:C:C6	2.53	0.44
4:YA:1500:G:H2'	4:YA:1501:C:C6	2.53	0.44
4:YA:1754:C:H2'	4:YA:1755:A:O4'	2.18	0.44
4:YA:1889:A:N1	4:YA:2234:G:H1'	2.33	0.44
4:YA:2070:G:H2'	4:YA:2071:A:C8	2.53	0.44
4:YA:2111:C:H42	4:YA:2147:G:H22	1.66	0.44
4:YA:2137:C:C2	4:YA:2154:G:N1	2.86	0.44
4:YA:2630:G:H2'	4:YA:2631:G:C8	2.52	0.44
8:YF:197:ASP:OD1	8:YF:197:ASP:C	2.60	0.44
14:YP:90:ARG:HH12	14:YP:105:LEU:HD21	1.83	0.44
23:YY:86:ARG:O	23:YY:97:ARG:HA	2.17	0.44
26:Y1:18:ILE:HG12	26:Y1:37:ILE:HG12	1.99	0.44
29:Y4:43:TYR:N	29:Y4:43:TYR:HD1	2.15	0.44
35:XA:1426:C:H2'	35:XA:1427:U:C6	2.51	0.44
46:XL:117:ARG:HG2	46:XL:122:THR:HB	1.99	0.44
35:QA:189(G):U:C4	51:QQ:72:ARG:NH1	2.85	0.44
35:QA:359:U:H2'	35:QA:360:A:H8	1.83	0.44
35:QA:500:G:H2'	35:QA:501:C:C6	2.53	0.44
35:QA:673:G:H2'	35:QA:674:G:H8	1.73	0.44
35:QA:707:C:OP1	45:QK:85:ARG:NH1	2.48	0.44
35:QA:1134:G:C2	35:QA:1141:C:C2	3.05	0.44
35:QA:1338:G:H2'	35:QA:1339:A:C8	2.53	0.44
36:QB:9:GLU:OE1	36:QB:217:ARG:NH2	2.32	0.44
37:QC:111:LEU:HD22	37:QC:146:ALA:HB2	1.99	0.44
4:RA:900:A:H2'	4:RA:901:A:O4'	2.18	0.44
4:RA:998:C:P	19:RU:92:ARG:NH2	2.89	0.44
4:RA:1278:A:H2'	4:RA:1279:G:C8	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:1510:G:H2'	4:RA:1511:C:C6	2.53	0.44
4:RA:1692:U:O2'	4:RA:1693:U:H2'	2.18	0.44
4:RA:1754:C:C5	18:RT:96:ARG:NH2	2.86	0.44
4:RA:2321:G:H2'	4:RA:2321:G:N3	2.33	0.44
4:RA:2637:U:H5'	7:RE:44:TYR:CE2	2.52	0.44
10:RH:101:ARG:HH11	10:RH:101:ARG:HD2	1.55	0.44
11:RI:10:GLU:OE1	11:RI:10:GLU:N	2.50	0.44
24:RZ:103:ARG:NH2	24:RZ:136:PHE:CD2	2.80	0.44
25:R0:10:THR:HG22	25:R0:12:ASN:N	2.16	0.44
26:R1:71:TYR:N	26:R1:71:TYR:CD1	2.86	0.44
27:R2:16:LEU:HB3	27:R2:20:GLU:HG3	2.00	0.44
1:QV:21:A:N6	1:QV:46:G:H2'	2.32	0.44
3:XY:260:ALA:CB	3:XY:275:GLN:HG2	2.47	0.44
4:YA:39:C:H2'	4:YA:40:C:C6	2.53	0.44
4:YA:1199:U:H2'	4:YA:1200:C:H6	1.83	0.44
4:YA:1899:G:H2'	4:YA:1899:G:N3	2.33	0.44
11:YI:122:GLU:HB2	11:YI:126:TYR:OH	2.18	0.44
14:YP:130:PHE:N	14:YP:130:PHE:HD1	2.16	0.44
15:YQ:92:GLY:C	15:YQ:93:TYR:CD1	2.96	0.44
35:XA:406:G:N2	38:XD:119:GLN:HE22	2.16	0.44
50:XP:9:PHE:HD1	50:XP:9:PHE:N	2.16	0.44
51:XQ:42:TYR:N	51:XQ:42:TYR:CD1	2.85	0.44
35:QA:109:A:C6	35:QA:326:G:C6	3.06	0.44
35:QA:513:C:H2'	35:QA:514:C:C6	2.53	0.44
35:QA:924:C:H2'	35:QA:925:G:H8	1.83	0.44
35:QA:1394:A:N1	35:QA:1500:A:O2'	2.37	0.44
35:QA:1438:G:H2'	35:QA:1439:C:C6	2.53	0.44
35:QA:1503:A:OP1	35:QA:1531:A:O2'	2.28	0.44
36:QB:229:VAL:HG12	36:QB:230:VAL:N	2.30	0.44
4:RA:150:C:H2'	4:RA:151:C:C6	2.51	0.44
4:RA:675:A:C8	4:RA:804:A:C6	3.05	0.44
4:RA:1051:G:C4	4:RA:1052:C:C5	3.06	0.44
4:RA:1598:C:H2'	4:RA:1599:C:H6	1.82	0.44
4:RA:1932:A:H2'	4:RA:1933:G:O4'	2.17	0.44
4:RA:2103:C:N3	4:RA:2104:G:C2	2.86	0.44
4:RA:2133:G:N2	4:RA:2157:G:H2'	2.33	0.44
5:RB:48:A:H2'	5:RB:49:C:C6	2.53	0.44
10:RH:3:ARG:NH2	10:RH:66:GLY:HA3	2.33	0.44
12:RN:20:GLY:HA2	12:RN:61:ARG:HG2	1.99	0.44
12:RN:69:GLN:O	12:RN:71:ILE:HD12	2.17	0.44
25:R0:50:ASN:HB3	25:R0:63:VAL:HG22	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:QV:52:G:C6	1:QV:53:G:N7	2.86	0.44
1:XV:47:U:H3'	1:XV:48:C:C5'	2.48	0.44
4:YA:577:G:O2'	4:YA:1254:A:OP1	2.36	0.44
4:YA:947:G:H2'	4:YA:948:G:C8	2.53	0.44
4:YA:1051:G:H2'	4:YA:1052:C:C6	2.53	0.44
4:YA:1067:A:O4'	4:YA:1068:G:N2	2.50	0.44
4:YA:1105:U:H2'	4:YA:1106:G:C8	2.53	0.44
4:YA:1482:G:C6	4:YA:1507:A:C6	3.05	0.44
9:YG:170:ARG:NH2	9:YG:182:LYS:O	2.51	0.44
11:YI:2:LYS:HA	11:YI:19:VAL:O	2.18	0.44
16:YR:56:LYS:NZ	16:YR:90:ARG:O	2.51	0.44
18:YT:108:ARG:HG3	18:YT:111:ARG:NH2	2.33	0.44
19:YU:104:GLN:H	19:YU:104:GLN:CD	2.24	0.44
26:Y1:71:TYR:N	26:Y1:71:TYR:CD1	2.85	0.44
35:XA:625:G:H4'	50:XP:16:HIS:CG	2.52	0.44
35:XA:939:G:H2'	35:XA:940:C:C6	2.52	0.44
35:XA:1120:G:H2'	35:XA:1121:U:C6	2.53	0.44
35:XA:1124:G:H5'	44:XJ:38:ILE:HG22	1.98	0.44
36:XB:28:PHE:CE2	36:XB:190:THR:HA	2.53	0.44
36:XB:189:ASP:HB3	36:XB:205:ASP:H	1.82	0.44
36:XB:221:LEU:HD23	36:XB:224:GLN:OE1	2.18	0.44
41:XG:50:ILE:HD11	41:XG:58:PRO:HA	1.99	0.44
51:XQ:86:GLU:O	51:XQ:90:ILE:HG12	2.18	0.44
35:QA:73:G:H2'	35:QA:76:C:C6	2.53	0.44
35:QA:179:A:H2'	35:QA:180:U:C6	2.52	0.44
35:QA:417:C:C2	35:QA:418:C:C5	3.06	0.44
35:QA:553:A:H2'	35:QA:554:C:H6	1.82	0.44
35:QA:1003:G:C2	35:QA:1004:A:H1'	2.53	0.44
52:QR:34:TYR:N	52:QR:34:TYR:HD1	2.15	0.44
54:QT:36:LEU:HD12	54:QT:62:LEU:HD12	1.99	0.44
4:RA:902:C:H2'	4:RA:903:C:C6	2.53	0.44
4:RA:1063:G:N3	4:RA:1063:G:O2'	2.42	0.44
4:RA:1289:C:H2'	4:RA:1290:C:C6	2.51	0.44
4:RA:1638:C:H2'	4:RA:1639:U:O4'	2.17	0.44
4:RA:2134:A:H8	4:RA:2156:G:H21	1.65	0.44
4:RA:2144:U:H1'	4:RA:2147:G:O6	2.18	0.44
6:RD:72:LYS:HD2	6:RD:103:ARG:NH1	2.33	0.44
8:RF:97:TYR:CD1	8:RF:97:TYR:N	2.86	0.44
8:RF:97:TYR:N	8:RF:97:TYR:HD1	2.15	0.44
9:RG:180:PHE:N	9:RG:180:PHE:CD1	2.86	0.44
14:RP:129:ALA:C	14:RP:130:PHE:HD1	2.25	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:QY:176:ILE:HD13	3:QY:179:VAL:CG1	2.48	0.43
3:QY:200:ARG:HB2	3:QY:322:GLN:HB3	2.00	0.43
3:XY:226:VAL:HG22	3:XY:227:ASP:H	1.83	0.43
4:YA:721:C:H2'	4:YA:722:A:C8	2.52	0.43
4:YA:878:A:H3'	4:YA:879:G:H8	1.83	0.43
6:YD:147:LEU:HD11	6:YD:183:ARG:HE	1.83	0.43
7:YE:12:THR:HG22	7:YE:13:ARG:N	2.32	0.43
9:YG:15:VAL:HG21	9:YG:176:LEU:HD23	2.00	0.43
17:YS:20:ARG:HH22	25:Y0:47:PRO:HB2	1.83	0.43
30:Y5:50:GLY:HA3	30:Y5:58:LEU:O	2.18	0.43
33:Y8:62:LEU:HB3	33:Y8:65:GLU:HG2	2.00	0.43
40:XF:23:LYS:HG2	40:XF:61:LEU:HD21	1.99	0.43
41:XG:75:VAL:HA	41:XG:87:VAL:O	2.18	0.43
51:XQ:27:PHE:CD1	51:XQ:36:ILE:HG13	2.53	0.43
52:XR:26:LEU:HD11	52:XR:42:ARG:NE	2.33	0.43
35:QA:67:C:H2'	35:QA:68:G:C8	2.53	0.43
35:QA:966:M2G:HM13	35:QA:967:5MC:H1'	2.00	0.43
35:QA:1183:A:H3'	35:QA:1184:G:C5'	2.48	0.43
35:QA:1458:G:H5"	54:QT:31:SER:OG	2.18	0.43
36:QB:8:LYS:O	36:QB:9:GLU:HB3	2.18	0.43
39:QE:141:GLN:HA	39:QE:143:ARG:HH21	1.83	0.43
41:QG:111:ARG:HH12	41:QG:122:HIS:CB	2.30	0.43
44:QJ:21:GLN:O	44:QJ:25:GLU:HG3	2.18	0.43
46:QL:32:PHE:HB3	46:QL:84:LEU:HD22	1.99	0.43
4:RA:706:A:H2'	4:RA:707:G:O4'	2.18	0.43
4:RA:952:G:C6	4:RA:966:G:C6	3.06	0.43
4:RA:1045:A:H2'	4:RA:1045:A:N3	2.33	0.43
4:RA:1239:G:H2'	4:RA:1240:U:O4'	2.18	0.43
4:RA:1756:G:H4'	4:RA:1758:G:O4'	2.18	0.43
4:RA:2008:C:H2'	4:RA:2009:G:H8	1.83	0.43
4:RA:2111:C:H42	4:RA:2147:G:H22	1.66	0.43
5:RB:95:C:H2'	5:RB:96:U:C6	2.53	0.43
7:RE:19:ARG:NH1	13:RO:72:PRO:HB3	2.33	0.43
7:RE:37:ARG:HA	7:RE:42:ASP:OD2	2.18	0.43
19:RU:50:ARG:O	19:RU:54:LYS:NZ	2.46	0.43
20:RV:81:TYR:C	20:RV:82:ARG:HG3	2.43	0.43
26:R1:71:TYR:N	26:R1:71:TYR:HD1	2.16	0.43
4:YA:263:C:H2'	4:YA:264:C:O4'	2.17	0.43
4:YA:963:U:H2'	4:YA:964:C:C6	2.53	0.43
4:YA:1198:U:C2	4:YA:1199:U:C5	3.05	0.43
4:YA:1614:A:C2	21:YW:93:ALA:HB2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:YE:42:ASP:HB3	7:YE:44:TYR:HE1	1.83	0.43
35:XA:396:G:O2'	35:XA:398:C:OP1	2.28	0.43
35:XA:892:A:H2'	35:XA:893:C:H6	1.82	0.43
35:XA:1030(B):G:H1'	35:XA:1030(D):G:C5	2.53	0.43
35:XA:1255:G:C2	35:XA:1283:G:C2	3.06	0.43
37:XC:131:ARG:NH2	37:XC:166:GLU:OE2	2.42	0.43
39:XE:93:PRO:HG2	42:XH:105:ARG:HD2	2.00	0.43
40:XF:97:PHE:C	40:XF:97:PHE:CD1	2.96	0.43
42:XH:6:ILE:HB	42:XH:85:ARG:NH1	2.33	0.43
44:XJ:11:PHE:CE1	44:XJ:67:THR:HG22	2.50	0.43
44:XJ:50:ILE:HB	48:XN:41:ARG:HH21	1.83	0.43
35:QA:610:G:C5	35:QA:611:A:N7	2.86	0.43
35:QA:857:C:H2'	35:QA:858:G:O4'	2.18	0.43
40:QF:60:PHE:N	40:QF:60:PHE:CD1	2.87	0.43
47:QM:88:ARG:HG3	47:QM:98:VAL:HG11	2.00	0.43
50:QP:9:PHE:N	50:QP:9:PHE:HD1	2.14	0.43
50:QP:40:ASP:HB3	50:QP:48:TRP:HB2	2.00	0.43
4:RA:1021:A:O2'	4:RA:1123:C:OP1	2.36	0.43
4:RA:1047:G:O2'	4:RA:1048:A:O5'	2.33	0.43
4:RA:1073:A:HO2'	4:RA:1074:G:C5'	2.30	0.43
4:RA:1097:U:O2	4:RA:1097:U:H2'	2.17	0.43
4:RA:1754:C:OP1	18:RT:96:ARG:HD3	2.17	0.43
4:RA:2046:G:O5'	30:R5:19:ARG:HA	2.18	0.43
4:RA:2630:G:H2'	4:RA:2631:G:H8	1.83	0.43
5:RB:74:U:H1'	24:RZ:34:ASN:HD21	1.82	0.43
7:RE:52:LEU:O	7:RE:76:ARG:N	2.44	0.43
10:RH:3:ARG:HG2	10:RH:6:ARG:HG2	2.00	0.43
11:RI:133:HIS:ND1	11:RI:134:PRO:O	2.51	0.43
17:RS:14:VAL:O	17:RS:18:ILE:HG12	2.18	0.43
22:RX:94:GLY:HA3	22:RX:95:LEU:C	2.43	0.43
29:R4:24:THR:C	29:R4:25:TYR:CD1	2.96	0.43
3:QY:19:ASP:O	3:QY:22:ARG:HB2	2.19	0.43
4:YA:1166:C:H2'	4:YA:1167:U:C6	2.53	0.43
4:YA:1557:C:H5"	4:YA:1558:A:OP2	2.18	0.43
4:YA:1790:C:H5"	4:YA:1791:A:OP1	2.17	0.43
4:YA:1957:C:H2'	4:YA:1958:C:H6	1.82	0.43
4:YA:2025:C:H2'	4:YA:2026:C:C6	2.53	0.43
4:YA:2573:C:H3'	4:YA:2573:C:H6	1.83	0.43
4:YA:2695:C:H2'	4:YA:2696:U:C6	2.53	0.43
9:YG:122:PRO:HG3	9:YG:182:LYS:C	2.42	0.43
10:YH:8:PRO:HB2	10:YH:49:VAL:CG2	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:YH:105:LEU:HD21	10:YH:162:ILE:HD11	1.99	0.43
24:YZ:33:LEU:HD21	24:YZ:90:VAL:HG11	1.98	0.43
24:YZ:39:VAL:HG21	24:YZ:44:PHE:CD2	2.53	0.43
35:XA:1459:C:OP1	54:XT:31:SER:OG	2.32	0.43
36:XB:9:GLU:HG3	36:XB:10:LEU:N	2.33	0.43
37:XC:8:ILE:HD12	37:XC:16:ARG:CD	2.48	0.43
39:XE:96:PRO:HA	39:XE:117:ASP:OD2	2.18	0.43
52:XR:25:THR:OG1	52:XR:26:LEU:HD13	2.17	0.43
35:QA:743:U:H2'	35:QA:744:C:H6	1.81	0.43
35:QA:757:U:H2'	35:QA:758:G:O4'	2.18	0.43
35:QA:1492:A:H3'	35:QA:1493:A:C8	2.49	0.43
35:QA:1512:U:H2'	35:QA:1513:A:H8	1.83	0.43
36:QB:189:ASP:O	36:QB:191:ASP:N	2.52	0.43
39:QE:39:GLY:HA2	39:QE:69:VAL:HG13	2.01	0.43
41:QG:18:TYR:N	41:QG:18:TYR:HD1	2.17	0.43
44:QJ:16:LEU:HD21	44:QJ:70:ARG:HG2	2.00	0.43
4:RA:67:U:C2	4:RA:68:G:C8	3.06	0.43
4:RA:212:G:H2'	4:RA:213:A:O4'	2.19	0.43
4:RA:814:C:H2'	4:RA:815:C:H6	1.82	0.43
4:RA:1051:G:H2'	4:RA:1052:C:H6	1.83	0.43
4:RA:1803:A:H4'	6:RD:259:THR:HG23	2.00	0.43
4:RA:2115:G:H22	4:RA:2119:A:H5'	1.83	0.43
4:RA:2549:G:H2'	4:RA:2550:G:H8	1.84	0.43
4:RA:2845:G:H2'	4:RA:2846:G:C8	2.53	0.43
6:RD:69:ARG:C	6:RD:71:ASP:N	2.76	0.43
7:RE:119:ARG:HG3	7:RE:160:TYR:CG	2.54	0.43
9:RG:105:LYS:HB2	9:RG:105:LYS:HE3	1.70	0.43
26:R1:60:PHE:N	26:R1:60:PHE:CD1	2.86	0.43
33:R8:33:ASN:HA	33:R8:36:LYS:HD2	2.00	0.43
3:QY:204:LYS:HB2	3:QY:329:ASP:OD2	2.18	0.43
3:XY:54:GLN:HA	4:YA:1068:G:O6	2.18	0.43
3:XY:140:GLU:HG3	3:XY:216:SER:HB3	1.99	0.43
3:XY:250:GLY:HA3	3:XY:254:VAL:HB	2.00	0.43
4:YA:590:A:H2'	4:YA:591:C:H6	1.81	0.43
4:YA:732:C:H2'	4:YA:733:G:O4'	2.19	0.43
4:YA:923:C:C2	4:YA:924:C:C5	3.06	0.43
4:YA:1400:G:H2'	4:YA:1401:G:C8	2.54	0.43
4:YA:1866:C:H2'	4:YA:1876:A:O4'	2.18	0.43
4:YA:2846:G:H2'	4:YA:2847:U:C6	2.53	0.43
4:YA:2880:C:O3'	16:YR:90:ARG:NH1	2.52	0.43
5:YB:16:G:N2	5:YB:69:G:H1'	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:YE:173:VAL:CG2	7:YE:185:LYS:HB2	2.49	0.43
9:YG:5:VAL:HG22	9:YG:8:LYS:CB	2.49	0.43
23:YY:86:ARG:NH1	23:YY:100:ALA:HA	2.34	0.43
35:XA:130:A:O2'	35:XA:131:C:O5'	2.29	0.43
35:XA:554:C:C2	35:XA:555:C:C5	3.07	0.43
35:XA:767:A:H2'	35:XA:768:A:O4'	2.17	0.43
35:XA:857:C:H2'	35:XA:858:G:O4'	2.18	0.43
41:XG:92:SER:O	41:XG:96:GLN:HG3	2.18	0.43
44:XJ:19:SER:O	44:XJ:23:ILE:HG12	2.19	0.43
46:XL:53:ARG:CB	46:XL:93:LEU:HD11	2.48	0.43
35:QA:687:A:N3	35:QA:688:G:H1'	2.33	0.43
35:QA:1179:A:H2'	35:QA:1180:A:O4'	2.18	0.43
35:QA:1316:G:N2	35:QA:1318:A:H3'	2.34	0.43
35:QA:1410:G:H2'	35:QA:1411:C:H6	1.83	0.43
40:QF:89:MET:HE1	52:QR:72:ARG:HB3	2.00	0.43
43:QI:19:LEU:HB3	43:QI:59:PHE:CD2	2.43	0.43
51:QQ:42:TYR:N	51:QQ:42:TYR:CD1	2.86	0.43
4:RA:764:A:H5'	6:RD:210:GLY:HA2	2.00	0.43
4:RA:1491:G:O2'	6:RD:101:GLU:HB3	2.18	0.43
4:RA:1557:C:H5"	4:RA:1558:A:OP2	2.18	0.43
4:RA:1802:A:H2'	4:RA:1803:A:H8	1.78	0.43
4:RA:2115:G:N1	4:RA:2117:A:N7	2.67	0.43
4:RA:2577:A:H5"	4:RA:2578:G:H5'	2.01	0.43
4:RA:2850:A:H2'	4:RA:2851:A:C8	2.54	0.43
9:RG:6:ALA:N	9:RG:104:GLU:OE2	2.51	0.43
9:RG:180:PHE:N	9:RG:180:PHE:HD1	2.16	0.43
10:RH:12:PRO:O	10:RH:15:VAL:HG22	2.17	0.43
12:RN:58:ASP:N	12:RN:58:ASP:OD1	2.48	0.43
15:RQ:93:TYR:N	15:RQ:93:TYR:CD1	2.86	0.43
16:RR:38:VAL:HG22	16:RR:112:ALA:HB2	2.01	0.43
1:QV:55:U:P	24:RZ:203:GLU:OE2	2.77	0.43
3:QY:195:GLU:OE2	3:QY:357:ILE:HD11	2.19	0.43
3:XY:152:TYR:HE1	3:XY:353:LEU:CD2	2.31	0.43
4:YA:569:U:O2'	4:YA:983:A:N1	2.44	0.43
4:YA:582:G:H2'	4:YA:583:G:H8	1.83	0.43
4:YA:671:C:H2'	4:YA:672:C:C6	2.54	0.43
4:YA:795:C:H2'	4:YA:796:C:C6	2.53	0.43
4:YA:1050:A:H2'	4:YA:1051:G:C8	2.53	0.43
4:YA:1223:G:N2	4:YA:1226:A:OP2	2.44	0.43
4:YA:1682:G:C4	4:YA:1757:U:C2	3.07	0.43
4:YA:1721:G:H2'	4:YA:1740:G:O6	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:1750:G:O2'	4:YA:2860:A:N1	2.48	0.43
4:YA:1877:A:H5'	4:YA:1878:G:OP2	2.18	0.43
4:YA:1945:G:H2'	4:YA:1946:U:C6	2.53	0.43
8:YF:34:TRP:CZ3	14:YP:8:PRO:HB3	2.53	0.43
10:YH:7:LEU:HB3	10:YH:69:ARG:HH12	1.79	0.43
10:YH:55:PRO:HG2	10:YH:61:HIS:ND1	2.34	0.43
10:YH:109:PHE:C	10:YH:111:HIS:H	2.27	0.43
13:YO:64:ARG:HG2	13:YO:79:PHE:CE2	2.54	0.43
24:YZ:44:PHE:CD1	24:YZ:44:PHE:O	2.71	0.43
24:YZ:109:ALA:HB3	24:YZ:145:GLU:OE1	2.18	0.43
35:XA:412:A:C5	38:XD:35:ARG:HG3	2.54	0.43
35:XA:449:C:H2'	35:XA:450:G:O4'	2.18	0.43
35:XA:864:A:H2'	35:XA:865:A:C8	2.54	0.43
35:XA:1286:A:C8	35:XA:1287:A:H4'	2.54	0.43
35:XA:1301:U:O2'	35:XA:1302:U:H5'	2.19	0.43
36:XB:9:GLU:HG3	36:XB:10:LEU:H	1.82	0.43
35:QA:184:G:H2'	35:QA:185:A:C8	2.51	0.43
35:QA:224:C:H2'	35:QA:225:C:C6	2.54	0.43
35:QA:270:A:H2'	35:QA:271:C:H6	1.83	0.43
35:QA:718:G:H5'	45:QK:117:ASN:HB2	1.99	0.43
35:QA:1499:A:H1'	35:QA:1520:G:H5'	2.00	0.43
40:QF:100:ASN:ND2	52:QR:27:GLY:O	2.43	0.43
43:QI:93:ARG:HH11	43:QI:93:ARG:HD3	1.51	0.43
53:QS:66:MET:HB2	53:QS:74:PHE:CZ	2.54	0.43
4:RA:1540:U:H2'	4:RA:1541:G:O4'	2.19	0.43
4:RA:1682:G:C4	4:RA:1757:U:C2	3.07	0.43
4:RA:1824:G:OP1	6:RD:52:ARG:HD3	2.18	0.43
8:RF:29:ASN:HB3	8:RF:112:MET:HE1	1.99	0.43
10:RH:13:LYS:HA	10:RH:14:GLY:HA2	1.65	0.43
17:RS:7:TYR:HE1	17:RS:11:LYS:HE3	1.82	0.43
24:RZ:109:ALA:HB3	24:RZ:145:GLU:OE1	2.19	0.43
3:QY:36:GLU:H	3:QY:36:GLU:CD	2.26	0.43
3:QY:193:ARG:O	3:QY:196:THR:OG1	2.31	0.43
3:XY:117:ARG:HD2	3:XY:361:LEU:HB2	2.00	0.43
4:YA:858:U:O2	4:YA:2268:A:H2'	2.19	0.43
4:YA:1092:C:C2	4:YA:1099:G:N1	2.87	0.43
4:YA:2096:U:H3	4:YA:2193:G:H1	1.66	0.43
4:YA:2376:A:C2	17:YS:94:TYR:CE2	3.06	0.43
8:YF:64:ILE:HG21	8:YF:78:ILE:HG23	2.00	0.43
8:YF:97:TYR:N	8:YF:97:TYR:CD1	2.87	0.43
11:YI:4:ILE:HG12	11:YI:18:VAL:HG22	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:YW:74:ALA:O	21:YW:75:TYR:HB3	2.18	0.43
27:Y2:12:GLU:OE1	27:Y2:12:GLU:HA	2.18	0.43
35:XA:407:G:OP1	38:XD:115:ARG:NH2	2.44	0.43
35:XA:583:A:H2'	35:XA:584:G:O4'	2.18	0.43
35:XA:841:U:C5	35:XA:848:C:H1'	2.54	0.43
36:XB:97:TRP:HH2	36:XB:176:GLU:CD	2.27	0.43
52:XR:34:TYR:N	52:XR:34:TYR:HD1	2.16	0.43
35:QA:551:U:H2'	35:QA:552:U:C6	2.53	0.43
35:QA:1258:G:H2'	35:QA:1259:C:H6	1.83	0.43
36:QB:27:LYS:O	36:QB:30:ARG:NH1	2.51	0.43
38:QD:163:GLU:O	38:QD:166:LYS:HG2	2.18	0.43
4:RA:225:A:O2'	4:RA:257:A:H4'	2.19	0.43
4:RA:2153:G:H2'	4:RA:2154:G:H8	1.83	0.43
4:RA:2373:G:H2'	4:RA:2374:C:C6	2.54	0.43
4:RA:2461:C:H2'	4:RA:2462:U:C6	2.54	0.43
6:RD:77:ALA:HA	6:RD:97:TYR:HA	2.01	0.43
15:RQ:29:PHE:HB3	15:RQ:65:PHE:CE2	2.53	0.43
19:RU:40:PHE:CD2	20:RV:75:PHE:CE2	3.06	0.43
20:RV:34:GLU:HA	20:RV:57:VAL:O	2.18	0.43
23:RY:13:VAL:HB	23:RY:72:VAL:HG13	1.99	0.43
3:QY:319:TRP:HE1	35:QA:1492:A:C2'	2.32	0.43
3:XY:192:LEU:HB3	3:XY:222:VAL:HG21	2.01	0.43
4:YA:150:C:H2'	4:YA:151:C:H6	1.83	0.43
4:YA:944:G:H5"	4:YA:945:A:O5'	2.18	0.43
7:YE:36:ARG:NH1	7:YE:85:ASN:OD1	2.50	0.43
8:YF:97:TYR:N	8:YF:97:TYR:HD1	2.17	0.43
8:YF:101:LEU:HB3	8:YF:106:ARG:HD3	2.00	0.43
14:YP:63:PRO:HB2	33:Y8:30:ARG:NH2	2.33	0.43
16:YR:24:GLN:NE2	16:YR:36:THR:HG21	2.33	0.43
16:YR:24:GLN:HB3	16:YR:44:LEU:HD11	2.00	0.43
23:YY:5:MET:CE	23:YY:32:PRO:HA	2.48	0.43
35:XA:399:G:H2'	35:XA:400:C:C6	2.53	0.43
35:XA:1438:G:H2'	35:XA:1439:C:H6	1.84	0.43
38:XD:111:ALA:HB2	38:XD:120:LEU:HD12	2.00	0.43
39:XE:137:GLU:CG	39:XE:140:ARG:HH11	2.32	0.43
35:QA:636:U:H2'	35:QA:637:G:C8	2.53	0.43
35:QA:747:C:H3'	35:QA:748:C:C6	2.54	0.43
35:QA:1225:A:H2'	35:QA:1226:C:C5	2.54	0.43
35:QA:1320:C:H2'	35:QA:1321:C:O4'	2.19	0.43
36:QB:219:VAL:HA	36:QB:222:ILE:HD12	2.01	0.43
40:QF:60:PHE:N	40:QF:60:PHE:HD1	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:QK:48:ILE:H	45:QK:48:ILE:HG13	1.67	0.43
50:QP:50:LYS:HA	50:QP:50:LYS:HD2	1.77	0.43
4:RA:321:G:H5'	8:RF:134:GLY:O	2.18	0.43
4:RA:539:G:H2'	4:RA:540:C:H6	1.82	0.43
4:RA:1094:U:H4'	4:RA:1096:A:N6	2.34	0.43
4:RA:1420:U:O2'	4:RA:1421:G:OP1	2.35	0.43
4:RA:1469:A:H2'	4:RA:1470:G:O4'	2.19	0.43
4:RA:1654:A:C2	7:RE:113:PHE:CD2	3.06	0.43
7:RE:113:PHE:HB2	7:RE:159:HIS:CD2	2.54	0.43
20:RV:76:LYS:HB2	20:RV:81:TYR:HB3	2.01	0.43
24:RZ:9:TYR:OH	24:RZ:61:LEU:HD23	2.19	0.43
28:R3:31:LEU:C	28:R3:33:GLN:H	2.26	0.43
3:QY:176:ILE:HG21	3:QY:179:VAL:HG13	1.99	0.43
3:QY:338:THR:OG1	3:QY:339:GLY:HA2	2.19	0.43
3:XY:270:ILE:HD12	3:XY:298:LEU:HD11	2.00	0.43
4:YA:195:A:H5"	4:YA:196:A:O5'	2.19	0.43
4:YA:721:C:H2'	4:YA:722:A:H8	1.83	0.43
4:YA:1125:G:C6	4:YA:1126:A:N6	2.87	0.43
4:YA:1637:A:H4'	4:YA:2711:A:O2'	2.18	0.43
4:YA:1720:U:H2'	4:YA:1721:G:O4'	2.18	0.43
9:YG:7:LEU:HD23	9:YG:100:TRP:HE3	1.84	0.43
9:YG:68:PRO:HB2	9:YG:90:LEU:HB3	2.00	0.43
13:YO:68:GLU:CB	13:YO:78:ARG:HB2	2.47	0.43
15:YQ:104:PHE:N	15:YQ:104:PHE:HD1	2.17	0.43
20:YV:14:VAL:HB	20:YV:96:ILE:HG13	2.01	0.43
35:XA:73:G:C6	35:XA:97:G:C6	3.07	0.43
35:XA:328:C:H4'	35:XA:329:A:H5'	2.00	0.43
35:XA:380:G:N2	35:XA:383:A:OP2	2.52	0.43
35:XA:1009:G:H1	35:XA:1020:U:H3	1.67	0.43
36:XB:66:GLY:HA3	36:XB:160:ASP:OD2	2.18	0.43
36:XB:113:HIS:CD2	36:XB:113:HIS:N	2.83	0.43
36:XB:163:PHE:CE1	36:XB:185:ILE:HG22	2.54	0.43
37:XC:64:VAL:O	37:XC:99:VAL:HA	2.19	0.43
39:XE:102:ALA:O	39:XE:107:ARG:NH1	2.51	0.43
48:XN:29:ARG:NH2	48:XN:41:ARG:HH11	2.16	0.43
35:QA:41:G:H2'	35:QA:42:G:C8	2.53	0.43
35:QA:160:A:H2'	35:QA:161:A:O4'	2.18	0.43
35:QA:553:A:H5"	46:QL:24:VAL:HG21	2.00	0.43
35:QA:643:C:H2'	35:QA:644:G:H8	1.84	0.43
35:QA:1244:C:H2'	35:QA:1245:A:C8	2.54	0.43
35:QA:1244:C:H2'	35:QA:1245:A:H8	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:QA:1346:A:N1	35:QA:1374:A:H5"	2.34	0.43
35:QA:1427:U:H2'	35:QA:1428:A:C8	2.53	0.43
36:QB:109:SER:C	36:QB:111:ARG:N	2.74	0.43
4:RA:37:C:H2'	4:RA:38:A:C8	2.53	0.43
4:RA:671:C:H2'	4:RA:672:C:C6	2.54	0.43
4:RA:1385:G:C4	4:RA:1386:C:C5	3.07	0.43
4:RA:1799:G:H8	6:RD:181:GLU:OE1	2.02	0.43
4:RA:1946:U:C2	4:RA:1947:C:C5	3.07	0.43
4:RA:2173:A:H2'	4:RA:2174:C:H5'	2.00	0.43
5:RB:8:U:H4'	17:RS:25:ARG:NH2	2.33	0.43
11:RI:61:ARG:HA	11:RI:61:ARG:HD3	1.82	0.43
17:RS:48:LEU:HD23	17:RS:82:ILE:HD11	2.01	0.43
18:RT:37:GLY:HA2	18:RT:38:ASN:HA	1.65	0.43
21:RW:23:LEU:CD1	30:R5:25:LEU:HB2	2.49	0.43
4:YA:234:C:H2'	4:YA:235:U:C6	2.52	0.43
4:YA:335:C:H4'	23:YY:73:ARG:HD2	2.00	0.43
4:YA:445:C:H2'	4:YA:446:G:O4'	2.18	0.43
4:YA:610:G:H2'	4:YA:611:C:H6	1.83	0.43
4:YA:871:U:H2'	4:YA:872:A:C8	2.54	0.43
4:YA:1094:U:H4'	4:YA:1096:A:N6	2.33	0.43
4:YA:1358:G:O2'	4:YA:1359:A:H5'	2.18	0.43
4:YA:1754:C:OP1	18:YT:96:ARG:HD3	2.19	0.43
4:YA:2303:G:O2'	9:YG:132:ASN:HB2	2.18	0.43
4:YA:2557:G:H2'	4:YA:2558:C:C6	2.53	0.43
4:YA:2695:C:H2'	4:YA:2696:U:H6	1.84	0.43
9:YG:170:ARG:HH21	9:YG:180:PHE:HB2	1.84	0.43
23:YY:21:LYS:HB2	23:YY:21:LYS:HE3	1.74	0.43
29:Y4:48:ARG:HB3	29:Y4:51:ASP:O	2.19	0.43
35:XA:7:G:H5'	35:XA:298:A:O4'	2.19	0.43
35:XA:1161:C:H2'	35:XA:1162:C:C6	2.54	0.43
36:XB:70:PHE:N	36:XB:70:PHE:CD1	2.87	0.43
43:XI:55:ALA:HA	43:XI:58:HIS:ND1	2.34	0.43
48:XN:23:ARG:NH1	48:XN:30:ALA:HB2	2.33	0.43
35:QA:152:A:C8	35:QA:153:C:C5	3.07	0.43
35:QA:324:G:N1	35:QA:327:A:OP2	2.51	0.43
35:QA:892:A:H2'	35:QA:893:C:C6	2.54	0.43
35:QA:895:G:H2'	35:QA:896:C:H6	1.83	0.43
35:QA:1060:C:C4	37:QC:2:GLY:HA3	2.53	0.43
35:QA:1157:A:C2	35:QA:1181:G:C4	3.07	0.43
35:QA:1160:G:C6	35:QA:1161:C:C5	3.06	0.43
36:QB:15:VAL:HG22	36:QB:15:VAL:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:QO:82:ILE:O	49:QO:86:GLY:N	2.52	0.43
4:RA:827:U:O2'	4:RA:2068:U:C2	2.71	0.43
4:RA:1033:U:O2'	4:RA:2750:A:N6	2.51	0.43
4:RA:1297:C:OP1	4:RA:2710:C:H4'	2.19	0.43
4:RA:2119:A:N6	4:RA:2168:G:H21	2.16	0.43
4:RA:2364:C:H2'	4:RA:2365:G:O4'	2.18	0.43
6:RD:145:VAL:HG12	6:RD:146:GLU:O	2.19	0.43
12:RN:42:TRP:CH2	12:RN:44:PRO:HB3	2.54	0.43
15:RQ:63:LYS:HG3	15:RQ:65:PHE:CE1	2.53	0.43
21:RW:10:VAL:HG12	21:RW:12:ILE:HG22	1.99	0.43
31:R6:12:GLU:HG2	31:R6:19:ARG:HG2	2.01	0.43
33:R8:65:GLU:OE1	33:R8:65:GLU:HA	2.18	0.43
4:YA:105:C:H2'	4:YA:106:C:C6	2.54	0.43
4:YA:302:C:H2'	4:YA:303:U:H6	1.83	0.43
4:YA:534:U:O2'	19:YU:49:HIS:ND1	2.47	0.43
4:YA:656:G:H2'	4:YA:657:U:O4'	2.19	0.43
4:YA:924:C:H2'	4:YA:925:C:H6	1.82	0.43
4:YA:2365:G:O6	33:Y8:39:LYS:HE3	2.19	0.43
4:YA:2853:C:C2	4:YA:2854:G:C8	3.07	0.43
9:YG:171:ALA:O	9:YG:175:LEU:HD13	2.19	0.43
12:YN:19:GLU:HG3	12:YN:59:LYS:HB3	2.01	0.43
29:Y4:44:THR:O	29:Y4:46:GLN:N	2.52	0.43
30:Y5:35:GLU:HA	30:Y5:35:GLU:OE1	2.19	0.43
35:XA:337:C:H2'	35:XA:338:A:C8	2.53	0.43
35:XA:911:U:H2'	35:XA:912:C:H6	1.84	0.43
35:XA:978:A:O2'	35:XA:1322:C:N3	2.43	0.43
35:XA:1023:G:H3'	35:XA:1024:G:C8	2.54	0.43
35:XA:1131:G:H2'	35:XA:1132:C:C6	2.53	0.43
35:XA:1273:G:H3'	35:XA:1274:G:C8	2.54	0.43
36:XB:7:VAL:HG12	36:XB:8:LYS:H	1.84	0.43
38:XD:108:LEU:CD1	38:XD:174:LEU:HD13	2.49	0.43
44:XJ:6:ILE:HB	44:XJ:72:VAL:HG22	2.00	0.43
35:QA:554:C:C2	35:QA:555:C:C5	3.07	0.43
35:QA:1142:G:H2'	35:QA:1143:G:O4'	2.19	0.43
37:QC:8:ILE:HD12	37:QC:16:ARG:CD	2.48	0.43
37:QC:157:ILE:HB	37:QC:164:ARG:HH21	1.83	0.43
42:QH:36:LEU:HD12	42:QH:59:LEU:HD13	2.00	0.43
42:QH:51:VAL:HG11	42:QH:60:ARG:NH1	2.31	0.43
42:QH:73:ASP:OD1	42:QH:75:ARG:HG3	2.19	0.43
44:QJ:35:SER:N	44:QJ:73:ASP:O	2.37	0.43
4:RA:195:A:H5"	4:RA:196:A:O5'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:563:G:N2	19:RU:37:GLU:OE2	2.43	0.43
4:RA:635:C:O2'	4:RA:639:U:OP1	2.35	0.43
4:RA:900:A:H2'	4:RA:901:A:H8	1.84	0.43
5:RB:66:A:H61	5:RB:109:C:H5'	1.84	0.43
7:RE:51:PHE:C	7:RE:75:VAL:HG22	2.44	0.43
9:RG:62:LEU:HD12	9:RG:148:MET:HE1	2.00	0.43
21:RW:7:ALA:HB2	21:RW:50:VAL:HG22	2.01	0.43
23:RY:6:HIS:HE1	23:RY:72:VAL:O	2.01	0.43
4:YA:242:G:H5"	33:Y8:64:TYR:CE2	2.53	0.42
4:YA:330:A:N7	4:YA:1210:A:O2'	2.35	0.42
4:YA:956:G:OP2	15:YQ:14:ARG:NH2	2.52	0.42
4:YA:1826:G:O2'	6:YD:242:ARG:NH2	2.52	0.42
9:YG:16:ARG:NH2	9:YG:28:VAL:O	2.52	0.42
20:YV:29:PRO:HA	20:YV:61:VAL:CG2	2.49	0.42
29:Y4:58:ARG:HH11	47:XM:80:ARG:NH2	2.15	0.42
35:XA:56:U:H2'	35:XA:57:G:C8	2.54	0.42
35:XA:691:G:H2'	35:XA:692:U:C6	2.54	0.42
35:XA:933:G:O6	41:XG:3:ARG:NH2	2.51	0.42
35:XA:1160:G:C5	35:XA:1161:C:C5	3.07	0.42
39:XE:110:LEU:HD13	39:XE:118:ILE:HG21	2.01	0.42
44:XJ:6:ILE:HB	44:XJ:72:VAL:CG2	2.49	0.42
45:XK:96:ARG:HA	45:XK:96:ARG:HD2	1.50	0.42
35:QA:868:C:H2'	35:QA:869:G:O4'	2.19	0.42
35:QA:1030(A):C:N3	35:QA:1031:G:N2	2.66	0.42
35:QA:1030(D):G:H2'	35:QA:1030(E):A:H8	1.82	0.42
35:QA:1149:C:P	43:QI:9:ARG:HH21	2.42	0.42
35:QA:1261:A:H3'	35:QA:1262:C:H6	1.84	0.42
39:QE:41:VAL:HG13	39:QE:113:ALA:HA	2.01	0.42
41:QG:17:VAL:HG12	41:QG:18:TYR:CD1	2.54	0.42
47:QM:14:ARG:HG2	47:QM:42:ALA:O	2.19	0.42
47:QM:49:THR:HG22	47:QM:51:ALA:H	1.84	0.42
49:QO:72:ARG:HE	49:QO:72:ARG:HB2	1.53	0.42
50:QP:60:LEU:HD21	50:QP:80:PHE:HE1	1.83	0.42
4:RA:272(A):A:C8	4:RA:272(B):C:C6	3.07	0.42
4:RA:302:C:H2'	4:RA:303:U:C6	2.54	0.42
4:RA:934:G:H2'	4:RA:935:C:C6	2.54	0.42
4:RA:1105:U:H2'	4:RA:1106:G:C8	2.54	0.42
4:RA:1321:A:H2'	4:RA:1322:A:C8	2.54	0.42
4:RA:2119:A:H61	4:RA:2168:G:N2	2.16	0.42
4:RA:2345:G:N3	4:RA:2381:C:H2'	2.34	0.42
4:RA:2805:G:H2'	4:RA:2807:G:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:2845:G:H2'	4:RA:2846:G:H8	1.84	0.42
7:RE:7:VAL:CG1	7:RE:27:LEU:HB3	2.49	0.42
8:RF:110:LEU:HD11	8:RF:205:ARG:NH1	2.34	0.42
18:RT:45:PHE:CD2	18:RT:74:ARG:HG3	2.54	0.42
29:R4:48:ARG:O	29:R4:49:PHE:C	2.63	0.42
32:R7:17:GLY:O	32:R7:21:ARG:HG2	2.19	0.42
1:QV:16:C:H3'	1:QV:17:C:C6	2.54	0.42
4:YA:1045:A:H5"	4:YA:1046:A:OP1	2.18	0.42
4:YA:2358:G:N2	14:YP:55:ARG:HH22	2.17	0.42
4:YA:2845:G:H2'	4:YA:2846:G:C8	2.54	0.42
5:YB:24:G:N7	5:YB:56:G:H2'	2.34	0.42
6:YD:80:ALA:N	6:YD:94:LEU:O	2.51	0.42
7:YE:115:GLY:O	7:YE:119:ARG:HB2	2.19	0.42
11:YI:48:GLU:HG3	11:YI:52:ARG:NH1	2.33	0.42
17:YS:20:ARG:HA	17:YS:20:ARG:HD3	1.85	0.42
35:XA:375:U:OP1	50:XP:69:THR:HG21	2.19	0.42
35:XA:384:G:H2'	35:XA:385:C:H6	1.83	0.42
35:XA:1070:U:OP1	39:XE:20:GLN:NE2	2.52	0.42
35:XA:1073:U:C2	35:XA:1074:G:C8	3.07	0.42
42:XH:120:THR:OG1	42:XH:123:GLU:HG3	2.19	0.42
43:XI:100:GLY:O	43:XI:103:THR:HG22	2.19	0.42
35:QA:277:C:H5"	51:QQ:68:ARG:HH22	1.84	0.42
35:QA:323:U:H2'	35:QA:324:G:O4'	2.18	0.42
35:QA:375:U:OP1	50:QP:69:THR:HG21	2.18	0.42
35:QA:429:U:H3'	38:QD:9:CYS:SG	2.59	0.42
35:QA:542:G:H5'	38:QD:41:GLY:HA3	2.00	0.42
35:QA:562:C:H1'	46:QL:15:ARG:HD2	2.01	0.42
35:QA:624:C:H2'	35:QA:625:G:C8	2.54	0.42
35:QA:986:A:H2'	35:QA:987:G:C8	2.55	0.42
35:QA:1002:G:H2'	35:QA:1003:G:C1'	2.49	0.42
35:QA:1072:G:H2'	35:QA:1073:U:H6	1.82	0.42
36:QB:15:VAL:HG11	36:QB:213:LEU:HD12	2.02	0.42
36:QB:163:PHE:HA	36:QB:185:ILE:O	2.19	0.42
37:QC:58:GLU:O	37:QC:64:VAL:HG23	2.19	0.42
43:QI:42:ARG:HH12	43:QI:75:ASP:CG	2.26	0.42
48:QN:45:ARG:O	48:QN:49:HIS:HD2	2.02	0.42
55:QU:17:THR:C	55:QU:18:TYR:CD1	2.97	0.42
4:RA:453:C:O2	4:RA:457:A:O2'	2.36	0.42
4:RA:493:G:H2'	4:RA:494:G:O4'	2.19	0.42
4:RA:1322:A:C5	4:RA:1323:U:C5	3.07	0.42
4:RA:1400:G:H2'	4:RA:1401:G:C8	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:2243:U:H2'	4:RA:2244:U:H6	1.81	0.42
4:RA:2321:G:HO2'	4:RA:2322:A:P	2.41	0.42
4:RA:2547:U:O2	13:RO:23:ARG:NH2	2.47	0.42
4:RA:2722:G:H2'	4:RA:2723:C:C6	2.54	0.42
9:RG:125:PHE:CE2	9:RG:180:PHE:HE2	2.36	0.42
13:RO:64:ARG:NH2	13:RO:99:PHE:O	2.52	0.42
17:RS:41:ASP:OD1	17:RS:43:GLU:HB3	2.19	0.42
18:RT:1:MET:HE2	18:RT:3:ARG:HG2	2.01	0.42
1:QV:53:G:O6	1:QV:62:C:C4	2.72	0.42
3:XY:261:VAL:HG21	3:XY:284:LYS:HA	1.99	0.42
3:XY:317:ILE:O	3:XY:317:ILE:HG22	2.19	0.42
4:YA:90:U:H1'	4:YA:92:A:C8	2.55	0.42
4:YA:623:G:H2'	4:YA:624:C:C6	2.54	0.42
4:YA:828:U:H4'	4:YA:831:G:N1	2.34	0.42
4:YA:997:G:OP2	19:YU:58:ARG:NH1	2.53	0.42
4:YA:1499:C:C2	4:YA:1500:G:C8	3.07	0.42
4:YA:1567:A:OP2	6:YD:84:TYR:OH	2.24	0.42
4:YA:2298:A:N6	4:YA:2318:G:H8	2.17	0.42
4:YA:2306:C:N4	9:YG:43:LEU:O	2.51	0.42
4:YA:2345:G:N3	4:YA:2381:C:H2'	2.35	0.42
4:YA:2657:A:O3'	10:YH:160:LYS:NZ	2.53	0.42
9:YG:11:TYR:CD2	9:YG:12:TYR:CD1	3.07	0.42
15:YQ:30:GLY:H	15:YQ:105:GLU:HG2	1.84	0.42
22:YX:2:LYS:NZ	22:YX:38:GLU:OE2	2.30	0.42
24:YZ:44:PHE:HD1	24:YZ:44:PHE:O	2.01	0.42
35:XA:359:U:H2'	35:XA:360:A:C8	2.54	0.42
35:XA:806:C:H2'	35:XA:807:A:C8	2.55	0.42
35:XA:841:U:OP1	35:XA:841:U:H6	2.02	0.42
35:XA:1000:U:N3	35:XA:1001(A):A:N7	2.68	0.42
36:XB:70:PHE:N	36:XB:70:PHE:HD1	2.17	0.42
38:XD:138:TYR:HD1	38:XD:138:TYR:C	2.27	0.42
35:QA:32:A:H3'	35:QA:33:A:H8	1.83	0.42
35:QA:194:C:H2'	35:QA:195:A:H5"	2.00	0.42
35:QA:261:U:OP2	54:QT:79:ARG:NH2	2.52	0.42
35:QA:620:C:H2'	35:QA:621:A:O4'	2.20	0.42
35:QA:1024:G:H2'	35:QA:1024:G:N3	2.34	0.42
35:QA:1412:C:H2'	35:QA:1413:A:H8	1.82	0.42
36:QB:8:LYS:HZ3	36:QB:52:GLU:HG2	1.81	0.42
36:QB:217:ARG:O	36:QB:220:ASP:HB2	2.19	0.42
39:QE:110:LEU:HD13	39:QE:118:ILE:HG21	2.01	0.42
44:QJ:81:THR:HA	44:QJ:84:GLN:OE1	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:228:A:H8	4:RA:229:A:H5'	1.84	0.42
4:RA:579:G:O2'	4:RA:2019:A:OP1	2.30	0.42
4:RA:721:C:H2'	4:RA:722:A:C8	2.55	0.42
4:RA:1357:U:H5'	32:R7:23:ARG:NH1	2.35	0.42
4:RA:2188:C:H2'	4:RA:2189:U:O4'	2.20	0.42
6:RD:70:TRP:NE1	6:RD:146:GLU:OE2	2.48	0.42
6:RD:260:ARG:NH2	6:RD:270:ILE:HD12	2.35	0.42
8:RF:153:SER:OG	8:RF:190:GLU:HG3	2.19	0.42
15:RQ:30:GLY:HA2	15:RQ:107:ALA:HB2	2.01	0.42
16:RR:104:ARG:HD2	16:RR:107:ASP:OD1	2.19	0.42
22:RX:88:LYS:HB2	22:RX:88:LYS:HE3	1.75	0.42
30:R5:51:TYR:HE1	30:R5:56:LYS:HD3	1.83	0.42
31:R6:9:LEU:HD13	31:R6:51:GLU:HG3	2.01	0.42
3:XY:41:LEU:HD23	3:XY:46:VAL:HG21	2.01	0.42
4:YA:207:A:H2'	4:YA:208:C:O4'	2.20	0.42
4:YA:373:U:H2'	4:YA:374:A:H8	1.84	0.42
4:YA:1065:U:H4'	4:YA:1066:U:C5'	2.46	0.42
6:YD:242:ARG:CD	6:YD:246:PRO:HG3	2.47	0.42
10:YH:17:VAL:HG22	10:YH:26:VAL:HG22	2.02	0.42
16:YR:38:VAL:HG22	16:YR:112:ALA:HB2	2.01	0.42
20:YV:40:LEU:HB2	20:YV:46:VAL:HG12	2.01	0.42
23:YY:77:PRO:HD2	23:YY:106:LEU:HD23	2.00	0.42
35:XA:189(M):G:H2'	35:XA:190:U:C6	2.54	0.42
35:XA:908:A:H2'	35:XA:909:A:C8	2.54	0.42
49:XO:4:THR:HG22	49:XO:7:GLU:HB2	2.01	0.42
50:XP:19:ILE:HG22	50:XP:36:ILE:HG13	2.01	0.42
35:QA:582:U:OP1	49:QO:64:ARG:NH1	2.53	0.42
36:QB:19:HIS:CD2	36:QB:204:ASN:CG	2.97	0.42
38:QD:18:LYS:HG2	38:QD:20:TYR:CE1	2.55	0.42
40:QF:7:ASN:OD1	40:QF:62:TRP:HD1	2.01	0.42
44:QJ:31:GLY:HA2	44:QJ:32:ALA:HA	1.66	0.42
4:RA:9:U:O2'	4:RA:10:G:OP1	2.34	0.42
4:RA:840:C:H2'	4:RA:841:A:H8	1.85	0.42
4:RA:871:U:H4'	15:RQ:69:PHE:CD2	2.55	0.42
4:RA:2514:U:H2'	4:RA:2515:C:C6	2.54	0.42
4:RA:2646:C:H2'	4:RA:2647:U:O4'	2.19	0.42
4:RA:2667:C:H1'	10:RH:109:PHE:CD1	2.54	0.42
4:RA:2870:C:H2'	4:RA:2871:C:O4'	2.19	0.42
5:RB:105:A:H2'	5:RB:106:G:O4'	2.19	0.42
8:RF:116:ASP:OD1	8:RF:119:ARG:NH2	2.47	0.42
11:RI:109:ILE:HD12	11:RI:109:ILE:HA	1.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:RT:61:PHE:CD1	18:RT:61:PHE:N	2.79	0.42
21:RW:46:PHE:O	21:RW:50:VAL:HG23	2.19	0.42
23:RY:56:PRO:C	23:RY:58:GLY:H	2.27	0.42
32:R7:31:LEU:O	32:R7:35:ARG:HG3	2.20	0.42
3:QY:25:LEU:O	3:QY:30:LYS:HE2	2.19	0.42
3:XY:228:ASP:HB3	3:XY:230:ILE:HG13	2.01	0.42
4:YA:277:C:H4'	4:YA:278:A:H8	1.84	0.42
4:YA:481:G:OP2	23:YY:47:LYS:HD2	2.19	0.42
4:YA:661:C:HO2'	14:YP:14:LYS:H	1.66	0.42
4:YA:746:A:H2'	4:YA:2612:C:H5"	2.00	0.42
4:YA:1430:C:H2'	4:YA:1431:U:H6	1.84	0.42
4:YA:2051:A:H5'	4:YA:2578:G:O4'	2.19	0.42
4:YA:2238:G:N3	4:YA:2238:G:H2'	2.35	0.42
4:YA:2312:U:H5'	9:YG:88:ILE:HD11	2.00	0.42
4:YA:2462:U:H1'	4:YA:2491:U:O4	2.19	0.42
8:YF:18:ARG:CG	8:YF:19:GLU:H	2.29	0.42
14:YP:129:ALA:C	14:YP:130:PHE:HD1	2.28	0.42
16:YR:13:HIS:HD2	16:YR:16:HIS:H	1.67	0.42
24:YZ:91:LEU:HG	24:YZ:130:PRO:HG3	2.01	0.42
26:Y1:93:GLU:O	26:Y1:96:LYS:HB2	2.20	0.42
35:XA:337:C:H2'	35:XA:338:A:H8	1.84	0.42
35:XA:718:G:C5	45:XK:116:HIS:HD2	2.38	0.42
35:XA:947:G:H2'	35:XA:948:C:O4'	2.19	0.42
35:XA:1366:C:HO2'	44:XJ:60:ARG:HH22	1.62	0.42
36:XB:48:MET:HA	36:XB:51:LEU:HB2	2.00	0.42
38:XD:119:GLN:HE21	38:XD:123:HIS:CE1	2.38	0.42
44:XJ:5:ARG:N	44:XJ:99:LYS:O	2.53	0.42
48:XN:4:LYS:HG3	48:XN:7:ILE:HD11	2.00	0.42
52:XR:29:PHE:HE1	52:XR:31:LEU:CD1	2.33	0.42
35:QA:276:G:O3'	51:QQ:68:ARG:NH1	2.52	0.42
35:QA:407:G:HO2'	38:QD:116:GLN:HG3	1.83	0.42
35:QA:1048:G:C6	35:QA:1210:C:N4	2.87	0.42
43:QI:42:ARG:HD3	43:QI:42:ARG:HA	1.95	0.42
4:RA:443:A:H1'	4:RA:1201:C:O4'	2.19	0.42
4:RA:638:G:H2'	4:RA:639:U:C6	2.54	0.42
4:RA:1115:G:H2'	4:RA:1116:C:H6	1.85	0.42
4:RA:1923:U:H2'	4:RA:1924:C:H6	1.84	0.42
4:RA:2365:G:O6	33:R8:39:LYS:HE3	2.20	0.42
4:RA:2695:C:H2'	4:RA:2696:U:C6	2.55	0.42
7:RE:105:THR:OG1	7:RE:199:ARG:NH2	2.52	0.42
12:RN:29:LYS:HD3	12:RN:140:VAL:HB	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:RS:19:LYS:HE2	17:RS:25:ARG:HH11	1.83	0.42
22:RX:1:MET:O	27:R2:29:LYS:HE3	2.19	0.42
28:R3:23:LEU:HD13	28:R3:50:VAL:HG11	2.01	0.42
3:QY:80:VAL:HG11	3:QY:103:LEU:HD13	2.01	0.42
3:XY:54:GLN:HG3	4:YA:1068:G:H1	1.85	0.42
3:XY:200:ARG:CB	3:XY:322:GLN:HB3	2.50	0.42
4:YA:38:A:H2'	4:YA:39:C:H6	1.80	0.42
4:YA:875:G:H2'	4:YA:876:C:O4'	2.20	0.42
4:YA:987:G:O2'	4:YA:1000:A:N3	2.47	0.42
4:YA:2128:C:H3'	4:YA:2129:C:H5"	2.02	0.42
4:YA:2395:C:H2'	4:YA:2396:G:O4'	2.19	0.42
10:YH:154:PRO:HG3	10:YH:163:TYR:CD1	2.55	0.42
17:YS:83:LYS:HB3	17:YS:111:GLU:OE1	2.19	0.42
19:YU:47:TYR:C	19:YU:47:TYR:HD1	2.27	0.42
27:Y2:7:ARG:H	27:Y2:7:ARG:HG2	1.20	0.42
35:XA:560:U:H4'	35:XA:561:U:O5'	2.20	0.42
38:XD:59:ARG:HE	38:XD:59:ARG:CA	2.22	0.42
40:XF:37:VAL:HA	40:XF:65:VAL:HG12	2.02	0.42
43:XI:59:PHE:CZ	43:XI:88:TYR:CE2	3.07	0.42
47:XM:108:ARG:HA	47:XM:108:ARG:HD3	1.63	0.42
49:XO:76:GLU:OE1	49:XO:76:GLU:HA	2.19	0.42
51:XQ:4:LYS:N	51:XQ:61:GLU:HG2	2.32	0.42
35:QA:57:G:H2'	35:QA:58:C:C6	2.54	0.42
35:QA:512:U:H2'	35:QA:513:C:H6	1.84	0.42
35:QA:1030(B):G:H2'	35:QA:1030(D):G:OP2	2.19	0.42
35:QA:1131:G:H2'	35:QA:1132:C:H6	1.85	0.42
37:QC:130:VAL:HG21	37:QC:157:ILE:HG23	2.02	0.42
51:QQ:94:ASN:O	51:QQ:98:LEU:HD13	2.19	0.42
4:RA:105:C:C2	4:RA:106:C:C5	3.08	0.42
4:RA:1815:A:P	6:RD:54:ARG:HH22	2.42	0.42
4:RA:2747:G:O6	4:RA:2755:C:H5"	2.19	0.42
14:RP:129:ALA:C	14:RP:130:PHE:CD1	2.98	0.42
23:RY:60:PHE:N	23:RY:60:PHE:HD1	2.16	0.42
24:RZ:144:LEU:HD21	24:RZ:150:LEU:CD1	2.42	0.42
28:R3:29:ARG:HG3	28:R3:30:ARG:HG3	2.02	0.42
3:QY:298:LEU:O	3:QY:301:GLN:N	2.52	0.42
3:QY:332:ARG:HG3	3:QY:343:ARG:HD2	2.01	0.42
4:YA:1092:C:OP2	4:YA:1092:C:H6	2.03	0.42
4:YA:1354:A:H4'	6:YD:38:LYS:NZ	2.34	0.42
4:YA:2115:G:N1	4:YA:2117:A:N7	2.67	0.42
5:YB:28:C:H2'	5:YB:29:A:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:YB:48:A:H4'	17:YS:95:HIS:HD2	1.85	0.42
8:YF:11:VAL:HG22	8:YF:125:LEU:HB2	2.02	0.42
15:YQ:93:TYR:N	15:YQ:93:TYR:CD1	2.87	0.42
28:Y3:22:ALA:HB2	28:Y3:49:LYS:HD3	2.02	0.42
29:Y4:62:ARG:HH11	29:Y4:62:ARG:HA	1.85	0.42
35:XA:45:U:H2'	35:XA:46:G:H8	1.84	0.42
35:XA:56:U:H2'	35:XA:57:G:H8	1.85	0.42
35:XA:217:C:H2'	35:XA:218:C:C6	2.55	0.42
35:XA:376:G:H5"	50:XP:5:ARG:HB2	2.02	0.42
35:XA:389:A:H3'	35:XA:390:C:H6	1.84	0.42
35:XA:417:C:H2'	35:XA:418:C:C6	2.54	0.42
35:XA:456:C:H2'	35:XA:457:C:C6	2.55	0.42
35:XA:576:G:O6	35:XA:880:C:O2'	2.35	0.42
35:XA:736:C:H2'	35:XA:737:A:C8	2.55	0.42
35:XA:811:C:O2'	35:XA:901:A:N1	2.50	0.42
35:XA:1095:U:H2'	35:XA:1096:C:C6	2.54	0.42
35:XA:1142:G:H2'	35:XA:1143:G:O4'	2.19	0.42
35:XA:1330:U:H4'	47:XM:23:TYR:CE1	2.54	0.42
35:XA:1428:A:H2'	35:XA:1429:C:C6	2.55	0.42
37:XC:8:ILE:HG12	37:XC:184:TYR:HB3	2.01	0.42
44:XJ:50:ILE:HB	48:XN:41:ARG:NH2	2.34	0.42
54:XT:67:ALA:HB2	54:XT:77:ALA:HB2	2.01	0.42
35:QA:188:C:O4'	54:QT:89:ARG:NH2	2.52	0.42
35:QA:932:C:H5"	41:QG:4:ARG:CZ	2.50	0.42
35:QA:1065:U:H1'	35:QA:1066:C:OP2	2.19	0.42
35:QA:1071:C:H2'	35:QA:1072:G:C8	2.52	0.42
35:QA:1326:C:H2'	35:QA:1327:C:C6	2.55	0.42
35:QA:1524:C:OP1	45:QK:120:ARG:NH1	2.52	0.42
38:QD:173:TRP:CE3	38:QD:174:LEU:HG	2.55	0.42
42:QH:9:MET:HG3	42:QH:26:VAL:HG11	2.02	0.42
4:RA:275:G:H2'	4:RA:276:A:O4'	2.20	0.42
4:RA:568:U:H5'	4:RA:945:A:N6	2.34	0.42
4:RA:743:G:OP1	7:RE:130:GLY:HA2	2.19	0.42
4:RA:1475:G:H2'	4:RA:1476:C:H6	1.84	0.42
4:RA:1842:G:H2'	4:RA:1843:C:H6	1.84	0.42
4:RA:1902:C:OP1	6:RD:242:ARG:HD2	2.19	0.42
4:RA:2530:A:N7	10:RH:172:LYS:NZ	2.67	0.42
4:RA:2852:G:H2'	4:RA:2853:C:H6	1.83	0.42
5:RB:91:C:OP2	15:RQ:16:ARG:NH1	2.53	0.42
7:RE:59:VAL:HG12	7:RE:64:LYS:HG3	2.01	0.42
9:RG:7:LEU:HD23	9:RG:7:LEU:HA	1.90	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:RR:54:LEU:HD23	16:RR:66:VAL:HG23	2.01	0.42
34:R9:15:LYS:HE2	34:R9:17:ILE:HD11	2.01	0.42
34:R9:32:HIS:O	34:R9:34:GLN:HG3	2.19	0.42
1:XV:51:C:H2'	1:XV:52:G:O4'	2.19	0.42
3:XY:58:LYS:HZ1	4:YA:1067:A:H5"	1.84	0.42
3:XY:127:ASP:HB2	3:XY:225:GLU:OE1	2.20	0.42
3:XY:200:ARG:HH21	3:XY:325:SER:HG	1.60	0.42
4:YA:17:G:H2'	4:YA:18:C:C6	2.54	0.42
4:YA:18:C:O2'	4:YA:554:U:OP1	2.36	0.42
4:YA:273(F):G:C4	4:YA:273(G):C:C5	3.07	0.42
4:YA:1053:C:H2'	4:YA:1054:A:H8	1.85	0.42
4:YA:2031:A:C6	4:YA:2498:C:H1'	2.54	0.42
4:YA:2115:G:N2	4:YA:2171:A:H61	2.16	0.42
9:YG:46:ALA:HB2	9:YG:53:LEU:HD12	2.01	0.42
11:YI:48:GLU:HG3	11:YI:52:ARG:HH11	1.85	0.42
15:YQ:111:GLU:O	15:YQ:115:MET:HG2	2.20	0.42
16:YR:63:ARG:O	16:YR:67:LEU:HB2	2.19	0.42
18:YT:16:ARG:HG2	18:YT:18:ASP:OD1	2.19	0.42
19:YU:62:ILE:HG12	19:YU:76:TYR:CE2	2.55	0.42
35:XA:34:C:H2'	35:XA:35:G:C8	2.55	0.42
35:XA:918:A:H2'	35:XA:919:A:C8	2.55	0.42
35:XA:1438:G:H2'	35:XA:1439:C:C6	2.55	0.42
36:XB:80:ILE:HD11	36:XB:212:GLN:HB2	2.00	0.42
41:XG:17:VAL:C	41:XG:18:TYR:HD1	2.28	0.42
51:XQ:83:ASP:OD1	51:XQ:83:ASP:N	2.50	0.42
35:QA:412:A:C5	38:QD:35:ARG:HD3	2.55	0.42
35:QA:612:C:C2	35:QA:613:C:C5	3.08	0.42
35:QA:1026:G:N3	35:QA:1026:G:H2'	2.34	0.42
35:QA:1218:C:H2'	35:QA:1219:U:H6	1.81	0.42
35:QA:1438:G:H2'	35:QA:1439:C:H6	1.85	0.42
38:QD:88:VAL:HG13	39:QE:97:GLY:HA2	2.01	0.42
38:QD:111:ALA:HB1	38:QD:116:GLN:HB3	2.01	0.42
39:QE:13:ILE:HA	39:QE:29:GLY:O	2.20	0.42
50:QP:39:TYR:CE2	50:QP:41:PRO:HB3	2.55	0.42
51:QQ:45:HIS:CD2	51:QQ:47:PRO:HG3	2.55	0.42
4:RA:483:A:O4'	23:RY:48:ALA:HB1	2.19	0.42
4:RA:1021:A:H3'	4:RA:1021:A:N3	2.35	0.42
4:RA:2241:A:H2'	4:RA:2242:G:C8	2.55	0.42
4:RA:2247:A:H2'	4:RA:2248:C:H6	1.85	0.42
4:RA:2853:C:H2'	4:RA:2854:G:C8	2.55	0.42
7:RE:44:TYR:HD1	7:RE:44:TYR:H	1.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:RF:6:VAL:CB	8:RF:23:ASP:HA	2.50	0.42
9:RG:47:LYS:HG3	9:RG:48:GLU:H	1.85	0.42
23:RY:5:MET:CE	23:RY:32:PRO:HA	2.50	0.42
23:RY:92:ASN:CB	23:RY:94:LYS:H	2.24	0.42
3:QY:205:SER:HB2	3:QY:214:HIS:HB2	2.02	0.42
3:QY:272:THR:HG21	3:QY:290:GLN:HB2	2.00	0.42
3:XY:134:ALA:O	3:XY:317:ILE:HG21	2.19	0.42
4:YA:1453:U:O2'	4:YA:1455:G:N7	2.44	0.42
4:YA:1540:U:H2'	4:YA:1541:G:O4'	2.20	0.42
7:YE:178:GLU:CD	7:YE:178:GLU:H	2.27	0.42
29:Y4:61:ARG:HH22	53:XS:9:VAL:HG21	1.85	0.42
35:XA:100:C:H2'	35:XA:101:A:O4'	2.19	0.42
35:XA:779:C:H2'	35:XA:780:A:O4'	2.19	0.42
35:XA:1084:G:H5'	35:XA:1102:A:OP2	2.20	0.42
35:XA:1417:G:N2	35:XA:1482:G:H2'	2.35	0.42
38:XD:108:LEU:HD13	38:XD:174:LEU:HD13	2.01	0.42
46:XL:92:0TD:H8	46:XL:92:0TD:H4	1.86	0.42
35:QA:113:G:O4'	35:QA:354:G:H4'	2.20	0.42
35:QA:454:C:OP2	35:QA:455:C:N4	2.37	0.42
35:QA:814:A:H2'	35:QA:816:A:H5"	2.02	0.42
44:QJ:38:ILE:O	44:QJ:38:ILE:HG13	2.19	0.42
4:RA:9:U:HO2'	4:RA:10:G:P	2.41	0.42
4:RA:27:G:O2'	4:RA:28:A:OP2	2.32	0.42
4:RA:272(Z):C:H1'	4:RA:273(D):G:H1'	2.02	0.42
4:RA:1510:G:H2'	4:RA:1511:C:H6	1.85	0.42
4:RA:1826:G:O2'	6:RD:242:ARG:NH2	2.52	0.42
4:RA:2023:G:H4'	4:RA:2617:C:O3'	2.19	0.42
4:RA:2336:A:H61	25:R0:43:THR:CG2	2.32	0.42
5:RB:31:C:H4'	9:RG:29:TRP:CH2	2.54	0.42
10:RH:55:PRO:HG2	10:RH:61:HIS:CE1	2.55	0.42
11:RI:62:LYS:O	11:RI:66:GLU:HG2	2.20	0.42
15:RQ:35:VAL:HG12	15:RQ:130:LYS:O	2.19	0.42
1:QV:23:C:H2'	1:QV:24:U:C6	2.55	0.42
3:QY:27:TYR:CE1	3:QY:67:VAL:HG13	2.55	0.42
3:XY:324:ARG:HB3	3:XY:326:TYR:HE1	1.85	0.42
4:YA:225:A:O2'	4:YA:257:A:H4'	2.19	0.42
4:YA:236:C:H2'	4:YA:237:C:C6	2.54	0.42
4:YA:476:G:H4'	4:YA:502:A:N1	2.35	0.42
4:YA:529:A:OP2	12:YN:114:ARG:NH2	2.52	0.42
4:YA:580:C:H2'	4:YA:581:C:C6	2.55	0.42
4:YA:668:G:H2'	4:YA:670:A:H62	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:1021:A:H3'	4:YA:1021:A:N3	2.35	0.42
4:YA:1197:G:H2'	4:YA:1198:U:H6	1.84	0.42
4:YA:1199:U:H2'	4:YA:1200:C:C6	2.55	0.42
4:YA:2564:A:OP1	4:YA:2648:C:H4'	2.20	0.42
4:YA:2674:G:H2'	4:YA:2675:A:C8	2.54	0.42
5:YB:17:C:H2'	5:YB:18:G:O4'	2.19	0.42
8:YF:52:LYS:HB3	8:YF:56:GLU:HG3	2.02	0.42
15:YQ:32:TYR:HB3	15:YQ:132:VAL:O	2.20	0.42
17:YS:13:ARG:HE	17:YS:13:ARG:HB3	1.64	0.42
17:YS:14:VAL:O	17:YS:18:ILE:HG12	2.20	0.42
17:YS:35:ILE:C	17:YS:36:TYR:CD1	2.93	0.42
27:Y2:53:LEU:HD23	27:Y2:53:LEU:HA	1.89	0.42
31:Y6:18:ARG:HD2	31:Y6:42:TRP:CE2	2.55	0.42
35:XA:123:C:OP1	35:XA:311:C:O2'	2.31	0.42
35:XA:687:A:C2	35:XA:704:A:C5	3.07	0.42
35:XA:868:C:H2'	35:XA:869:G:O4'	2.19	0.42
35:XA:1004:A:H5"	35:XA:1025:U:C5	2.55	0.42
35:XA:1132:C:H2'	35:XA:1133:G:H8	1.85	0.42
35:XA:1143:G:H2'	35:XA:1144:G:H8	1.85	0.42
35:XA:1314:C:H2'	35:XA:1315:U:C6	2.55	0.42
36:XB:54:THR:HG21	36:XB:201:ILE:HD11	2.02	0.42
50:XP:60:LEU:HD21	50:XP:80:PHE:CZ	2.54	0.42
35:QA:514:C:H2'	35:QA:515:G:H8	1.85	0.42
35:QA:1053:G:N7	35:QA:1200:C:H5"	2.34	0.42
36:QB:60:ASP:HA	36:QB:63:MET:HE3	2.00	0.42
36:QB:157:ARG:HE	36:QB:157:ARG:HB3	1.23	0.42
37:QC:29:TYR:HD1	37:QC:29:TYR:O	2.03	0.42
51:QQ:41:LYS:C	51:QQ:42:TYR:HD1	2.28	0.42
4:RA:1153:C:H2'	4:RA:1154:G:O4'	2.20	0.42
4:RA:2642:G:H4'	12:RN:78:TYR:CE2	2.55	0.42
8:RF:178:PRO:HB2	8:RF:201:VAL:HG22	2.02	0.42
9:RG:108:ASN:O	29:R4:37:SER:N	2.52	0.42
9:RG:165:THR:OG1	9:RG:168:GLU:HG3	2.18	0.42
12:RN:14:VAL:HG11	12:RN:138:LEU:HD12	2.02	0.42
15:RQ:21:THR:HG21	15:RQ:101:ARG:CB	2.34	0.42
27:R2:12:GLU:OE1	27:R2:12:GLU:HA	2.19	0.42
3:QY:14:LEU:HD23	3:QY:17:ARG:HH11	1.84	0.41
3:QY:281:HIS:HB2	15:RQ:80:GLU:OE2	2.20	0.41
3:XY:43:GLN:HG2	3:XY:45:ASP:H	1.85	0.41
4:YA:9:U:O2'	4:YA:10:G:OP1	2.37	0.41
4:YA:301:G:H1'	4:YA:302:C:C6	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:738:G:H3'	4:YA:739:G:C8	2.54	0.41
4:YA:1491:G:O2'	6:YD:101:GLU:HB3	2.19	0.41
4:YA:1570:A:H2'	4:YA:1571:A:C8	2.55	0.41
4:YA:1654:A:C2	7:YE:113:PHE:CD2	3.08	0.41
4:YA:1831:G:H2'	4:YA:1832:C:C6	2.55	0.41
35:XA:355:C:C4	35:XA:356:A:N7	2.87	0.41
35:XA:412:A:C6	38:XD:35:ARG:HG3	2.55	0.41
35:XA:892:A:H2'	35:XA:893:C:C6	2.55	0.41
35:XA:1313:U:P	53:XS:5:LEU:HG	2.60	0.41
35:XA:1333:A:H2'	35:XA:1334:G:O4'	2.19	0.41
43:XI:59:PHE:CE2	43:XI:88:TYR:CE2	3.08	0.41
43:XI:78:LYS:O	43:XI:81:ILE:HG22	2.20	0.41
45:XK:59:TYR:CE2	45:XK:63:LEU:HD11	2.55	0.41
51:XQ:94:ASN:O	51:XQ:98:LEU:HD13	2.19	0.41
35:QA:1387:G:H2'	35:QA:1388:C:H6	1.85	0.41
37:QC:114:PRO:O	37:QC:118:GLN:HG3	2.19	0.41
40:QF:8:ILE:CG2	40:QF:10:LEU:HD13	2.50	0.41
41:QG:18:TYR:N	41:QG:18:TYR:CD1	2.88	0.41
42:QH:34:GLU:O	42:QH:37:ARG:HB3	2.20	0.41
43:QI:4:TYR:O	43:QI:18:PHE:HA	2.19	0.41
53:QS:12:ASP:O	53:QS:14:HIS:N	2.43	0.41
4:RA:235:U:C2	4:RA:236:C:C5	3.08	0.41
4:RA:643:A:N1	4:RA:2369:A:O2'	2.48	0.41
4:RA:1210:A:H5"	4:RA:1212:G:O4'	2.19	0.41
4:RA:1475:G:H2'	4:RA:1476:C:C6	2.55	0.41
4:RA:2031:A:C6	4:RA:2498:C:H1'	2.55	0.41
4:RA:2137:C:C2	4:RA:2154:G:N1	2.87	0.41
4:RA:2149:G:H2'	4:RA:2150:U:O4'	2.20	0.41
6:RD:108:PRO:HD2	6:RD:111:LEU:HG	2.02	0.41
6:RD:172:TYR:CE2	6:RD:269:PHE:CD2	3.07	0.41
8:RF:140:LEU:HD11	8:RF:170:LEU:HD21	2.01	0.41
3:QY:340:VAL:HG12	3:QY:341:GLU:N	2.34	0.41
2:XX:21:A:N1	3:XY:213:ARG:NH2	2.67	0.41
4:YA:285:C:C2	4:YA:286:C:C5	3.08	0.41
4:YA:1289:C:H2'	4:YA:1290:C:C6	2.55	0.41
4:YA:2063:C:C4	4:YA:2064:C:C5	3.08	0.41
9:YG:131:TYR:HB3	9:YG:159:VAL:CG1	2.49	0.41
11:YI:16:GLY:O	11:YI:47:LEU:HD11	2.21	0.41
19:YU:11:ARG:O	19:YU:15:LYS:HG3	2.20	0.41
25:Y0:50:ASN:HB3	25:Y0:63:VAL:HG22	2.03	0.41
35:XA:69:G:N3	35:XA:70:G:C8	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:XA:554:C:H2'	35:XA:555:C:H6	1.84	0.41
35:XA:1347:G:N2	35:XA:1373:G:H2'	2.35	0.41
35:XA:1503:A:OP1	35:XA:1531:A:O2'	2.34	0.41
38:XD:10:ARG:HB2	38:XD:40:PRO:HG3	2.02	0.41
41:XG:151:TYR:OH	45:XK:54:ARG:NH1	2.53	0.41
35:QA:102:G:O2'	35:QA:151:A:N3	2.51	0.41
35:QA:222:U:H2'	35:QA:223:U:H6	1.84	0.41
35:QA:538:G:H5"	46:QL:114:LYS:HB2	2.02	0.41
35:QA:739:C:HO2'	49:QO:42:HIS:HD1	1.64	0.41
35:QA:925:G:H1'	35:QA:1502:A:C4	2.55	0.41
36:QB:19:HIS:CE1	36:QB:20:GLU:OE1	2.73	0.41
36:QB:21:ARG:H	36:QB:21:ARG:HG3	1.32	0.41
36:QB:45:GLN:O	36:QB:48:MET:HB2	2.19	0.41
40:QF:72:VAL:O	40:QF:75:LEU:HB3	2.21	0.41
46:QL:86:ARG:O	46:QL:98:TYR:HB3	2.19	0.41
51:QQ:68:ARG:O	51:QQ:68:ARG:HG2	2.20	0.41
4:RA:302:C:H2'	4:RA:303:U:H6	1.85	0.41
4:RA:391:G:C5	4:RA:392:C:C5	3.08	0.41
4:RA:539:G:H2'	4:RA:540:C:C6	2.54	0.41
4:RA:956:G:P	15:RQ:14:ARG:HH22	2.43	0.41
4:RA:1321:A:C4	4:RA:1322:A:C8	3.08	0.41
4:RA:2000:G:OP1	16:RR:5:LYS:NZ	2.50	0.41
4:RA:2109:U:N3	4:RA:2110:G:O6	2.54	0.41
4:RA:2704:C:H2'	4:RA:2705:A:O4'	2.20	0.41
7:RE:47:VAL:HG23	7:RE:84:PHE:O	2.21	0.41
20:RV:62:LEU:CD1	20:RV:95:LEU:HB2	2.50	0.41
4:YA:250:G:P	33:Y8:13:ARG:NH2	2.92	0.41
4:YA:557:U:H2'	4:YA:558:G:H8	1.85	0.41
4:YA:902:C:H2'	4:YA:903:C:C6	2.55	0.41
4:YA:1030:G:C6	4:YA:1125:G:N2	2.88	0.41
4:YA:1142(B):A:C4	4:YA:1144:G:N7	2.88	0.41
4:YA:1322:A:C5	4:YA:1323:U:C5	3.08	0.41
4:YA:1530:C:C2	4:YA:1531:C:C6	3.08	0.41
4:YA:2103:C:N3	4:YA:2104:G:C2	2.88	0.41
4:YA:2134:A:C5	4:YA:2157:G:H5'	2.55	0.41
4:YA:2293:C:H2'	4:YA:2294:C:H6	1.86	0.41
4:YA:2342:C:O2'	4:YA:2374:C:H5"	2.20	0.41
7:YE:170:LEU:HB3	7:YE:184:VAL:HG13	2.02	0.41
11:YI:77:LEU:CD1	11:YI:101:LEU:HG	2.50	0.41
13:YO:67:LYS:HD2	13:YO:68:GLU:OE1	2.21	0.41
27:Y2:12:GLU:HA	27:Y2:15:LYS:HZ3	1.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:XA:22:G:H2'	35:XA:23:C:C6	2.55	0.41
35:XA:511:C:C2	35:XA:512:U:C5	3.07	0.41
35:XA:691:G:H1'	35:XA:696:A:N6	2.36	0.41
35:XA:718:G:C5	45:XK:116:HIS:CD2	3.09	0.41
35:XA:895:G:H2'	35:XA:896:C:C6	2.55	0.41
35:XA:1122:U:C4	35:XA:1123:A:N7	2.89	0.41
35:XA:1279:A:N3	35:XA:1279:A:H2'	2.35	0.41
36:XB:229:VAL:HG12	36:XB:230:VAL:H	1.85	0.41
38:XD:34:GLU:HA	38:XD:34:GLU:OE1	2.19	0.41
39:XE:82:VAL:HG21	39:XE:138:ALA:HA	2.03	0.41
42:XH:20:TYR:OH	42:XH:78:GLN:NE2	2.53	0.41
43:XI:32:ASP:HB3	43:XI:35:GLU:HG2	2.02	0.41
46:XL:33:ARG:CD	46:XL:62:SER:HB3	2.48	0.41
35:QA:183:G:H2'	35:QA:184:G:C8	2.55	0.41
35:QA:768:A:H4'	35:QA:1523:G:N2	2.36	0.41
35:QA:921:U:O2'	39:QE:19:MET:O	2.35	0.41
35:QA:1201:A:H1'	35:QA:1202:G:OP2	2.19	0.41
35:QA:1309:G:N7	47:QM:99:ARG:NH2	2.65	0.41
35:QA:1442(A):G:HO2'	35:QA:1442(B):G:P	2.43	0.41
36:QB:55:PHE:HB3	36:QB:221:LEU:CD1	2.50	0.41
41:QG:90:GLU:H	41:QG:90:GLU:CD	2.28	0.41
4:RA:614(C):G:C1'	8:RF:44:ARG:HD2	2.50	0.41
4:RA:824:A:H1'	4:RA:2358:G:N7	2.35	0.41
4:RA:833:U:H2'	4:RA:834:C:H6	1.85	0.41
4:RA:1500:G:H2'	4:RA:1501:C:H6	1.86	0.41
4:RA:1790:C:H5"	4:RA:1791:A:OP1	2.20	0.41
4:RA:2081:C:H2'	4:RA:2082:A:H8	1.85	0.41
4:RA:2316:C:O2'	9:RG:128:ARG:NH2	2.53	0.41
13:RO:80:ASP:OD2	18:RT:71:GLY:HA3	2.20	0.41
15:RQ:30:GLY:H	15:RQ:105:GLU:HG2	1.85	0.41
16:RR:36:THR:HG22	16:RR:37:THR:N	2.33	0.41
17:RS:11:LYS:HG3	17:RS:91:PRO:HD3	2.00	0.41
26:R1:52:ARG:HH21	26:R1:57:GLU:HB2	1.85	0.41
3:XY:205:SER:HB2	3:XY:214:HIS:HB2	2.02	0.41
3:XY:325:SER:C	3:XY:326:TYR:HD1	2.28	0.41
4:YA:918:A:H5"	5:YB:98:G:O2'	2.20	0.41
4:YA:1055:G:H2'	4:YA:1056:G:O4'	2.20	0.41
4:YA:1500:G:H2'	4:YA:1501:C:H6	1.85	0.41
4:YA:1668:A:H4'	4:YA:1669:A:O5'	2.19	0.41
4:YA:1697:G:OP2	4:YA:1698:A:O2'	2.32	0.41
4:YA:2310:A:O2'	9:YG:75:LYS:NZ	2.44	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:2321:G:H2'	4:YA:2321:G:N3	2.35	0.41
4:YA:2591:C:OP1	6:YD:239:ARG:HD2	2.20	0.41
10:YH:163:TYR:CD1	10:YH:163:TYR:N	2.89	0.41
15:YQ:55:VAL:HG11	24:YZ:183:LEU:HD21	2.02	0.41
35:XA:687:A:C2	35:XA:704:A:C6	3.08	0.41
39:XE:49:PRO:C	39:XE:50:GLU:HG2	2.45	0.41
43:XI:101:PHE:N	43:XI:101:PHE:CD1	2.89	0.41
35:QA:93:G:H2'	35:QA:96:U:O4'	2.21	0.41
35:QA:389:A:H3'	35:QA:390:C:H6	1.85	0.41
35:QA:892:A:H2'	35:QA:893:C:H6	1.85	0.41
35:QA:1101:A:H4'	35:QA:1102:A:O5'	2.21	0.41
35:QA:1172:C:H2'	35:QA:1173:G:C8	2.51	0.41
35:QA:1315:U:H2'	35:QA:1316:G:O4'	2.20	0.41
44:QJ:4:ILE:N	44:QJ:100:THR:HG22	2.34	0.41
4:RA:840:C:H2'	4:RA:841:A:C8	2.56	0.41
4:RA:871:U:H5"	15:RQ:69:PHE:CE2	2.56	0.41
4:RA:1656:C:H2'	4:RA:1657:C:H6	1.85	0.41
4:RA:2184:G:N1	4:RA:2185:C:O2	2.53	0.41
19:RU:97:ASP:O	19:RU:101:ARG:HB3	2.20	0.41
3:QY:155:TRP:HH2	3:QY:354:ASP:OD1	2.03	0.41
3:XY:79:ASP:O	3:XY:83:LEU:HB2	2.21	0.41
3:XY:169:SER:OG	3:XY:178:SER:HB3	2.21	0.41
4:YA:300:A:H2'	4:YA:334:C:H1'	2.02	0.41
4:YA:519:U:H2'	4:YA:520:G:C8	2.55	0.41
4:YA:628:G:H5"	33:Y8:18:ALA:HB2	2.02	0.41
4:YA:657:U:C2	4:YA:658:C:C5	3.08	0.41
4:YA:754:C:H2'	4:YA:755:C:H6	1.86	0.41
4:YA:775:G:C4	4:YA:794:G:C8	3.08	0.41
4:YA:889:C:O2'	4:YA:890:A:H8	2.03	0.41
4:YA:1073:A:H4'	4:YA:1074:G:OP1	2.20	0.41
4:YA:2159:G:N2	4:YA:2160:G:N3	2.69	0.41
4:YA:2756:U:H1'	4:YA:2757:A:H5"	2.02	0.41
6:YD:165:ILE:HA	6:YD:175:LEU:HD23	2.02	0.41
11:YI:6:LEU:HD11	11:YI:37:VAL:HG23	2.02	0.41
13:YO:107:ARG:HG2	13:YO:115:VAL:HG11	2.03	0.41
35:XA:343:U:H2'	35:XA:345:C:C5	2.56	0.41
35:XA:674:G:H2'	35:XA:675:A:C8	2.55	0.41
35:XA:1469:G:H2'	35:XA:1470:G:C8	2.56	0.41
37:XC:130:VAL:HG21	37:XC:157:ILE:HG23	2.02	0.41
37:XC:132:ARG:O	37:XC:136:GLN:HG3	2.21	0.41
37:XC:164:ARG:HG2	37:XC:165:THR:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
38:XD:67:ILE:HG22	38:XD:68:TYR:CD1	2.55	0.41
42:XH:104:ARG:NH2	42:XH:138:TRP:CZ2	2.88	0.41
35:QA:1216:G:H5"	48:QN:5:ALA:HB2	2.02	0.41
37:QC:179:ARG:NH1	37:QC:206:GLU:OE1	2.53	0.41
43:QI:29:ASN:ND2	43:QI:65:VAL:HG12	2.35	0.41
46:QL:58:VAL:O	46:QL:65:GLU:HA	2.20	0.41
46:QL:124:LYS:HA	46:QL:125:PRO:HD3	1.94	0.41
4:RA:376:C:H2'	4:RA:377:C:H6	1.86	0.41
4:RA:392:C:C2	4:RA:393:C:C5	3.08	0.41
4:RA:608:A:H2'	4:RA:609:A:H8	1.84	0.41
4:RA:1069:A:H2'	4:RA:1073:A:N7	2.35	0.41
4:RA:1091:G:H2'	4:RA:1091:G:N3	2.35	0.41
4:RA:1877:A:H5'	4:RA:1878:G:OP2	2.21	0.41
4:RA:2261:C:C2	4:RA:2262:U:C5	3.08	0.41
4:RA:2354:G:H21	25:R0:36:ILE:CD1	2.32	0.41
4:RA:2627:G:N2	4:RA:2777:G:OP2	2.52	0.41
4:RA:2643:G:H2'	4:RA:2644:G:O4'	2.20	0.41
7:RE:7:VAL:HG13	7:RE:27:LEU:HB3	2.02	0.41
8:RF:45:ARG:CZ	8:RF:97:TYR:CE2	3.04	0.41
10:RH:94:TYR:HA	10:RH:106:THR:O	2.20	0.41
12:RN:103:VAL:HG11	12:RN:120:LEU:HD12	2.02	0.41
23:RY:28:LYS:HD2	23:RY:40:GLU:HG2	2.01	0.41
26:R1:67:ILE:N	26:R1:68:PRO:HD2	2.36	0.41
34:R9:17:ILE:HD13	34:R9:17:ILE:HA	1.89	0.41
3:QY:41:LEU:HD23	3:QY:46:VAL:CG2	2.51	0.41
3:QY:194:THR:HG23	3:QY:357:ILE:HD12	2.03	0.41
3:QY:198:VAL:O	3:QY:323:ILE:HG12	2.20	0.41
4:YA:562:U:H6	4:YA:562:U:H2'	1.73	0.41
4:YA:863:A:H2'	4:YA:864:G:H8	1.85	0.41
4:YA:1005:C:H2'	4:YA:1006:C:C6	2.55	0.41
4:YA:1091:G:H2'	4:YA:1091:G:N3	2.36	0.41
4:YA:1163:G:OP1	20:YV:24:LYS:NZ	2.38	0.41
4:YA:1510:G:H2'	4:YA:1511:C:H6	1.85	0.41
4:YA:2010:G:H5"	21:YW:42:ARG:HB2	2.03	0.41
4:YA:2065:C:H4'	4:YA:2251:OMG:HM22	2.02	0.41
4:YA:2405:G:H5'	14:YP:75:ILE:HD13	2.01	0.41
4:YA:2682:U:O2'	18:YT:58:ASN:OD1	2.38	0.41
4:YA:2742:C:OP1	34:Y9:35:ARG:HD3	2.20	0.41
13:YO:111:PHE:N	13:YO:111:PHE:HD1	2.19	0.41
24:YZ:121:HIS:HB3	24:YZ:123:ASP:O	2.21	0.41
35:XA:189(A):G:C6	35:XA:189(M):G:C6	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:XA:417:C:H2'	35:XA:418:C:H6	1.84	0.41
35:XA:441:A:H3'	35:XA:442:C:C6	2.51	0.41
35:XA:488:C:H2'	35:XA:489:C:H6	1.86	0.41
40:XF:36:ARG:NH2	40:XF:66:GLU:OE1	2.53	0.41
35:QA:719:C:O2'	52:QR:49:LYS:HB3	2.20	0.41
35:QA:833:U:H2'	35:QA:834:C:H6	1.84	0.41
35:QA:1037:C:C2	35:QA:1038:C:C5	3.08	0.41
35:QA:1130:A:H2'	35:QA:1131:G:H8	1.85	0.41
37:QC:5:ILE:HD11	48:QN:49:HIS:HE1	1.85	0.41
39:QE:11:ILE:N	39:QE:31:LEU:O	2.49	0.41
39:QE:82:VAL:HG21	39:QE:138:ALA:HA	2.03	0.41
42:QH:86:ILE:CG1	42:QH:133:LEU:HD22	2.49	0.41
46:QL:56:ALA:HB2	46:QL:70:ILE:HD11	2.02	0.41
46:QL:97:ARG:C	46:QL:98:TYR:HD1	2.28	0.41
50:QP:71:ARG:HG3	50:QP:80:PHE:HE2	1.85	0.41
54:QT:47:GLY:HA2	54:QT:48:LYS:C	2.44	0.41
4:RA:517:C:OP1	30:R5:16:ARG:NH2	2.54	0.41
4:RA:817:C:O2'	4:RA:839:U:H5"	2.20	0.41
4:RA:1798:U:H5'	6:RD:259:THR:CG2	2.49	0.41
5:RB:29:A:H2'	5:RB:30:C:C6	2.55	0.41
6:RD:260:ARG:NH2	6:RD:270:ILE:CD1	2.84	0.41
7:RE:73:GLU:H	7:RE:73:GLU:CD	2.26	0.41
7:RE:112:GLY:O	7:RE:159:HIS:HA	2.21	0.41
23:RY:20:TYR:HB3	23:RY:23:ARG:CG	2.50	0.41
23:RY:46:LYS:HD3	23:RY:60:PHE:CD2	2.55	0.41
3:QY:118:MET:HE1	3:QY:191:TRP:CH2	2.56	0.41
3:XY:183:ILE:HG13	3:XY:192:LEU:CD1	2.51	0.41
3:XY:253:HIS:CD2	3:XY:257:THR:HG21	2.54	0.41
4:YA:609:A:H2'	4:YA:610:G:O4'	2.21	0.41
4:YA:746:A:HO2'	4:YA:2611:U:HO2'	1.67	0.41
4:YA:1590:U:H2'	4:YA:1591:G:H8	1.85	0.41
4:YA:2347:C:C2	4:YA:2348:U:C5	3.09	0.41
4:YA:2557:G:H2'	4:YA:2558:C:H6	1.85	0.41
6:YD:218:ARG:HB3	6:YD:219:PRO:HD2	2.02	0.41
11:YI:114:LEU:HD12	11:YI:115:ALA:N	2.36	0.41
14:YP:126:VAL:HG12	14:YP:148:LEU:CD2	2.50	0.41
17:YS:11:LYS:HD3	17:YS:15:ARG:NH1	2.36	0.41
20:YV:52:VAL:HG23	20:YV:55:ALA:HB3	2.03	0.41
21:YW:6:ILE:HG22	21:YW:8:ARG:HG3	2.02	0.41
23:YY:38:ILE:HD11	23:YY:66:PRO:HG3	2.02	0.41
25:Y0:82:ARG:HA	25:Y0:83:PRO:HD3	1.87	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:XA:986:A:H2'	35:XA:987:G:H8	1.86	0.41
35:XA:1516:G:H2'	35:XA:1518:MA6:OP2	2.20	0.41
36:XB:33:TYR:N	36:XB:41:ILE:O	2.47	0.41
36:XB:158:LEU:HD21	36:XB:180:LEU:HD13	2.03	0.41
38:XD:108:LEU:HD11	38:XD:174:LEU:HB3	2.03	0.41
39:XE:88:LYS:HB3	39:XE:123:LEU:HB2	2.03	0.41
43:XI:53:VAL:C	43:XI:55:ALA:N	2.76	0.41
35:QA:113:G:H2'	35:QA:114:U:C6	2.56	0.41
35:QA:1004:A:C5	35:QA:1037:C:C2	3.08	0.41
35:QA:1023:G:H2'	35:QA:1024:G:C8	2.55	0.41
35:QA:1476:G:H2'	35:QA:1477:C:C6	2.55	0.41
36:QB:77:ALA:HB2	36:QB:211:ILE:HD13	2.03	0.41
38:QD:118:ARG:HH11	38:QD:118:ARG:HG3	1.85	0.41
40:QF:5:GLU:OE1	52:QR:34:TYR:OH	2.34	0.41
55:QU:18:TYR:HD1	55:QU:18:TYR:N	2.19	0.41
4:RA:580:C:H2'	4:RA:581:C:H6	1.85	0.41
4:RA:784:A:C6	6:RD:229:VAL:HG11	2.56	0.41
4:RA:1530:C:C2	4:RA:1531:C:C6	3.09	0.41
4:RA:1721:G:H2'	4:RA:1740:G:O6	2.21	0.41
4:RA:2043:C:C2	4:RA:2044:C:C5	3.09	0.41
4:RA:2100:G:C6	4:RA:2190:G:C6	3.08	0.41
4:RA:2115:G:N2	4:RA:2171:A:H61	2.17	0.41
4:RA:2291:U:C2	4:RA:2292:C:C5	3.08	0.41
4:RA:2348:U:O4	4:RA:2382:G:N1	2.54	0.41
4:RA:2593:U:H2'	4:RA:2594:C:C6	2.56	0.41
4:RA:2712(A):U:O2'	4:RA:2713:A:H5'	2.20	0.41
7:RE:2:LYS:HA	7:RE:84:PHE:CD1	2.55	0.41
11:RI:72:LEU:HD12	11:RI:138:ILE:HG21	2.01	0.41
15:RQ:21:THR:HG23	15:RQ:98:LYS:O	2.21	0.41
19:RU:62:ILE:HG12	19:RU:76:TYR:HE2	1.84	0.41
29:R4:49:PHE:HB3	29:R4:50:VAL:H	1.64	0.41
4:YA:210:C:OP2	32:Y7:29:LYS:NZ	2.50	0.41
4:YA:1053:C:H2'	4:YA:1054:A:C8	2.56	0.41
4:YA:1946:U:C2	4:YA:1947:C:C5	3.09	0.41
4:YA:2646:C:H2'	4:YA:2647:U:O4'	2.21	0.41
4:YA:2667:C:H2'	4:YA:2668:G:O4'	2.20	0.41
10:YH:84:SER:HA	10:YH:133:VAL:O	2.19	0.41
18:YT:16:ARG:HH21	18:YT:81:PRO:HA	1.85	0.41
35:XA:67:C:O2	35:XA:171:A:H2	2.04	0.41
35:XA:149:A:H2'	35:XA:150:C:C6	2.56	0.41
35:XA:297:G:H4'	35:XA:557:G:H4'	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:XA:581:G:N1	35:XA:759:A:OP2	2.37	0.41
35:XA:908:A:H2'	35:XA:909:A:H8	1.86	0.41
35:XA:1070:U:H2'	35:XA:1071:C:H6	1.85	0.41
35:XA:1492:A:H3'	35:XA:1493:A:H8	1.85	0.41
36:XB:19:HIS:O	36:XB:20:GLU:HB2	2.20	0.41
46:XL:53:ARG:HB3	46:XL:93:LEU:HD11	2.02	0.41
35:QA:219:C:H2'	35:QA:220:G:O4'	2.20	0.41
35:QA:540:G:H2'	35:QA:541:G:O4'	2.21	0.41
35:QA:791:G:N2	35:QA:1497:G:O3'	2.53	0.41
35:QA:806:C:H2'	35:QA:807:A:H8	1.86	0.41
35:QA:1208:C:H2'	35:QA:1209:C:H6	1.85	0.41
37:QC:35:GLU:CG	37:QC:59:ARG:HH22	2.33	0.41
38:QD:164:ALA:O	38:QD:168:ARG:HD2	2.20	0.41
40:QF:73:ASN:HD22	40:QF:73:ASN:HA	1.55	0.41
40:QF:89:MET:SD	52:QR:76:LEU:HD13	2.60	0.41
42:QH:48:TYR:HD1	42:QH:48:TYR:H	1.67	0.41
42:QH:51:VAL:HG21	42:QH:60:ARG:HH11	1.86	0.41
43:QI:33:PHE:CE1	43:QI:43:ALA:HB1	2.50	0.41
53:QS:52:TYR:HB2	53:QS:57:HIS:CD2	2.56	0.41
4:RA:23:G:OP1	4:RA:504:U:N3	2.46	0.41
4:RA:57:C:H2'	4:RA:58:G:O4'	2.20	0.41
4:RA:476:G:H4'	4:RA:502:A:N1	2.36	0.41
4:RA:510:C:C2	4:RA:511:U:C6	3.09	0.41
4:RA:994:C:OP2	19:RU:54:LYS:NZ	2.54	0.41
4:RA:1117:G:H2'	4:RA:1118:C:C6	2.56	0.41
4:RA:1742:G:H2'	4:RA:1743:C:C6	2.56	0.41
4:RA:1754:C:H2'	4:RA:1755:A:O4'	2.20	0.41
4:RA:2059:A:O2'	8:RF:69:HIS:ND1	2.47	0.41
4:RA:2839:G:H5'	16:RR:46:GLY:CA	2.48	0.41
9:RG:133:LEU:HD11	9:RG:157:ILE:HD12	2.03	0.41
12:RN:114:ARG:O	12:RN:118:LYS:HG3	2.21	0.41
16:RR:24:GLN:HE22	16:RR:36:THR:HG21	1.85	0.41
20:RV:75:PHE:CD1	20:RV:76:LYS:N	2.88	0.41
26:R1:89:GLU:O	26:R1:93:GLU:HG2	2.21	0.41
3:QY:277:ASP:HB3	3:QY:278:ARG:H	1.65	0.41
3:QY:357:ILE:HD13	3:QY:357:ILE:HA	1.83	0.41
3:XY:256:ARG:NH2	4:YA:2453:A:H5"	2.36	0.41
4:YA:23:G:OP1	4:YA:504:U:N3	2.51	0.41
4:YA:103:A:C5	4:YA:104:U:C5	3.08	0.41
4:YA:208:C:H2'	4:YA:209:C:C6	2.55	0.41
4:YA:273(F):G:H2'	4:YA:273(G):C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:556:G:H2'	4:YA:557:U:C6	2.55	0.41
4:YA:610:G:H2'	4:YA:611:C:C6	2.56	0.41
4:YA:644:A:H4'	4:YA:645:C:H5	1.86	0.41
4:YA:684:G:OP1	32:Y7:16:HIS:ND1	2.54	0.41
4:YA:718:A:H3'	4:YA:719:C:H6	1.85	0.41
4:YA:861:A:H2'	4:YA:862:G:O4'	2.21	0.41
4:YA:1084:A:H8	4:YA:1085:A:H4'	1.86	0.41
4:YA:1798:U:H5	6:YD:274:ARG:NH1	2.19	0.41
4:YA:1914:C:HO2'	4:YA:1915:5MU:P	2.41	0.41
4:YA:2103:C:N3	4:YA:2104:G:N2	2.69	0.41
4:YA:2134:A:O2'	4:YA:2159:G:H1'	2.21	0.41
4:YA:2316:C:H2'	4:YA:2317:C:C6	2.55	0.41
4:YA:2526:G:H5'	4:YA:2742:C:O2'	2.20	0.41
4:YA:2537:U:H2'	4:YA:2538:C:C6	2.55	0.41
6:YD:171:ASP:C	6:YD:172:TYR:HD1	2.29	0.41
9:YG:25:TYR:CD2	9:YG:31:VAL:HG12	2.55	0.41
9:YG:86:MET:HA	9:YG:87:PRO:HD3	1.95	0.41
9:YG:110:ALA:O	9:YG:140:ILE:HG23	2.21	0.41
13:YO:9:GLU:O	13:YO:83:ALA:HA	2.21	0.41
14:YP:79:ARG:C	14:YP:80:TYR:HD1	2.29	0.41
18:YT:94:ALA:HB1	18:YT:99:LEU:HD21	2.02	0.41
21:YW:10:VAL:HG12	21:YW:12:ILE:HG22	2.03	0.41
26:Y1:51:VAL:HG11	26:Y1:74:VAL:CG2	2.50	0.41
35:XA:41:G:C6	35:XA:402:G:C6	3.09	0.41
35:XA:61:G:H2'	35:XA:62:U:O4'	2.21	0.41
35:XA:71:C:H2'	35:XA:72:C:H6	1.84	0.41
35:XA:236:G:H2'	35:XA:237:C:C6	2.56	0.41
35:XA:375:U:C4'	50:XP:17:TYR:HE2	2.33	0.41
35:XA:448:A:P	35:XA:485:G:H22	2.42	0.41
35:XA:553:A:H2'	35:XA:554:C:C6	2.56	0.41
35:XA:988:G:H2'	35:XA:989:C:O4'	2.21	0.41
35:XA:1058:G:H2'	35:XA:1059:C:C6	2.56	0.41
35:XA:1327:C:H2'	35:XA:1328:C:C6	2.56	0.41
36:XB:20:GLU:HB3	36:XB:21:ARG:H	1.53	0.41
36:XB:71:VAL:HG23	36:XB:164:VAL:HA	2.03	0.41
38:XD:173:TRP:CZ3	38:XD:193:ASP:HB3	2.56	0.41
39:XE:33:VAL:HG21	39:XE:109:ILE:HA	2.02	0.41
39:XE:144:THR:H	39:XE:147:ASP:HB2	1.86	0.41
41:XG:74:GLU:HB2	41:XG:91:VAL:HG22	2.02	0.41
43:XI:33:PHE:C	43:XI:33:PHE:HD1	2.29	0.41
43:XI:48:GLU:HB3	43:XI:101:PHE:HE2	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:XO:4:THR:HG22	49:XO:7:GLU:OE1	2.21	0.41
49:XO:26:GLU:H	49:XO:26:GLU:HG3	1.61	0.41
50:XP:8:ARG:HH21	50:XP:15:PRO:HG3	1.86	0.41
54:XT:56:MET:CE	54:XT:85:MET:HG2	2.50	0.41
35:QA:224:C:H2'	35:QA:225:C:H6	1.86	0.41
35:QA:985:C:H2'	35:QA:986:A:C8	2.55	0.41
35:QA:1014:A:H2'	35:QA:1015:A:C8	2.56	0.41
35:QA:1158:C:H5	35:QA:1181:G:N1	2.18	0.41
35:QA:1323:G:H2'	35:QA:1324:A:H8	1.83	0.41
35:QA:1387:G:H2'	35:QA:1388:C:C6	2.56	0.41
36:QB:45:GLN:O	36:QB:49:GLU:HG2	2.20	0.41
37:QC:50:ALA:HB1	37:QC:70:VAL:HG21	2.01	0.41
38:QD:110:PHE:N	38:QD:110:PHE:CD1	2.89	0.41
40:QF:97:PHE:HB2	52:QR:32:ARG:CD	2.34	0.41
44:QJ:19:SER:O	44:QJ:23:ILE:HG12	2.20	0.41
44:QJ:37:PRO:HA	44:QJ:72:VAL:HG12	2.02	0.41
47:QM:5:ALA:HB1	47:QM:61:GLU:HG2	2.02	0.41
51:QQ:4:LYS:N	51:QQ:61:GLU:HG2	2.35	0.41
53:QS:41:VAL:CG2	29:R4:67:TYR:CE2	3.04	0.41
4:RA:82:G:N1	4:RA:103:A:OP2	2.41	0.41
4:RA:208:C:H2'	4:RA:209:C:H6	1.86	0.41
4:RA:242:G:C8	33:R8:5:LYS:HG2	2.56	0.41
4:RA:445:C:H2'	4:RA:446:G:O4'	2.20	0.41
4:RA:903:C:H2'	4:RA:904:C:C6	2.55	0.41
4:RA:949:C:H2'	4:RA:950:G:H8	1.85	0.41
4:RA:1157:G:O2'	28:R3:31:LEU:HD12	2.21	0.41
4:RA:1179:C:H2'	4:RA:1180:C:H6	1.86	0.41
4:RA:1270:C:H5"	4:RA:1271:G:O5'	2.21	0.41
4:RA:1394:U:H2'	4:RA:1395:A:O4'	2.21	0.41
4:RA:1665:A:H4'	13:RO:67:LYS:HB2	2.03	0.41
4:RA:2015:A:N3	30:R5:4:HIS:NE2	2.65	0.41
4:RA:2050:C:H2'	4:RA:2051:A:O4'	2.20	0.41
4:RA:2059:A:O3'	8:RF:69:HIS:HA	2.20	0.41
4:RA:2098:U:H2'	4:RA:2099:U:O4'	2.21	0.41
4:RA:2112:G:H2'	4:RA:2113:U:C6	2.55	0.41
4:RA:2262:U:OP2	25:R0:16:SER:OG	2.34	0.41
4:RA:2302:G:C6	4:RA:2315:G:C6	3.09	0.41
4:RA:2462:U:H2'	4:RA:2463:C:H6	1.85	0.41
4:RA:2528:U:H2'	4:RA:2530:A:O5'	2.21	0.41
4:RA:2838:G:C4	4:RA:2839:G:C8	3.08	0.41
4:RA:2889:C:H2'	4:RA:2891:G:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:RF:40:GLN:HE22	8:RF:182:ASN:HB2	1.86	0.41
9:RG:43:LEU:C	9:RG:45:GLU:H	2.29	0.41
9:RG:115:ARG:HB3	9:RG:136:ARG:NH2	2.32	0.41
10:RH:117:PRO:HG3	10:RH:123:PHE:CD2	2.55	0.41
16:RR:70:LEU:O	16:RR:72:ASP:N	2.54	0.41
18:RT:64:ARG:HH12	18:RT:103:ARG:HA	1.80	0.41
18:RT:127:ALA:C	18:RT:129:ARG:N	2.78	0.41
19:RU:47:TYR:HA	19:RU:50:ARG:HG2	2.03	0.41
21:RW:2:GLU:OE2	21:RW:72:LYS:NZ	2.48	0.41
32:R7:23:ARG:O	32:R7:23:ARG:HG2	2.20	0.41
1:QV:52:G:O2'	24:RZ:198:LYS:NZ	2.52	0.41
3:QY:68:ASP:HA	3:QY:71:ASP:HB2	2.03	0.41
3:QY:76:GLY:O	3:QY:80:VAL:HG23	2.21	0.41
3:QY:325:SER:C	3:QY:326:TYR:CD1	2.99	0.41
3:XY:258:GLU:OE1	4:YA:2492:U:H4'	2.21	0.41
4:YA:2162:G:H2'	4:YA:2163:C:C5	2.55	0.41
12:YN:42:TRP:HA	12:YN:48:MET:HE1	2.03	0.41
24:YZ:2:GLU:C	24:YZ:3:TYR:HD1	2.29	0.41
35:XA:60:A:H4'	35:XA:61:G:O5'	2.21	0.41
35:XA:114:U:H1'	35:XA:353:A:H1'	2.03	0.41
35:XA:374:A:C6	35:XA:375:U:C4	3.08	0.41
50:XP:23:ASP:OD1	50:XP:25:ARG:HD2	2.19	0.41
35:QA:166:G:H2'	35:QA:167:G:H8	1.86	0.41
35:QA:1022:G:H5'	35:QA:1023:G:OP2	2.21	0.41
35:QA:1135:U:H4'	35:QA:1136:U:H5	1.85	0.41
39:QE:59:GLY:O	39:QE:63:ARG:HG3	2.21	0.41
50:QP:59:TRP:HA	50:QP:62:VAL:HG12	2.03	0.41
51:QQ:10:VAL:HG13	51:QQ:19:VAL:HB	2.03	0.41
52:QR:23:LYS:HB2	52:QR:56:THR:O	2.21	0.41
4:RA:273(F):G:C4	4:RA:273(G):C:C5	3.09	0.41
4:RA:531:C:H4'	4:RA:532:A:H5"	2.03	0.41
4:RA:640:C:H2'	4:RA:641:C:C6	2.56	0.41
4:RA:1007:C:OP1	12:RN:35:ARG:NH1	2.54	0.41
4:RA:1144:G:H2'	4:RA:1145:C:C6	2.56	0.41
8:RF:20:LEU:CD2	8:RF:21:ALA:H	2.34	0.41
13:RO:7:TYR:CE1	13:RO:20:MET:HB2	2.56	0.41
21:RW:11:ARG:HD2	21:RW:12:ILE:N	2.35	0.41
24:RZ:31:ARG:H	24:RZ:31:ARG:HG2	1.65	0.41
29:R4:61:ARG:HG3	29:R4:62:ARG:N	2.36	0.41
34:R9:9:ARG:HH11	34:R9:16:VAL:HG23	1.85	0.41
3:QY:146:SER:O	3:QY:149:GLU:HG2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:XY:10:ARG:HA	3:XY:10:ARG:HD3	1.83	0.40
4:YA:1007:C:OP1	12:YN:35:ARG:NH1	2.54	0.40
4:YA:1021:A:O2'	4:YA:1123:C:OP1	2.36	0.40
4:YA:1364:G:P	26:Y1:3:LYS:HG3	2.61	0.40
4:YA:1638:C:O3'	4:YA:2709:G:N2	2.54	0.40
4:YA:1798:U:H5'	6:YD:259:THR:CG2	2.49	0.40
4:YA:2271:G:OP1	25:Y0:18:ALA:HB1	2.21	0.40
4:YA:2647:U:H2'	4:YA:2648:C:H6	1.86	0.40
4:YA:2810:A:N6	4:YA:2891:G:O2'	2.38	0.40
9:YG:46:ALA:HB2	9:YG:53:LEU:CD1	2.50	0.40
9:YG:126:ASP:HB3	9:YG:130:ASN:H	1.85	0.40
18:YT:1:MET:HE2	18:YT:3:ARG:HG2	2.02	0.40
18:YT:108:ARG:HA	18:YT:111:ARG:NH1	2.36	0.40
26:Y1:64:ALA:HA	26:Y1:67:ILE:HG13	2.03	0.40
35:XA:113:G:H2'	35:XA:114:U:H6	1.86	0.40
35:XA:983:A:H2	35:XA:984:C:C6	2.39	0.40
35:XA:1120:G:H2'	35:XA:1121:U:H6	1.86	0.40
36:XB:105:PHE:O	36:XB:106:LYS:C	2.63	0.40
39:XE:41:VAL:O	39:XE:67:VAL:HG12	2.21	0.40
41:XG:26:PHE:CE2	41:XG:30:ILE:HD11	2.56	0.40
42:XH:12:ARG:HD2	42:XH:26:VAL:HG12	2.03	0.40
43:XI:16:ARG:HH11	43:XI:64:THR:HG21	1.86	0.40
46:XL:28:LYS:O	46:XL:28:LYS:HG2	2.21	0.40
54:XT:16:HIS:O	54:XT:19:SER:OG	2.22	0.40
35:QA:93:G:C2'	35:QA:96:U:H5'	2.51	0.40
36:QB:51:LEU:HD23	36:QB:201:ILE:HD12	2.02	0.40
40:QF:4:TYR:HB3	40:QF:91:VAL:O	2.21	0.40
43:QI:15:ALA:HB2	43:QI:65:VAL:HG23	2.03	0.40
44:QJ:33:GLN:O	44:QJ:75:ILE:N	2.45	0.40
47:QM:11:ARG:HA	47:QM:45:VAL:HB	2.03	0.40
51:QQ:12:SER:HB3	51:QQ:20:THR:HB	2.03	0.40
4:RA:301:G:C4	4:RA:302:C:C5	3.09	0.40
4:RA:375:C:C2	4:RA:376:C:C5	3.09	0.40
4:RA:447:A:O2'	4:RA:473:G:N7	2.50	0.40
4:RA:485:C:C2	4:RA:486:C:C5	3.09	0.40
4:RA:719:C:H2'	4:RA:720:C:C6	2.56	0.40
4:RA:1449:A:N3	4:RA:1529:G:H1'	2.36	0.40
4:RA:2118:U:H5	4:RA:2148:G:H1'	1.86	0.40
18:RT:22:PHE:CZ	18:RT:61:PHE:CD2	3.09	0.40
19:RU:17:ILE:HG23	19:RU:39:LEU:HD12	2.03	0.40
28:R3:6:VAL:HG12	28:R3:28:LEU:HD11	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:QY:281:HIS:HE1	4:RA:2493:U:H1'	1.86	0.40
3:XY:260:ALA:HB2	3:XY:275:GLN:HG2	2.03	0.40
4:YA:2660:A:N7	10:YH:175:LYS:HE3	2.36	0.40
8:YF:38:ARG:HG2	8:YF:99:TYR:OH	2.22	0.40
12:YN:62:VAL:HG11	12:YN:66:LYS:HB2	2.03	0.40
13:YO:120:GLU:OE2	13:YO:122:LEU:HD21	2.21	0.40
29:Y4:48:ARG:N	29:Y4:48:ARG:CD	2.80	0.40
29:Y4:67:TYR:CE2	53:XS:41:VAL:HG21	2.55	0.40
32:Y7:31:LEU:O	32:Y7:35:ARG:HG2	2.21	0.40
35:XA:102:G:C5	35:XA:103:C:C5	3.09	0.40
35:XA:217:C:H2'	35:XA:218:C:H6	1.87	0.40
35:XA:553:A:H2'	35:XA:554:C:H6	1.87	0.40
35:XA:921:U:O2'	39:XE:19:MET:O	2.37	0.40
35:XA:1036:G:H2'	35:XA:1037:C:O4'	2.22	0.40
35:XA:1040:U:H2'	35:XA:1041:A:O4'	2.21	0.40
35:XA:1320:C:H2'	35:XA:1321:C:O4'	2.21	0.40
39:XE:137:GLU:HG3	39:XE:140:ARG:HH11	1.85	0.40
35:QA:179:A:C4	35:QA:180:U:C5	3.09	0.40
35:QA:675:A:H1'	45:QK:116:HIS:CG	2.56	0.40
36:QB:27:LYS:HB2	36:QB:194:PRO:HD2	2.02	0.40
36:QB:71:VAL:CG1	36:QB:170:GLU:HG3	2.51	0.40
37:QC:200:ALA:C	37:QC:201:TYR:HD1	2.29	0.40
38:QD:188:LEU:HA	38:QD:189:PRO:HD3	1.87	0.40
41:QG:143:ARG:HE	41:QG:143:ARG:HB2	1.49	0.40
53:QS:11:VAL:HG11	53:QS:16:LEU:HB2	2.02	0.40
55:QU:18:TYR:CD1	55:QU:18:TYR:N	2.89	0.40
4:RA:950:G:C5	4:RA:951:C:C5	3.10	0.40
4:RA:1035:U:P	10:RH:59:ARG:NH2	2.95	0.40
4:RA:2065:C:C2	4:RA:2066:C:C5	3.10	0.40
6:RD:72:LYS:HD2	6:RD:101:GLU:OE2	2.21	0.40
8:RF:39:TRP:HA	8:RF:99:TYR:CE1	2.55	0.40
9:RG:18:GLU:HA	9:RG:18:GLU:OE1	2.21	0.40
12:RN:99:LEU:O	12:RN:100:GLU:C	2.64	0.40
24:RZ:40:ASP:OD1	24:RZ:40:ASP:C	2.63	0.40
24:RZ:59:LEU:HD11	24:RZ:88:PHE:CG	2.56	0.40
29:R4:43:TYR:CD1	29:R4:43:TYR:N	2.90	0.40
3:QY:156:ALA:HB1	3:QY:161:PHE:HB2	2.02	0.40
3:QY:176:ILE:HD13	3:QY:179:VAL:HG11	2.04	0.40
3:QY:307:LYS:O	3:QY:311:GLU:HG2	2.20	0.40
3:XY:44:PRO:C	3:XY:46:VAL:H	2.29	0.40
3:XY:58:LYS:NZ	4:YA:1067:A:H5"	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:9:U:HO2'	4:YA:10:G:P	2.44	0.40
4:YA:370:G:H4'	4:YA:371:A:OP2	2.21	0.40
4:YA:572:A:OP2	20:YV:78:LYS:NZ	2.47	0.40
4:YA:636:G:OP1	14:YP:132:LYS:HG3	2.20	0.40
4:YA:952:G:C6	4:YA:966:G:C6	3.10	0.40
4:YA:1027:A:C2	4:YA:2488:A:H5'	2.56	0.40
4:YA:1153:C:H2'	4:YA:1154:G:O4'	2.20	0.40
4:YA:2311:A:H3'	4:YA:2312:U:C5	2.57	0.40
4:YA:2712(A):U:O2'	4:YA:2713:A:H5'	2.22	0.40
13:YO:36:GLY:HA3	13:YO:109:LYS:HD2	2.04	0.40
14:YP:80:TYR:HD1	14:YP:80:TYR:N	2.19	0.40
18:YT:96:ARG:HH11	18:YT:96:ARG:HD2	1.49	0.40
23:YY:13:VAL:HB	23:YY:72:VAL:HG13	2.03	0.40
24:YZ:108:PRO:HA	24:YZ:142:SER:HA	2.03	0.40
35:XA:978:A:C2	35:XA:1319:A:C4	3.09	0.40
36:XB:58:ILE:CG2	36:XB:222:ILE:HG22	2.52	0.40
36:XB:229:VAL:HG12	36:XB:230:VAL:N	2.37	0.40
41:XG:74:GLU:OE2	41:XG:95:ARG:NE	2.53	0.40
43:XI:27:THR:HG23	43:XI:31:GLN:N	2.37	0.40
44:XJ:45:ARG:HG2	44:XJ:47:PHE:CZ	2.56	0.40
45:XK:81:ASP:OD1	45:XK:106:LYS:HE3	2.22	0.40
45:XK:82:VAL:HB	45:XK:108:ILE:HG12	2.02	0.40
47:XM:13:LYS:HE3	47:XM:21:TYR:OH	2.21	0.40
49:XO:40:SER:O	49:XO:44:LYS:HG3	2.22	0.40
35:QA:177:C:H2'	35:QA:178:C:H6	1.85	0.40
35:QA:677:U:H2'	35:QA:678:U:H6	1.86	0.40
35:QA:1250:A:H4'	43:QI:67:GLY:HA2	2.03	0.40
35:QA:1261:A:H3'	35:QA:1262:C:C6	2.57	0.40
35:QA:1447:A:H5"	35:QA:1452:C:OP2	2.21	0.40
36:QB:28:PHE:CE2	36:QB:189:ASP:C	2.99	0.40
42:QH:105:ARG:O	42:QH:105:ARG:HG3	2.22	0.40
45:QK:34:ASP:OD2	45:QK:38:ASN:HB2	2.22	0.40
4:RA:139(A):G:O6	4:RA:140:G:O2'	2.40	0.40
4:RA:1300:U:H4'	4:RA:1301:A:H5'	2.03	0.40
4:RA:1499:C:H2'	4:RA:1500:G:H8	1.86	0.40
4:RA:1853:A:H2'	4:RA:1854:A:C8	2.57	0.40
4:RA:2317:C:H2'	4:RA:2318:G:H5'	2.03	0.40
4:RA:2650:U:C2	4:RA:2651:C:C5	3.09	0.40
9:RG:7:LEU:HD12	9:RG:104:GLU:N	2.37	0.40
24:RZ:182:LYS:O	24:RZ:183:LEU:C	2.64	0.40
27:R2:1:MET:HE1	27:R2:9:GLN:OE1	2.20	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:QY:76:GLY:HA3	3:QY:106:LEU:HD11	2.03	0.40
3:QY:256:ARG:NH2	4:RA:2573:C:O5'	2.54	0.40
1:XV:25:C:H2'	1:XV:26:G:O4'	2.21	0.40
3:XY:203:ARG:NH1	3:XY:206:PRO:HD3	2.24	0.40
3:XY:217:PHE:CE2	3:XY:319:TRP:HA	2.56	0.40
4:YA:185:U:C2	4:YA:186:G:C8	3.10	0.40
4:YA:687:C:H2'	4:YA:688:U:O4'	2.22	0.40
4:YA:793:A:OP2	4:YA:2071:A:O2'	2.38	0.40
4:YA:1022:G:C5	4:YA:1140:C:C4	3.09	0.40
4:YA:1067:A:H5'	4:YA:1067:A:C8	2.55	0.40
4:YA:1268:A:H2'	4:YA:1269:A:O4'	2.21	0.40
4:YA:1790:C:H2'	4:YA:1791:A:C8	2.57	0.40
4:YA:2365:G:O2'	25:Y0:60:PHE:HE2	2.04	0.40
10:YH:113:VAL:HG11	10:YH:151:ILE:HD13	2.03	0.40
17:YS:106:ARG:HG2	17:YS:112:PHE:CE1	2.57	0.40
18:YT:22:PHE:CZ	18:YT:61:PHE:CE2	3.09	0.40
29:Y4:13:ARG:HH21	29:Y4:21:VAL:HG11	1.87	0.40
29:Y4:62:ARG:HA	29:Y4:62:ARG:HD3	1.91	0.40
35:XA:22:G:H2'	35:XA:23:C:H6	1.86	0.40
35:XA:490:G:H2'	35:XA:491:G:H8	1.86	0.40
35:XA:1003:G:H1	35:XA:1035:A:N6	2.20	0.40
35:XA:1010:G:H2'	35:XA:1011:G:C8	2.56	0.40
36:XB:230:VAL:HG22	36:XB:231:GLU:H	1.87	0.40
40:XF:100:ASN:OD1	52:XR:23:LYS:HE2	2.21	0.40
43:XI:110:GLU:OE2	43:XI:113:LYS:NZ	2.49	0.40
46:XL:77:LEU:HD21	46:XL:107:ALA:HA	2.03	0.40
53:XS:43:GLU:OE1	53:XS:43:GLU:N	2.52	0.40
35:QA:374:A:C6	35:QA:375:U:C4	3.09	0.40
35:QA:1466:C:H2'	35:QA:1467:G:O4'	2.21	0.40
35:QA:1479:C:H2'	35:QA:1480:G:C8	2.56	0.40
37:QC:70:VAL:HG22	37:QC:72:LYS:H	1.86	0.40
40:QF:76:ALA:HB1	40:QF:80:ARG:NH2	2.36	0.40
42:QH:51:VAL:HG12	42:QH:52:ASP:N	2.37	0.40
52:QR:74:ARG:HD3	52:QR:81:PHE:CD1	2.56	0.40
4:RA:118:A:N3	4:RA:178:G:H1'	2.36	0.40
4:RA:272(A):A:H8	4:RA:272(B):C:C5	2.39	0.40
4:RA:609:A:H2'	4:RA:610:G:O4'	2.22	0.40
4:RA:656:G:H2'	4:RA:657:U:C6	2.56	0.40
4:RA:878:A:C6	4:RA:900:A:C8	3.08	0.40
4:RA:1358:G:O2'	4:RA:1359:A:H5'	2.21	0.40
4:RA:2485:G:H5"	15:RQ:46:GLN:HE21	1.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:2574:G:H8	4:RA:2574:G:O5'	2.04	0.40
6:RD:53:PHE:CD2	6:RD:220:HIS:ND1	2.89	0.40
9:RG:18:GLU:HG3	9:RG:175:LEU:HD21	2.03	0.40
17:RS:87:PHE:HB2	17:RS:112:PHE:CE2	2.56	0.40
26:R1:12:PRO:HB2	26:R1:41:ARG:NH2	2.36	0.40
4:YA:594:U:H2'	4:YA:595:C:C6	2.57	0.40
4:YA:900:A:H2'	4:YA:901:A:H8	1.87	0.40
4:YA:1301:A:C8	4:YA:1303:G:C8	3.10	0.40
4:YA:1317:A:H2'	4:YA:1318:C:C6	2.57	0.40
4:YA:1321:A:H2'	4:YA:1322:A:H8	1.86	0.40
4:YA:1346:G:C6	4:YA:1601:G:C6	3.10	0.40
4:YA:1810:A:H2'	4:YA:1811:G:O4'	2.22	0.40
4:YA:2131:G:H5'	4:YA:2133:G:O5'	2.21	0.40
6:YD:80:ALA:HB3	6:YD:94:LEU:HB3	2.03	0.40
7:YE:73:GLU:O	7:YE:74:PRO:C	2.61	0.40
14:YP:95:VAL:HG22	14:YP:125:VAL:HG12	2.03	0.40
17:YS:5:THR:OG1	17:YS:8:GLU:HG3	2.22	0.40
18:YT:118:ARG:HG2	35:XA:1442(B):G:C8	2.57	0.40
21:YW:9:TYR:HA	21:YW:100:THR:CG2	2.52	0.40
24:YZ:19:ARG:NH1	24:YZ:84:GLU:O	2.54	0.40
35:XA:271:C:H2'	35:XA:272:C:H6	1.87	0.40
35:XA:277:C:H5"	51:XQ:68:ARG:NH2	2.37	0.40
35:XA:460:G:H1'	35:XA:472:A:H61	1.87	0.40
35:XA:1058:G:N2	44:XJ:53:PRO:HG3	2.36	0.40
35:XA:1129:C:N4	35:XA:1143:G:H1	2.19	0.40
36:XB:71:VAL:HG12	36:XB:93:VAL:CG2	2.52	0.40
36:XB:111:ARG:CA	36:XB:111:ARG:NE	2.80	0.40
40:XF:97:PHE:HD1	40:XF:98:LEU:N	2.19	0.40
35:QA:189(M):G:C2	35:QA:190:U:C4	3.09	0.40
35:QA:415:A:C4	35:QA:416:G:C8	3.10	0.40
35:QA:417:C:H2'	35:QA:418:C:C6	2.56	0.40
35:QA:1122:U:C4	35:QA:1123:A:N7	2.89	0.40
35:QA:1347:G:N2	35:QA:1373:G:H2'	2.35	0.40
36:QB:124:SER:HA	36:QB:125:PRO:HA	1.71	0.40
37:QC:46:GLU:HA	37:QC:46:GLU:OE1	2.22	0.40
38:QD:59:ARG:NH2	38:QD:62:GLN:HG3	2.35	0.40
38:QD:148:VAL:HG11	38:QD:158:ILE:HD12	2.03	0.40
4:RA:39:C:H2'	4:RA:40:C:H6	1.85	0.40
4:RA:90:U:H1'	4:RA:92:A:C8	2.57	0.40
4:RA:185:U:H4'	4:RA:218:A:H4'	2.04	0.40
4:RA:923:C:C2	4:RA:924:C:C5	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:946:G:H2'	4:RA:947:G:H8	1.87	0.40
4:RA:1051:G:H2'	4:RA:1052:C:C6	2.57	0.40
4:RA:2167:U:H2'	4:RA:2168:G:C4	2.56	0.40
4:RA:2329:G:H2'	4:RA:2330:G:C8	2.56	0.40
4:RA:2454:G:C4	4:RA:2455:G:C8	3.10	0.40
4:RA:2552:2MU:O5'	4:RA:2552:2MU:H6	2.22	0.40
5:RB:8:U:O3'	17:RS:25:ARG:NH2	2.41	0.40
9:RG:14:GLU:C	9:RG:17:PRO:HD2	2.46	0.40
10:RH:163:TYR:CD1	10:RH:163:TYR:N	2.89	0.40
33:R8:23:VAL:HG13	33:R8:47:LYS:HB3	2.03	0.40

There are no symmetry-related clashes.

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	QY	355/380 (93%)	304 (86%)	43 (12%)	8 (2%)	5 23
3	XY	355/380 (93%)	310 (87%)	33 (9%)	12 (3%)	3 16
6	RD	273/276 (99%)	258 (94%)	15 (6%)	0	100 100
6	YD	273/276 (99%)	257 (94%)	15 (6%)	1 (0%)	30 61
7	RE	202/206 (98%)	194 (96%)	7 (4%)	1 (0%)	24 57
7	YE	202/206 (98%)	192 (95%)	8 (4%)	2 (1%)	12 41
8	RF	201/210 (96%)	197 (98%)	4 (2%)	0	100 100
8	YF	201/210 (96%)	197 (98%)	4 (2%)	0	100 100
9	RG	179/182 (98%)	166 (93%)	10 (6%)	3 (2%)	7 30
9	YG	179/182 (98%)	167 (93%)	11 (6%)	1 (1%)	21 52
10	RH	172/180 (96%)	163 (95%)	9 (5%)	0	100 100
10	YH	171/180 (95%)	159 (93%)	12 (7%)	0	100 100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
11	RI	145/148 (98%)	130 (90%)	13 (9%)	2 (1%)	9	34
11	YI	144/148 (97%)	136 (94%)	6 (4%)	2 (1%)	9	34
12	RN	138/140 (99%)	131 (95%)	7 (5%)	0	100	100
12	YN	138/140 (99%)	132 (96%)	5 (4%)	1 (1%)	18	49
13	RO	120/122 (98%)	113 (94%)	7 (6%)	0	100	100
13	YO	120/122 (98%)	112 (93%)	8 (7%)	0	100	100
14	RP	147/150 (98%)	141 (96%)	6 (4%)	0	100	100
14	YP	147/150 (98%)	137 (93%)	8 (5%)	2 (1%)	9	34
15	RQ	139/141 (99%)	134 (96%)	5 (4%)	0	100	100
15	YQ	139/141 (99%)	131 (94%)	7 (5%)	1 (1%)	18	49
16	RR	116/118 (98%)	113 (97%)	3 (3%)	0	100	100
16	YR	116/118 (98%)	108 (93%)	8 (7%)	0	100	100
17	RS	108/112 (96%)	103 (95%)	5 (5%)	0	100	100
17	YS	108/112 (96%)	104 (96%)	4 (4%)	0	100	100
18	RT	129/146 (88%)	120 (93%)	7 (5%)	2 (2%)	7	30
18	YT	129/146 (88%)	122 (95%)	7 (5%)	0	100	100
19	RU	114/118 (97%)	111 (97%)	3 (3%)	0	100	100
19	YU	114/118 (97%)	113 (99%)	1 (1%)	0	100	100
20	RV	99/101 (98%)	96 (97%)	2 (2%)	1 (1%)	12	41
20	YV	99/101 (98%)	96 (97%)	2 (2%)	1 (1%)	12	41
21	RW	110/113 (97%)	110 (100%)	0	0	100	100
21	YW	110/113 (97%)	109 (99%)	1 (1%)	0	100	100
22	RX	93/96 (97%)	91 (98%)	2 (2%)	0	100	100
22	YX	93/96 (97%)	88 (95%)	4 (4%)	1 (1%)	11	39
23	RY	105/110 (96%)	97 (92%)	8 (8%)	0	100	100
23	YY	105/110 (96%)	99 (94%)	6 (6%)	0	100	100
24	RZ	201/206 (98%)	192 (96%)	9 (4%)	0	100	100
24	YZ	199/206 (97%)	188 (94%)	11 (6%)	0	100	100
25	R0	75/85 (88%)	73 (97%)	2 (3%)	0	100	100
25	Y0	75/85 (88%)	72 (96%)	3 (4%)	0	100	100
26	R1	95/98 (97%)	93 (98%)	1 (1%)	1 (1%)	11	39

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
26	Y1	95/98 (97%)	91 (96%)	3 (3%)	1 (1%)	11	39
27	R2	68/72 (94%)	67 (98%)	1 (2%)	0	100	100
27	Y2	68/72 (94%)	66 (97%)	2 (3%)	0	100	100
28	R3	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
28	Y3	57/60 (95%)	54 (95%)	3 (5%)	0	100	100
29	R4	67/71 (94%)	52 (78%)	10 (15%)	5 (8%)	1	4
29	Y4	67/71 (94%)	57 (85%)	7 (10%)	3 (4%)	2	12
30	R5	57/60 (95%)	54 (95%)	3 (5%)	0	100	100
30	Y5	57/60 (95%)	54 (95%)	3 (5%)	0	100	100
31	R6	51/54 (94%)	50 (98%)	1 (2%)	0	100	100
31	Y6	51/54 (94%)	47 (92%)	4 (8%)	0	100	100
32	R7	46/49 (94%)	46 (100%)	0	0	100	100
32	Y7	46/49 (94%)	46 (100%)	0	0	100	100
33	R8	62/65 (95%)	61 (98%)	1 (2%)	0	100	100
33	Y8	62/65 (95%)	61 (98%)	1 (2%)	0	100	100
34	R9	35/37 (95%)	35 (100%)	0	0	100	100
34	Y9	35/37 (95%)	34 (97%)	1 (3%)	0	100	100
36	QB	229/256 (90%)	197 (86%)	20 (9%)	12 (5%)	1	10
36	XB	229/256 (90%)	198 (86%)	24 (10%)	7 (3%)	3	18
37	QC	204/239 (85%)	195 (96%)	9 (4%)	0	100	100
37	XC	204/239 (85%)	193 (95%)	9 (4%)	2 (1%)	12	41
38	QD	206/209 (99%)	190 (92%)	15 (7%)	1 (0%)	24	57
38	XD	206/209 (99%)	197 (96%)	8 (4%)	1 (0%)	24	57
39	QE	146/162 (90%)	143 (98%)	3 (2%)	0	100	100
39	XE	146/162 (90%)	141 (97%)	5 (3%)	0	100	100
40	QF	98/101 (97%)	90 (92%)	6 (6%)	2 (2%)	6	25
40	XF	98/101 (97%)	93 (95%)	3 (3%)	2 (2%)	6	25
41	QG	153/156 (98%)	149 (97%)	4 (3%)	0	100	100
41	XG	153/156 (98%)	147 (96%)	4 (3%)	2 (1%)	9	35
42	QH	135/138 (98%)	129 (96%)	5 (4%)	1 (1%)	18	49
42	XH	135/138 (98%)	131 (97%)	4 (3%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
43	QI	125/128 (98%)	117 (94%)	7 (6%)	1 (1%)	16	47
43	XI	124/128 (97%)	113 (91%)	9 (7%)	2 (2%)	7	30
44	QJ	95/105 (90%)	84 (88%)	8 (8%)	3 (3%)	3	18
44	XJ	94/105 (90%)	82 (87%)	9 (10%)	3 (3%)	3	18
45	QK	112/129 (87%)	108 (96%)	3 (3%)	1 (1%)	14	44
45	XK	112/129 (87%)	110 (98%)	2 (2%)	0	100	100
46	QL	119/132 (90%)	117 (98%)	2 (2%)	0	100	100
46	XL	119/132 (90%)	113 (95%)	6 (5%)	0	100	100
47	QM	114/126 (90%)	106 (93%)	7 (6%)	1 (1%)	14	44
47	XM	112/126 (89%)	104 (93%)	7 (6%)	1 (1%)	14	44
48	QN	58/61 (95%)	56 (97%)	2 (3%)	0	100	100
48	XN	58/61 (95%)	54 (93%)	4 (7%)	0	100	100
49	QO	86/89 (97%)	80 (93%)	6 (7%)	0	100	100
49	XO	86/89 (97%)	79 (92%)	7 (8%)	0	100	100
50	QP	80/88 (91%)	74 (92%)	6 (8%)	0	100	100
50	XP	80/88 (91%)	74 (92%)	6 (8%)	0	100	100
51	QQ	97/105 (92%)	91 (94%)	4 (4%)	2 (2%)	5	25
51	XQ	97/105 (92%)	94 (97%)	3 (3%)	0	100	100
52	QR	66/88 (75%)	64 (97%)	2 (3%)	0	100	100
52	XR	66/88 (75%)	64 (97%)	2 (3%)	0	100	100
53	QS	81/93 (87%)	75 (93%)	6 (7%)	0	100	100
53	XS	81/93 (87%)	77 (95%)	4 (5%)	0	100	100
54	QT	94/106 (89%)	86 (92%)	5 (5%)	3 (3%)	3	18
54	XT	96/106 (91%)	91 (95%)	2 (2%)	3 (3%)	3	18
55	QU	21/27 (78%)	18 (86%)	2 (10%)	1 (5%)	2	11
55	XU	21/27 (78%)	19 (90%)	1 (5%)	1 (5%)	2	11
All	All	12150/12888 (94%)	11432 (94%)	615 (5%)	103 (1%)	16	47

All (103) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	QY	254	VAL
3	XY	122	GLU

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Mol	Chain	Res	Type
3	XY	230	ILE
3	XY	315	SER
9	YG	81	LYS
11	YI	85	GLU
29	Y4	60	GLN
36	XB	10	LEU
36	XB	17	PHE
36	XB	20	GLU
38	XD	150	GLU
43	XI	54	ASP
36	QB	15	VAL
36	QB	17	PHE
36	QB	21	ARG
29	R4	47	GLN
29	R4	49	PHE
29	R4	55	ARG
3	QY	122	GLU
3	QY	327	VAL
3	QY	337	ARG
3	XY	137	GLY
3	XY	228	ASP
3	XY	319	TRP
20	YV	79	VAL
22	YX	94	GLY
26	Y1	3	LYS
40	XF	70	ASP
41	XG	155	ARG
43	XI	44	VAL
54	XT	47	GLY
54	XT	95	ALA
36	QB	16	HIS
51	QQ	68	ARG
54	QT	47	GLY
54	QT	95	ALA
18	RT	68	TYR
18	RT	128	GLU
20	RV	79	VAL
29	R4	45	GLY
3	QY	127	ASP
3	XY	26	ASP
3	XY	127	ASP
3	XY	134	ALA

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Mol	Chain	Res	Type
7	YE	51	PHE
15	YQ	80	GLU
36	XB	125	PRO
40	XF	69	GLU
44	XJ	78	ASN
44	XJ	79	ARG
36	QB	126	GLU
36	QB	157	ARG
36	QB	231	GLU
40	QF	70	ASP
42	QH	14	ARG
44	QJ	55	LYS
44	QJ	78	ASN
55	QU	3	LYS
9	RG	51	ARG
11	RI	73	GLU
26	R1	3	LYS
3	QY	46	VAL
3	QY	346	GLN
3	XY	136	SER
14	YP	98	GLU
36	QB	95	GLN
40	QF	69	GLU
44	QJ	77	PRO
7	RE	52	LEU
11	RI	117	GLU
3	XY	119	PHE
7	YE	74	PRO
11	YI	10	GLU
29	Y4	55	ARG
36	XB	83	MET
36	XB	126	GLU
37	XC	98	ASN
41	XG	7	ALA
54	XT	100	ILE
55	XU	7	ARG
36	QB	83	MET
36	QB	127	ILE
38	QD	24	GLU
43	QI	56	LEU
47	QM	12	ASN
51	QQ	67	LYS

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Mol	Chain	Res	Type
9	RG	43	LEU
29	R4	44	THR
12	YN	131	GLN
29	Y4	45	GLY
36	XB	95	GLN
47	XM	67	GLU
36	QB	22	LYS
54	QT	100	ILE
3	QY	121	GLY
36	QB	158	LEU
3	XY	173	VAL
14	YP	122	PRO
45	QK	105	VAL
9	RG	16	ARG
6	YD	241	PRO
37	XC	108	ASN
44	XJ	37	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	QY	304/324 (94%)	291 (96%)	13 (4%)	26	57
3	XY	304/324 (94%)	288 (95%)	16 (5%)	20	51
6	RD	214/218 (98%)	205 (96%)	9 (4%)	26	58
6	YD	215/218 (99%)	205 (95%)	10 (5%)	23	55
7	RE	164/166 (99%)	156 (95%)	8 (5%)	22	53
7	YE	164/166 (99%)	154 (94%)	10 (6%)	17	46
8	RF	160/166 (96%)	144 (90%)	16 (10%)	7	29
8	YF	159/166 (96%)	146 (92%)	13 (8%)	10	36
9	RG	144/156 (92%)	135 (94%)	9 (6%)	16	45
9	YG	142/156 (91%)	134 (94%)	8 (6%)	19	49
10	RH	144/148 (97%)	139 (96%)	5 (4%)	32	62

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
10	YH	143/148 (97%)	135 (94%)	8 (6%)	19	49
11	RI	111/124 (90%)	105 (95%)	6 (5%)	20	50
11	YI	108/124 (87%)	104 (96%)	4 (4%)	30	61
12	RN	119/119 (100%)	111 (93%)	8 (7%)	15	43
12	YN	118/119 (99%)	111 (94%)	7 (6%)	18	48
13	RO	100/100 (100%)	94 (94%)	6 (6%)	17	47
13	YO	100/100 (100%)	94 (94%)	6 (6%)	17	47
14	RP	115/116 (99%)	110 (96%)	5 (4%)	26	57
14	YP	115/116 (99%)	108 (94%)	7 (6%)	17	46
15	RQ	111/111 (100%)	104 (94%)	7 (6%)	16	45
15	YQ	111/111 (100%)	103 (93%)	8 (7%)	13	40
16	RR	101/101 (100%)	99 (98%)	2 (2%)	48	72
16	YR	101/101 (100%)	98 (97%)	3 (3%)	36	65
17	RS	87/88 (99%)	83 (95%)	4 (5%)	24	55
17	YS	85/88 (97%)	77 (91%)	8 (9%)	8	31
18	RT	115/127 (91%)	105 (91%)	10 (9%)	9	34
18	YT	113/127 (89%)	102 (90%)	11 (10%)	8	30
19	RU	93/94 (99%)	83 (89%)	10 (11%)	6	25
19	YU	93/94 (99%)	86 (92%)	7 (8%)	12	39
20	RV	81/82 (99%)	73 (90%)	8 (10%)	7	29
20	YV	80/82 (98%)	74 (92%)	6 (8%)	12	39
21	RW	90/92 (98%)	85 (94%)	5 (6%)	19	49
21	YW	90/92 (98%)	83 (92%)	7 (8%)	11	38
22	RX	77/78 (99%)	75 (97%)	2 (3%)	40	68
22	YX	77/78 (99%)	77 (100%)	0	100	100
23	RY	86/91 (94%)	80 (93%)	6 (7%)	14	41
23	YY	86/91 (94%)	82 (95%)	4 (5%)	23	55
24	RZ	169/179 (94%)	158 (94%)	11 (6%)	15	44
24	YZ	165/179 (92%)	159 (96%)	6 (4%)	31	62
25	R0	61/67 (91%)	56 (92%)	5 (8%)	10	36
25	Y0	61/67 (91%)	57 (93%)	4 (7%)	15	43

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
26	R1	79/83 (95%)	76 (96%)	3 (4%)	29	60
26	Y1	81/83 (98%)	77 (95%)	4 (5%)	22	53
27	R2	65/67 (97%)	64 (98%)	1 (2%)	57	75
27	Y2	66/67 (98%)	61 (92%)	5 (8%)	12	39
28	R3	51/52 (98%)	51 (100%)	0	100	100
28	Y3	50/52 (96%)	48 (96%)	2 (4%)	28	60
29	R4	58/63 (92%)	52 (90%)	6 (10%)	7	27
29	Y4	54/63 (86%)	46 (85%)	8 (15%)	3	13
30	R5	51/52 (98%)	50 (98%)	1 (2%)	48	72
30	Y5	50/52 (96%)	46 (92%)	4 (8%)	11	37
31	R6	51/52 (98%)	50 (98%)	1 (2%)	48	72
31	Y6	50/52 (96%)	49 (98%)	1 (2%)	48	72
32	R7	41/42 (98%)	40 (98%)	1 (2%)	43	69
32	Y7	41/42 (98%)	40 (98%)	1 (2%)	43	69
33	R8	54/55 (98%)	52 (96%)	2 (4%)	30	61
33	Y8	54/55 (98%)	53 (98%)	1 (2%)	50	73
34	R9	34/34 (100%)	32 (94%)	2 (6%)	18	48
34	Y9	34/34 (100%)	33 (97%)	1 (3%)	37	66
36	QB	191/220 (87%)	180 (94%)	11 (6%)	18	48
36	XB	187/220 (85%)	170 (91%)	17 (9%)	9	32
37	QC	144/188 (77%)	141 (98%)	3 (2%)	47	71
37	XC	140/188 (74%)	135 (96%)	5 (4%)	31	62
38	QD	171/181 (94%)	162 (95%)	9 (5%)	20	51
38	XD	172/181 (95%)	159 (92%)	13 (8%)	12	39
39	QE	114/123 (93%)	111 (97%)	3 (3%)	40	68
39	XE	114/123 (93%)	110 (96%)	4 (4%)	32	62
40	QF	85/90 (94%)	79 (93%)	6 (7%)	13	41
40	XF	85/90 (94%)	78 (92%)	7 (8%)	10	36
41	QG	120/127 (94%)	116 (97%)	4 (3%)	33	63
41	XG	119/127 (94%)	114 (96%)	5 (4%)	26	58
42	QH	116/119 (98%)	110 (95%)	6 (5%)	21	51

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
42	XH	114/119 (96%)	112 (98%)	2 (2%)	51	73
43	QI	91/99 (92%)	84 (92%)	7 (8%)	12	38
43	XI	88/99 (89%)	83 (94%)	5 (6%)	18	49
44	QJ	68/92 (74%)	66 (97%)	2 (3%)	37	66
44	XJ	68/92 (74%)	67 (98%)	1 (2%)	57	75
45	QK	83/99 (84%)	81 (98%)	2 (2%)	43	69
45	XK	83/99 (84%)	82 (99%)	1 (1%)	63	78
46	QL	96/108 (89%)	93 (97%)	3 (3%)	35	64
46	XL	96/108 (89%)	88 (92%)	8 (8%)	10	35
47	QM	90/101 (89%)	89 (99%)	1 (1%)	65	78
47	XM	87/101 (86%)	86 (99%)	1 (1%)	65	78
48	QN	49/50 (98%)	43 (88%)	6 (12%)	5	20
48	XN	49/50 (98%)	47 (96%)	2 (4%)	27	59
49	QO	78/80 (98%)	75 (96%)	3 (4%)	29	60
49	XO	78/80 (98%)	76 (97%)	2 (3%)	40	68
50	QP	69/74 (93%)	65 (94%)	4 (6%)	18	48
50	XP	68/74 (92%)	62 (91%)	6 (9%)	9	33
51	QQ	94/97 (97%)	91 (97%)	3 (3%)	34	64
51	XQ	94/97 (97%)	91 (97%)	3 (3%)	34	64
52	QR	59/77 (77%)	53 (90%)	6 (10%)	7	28
52	XR	59/77 (77%)	54 (92%)	5 (8%)	10	35
53	QS	68/80 (85%)	65 (96%)	3 (4%)	25	56
53	XS	67/80 (84%)	64 (96%)	3 (4%)	24	56
54	QT	71/82 (87%)	71 (100%)	0	100	100
54	XT	70/82 (85%)	70 (100%)	0	100	100
55	QU	18/22 (82%)	17 (94%)	1 (6%)	19	49
55	XU	18/22 (82%)	18 (100%)	0	100	100
All	All	9971/10712 (93%)	9446 (95%)	525 (5%)	20	51

All (525) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	QY	17	ARG

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Mol	Chain	Res	Type
3	QY	20	VAL
3	QY	123	TYR
3	QY	201	LEU
3	QY	203	ARG
3	QY	217	PHE
3	QY	223	TYR
3	QY	242	ASP
3	QY	253	HIS
3	QY	278	ARG
3	QY	295	LEU
3	QY	322	GLN
3	QY	326	TYR
3	XY	8	ASN
3	XY	83	LEU
3	XY	96	PHE
3	XY	130	LEU
3	XY	179	VAL
3	XY	201	LEU
3	XY	217	PHE
3	XY	223	TYR
3	XY	244	TYR
3	XY	270	ILE
3	XY	273	GLN
3	XY	322	GLN
3	XY	326	TYR
3	XY	332	ARG
3	XY	336	LEU
3	XY	338	THR
6	YD	61	LEU
6	YD	84	TYR
6	YD	97	TYR
6	YD	103	ARG
6	YD	141	VAL
6	YD	172	TYR
6	YD	193	VAL
6	YD	242	ARG
6	YD	260	ARG
6	YD	276	LYS
7	YE	9	VAL
7	YE	21	VAL
7	YE	33	VAL
7	YE	44	TYR

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Mol	Chain	Res	Type
7	YE	52	LEU
7	YE	75	VAL
7	YE	111	ARG
7	YE	119	ARG
7	YE	175	VAL
7	YE	178	GLU
8	YF	7	TYR
8	YF	88	VAL
8	YF	97	TYR
8	YF	99	TYR
8	YF	127	GLU
8	YF	140	LEU
8	YF	162	LEU
8	YF	170	LEU
8	YF	175	THR
8	YF	179	GLU
8	YF	183	VAL
8	YF	197	ASP
8	YF	201	VAL
9	YG	3	LEU
9	YG	5	VAL
9	YG	12	TYR
9	YG	18	GLU
9	YG	31	VAL
9	YG	49	ASP
9	YG	117	PHE
9	YG	140	ILE
10	YH	3	ARG
10	YH	7	LEU
10	YH	33	LEU
10	YH	69	ARG
10	YH	71	LEU
10	YH	139	GLN
10	YH	163	TYR
10	YH	171	LEU
11	YI	47	LEU
11	YI	68	LEU
11	YI	114	LEU
11	YI	123	LEU
12	YN	15	LEU
12	YN	51	PHE
12	YN	68	GLU

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Mol	Chain	Res	Type
12	YN	78	TYR
12	YN	96	GLU
12	YN	120	LEU
12	YN	131	GLN
13	YO	8	LEU
13	YO	10	VAL
13	YO	24	VAL
13	YO	68	GLU
13	YO	79	PHE
13	YO	111	PHE
14	YP	55	ARG
14	YP	80	TYR
14	YP	91	PHE
14	YP	92	GLU
14	YP	110	TYR
14	YP	130	PHE
14	YP	148	LEU
15	YQ	32	TYR
15	YQ	42	ILE
15	YQ	55	VAL
15	YQ	65	PHE
15	YQ	93	TYR
15	YQ	104	PHE
15	YQ	109	VAL
15	YQ	141	GLN
16	YR	44	LEU
16	YR	65	LEU
16	YR	111	LEU
17	YS	7	TYR
17	YS	20	ARG
17	YS	36	TYR
17	YS	48	LEU
17	YS	67	ARG
17	YS	80	LEU
17	YS	94	TYR
17	YS	112	PHE
18	YT	6	LEU
18	YT	14	TYR
18	YT	22	PHE
18	YT	45	PHE
18	YT	49	VAL
18	YT	53	ARG

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Mol	Chain	Res	Type
18	YT	61	PHE
18	YT	78	LEU
18	YT	89	VAL
18	YT	96	ARG
18	YT	101	PHE
19	YU	47	TYR
19	YU	60	LEU
19	YU	74	LEU
19	YU	76	TYR
19	YU	104	GLN
19	YU	108	GLU
19	YU	111	GLU
20	YV	12	TYR
20	YV	38	LEU
20	YV	51	VAL
20	YV	61	VAL
20	YV	79	VAL
20	YV	95	LEU
21	YW	11	ARG
21	YW	17	VAL
21	YW	23	LEU
21	YW	51	LEU
21	YW	67	ASP
21	YW	70	TYR
21	YW	75	TYR
23	YY	20	TYR
23	YY	23	ARG
23	YY	60	PHE
23	YY	89	PHE
24	YZ	3	TYR
24	YZ	8	TYR
24	YZ	41	LEU
24	YZ	44	PHE
24	YZ	145	GLU
24	YZ	181	GLU
25	Y0	14	ARG
25	Y0	60	PHE
25	Y0	69	PHE
25	Y0	78	TYR
26	Y1	43	TYR
26	Y1	60	PHE
26	Y1	71	TYR

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Mol	Chain	Res	Type
26	Y1	95	LEU
27	Y2	7	ARG
27	Y2	12	GLU
27	Y2	31	GLU
27	Y2	34	GLU
27	Y2	66	GLU
28	Y3	23	LEU
28	Y3	54	VAL
29	Y4	8	LYS
29	Y4	25	TYR
29	Y4	34	GLU
29	Y4	43	TYR
29	Y4	48	ARG
29	Y4	50	VAL
29	Y4	59	PHE
29	Y4	67	TYR
30	Y5	6	VAL
30	Y5	19	ARG
30	Y5	35	GLU
30	Y5	48	GLU
31	Y6	44	ARG
32	Y7	35	ARG
33	Y8	48	PHE
34	Y9	24	TYR
36	XB	11	LEU
36	XB	17	PHE
36	XB	44	LEU
36	XB	70	PHE
36	XB	78	GLN
36	XB	105	PHE
36	XB	111	ARG
36	XB	115	LEU
36	XB	126	GLU
36	XB	145	LEU
36	XB	155	LEU
36	XB	160	ASP
36	XB	170	GLU
36	XB	181	PHE
36	XB	217	ARG
36	XB	221	LEU
36	XB	224	GLN
37	XC	32	LEU

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Mol	Chain	Res	Type
37	XC	40	ARG
37	XC	105	GLU
37	XC	131	ARG
37	XC	178	LEU
38	XD	20	TYR
38	XD	27	TYR
38	XD	34	GLU
38	XD	58	LEU
38	XD	59	ARG
38	XD	68	TYR
38	XD	106	TYR
38	XD	108	LEU
38	XD	135	LEU
38	XD	138	TYR
38	XD	185	PHE
38	XD	200	GLU
38	XD	205	GLU
39	XE	28	PHE
39	XE	41	VAL
39	XE	71	LEU
39	XE	137	GLU
40	XF	10	LEU
40	XF	59	TYR
40	XF	60	PHE
40	XF	63	TYR
40	XF	72	VAL
40	XF	75	LEU
40	XF	97	PHE
41	XG	10	ARG
41	XG	16	LEU
41	XG	18	TYR
41	XG	52	GLU
41	XG	90	GLU
42	XH	2	LEU
42	XH	65	TYR
43	XI	33	PHE
43	XI	59	PHE
43	XI	60	ASP
43	XI	88	TYR
43	XI	101	PHE
44	XJ	7	LYS
45	XK	96	ARG

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Mol	Chain	Res	Type
46	XL	32	PHE
46	XL	52	LEU
46	XL	60	LEU
46	XL	64	TYR
46	XL	79	GLU
46	XL	84	LEU
46	XL	86	ARG
46	XL	114	LYS
47	XM	69	GLU
48	XN	18	VAL
48	XN	34	TYR
49	XO	6	GLU
49	XO	64	ARG
50	XP	9	PHE
50	XP	16	HIS
50	XP	17	TYR
50	XP	20	VAL
50	XP	25	ARG
50	XP	71	ARG
51	XQ	27	PHE
51	XQ	42	TYR
51	XQ	71	PHE
52	XR	26	LEU
52	XR	31	LEU
52	XR	34	TYR
52	XR	58	LEU
52	XR	85	LEU
53	XS	10	PHE
53	XS	49	ILE
53	XS	78	ARG
36	QB	15	VAL
36	QB	17	PHE
36	QB	21	ARG
36	QB	70	PHE
36	QB	111	ARG
36	QB	122	PHE
36	QB	145	LEU
36	QB	155	LEU
36	QB	160	ASP
36	QB	170	GLU
36	QB	191	ASP
37	QC	29	TYR

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Mol	Chain	Res	Type
37	QC	178	LEU
37	QC	201	TYR
38	QD	20	TYR
38	QD	27	TYR
38	QD	59	ARG
38	QD	68	TYR
38	QD	135	LEU
38	QD	138	TYR
38	QD	185	PHE
38	QD	188	LEU
38	QD	200	GLU
39	QE	28	PHE
39	QE	41	VAL
39	QE	69	VAL
40	QF	4	TYR
40	QF	10	LEU
40	QF	59	TYR
40	QF	60	PHE
40	QF	63	TYR
40	QF	75	LEU
41	QG	16	LEU
41	QG	18	TYR
41	QG	51	GLN
41	QG	90	GLU
42	QH	2	LEU
42	QH	14	ARG
42	QH	18	ARG
42	QH	48	TYR
42	QH	91	ARG
42	QH	127	LEU
43	QI	3	GLN
43	QI	33	PHE
43	QI	42	ARG
43	QI	56	LEU
43	QI	59	PHE
43	QI	64	THR
43	QI	88	TYR
44	QJ	38	ILE
44	QJ	84	GLN
45	QK	54	ARG
45	QK	75	TYR
46	QL	60	LEU

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Mol	Chain	Res	Type
46	QL	98	TYR
46	QL	120	TYR
47	QM	69	GLU
48	QN	3	ARG
48	QN	18	VAL
48	QN	21	TYR
48	QN	31	ARG
48	QN	36	PHE
48	QN	41	ARG
49	QO	3	ILE
49	QO	6	GLU
49	QO	15	PHE
50	QP	2	VAL
50	QP	9	PHE
50	QP	20	VAL
50	QP	38	TYR
51	QQ	42	TYR
51	QQ	49	GLU
51	QQ	71	PHE
52	QR	26	LEU
52	QR	34	TYR
52	QR	42	ARG
52	QR	43	PHE
52	QR	76	LEU
52	QR	85	LEU
53	QS	10	PHE
53	QS	41	VAL
53	QS	74	PHE
55	QU	18	TYR
6	RD	97	TYR
6	RD	172	TYR
6	RD	176	ARG
6	RD	193	VAL
6	RD	221	VAL
6	RD	242	ARG
6	RD	257	LEU
6	RD	260	ARG
6	RD	269	PHE
7	RE	9	VAL
7	RE	21	VAL
7	RE	33	VAL
7	RE	40	GLU

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Mol	Chain	Res	Type
7	RE	44	TYR
7	RE	73	GLU
7	RE	75	VAL
7	RE	175	VAL
8	RF	7	TYR
8	RF	20	LEU
8	RF	24	LEU
8	RF	38	ARG
8	RF	53	THR
8	RF	88	VAL
8	RF	97	TYR
8	RF	99	TYR
8	RF	140	LEU
8	RF	162	LEU
8	RF	168	ARG
8	RF	170	LEU
8	RF	179	GLU
8	RF	183	VAL
8	RF	197	ASP
8	RF	201	VAL
9	RG	5	VAL
9	RG	12	TYR
9	RG	18	GLU
9	RG	31	VAL
9	RG	45	GLU
9	RG	53	LEU
9	RG	82	LEU
9	RG	140	ILE
9	RG	180	PHE
10	RH	69	ARG
10	RH	101	ARG
10	RH	105	LEU
10	RH	139	GLN
10	RH	163	TYR
11	RI	47	LEU
11	RI	68	LEU
11	RI	85	GLU
11	RI	89	TYR
11	RI	116	LEU
11	RI	140	LEU
12	RN	15	LEU
12	RN	34	LEU

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Mol	Chain	Res	Type
12	RN	51	PHE
12	RN	78	TYR
12	RN	96	GLU
12	RN	100	GLU
12	RN	120	LEU
12	RN	131	GLN
13	RO	8	LEU
13	RO	10	VAL
13	RO	24	VAL
13	RO	68	GLU
13	RO	79	PHE
13	RO	98	VAL
14	RP	80	TYR
14	RP	110	TYR
14	RP	117	GLU
14	RP	119	GLU
14	RP	130	PHE
15	RQ	32	TYR
15	RQ	55	VAL
15	RQ	65	PHE
15	RQ	69	PHE
15	RQ	75	THR
15	RQ	93	TYR
15	RQ	109	VAL
16	RR	47	PHE
16	RR	111	LEU
17	RS	7	TYR
17	RS	36	TYR
17	RS	80	LEU
17	RS	112	PHE
18	RT	6	LEU
18	RT	45	PHE
18	RT	49	VAL
18	RT	53	ARG
18	RT	61	PHE
18	RT	68	TYR
18	RT	78	LEU
18	RT	89	VAL
18	RT	96	ARG
18	RT	101	PHE
19	RU	8	VAL
19	RU	36	ARG

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Mol	Chain	Res	Type
19	RU	47	TYR
19	RU	60	LEU
19	RU	76	TYR
19	RU	92	ARG
19	RU	95	LEU
19	RU	104	GLN
19	RU	111	GLU
19	RU	117	GLN
20	RV	12	TYR
20	RV	43	GLU
20	RV	46	VAL
20	RV	52	VAL
20	RV	61	VAL
20	RV	72	VAL
20	RV	75	PHE
20	RV	79	VAL
21	RW	11	ARG
21	RW	17	VAL
21	RW	51	LEU
21	RW	67	ASP
21	RW	70	TYR
22	RX	28	PHE
22	RX	57	LEU
23	RY	20	TYR
23	RY	29	GLU
23	RY	55	TYR
23	RY	60	PHE
23	RY	89	PHE
23	RY	90	LEU
24	RZ	3	TYR
24	RZ	8	TYR
24	RZ	41	LEU
24	RZ	58	VAL
24	RZ	103	ARG
24	RZ	136	PHE
24	RZ	145	GLU
24	RZ	150	LEU
24	RZ	161	VAL
24	RZ	185	GLU
24	RZ	203	GLU
25	R0	14	ARG
25	R0	55	ARG

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Mol	Chain	Res	Type
25	R0	60	PHE
25	R0	69	PHE
25	R0	78	TYR
26	R1	60	PHE
26	R1	71	TYR
26	R1	95	LEU
27	R2	12	GLU
29	R4	25	TYR
29	R4	43	TYR
29	R4	49	PHE
29	R4	50	VAL
29	R4	59	PHE
29	R4	67	TYR
30	R5	60	VAL
31	R6	50	ARG
32	R7	29	LYS
33	R8	13	ARG
33	R8	48	PHE
34	R9	24	TYR
34	R9	35	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (77) such sidechains are listed below:

Mol	Chain	Res	Type
3	QY	133	GLN
3	QY	280	GLN
3	QY	308	GLN
3	XY	133	GLN
3	XY	214	HIS
3	XY	280	GLN
3	XY	281	HIS
3	XY	290	GLN
6	YD	115	GLN
9	YG	40	ASN
11	YI	54	GLN
14	YP	27	HIS
15	YQ	57	HIS
16	YR	50	HIS
16	YR	71	GLN
19	YU	72	HIS
19	YU	94	ASN
24	YZ	65	GLN

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Mol	Chain	Res	Type
24	YZ	121	HIS
25	Y0	70	GLN
26	Y1	56	GLN
27	Y2	9	GLN
29	Y4	6	HIS
33	Y8	35	GLN
36	XB	40	HIS
36	XB	45	GLN
36	XB	78	GLN
36	XB	113	HIS
37	XC	108	ASN
41	XG	11	GLN
41	XG	64	GLN
41	XG	148	ASN
42	XH	78	GLN
42	XH	82	HIS
43	XI	124	GLN
44	XJ	21	GLN
45	XK	116	HIS
53	XS	69	HIS
36	QB	19	HIS
36	QB	40	HIS
36	QB	76	GLN
36	QB	113	HIS
37	QC	69	HIS
38	QD	129	ASN
38	QD	160	GLN
38	QD	201	GLN
39	QE	20	GLN
40	QF	73	ASN
41	QG	51	GLN
41	QG	64	GLN
41	QG	97	GLN
41	QG	148	ASN
42	QH	78	GLN
43	QI	73	GLN
43	QI	124	GLN
49	QO	62	GLN
50	QP	13	HIS
53	QS	47	HIS
53	QS	69	HIS
54	QT	75	ASN

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Mol	Chain	Res	Type
7	RE	48	GLN
8	RF	75	HIS
9	RG	40	ASN
11	RI	105	HIS
12	RN	94	HIS
14	RP	9	ASN
15	RQ	57	HIS
15	RQ	141	GLN
16	RR	13	HIS
16	RR	50	HIS
19	RU	94	ASN
19	RU	117	GLN
23	RY	6	HIS
23	RY	92	ASN
26	R1	56	GLN
27	R2	9	GLN
33	R8	35	GLN

5.3.3 RNA (i)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	QV	76/77 (98%)	17 (22%)	1 (1%)
1	XV	76/77 (98%)	16 (21%)	1 (1%)
2	QX	9/25 (36%)	3 (33%)	0
2	XX	9/25 (36%)	4 (44%)	0
35	QA	1497/1521 (98%)	230 (15%)	14 (0%)
35	XA	1501/1521 (98%)	227 (15%)	18 (1%)
4	RA	2858/2915 (98%)	452 (15%)	28 (0%)
4	YA	2858/2915 (98%)	456 (15%)	26 (0%)
5	RB	119/122 (97%)	9 (7%)	0
5	YB	119/122 (97%)	14 (11%)	0
All	All	9122/9320 (97%)	1428 (15%)	88 (0%)

All (1428) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	QV	4	G
1	QV	5	G
1	QV	6	G
1	QV	9	G
1	QV	16	C

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Mol	Chain	Res	Type
1	QV	17(A)	U
1	QV	18	G
1	QV	19	G
1	QV	21	A
1	QV	31	G
1	QV	47	U
1	QV	48	C
1	QV	53	G
1	QV	54	U
1	QV	67	C
1	QV	75	C
1	QV	76	A
2	QX	21	A
2	QX	22	C
2	QX	23	A
1	XV	4	G
1	XV	5	G
1	XV	6	G
1	XV	17(A)	U
1	XV	18	G
1	XV	19	G
1	XV	21	A
1	XV	31	G
1	XV	47	U
1	XV	48	C
1	XV	53	G
1	XV	54	U
1	XV	62	C
1	XV	64	G
1	XV	67	C
1	XV	76	A
2	XX	15	A
2	XX	21	A
2	XX	22	C
2	XX	23	A
4	YA	8	A
4	YA	10	G
4	YA	11	G
4	YA	12	U
4	YA	15	G
4	YA	34	C
4	YA	45	C

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Mol	Chain	Res	Type
4	YA	71	A
4	YA	74	A
4	YA	75	G
4	YA	84	A
4	YA	95	G
4	YA	102	G
4	YA	118	A
4	YA	119	A
4	YA	120	U
4	YA	131	G
4	YA	141	A
4	YA	157	U
4	YA	181	A
4	YA	182	A
4	YA	196	A
4	YA	199	A
4	YA	205	G
4	YA	215	G
4	YA	216	A
4	YA	221	A
4	YA	222	A
4	YA	229	A
4	YA	230	U
4	YA	248	G
4	YA	266	G
4	YA	272(K)	U
4	YA	272(L)	U
4	YA	272(M)	G
4	YA	272(N)	U
4	YA	272(O)	C
4	YA	272(P)	C
4	YA	273(B)	U
4	YA	273(C)	G
4	YA	277	C
4	YA	278	A
4	YA	311	A
4	YA	327	G
4	YA	329	G
4	YA	330	A
4	YA	352	G
4	YA	362	U
4	YA	363(A)	G

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Mol	Chain	Res	Type
4	YA	372	G
4	YA	386	G
4	YA	396	G
4	YA	405	U
4	YA	411	G
4	YA	412	A
4	YA	428	A
4	YA	444	C
4	YA	455	C
4	YA	456	C
4	YA	457	A
4	YA	470	A
4	YA	481	G
4	YA	505	A
4	YA	508	G
4	YA	509	C
4	YA	530	G
4	YA	531	C
4	YA	532	A
4	YA	533	G
4	YA	545	G
4	YA	563	G
4	YA	568	U
4	YA	573	G
4	YA	575	A
4	YA	603	A
4	YA	604	G
4	YA	607	U
4	YA	614(C)	G
4	YA	615	G
4	YA	627	A
4	YA	637	A
4	YA	645	C
4	YA	646	A
4	YA	652(C)	A
4	YA	652(D)	G
4	YA	652(V)	G
4	YA	653	A
4	YA	668	G
4	YA	669	G
4	YA	686	G
4	YA	717	G

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Mol	Chain	Res	Type
4	YA	730	C
4	YA	752	A
4	YA	753	C
4	YA	764	A
4	YA	775	G
4	YA	776	G
4	YA	782	A
4	YA	784	A
4	YA	785	G
4	YA	792	G
4	YA	805	G
4	YA	812	C
4	YA	827	U
4	YA	828	U
4	YA	857	C
4	YA	859	G
4	YA	877	U
4	YA	880	G
4	YA	886	C
4	YA	887	A
4	YA	888	C
4	YA	889	C
4	YA	890	A
4	YA	893	C
4	YA	895	U
4	YA	896	A
4	YA	897	C
4	YA	900	A
4	YA	901	A
4	YA	907	U
4	YA	910	A
4	YA	917	A
4	YA	932	G
4	YA	941	A
4	YA	945	A
4	YA	946	G
4	YA	953	A
4	YA	959	A
4	YA	961	C
4	YA	974	G
4	YA	975(A)	C
4	YA	983	A

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Mol	Chain	Res	Type
4	YA	996	A
4	YA	1012	U
4	YA	1013	C
4	YA	1017	G
4	YA	1026	U
4	YA	1033	U
4	YA	1041	C
4	YA	1045	A
4	YA	1046	A
4	YA	1047	G
4	YA	1048	A
4	YA	1052	C
4	YA	1053	C
4	YA	1054	A
4	YA	1058	G
4	YA	1060	U
4	YA	1063	G
4	YA	1064	C
4	YA	1065	U
4	YA	1066	U
4	YA	1067	A
4	YA	1068	G
4	YA	1069	A
4	YA	1070	A
4	YA	1071	G
4	YA	1072	C
4	YA	1073	A
4	YA	1074	G
4	YA	1076	C
4	YA	1077	A
4	YA	1078	U
4	YA	1079	C
4	YA	1082	U
4	YA	1083	U
4	YA	1084	A
4	YA	1085	A
4	YA	1086	A
4	YA	1088	A
4	YA	1090	U
4	YA	1091	G
4	YA	1092	C
4	YA	1093	G

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Mol	Chain	Res	Type
4	YA	1094	U
4	YA	1096	A
4	YA	1098	A
4	YA	1109	C
4	YA	1110	G
4	YA	1112	G
4	YA	1116	C
4	YA	1117	G
4	YA	1128	A
4	YA	1129	A
4	YA	1130	U
4	YA	1135	C
4	YA	1136	G
4	YA	1171	G
4	YA	1188	U
4	YA	1211	U
4	YA	1212	G
4	YA	1220	A
4	YA	1229	G
4	YA	1236	G
4	YA	1253	A
4	YA	1256	G
4	YA	1271	G
4	YA	1272	A
4	YA	1273	U
4	YA	1300	U
4	YA	1301	A
4	YA	1306	C
4	YA	1314	C
4	YA	1352	U
4	YA	1359	A
4	YA	1360	A
4	YA	1365	A
4	YA	1368	G
4	YA	1380	G
4	YA	1384	A
4	YA	1385	G
4	YA	1386	C
4	YA	1416	G
4	YA	1417	C
4	YA	1421	G
4	YA	1428	C

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Mol	Chain	Res	Type
4	YA	1445(A)	A
4	YA	1450(A)	G
4	YA	1451	C
4	YA	1455	G
4	YA	1459	G
4	YA	1467	C
4	YA	1471	A
4	YA	1482	G
4	YA	1493	C
4	YA	1494	A
4	YA	1497	U
4	YA	1508	A
4	YA	1509(A)	C
4	YA	1509(B)	A
4	YA	1531	C
4	YA	1542	A
4	YA	1543	C
4	YA	1547	C
4	YA	1558	A
4	YA	1566	A
4	YA	1569	A
4	YA	1578	U
4	YA	1580	A
4	YA	1584	C
4	YA	1586	A
4	YA	1608	A
4	YA	1609	A
4	YA	1610	A
4	YA	1640	C
4	YA	1647	G
4	YA	1648	C
4	YA	1674	G
4	YA	1696	G
4	YA	1700	A
4	YA	1701	A
4	YA	1721	G
4	YA	1722	A
4	YA	1750	G
4	YA	1756	G
4	YA	1762	A
4	YA	1763	G
4	YA	1764	G

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Mol	Chain	Res	Type
4	YA	1773	A
4	YA	1780	A
4	YA	1782	C
4	YA	1786	A
4	YA	1791	A
4	YA	1800	C
4	YA	1801	G
4	YA	1816	G
4	YA	1835	G
4	YA	1839	G
4	YA	1847	A
4	YA	1848	A
4	YA	1877	A
4	YA	1878	G
4	YA	1889	A
4	YA	1900	A
4	YA	1906	G
4	YA	1913	A
4	YA	1914	C
4	YA	1915	5MU
4	YA	1929	G
4	YA	1930	G
4	YA	1936	A
4	YA	1937	A
4	YA	1938	A
4	YA	1955	U
4	YA	1963	U
4	YA	1967	C
4	YA	1970	A
4	YA	1971	A
4	YA	1972	A
4	YA	1992	G
4	YA	1993	U
4	YA	1997	G
4	YA	2020	A
4	YA	2023	G
4	YA	2031	A
4	YA	2032	G
4	YA	2033	A
4	YA	2043	C
4	YA	2055	C
4	YA	2056	G

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Mol	Chain	Res	Type
4	YA	2060	A
4	YA	2061	G
4	YA	2062	A
4	YA	2069	G
4	YA	2096	U
4	YA	2098	U
4	YA	2099	U
4	YA	2103	C
4	YA	2104	G
4	YA	2105	C
4	YA	2107	C
4	YA	2108	C
4	YA	2109	U
4	YA	2110	G
4	YA	2111	C
4	YA	2112	G
4	YA	2115	G
4	YA	2116	G
4	YA	2117	A
4	YA	2118	U
4	YA	2119	A
4	YA	2121	G
4	YA	2123	G
4	YA	2126	A
4	YA	2127	G
4	YA	2128	C
4	YA	2129	C
4	YA	2130	U
4	YA	2131	G
4	YA	2132	U
4	YA	2133	G
4	YA	2134	A
4	YA	2135	A
4	YA	2136	C
4	YA	2141	G
4	YA	2145	C
4	YA	2146	C
4	YA	2147	G
4	YA	2148	G
4	YA	2151	G
4	YA	2154	G
4	YA	2157	G

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Mol	Chain	Res	Type
4	YA	2158	A
4	YA	2159	G
4	YA	2161	C
4	YA	2163	C
4	YA	2164	C
4	YA	2165	G
4	YA	2167	U
4	YA	2172	U
4	YA	2173	A
4	YA	2174	C
4	YA	2177	C
4	YA	2180	U
4	YA	2184	G
4	YA	2186	G
4	YA	2189	U
4	YA	2192	G
4	YA	2198	A
4	YA	2206	G
4	YA	2207	G
4	YA	2208	A
4	YA	2218	U
4	YA	2225	A
4	YA	2238	G
4	YA	2239	G
4	YA	2268	A
4	YA	2269	A
4	YA	2275	C
4	YA	2279	G
4	YA	2283	C
4	YA	2287	A
4	YA	2289	G
4	YA	2292	C
4	YA	2305	A
4	YA	2308	G
4	YA	2309	A
4	YA	2312	U
4	YA	2319	G
4	YA	2320	A
4	YA	2321	G
4	YA	2322	A
4	YA	2325	G
4	YA	2334	G

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Mol	Chain	Res	Type
4	YA	2335	A
4	YA	2336	A
4	YA	2343	C
4	YA	2347	C
4	YA	2350	C
4	YA	2354	G
4	YA	2383	G
4	YA	2385	C
4	YA	2406	U
4	YA	2410	G
4	YA	2422	A
4	YA	2424	C
4	YA	2425	A
4	YA	2429	G
4	YA	2430	A
4	YA	2435	A
4	YA	2439	A
4	YA	2441	C
4	YA	2448	A
4	YA	2468	G
4	YA	2474	C
4	YA	2476	A
4	YA	2478	A
4	YA	2498	C
4	YA	2502	G
4	YA	2505	G
4	YA	2506	U
4	YA	2518	A
4	YA	2529	G
4	YA	2554	U
4	YA	2566	A
4	YA	2567	G
4	YA	2573	C
4	YA	2582	G
4	YA	2585	U
4	YA	2586	C
4	YA	2602	A
4	YA	2611	U
4	YA	2612	C
4	YA	2615	U
4	YA	2629	A
4	YA	2630	G

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Mol	Chain	Res	Type
4	YA	2654	A
4	YA	2663	G
4	YA	2689	U
4	YA	2690	C
4	YA	2691	C
4	YA	2702	U
4	YA	2703	C
4	YA	2712(B)	A
4	YA	2713	A
4	YA	2714	G
4	YA	2726	U
4	YA	2733	A
4	YA	2744	G
4	YA	2757	A
4	YA	2758	A
4	YA	2764	A
4	YA	2765	A
4	YA	2766	G
4	YA	2769	C
4	YA	2778	A
4	YA	2818	G
4	YA	2820	A
4	YA	2821	A
4	YA	2833	G
4	YA	2835	A
4	YA	2872	G
4	YA	2880	C
4	YA	2894	G
4	YA	2897	U
5	YB	2	C
5	YB	8	U
5	YB	9	G
5	YB	13	A
5	YB	30	C
5	YB	33	G
5	YB	51	G
5	YB	56	G
5	YB	73	A
5	YB	84	C
5	YB	106	G
5	YB	108	U
5	YB	109	C

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Mol	Chain	Res	Type
5	YB	110	G
35	XA	5	U
35	XA	9	G
35	XA	22	G
35	XA	32	A
35	XA	39	G
35	XA	47	C
35	XA	48	C
35	XA	50	A
35	XA	51	A
35	XA	61	G
35	XA	66	G
35	XA	78	G
35	XA	89	C
35	XA	116	A
35	XA	121	C
35	XA	131	C
35	XA	151	A
35	XA	163	C
35	XA	173	U
35	XA	174	C
35	XA	182	U
35	XA	189(G)	U
35	XA	195	A
35	XA	197	A
35	XA	202	U
35	XA	203	U
35	XA	204	U
35	XA	216	G
35	XA	247	G
35	XA	251	G
35	XA	258	G
35	XA	266	G
35	XA	267	C
35	XA	289	G
35	XA	298	A
35	XA	321	A
35	XA	328	C
35	XA	332	G
35	XA	351	G
35	XA	352	C
35	XA	353	A

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Mol	Chain	Res	Type
35	XA	354	G
35	XA	367	U
35	XA	372	C
35	XA	381	C
35	XA	384	G
35	XA	397	A
35	XA	398	C
35	XA	406	G
35	XA	412	A
35	XA	413	G
35	XA	424	G
35	XA	429	U
35	XA	439	A
35	XA	442	C
35	XA	452	A
35	XA	458	C
35	XA	461	A
35	XA	470	C
35	XA	476	G
35	XA	482	A
35	XA	484	G
35	XA	485	G
35	XA	496	A
35	XA	498	U
35	XA	505	G
35	XA	509	A
35	XA	510	A
35	XA	511	C
35	XA	518	C
35	XA	528	C
35	XA	532	A
35	XA	533	A
35	XA	547	A
35	XA	559	A
35	XA	561	U
35	XA	572	A
35	XA	573	A
35	XA	576	G
35	XA	577	G
35	XA	596	C
35	XA	630	G
35	XA	631	G

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Mol	Chain	Res	Type
35	XA	632	A
35	XA	653	A
35	XA	665	A
35	XA	687	A
35	XA	688	G
35	XA	695	A
35	XA	707	C
35	XA	723	U
35	XA	724	G
35	XA	731	G
35	XA	749	C
35	XA	753	A
35	XA	755	G
35	XA	774	G
35	XA	777	A
35	XA	793	U
35	XA	794	A
35	XA	815	A
35	XA	817	C
35	XA	821	G
35	XA	828	A
35	XA	829	G
35	XA	836	G
35	XA	840	C
35	XA	841	U
35	XA	848	C
35	XA	851	G
35	XA	859	A
35	XA	902	G
35	XA	914	A
35	XA	916	G
35	XA	926	G
35	XA	927	G
35	XA	931	C
35	XA	934	C
35	XA	960	U
35	XA	961	U
35	XA	968	A
35	XA	969	A
35	XA	971	G
35	XA	974	A
35	XA	975	A

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Mol	Chain	Res	Type
35	XA	976	G
35	XA	977	A
35	XA	989	C
35	XA	992	U
35	XA	993	G
35	XA	994	A
35	XA	1004	A
35	XA	1005	A
35	XA	1006	C
35	XA	1009	G
35	XA	1016	A
35	XA	1020	U
35	XA	1022	G
35	XA	1023	G
35	XA	1025	U
35	XA	1026	G
35	XA	1027	C
35	XA	1028	C
35	XA	1029	C
35	XA	1030(B)	G
35	XA	1030(C)	C
35	XA	1033	G
35	XA	1041	A
35	XA	1044	A
35	XA	1047	G
35	XA	1054	C
35	XA	1055	A
35	XA	1065	U
35	XA	1066	C
35	XA	1068	G
35	XA	1081	G
35	XA	1094	G
35	XA	1095	U
35	XA	1101	A
35	XA	1117	G
35	XA	1125	U
35	XA	1129	C
35	XA	1130	A
35	XA	1132	C
35	XA	1134	G
35	XA	1136	U
35	XA	1137	C

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Mol	Chain	Res	Type
35	XA	1138	G
35	XA	1139	G
35	XA	1147	C
35	XA	1152	A
35	XA	1157	A
35	XA	1159	U
35	XA	1162	C
35	XA	1183	A
35	XA	1184	G
35	XA	1196	U
35	XA	1197	G
35	XA	1211	U
35	XA	1213	A
35	XA	1224	G
35	XA	1227	A
35	XA	1228	C
35	XA	1236	A
35	XA	1238	A
35	XA	1250	A
35	XA	1256	A
35	XA	1257	U
35	XA	1258	G
35	XA	1260	C
35	XA	1270	C
35	XA	1272	G
35	XA	1278	U
35	XA	1279	A
35	XA	1280	A
35	XA	1281	U
35	XA	1282	C
35	XA	1286	A
35	XA	1287	A
35	XA	1300	G
35	XA	1305	G
35	XA	1317	C
35	XA	1320	C
35	XA	1340	A
35	XA	1346	A
35	XA	1347	G
35	XA	1353	G
35	XA	1363(A)	C
35	XA	1370	G

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Mol	Chain	Res	Type
35	XA	1380	U
35	XA	1397	C
35	XA	1402	4OC
35	XA	1419	G
35	XA	1442(A)	G
35	XA	1442(B)	G
35	XA	1446	U
35	XA	1447	A
35	XA	1491	G
35	XA	1492	A
35	XA	1497	G
35	XA	1503	A
35	XA	1504	G
35	XA	1506	U
35	XA	1517	G
35	XA	1520	G
35	XA	1529	G
35	XA	1530	G
35	QA	7	G
35	QA	9	G
35	QA	32	A
35	QA	39	G
35	QA	47	C
35	QA	48	C
35	QA	51	A
35	QA	61	G
35	QA	78	G
35	QA	79	G
35	QA	96	U
35	QA	101	A
35	QA	116	A
35	QA	121	C
35	QA	131	C
35	QA	144	G
35	QA	156	G
35	QA	163	C
35	QA	173	U
35	QA	174	C
35	QA	182	U
35	QA	189(G)	U
35	QA	195	A
35	QA	197	A

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Mol	Chain	Res	Type
35	QA	201	C
35	QA	202	U
35	QA	203	U
35	QA	204	U
35	QA	216	G
35	QA	220	G
35	QA	247	G
35	QA	251	G
35	QA	258	G
35	QA	266	G
35	QA	267	C
35	QA	289	G
35	QA	321	A
35	QA	328	C
35	QA	332	G
35	QA	348	G
35	QA	352	C
35	QA	353	A
35	QA	354	G
35	QA	367	U
35	QA	372	C
35	QA	373	A
35	QA	384	G
35	QA	397	A
35	QA	398	C
35	QA	406	G
35	QA	412	A
35	QA	413	G
35	QA	423	G
35	QA	424	G
35	QA	429	U
35	QA	439	A
35	QA	442	C
35	QA	452	A
35	QA	458	C
35	QA	461	A
35	QA	470	C
35	QA	475	G
35	QA	477	A
35	QA	484	G
35	QA	485	G
35	QA	496	A

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Mol	Chain	Res	Type
35	QA	498	U
35	QA	505	G
35	QA	509	A
35	QA	510	A
35	QA	511	C
35	QA	518	C
35	QA	521	G
35	QA	524	G
35	QA	531	U
35	QA	532	A
35	QA	547	A
35	QA	550	G
35	QA	559	A
35	QA	561	U
35	QA	564	C
35	QA	572	A
35	QA	573	A
35	QA	576	G
35	QA	577	G
35	QA	596	C
35	QA	607	A
35	QA	618	C
35	QA	619	U
35	QA	630	G
35	QA	632	A
35	QA	653	A
35	QA	661	G
35	QA	665	A
35	QA	687	A
35	QA	688	G
35	QA	723	U
35	QA	731	G
35	QA	755	G
35	QA	774	G
35	QA	777	A
35	QA	793	U
35	QA	794	A
35	QA	816	A
35	QA	817	C
35	QA	821	G
35	QA	828	A
35	QA	829	G

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Mol	Chain	Res	Type
35	QA	839	U
35	QA	840	C
35	QA	841	U
35	QA	851	G
35	QA	902	G
35	QA	914	A
35	QA	926	G
35	QA	927	G
35	QA	934	C
35	QA	935	A
35	QA	942	G
35	QA	960	U
35	QA	961	U
35	QA	968	A
35	QA	969	A
35	QA	971	G
35	QA	974	A
35	QA	975	A
35	QA	976	G
35	QA	977	A
35	QA	992	U
35	QA	993	G
35	QA	998	G
35	QA	999	C
35	QA	1001(B)	G
35	QA	1006	C
35	QA	1007	C
35	QA	1008	C
35	QA	1009	G
35	QA	1022	G
35	QA	1023	G
35	QA	1024	G
35	QA	1025	U
35	QA	1026	G
35	QA	1027	C
35	QA	1028	C
35	QA	1029	C
35	QA	1030(B)	G
35	QA	1030(C)	C
35	QA	1030(E)	A
35	QA	1032	G
35	QA	1033	G

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Mol	Chain	Res	Type
35	QA	1034	G
35	QA	1037	C
35	QA	1039	C
35	QA	1042	G
35	QA	1044	A
35	QA	1065	U
35	QA	1066	C
35	QA	1068	G
35	QA	1070	U
35	QA	1081	G
35	QA	1094	G
35	QA	1095	U
35	QA	1101	A
35	QA	1126	U
35	QA	1130	A
35	QA	1132	C
35	QA	1134	G
35	QA	1136	U
35	QA	1137	C
35	QA	1138	G
35	QA	1139	G
35	QA	1140	C
35	QA	1146	A
35	QA	1152	A
35	QA	1159	U
35	QA	1162	C
35	QA	1168	A
35	QA	1183	A
35	QA	1184	G
35	QA	1196	U
35	QA	1197	G
35	QA	1202	G
35	QA	1208	C
35	QA	1212	U
35	QA	1213	A
35	QA	1224	G
35	QA	1227	A
35	QA	1238	A
35	QA	1245	A
35	QA	1256	A
35	QA	1257	U
35	QA	1258	G

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Mol	Chain	Res	Type
35	QA	1270	C
35	QA	1278	U
35	QA	1280	A
35	QA	1286	A
35	QA	1287	A
35	QA	1293	G
35	QA	1299	A
35	QA	1300	G
35	QA	1302	U
35	QA	1320	C
35	QA	1338	G
35	QA	1340	A
35	QA	1346	A
35	QA	1347	G
35	QA	1353	G
35	QA	1363(A)	C
35	QA	1370	G
35	QA	1397	C
35	QA	1419	G
35	QA	1442(A)	G
35	QA	1442(B)	G
35	QA	1447	A
35	QA	1456	G
35	QA	1491	G
35	QA	1492	A
35	QA	1493	A
35	QA	1494	G
35	QA	1499	A
35	QA	1503	A
35	QA	1504	G
35	QA	1505	G
35	QA	1506	U
35	QA	1517	G
35	QA	1519	MA6
35	QA	1520	G
35	QA	1529	G
35	QA	1530	G
35	QA	1531	A
4	RA	8	A
4	RA	10	G
4	RA	11	G
4	RA	12	U

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Mol	Chain	Res	Type
4	RA	15	G
4	RA	34	C
4	RA	45	C
4	RA	71	A
4	RA	74	A
4	RA	75	G
4	RA	84	A
4	RA	102	G
4	RA	118	A
4	RA	120	U
4	RA	131	G
4	RA	141	A
4	RA	157	U
4	RA	182	A
4	RA	196	A
4	RA	199	A
4	RA	205	G
4	RA	214	G
4	RA	215	G
4	RA	216	A
4	RA	221	A
4	RA	222	A
4	RA	229	A
4	RA	230	U
4	RA	248	G
4	RA	272(K)	U
4	RA	272(L)	U
4	RA	272(M)	G
4	RA	272(N)	U
4	RA	272(O)	C
4	RA	273(B)	U
4	RA	273(C)	G
4	RA	277	C
4	RA	278	A
4	RA	311	A
4	RA	317	G
4	RA	324	A
4	RA	329	G
4	RA	330	A
4	RA	352	G
4	RA	362	U
4	RA	363(A)	G

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Mol	Chain	Res	Type
4	RA	372	G
4	RA	386	G
4	RA	396	G
4	RA	405	U
4	RA	411	G
4	RA	412	A
4	RA	428	A
4	RA	444	C
4	RA	454	A
4	RA	455	C
4	RA	456	C
4	RA	457	A
4	RA	470	A
4	RA	481	G
4	RA	505	A
4	RA	508	G
4	RA	509	C
4	RA	530	G
4	RA	531	C
4	RA	532	A
4	RA	533	G
4	RA	545	G
4	RA	563	G
4	RA	568	U
4	RA	573	G
4	RA	575	A
4	RA	603	A
4	RA	604	G
4	RA	607	U
4	RA	614(C)	G
4	RA	615	G
4	RA	627	A
4	RA	637	A
4	RA	645	C
4	RA	646	A
4	RA	652(C)	A
4	RA	652(D)	G
4	RA	652(V)	G
4	RA	653	A
4	RA	668	G
4	RA	669	G
4	RA	686	G

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Mol	Chain	Res	Type
4	RA	730	C
4	RA	752	A
4	RA	753	C
4	RA	775	G
4	RA	776	G
4	RA	782	A
4	RA	784	A
4	RA	785	G
4	RA	792	G
4	RA	805	G
4	RA	812	C
4	RA	827	U
4	RA	828	U
4	RA	857	C
4	RA	859	G
4	RA	877	U
4	RA	880	G
4	RA	886	C
4	RA	887	A
4	RA	888	C
4	RA	889	C
4	RA	890	A
4	RA	893	C
4	RA	895	U
4	RA	896	A
4	RA	897	C
4	RA	900	A
4	RA	901	A
4	RA	910	A
4	RA	915	C
4	RA	917	A
4	RA	931	G
4	RA	932	G
4	RA	936	C
4	RA	941	A
4	RA	945	A
4	RA	946	G
4	RA	953	A
4	RA	959	A
4	RA	961	C
4	RA	974	G
4	RA	975(A)	C

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Mol	Chain	Res	Type
4	RA	983	A
4	RA	996	A
4	RA	1012	U
4	RA	1013	C
4	RA	1015	G
4	RA	1017	G
4	RA	1026	U
4	RA	1033	U
4	RA	1045	A
4	RA	1046	A
4	RA	1047	G
4	RA	1048	A
4	RA	1052	C
4	RA	1053	C
4	RA	1054	A
4	RA	1058	G
4	RA	1060	U
4	RA	1063	G
4	RA	1064	C
4	RA	1065	U
4	RA	1066	U
4	RA	1067	A
4	RA	1068	G
4	RA	1069	A
4	RA	1070	A
4	RA	1071	G
4	RA	1072	C
4	RA	1073	A
4	RA	1074	G
4	RA	1076	C
4	RA	1077	A
4	RA	1078	U
4	RA	1079	C
4	RA	1080	C
4	RA	1082	U
4	RA	1083	U
4	RA	1084	A
4	RA	1085	A
4	RA	1086	A
4	RA	1088	A
4	RA	1090	U
4	RA	1091	G

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Mol	Chain	Res	Type
4	RA	1092	C
4	RA	1093	G
4	RA	1094	U
4	RA	1096	A
4	RA	1098	A
4	RA	1109	C
4	RA	1110	G
4	RA	1112	G
4	RA	1116	C
4	RA	1117	G
4	RA	1129	A
4	RA	1130	U
4	RA	1135	C
4	RA	1136	G
4	RA	1171	G
4	RA	1211	U
4	RA	1212	G
4	RA	1220	A
4	RA	1229	G
4	RA	1253	A
4	RA	1256	G
4	RA	1271	G
4	RA	1272	A
4	RA	1273	U
4	RA	1300	U
4	RA	1301	A
4	RA	1314	C
4	RA	1342	A
4	RA	1352	U
4	RA	1359	A
4	RA	1360	A
4	RA	1365	A
4	RA	1368	G
4	RA	1380	G
4	RA	1384	A
4	RA	1385	G
4	RA	1386	C
4	RA	1416	G
4	RA	1417	C
4	RA	1421	G
4	RA	1428	C
4	RA	1445(A)	A

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Mol	Chain	Res	Type
4	RA	1450(A)	G
4	RA	1451	C
4	RA	1455	G
4	RA	1459	G
4	RA	1467	C
4	RA	1471	A
4	RA	1482	G
4	RA	1493	C
4	RA	1494	A
4	RA	1497	U
4	RA	1508	A
4	RA	1509(A)	C
4	RA	1509(B)	A
4	RA	1531	C
4	RA	1542	A
4	RA	1543	C
4	RA	1545	A
4	RA	1547	C
4	RA	1558	A
4	RA	1566	A
4	RA	1569	A
4	RA	1578	U
4	RA	1580	A
4	RA	1583	A
4	RA	1584	C
4	RA	1586	A
4	RA	1608	A
4	RA	1609	A
4	RA	1610	A
4	RA	1640	C
4	RA	1647	G
4	RA	1648	C
4	RA	1674	G
4	RA	1696	G
4	RA	1700	A
4	RA	1701	A
4	RA	1721	G
4	RA	1722	A
4	RA	1740	G
4	RA	1756	G
4	RA	1762	A
4	RA	1763	G

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Mol	Chain	Res	Type
4	RA	1764	G
4	RA	1773	A
4	RA	1780	A
4	RA	1782	C
4	RA	1786	A
4	RA	1791	A
4	RA	1800	C
4	RA	1801	G
4	RA	1812	A
4	RA	1816	G
4	RA	1835	G
4	RA	1839	G
4	RA	1847	A
4	RA	1848	A
4	RA	1877	A
4	RA	1878	G
4	RA	1900	A
4	RA	1906	G
4	RA	1914	C
4	RA	1916	A
4	RA	1929	G
4	RA	1930	G
4	RA	1936	A
4	RA	1937	A
4	RA	1938	A
4	RA	1955	U
4	RA	1963	U
4	RA	1967	C
4	RA	1970	A
4	RA	1971	A
4	RA	1972	A
4	RA	1993	U
4	RA	1997	G
4	RA	2020	A
4	RA	2023	G
4	RA	2031	A
4	RA	2032	G
4	RA	2033	A
4	RA	2043	C
4	RA	2055	C
4	RA	2056	G
4	RA	2060	A

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Mol	Chain	Res	Type
4	RA	2061	G
4	RA	2062	A
4	RA	2069	G
4	RA	2096	U
4	RA	2098	U
4	RA	2099	U
4	RA	2103	C
4	RA	2104	G
4	RA	2105	C
4	RA	2107	C
4	RA	2108	C
4	RA	2109	U
4	RA	2110	G
4	RA	2111	C
4	RA	2112	G
4	RA	2115	G
4	RA	2116	G
4	RA	2117	A
4	RA	2118	U
4	RA	2119	A
4	RA	2121	G
4	RA	2123	G
4	RA	2126	A
4	RA	2127	G
4	RA	2128	C
4	RA	2129	C
4	RA	2130	U
4	RA	2131	G
4	RA	2132	U
4	RA	2133	G
4	RA	2134	A
4	RA	2135	A
4	RA	2136	C
4	RA	2141	G
4	RA	2145	C
4	RA	2146	C
4	RA	2147	G
4	RA	2148	G
4	RA	2149	G
4	RA	2151	G
4	RA	2154	G
4	RA	2157	G

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Mol	Chain	Res	Type
4	RA	2158	A
4	RA	2159	G
4	RA	2161	C
4	RA	2163	C
4	RA	2164	C
4	RA	2165	G
4	RA	2167	U
4	RA	2172	U
4	RA	2173	A
4	RA	2174	C
4	RA	2177	C
4	RA	2180	U
4	RA	2184	G
4	RA	2186	G
4	RA	2189	U
4	RA	2192	G
4	RA	2198	A
4	RA	2206	G
4	RA	2207	G
4	RA	2208	A
4	RA	2218	U
4	RA	2225	A
4	RA	2238	G
4	RA	2239	G
4	RA	2269	A
4	RA	2275	C
4	RA	2278	A
4	RA	2279	G
4	RA	2283	C
4	RA	2287	A
4	RA	2289	G
4	RA	2292	C
4	RA	2305	A
4	RA	2308	G
4	RA	2312	U
4	RA	2319	G
4	RA	2320	A
4	RA	2321	G
4	RA	2322	A
4	RA	2325	G
4	RA	2334	G
4	RA	2335	A

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Mol	Chain	Res	Type
4	RA	2336	A
4	RA	2343	C
4	RA	2347	C
4	RA	2350	C
4	RA	2354	G
4	RA	2379	G
4	RA	2383	G
4	RA	2385	C
4	RA	2406	U
4	RA	2410	G
4	RA	2422	A
4	RA	2424	C
4	RA	2425	A
4	RA	2429	G
4	RA	2430	A
4	RA	2435	A
4	RA	2439	A
4	RA	2441	C
4	RA	2445	G
4	RA	2448	A
4	RA	2468	G
4	RA	2474	C
4	RA	2476	A
4	RA	2478	A
4	RA	2502	G
4	RA	2505	G
4	RA	2506	U
4	RA	2507	C
4	RA	2518	A
4	RA	2529	G
4	RA	2554	U
4	RA	2566	A
4	RA	2567	G
4	RA	2573	C
4	RA	2585	U
4	RA	2586	C
4	RA	2602	A
4	RA	2603	G
4	RA	2611	U
4	RA	2612	C
4	RA	2615	U
4	RA	2629	A

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Mol	Chain	Res	Type
4	RA	2630	G
4	RA	2654	A
4	RA	2663	G
4	RA	2689	U
4	RA	2690	C
4	RA	2703	C
4	RA	2712(B)	A
4	RA	2713	A
4	RA	2714	G
4	RA	2726	U
4	RA	2733	A
4	RA	2757	A
4	RA	2758	A
4	RA	2759	G
4	RA	2764	A
4	RA	2765	A
4	RA	2769	C
4	RA	2778	A
4	RA	2818	G
4	RA	2820	A
4	RA	2821	A
4	RA	2833	G
4	RA	2835	A
4	RA	2849	U
4	RA	2872	G
4	RA	2880	C
4	RA	2894	G
4	RA	2897	U
5	RB	13	A
5	RB	24	G
5	RB	30	C
5	RB	45	A
5	RB	53	A
5	RB	56	G
5	RB	73	A
5	RB	84	C
5	RB	110	G

All (88) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	QV	53	G

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Mol	Chain	Res	Type
1	XV	53	G
4	YA	9	U
4	YA	196	A
4	YA	272(M)	G
4	YA	277	C
4	YA	752	A
4	YA	827	U
4	YA	856	C
4	YA	900	A
4	YA	1047	G
4	YA	1053	C
4	YA	1057	A
4	YA	1065	U
4	YA	1067	A
4	YA	1073	A
4	YA	1076	C
4	YA	1210	A
4	YA	1379	A
4	YA	1420	U
4	YA	1530	C
4	YA	1992	G
4	YA	2126	A
4	YA	2171	A
4	YA	2172	U
4	YA	2321	G
4	YA	2689	U
4	YA	2756	U
35	XA	60	A
35	XA	65	U
35	XA	115	G
35	XA	266	G
35	XA	509	A
35	XA	560	U
35	XA	687	A
35	XA	748	C
35	XA	840	C
35	XA	913	A
35	XA	991	U
35	XA	992	U
35	XA	1065	U
35	XA	1067	A
35	XA	1128	C

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Mol	Chain	Res	Type
35	XA	1183	A
35	XA	1256	A
35	XA	1442(A)	G
35	QA	115	G
35	QA	266	G
35	QA	509	A
35	QA	560	U
35	QA	687	A
35	QA	839	U
35	QA	913	A
35	QA	991	U
35	QA	1065	U
35	QA	1067	A
35	QA	1201	A
35	QA	1207	2MG
35	QA	1285	A
35	QA	1442(A)	G
4	RA	9	U
4	RA	195	A
4	RA	272(M)	G
4	RA	277	C
4	RA	752	A
4	RA	827	U
4	RA	856	C
4	RA	900	A
4	RA	1047	G
4	RA	1053	C
4	RA	1057	A
4	RA	1065	U
4	RA	1067	A
4	RA	1073	A
4	RA	1076	C
4	RA	1210	A
4	RA	1379	A
4	RA	1420	U
4	RA	1530	C
4	RA	1992	G
4	RA	2126	A
4	RA	2171	A
4	RA	2172	U
4	RA	2321	G
4	RA	2406	U

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Mol	Chain	Res	Type
4	RA	2602	A
4	RA	2689	U
4	RA	2756	U

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

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	$\#\|Z\| > 2$
4	5MC	YA	1962	4,56	19,22,23	1.64	3 (15%)	26,32,35	1.13	2 (7%)
4	2MA	YA	2503	4,56	22,25,26	1.50	4 (18%)	32,37,40	2.33	7 (21%)
4	OMG	RA	2251	4,56,1	23,26,27	1.19	3 (13%)	32,38,41	1.99	6 (18%)
4	PSU	YA	2605	4	18,21,22	1.36	2 (11%)	21,30,33	2.00	4 (19%)
35	5MC	QA	1404	35	19,22,23	1.66	2 (10%)	26,32,35	1.07	2 (7%)
4	5MU	RA	1939	4	19,22,23	1.38	4 (21%)	27,32,35	2.13	6 (22%)
35	5MC	QA	967	35	19,22,23	1.66	3 (15%)	26,32,35	1.10	2 (7%)
4	2MU	RA	2552	4,56	19,22,24	1.25	3 (15%)	25,31,36	1.89	5 (20%)
46	0TD	QL	92	46	8,9,10	2.37	1 (12%)	6,11,13	2.36	3 (50%)
4	PSU	RA	1911	4	18,21,22	1.36	2 (11%)	21,30,33	2.04	4 (19%)
35	5MC	QA	1407	35	19,22,23	1.64	3 (15%)	26,32,35	1.16	3 (11%)
4	OMG	YA	2251	4,56,1	23,26,27	1.23	3 (13%)	32,38,41	2.00	6 (18%)
35	2MG	QA	1207	35,56	23,26,27	1.26	4 (17%)	33,38,41	2.29	7 (21%)
4	PSU	YA	1911	4	18,21,22	1.39	2 (11%)	21,30,33	2.03	4 (19%)
35	5MC	QA	1400	35	19,22,23	1.69	3 (15%)	26,32,35	1.12	2 (7%)
4	5MC	RA	1962	4,56	19,22,23	1.65	3 (15%)	26,32,35	1.10	2 (7%)
35	MA6	XA	1518	35	23,26,27	1.52	4 (17%)	33,38,41	2.31	13 (39%)
35	7MG	QA	527	35,56	23,26,27	1.30	3 (13%)	27,39,42	2.66	7 (25%)
35	UR3	QA	1498	35	19,22,23	1.00	1 (5%)	26,32,35	1.74	2 (7%)
4	PSU	RA	2605	4	18,21,22	1.35	2 (11%)	21,30,33	2.03	4 (19%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
35	MA6	QA	1518	35	23,26,27	1.57	5 (21%)	33,38,41	2.25	13 (39%)
35	7MG	XA	527	35	23,26,27	1.34	3 (13%)	27,39,42	2.62	7 (25%)
4	PSU	RA	1917	4	18,21,22	1.39	2 (11%)	21,30,33	1.97	3 (14%)
35	PSU	XA	516	35	18,21,22	1.36	2 (11%)	21,30,33	2.02	5 (23%)
35	MA6	QA	1519	35	23,26,27	1.55	5 (21%)	33,38,41	2.30	13 (39%)
4	5MU	YA	1939	4,56	19,22,23	1.41	6 (31%)	27,32,35	2.20	6 (22%)
46	0TD	XL	92	46	8,9,10	2.52	2 (25%)	6,11,13	2.14	3 (50%)
35	5MC	XA	1407	35	19,22,23	1.58	3 (15%)	26,32,35	1.14	3 (11%)
35	PSU	QA	516	35,56	18,21,22	1.37	2 (11%)	21,30,33	2.01	4 (19%)
4	5MU	RA	1915	4,56	19,22,23	1.43	5 (26%)	27,32,35	2.20	8 (29%)
4	5MC	RA	1942	4,56	19,22,23	1.64	3 (15%)	26,32,35	1.08	2 (7%)
35	2MG	XA	1207	35	23,26,27	1.24	4 (17%)	33,38,41	2.22	6 (18%)
4	PSU	YA	1917	4	18,21,22	1.37	2 (11%)	21,30,33	2.02	4 (19%)
35	4OC	XA	1402	35	20,23,24	0.76	0	25,32,35	0.97	1 (4%)
35	UR3	XA	1498	35,56	19,22,23	1.02	2 (10%)	26,32,35	1.74	2 (7%)
4	5MC	YA	1942	4	19,22,23	1.55	3 (15%)	26,32,35	1.09	2 (7%)
35	M2G	XA	966	35	24,27,28	1.28	4 (16%)	33,40,43	1.86	6 (18%)
35	M2G	QA	966	35	24,27,28	1.29	4 (16%)	33,40,43	1.84	6 (18%)
4	5MU	YA	1915	4	19,22,23	1.48	5 (26%)	27,32,35	2.11	8 (29%)
35	5MC	XA	1400	35	19,22,23	1.61	3 (15%)	26,32,35	1.16	3 (11%)
4	2MU	YA	2552	4,56	19,22,24	1.25	3 (15%)	25,31,36	1.91	6 (24%)
35	5MC	XA	1404	35	19,22,23	1.66	3 (15%)	26,32,35	1.12	2 (7%)
35	4OC	QA	1402	35	20,23,24	0.77	0	25,32,35	0.96	1 (4%)
4	4OC	RA	1920	4	19,22,24	0.80	0	25,31,35	0.98	1 (4%)
35	5MC	XA	967	35	19,22,23	1.67	3 (15%)	26,32,35	1.12	2 (7%)
4	4OC	YA	1920	4	19,22,24	0.78	0	25,31,35	0.91	1 (4%)
35	MA6	XA	1519	35	23,26,27	1.55	3 (13%)	33,38,41	2.38	13 (39%)
4	2MA	RA	2503	4,56	22,25,26	1.48	4 (18%)	32,37,40	2.31	9 (28%)

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
4	5MC	YA	1962	4,56	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
4	2MA	YA	2503	4,56	-	1/7/25/26	0/3/3/3
4	OMG	RA	2251	4,56,1	-	0/9/27/28	0/3/3/3
4	PSU	YA	2605	4	-	0/7/25/26	0/2/2/2
35	5MC	QA	1404	35	-	0/7/25/26	0/2/2/2
4	5MU	RA	1939	4	-	0/7/25/26	0/2/2/2
35	5MC	QA	967	35	-	0/7/25/26	0/2/2/2
4	2MU	RA	2552	4,56	-	0/9/27/28	0/2/2/2
46	0TD	QL	92	46	-	1/7/12/14	-
4	PSU	RA	1911	4	-	0/7/25/26	0/2/2/2
35	5MC	QA	1407	35	-	0/7/25/26	0/2/2/2
4	OMG	YA	2251	4,56,1	-	0/9/27/28	0/3/3/3
35	2MG	QA	1207	35,56	-	0/9/27/28	0/3/3/3
4	PSU	YA	1911	4	-	0/7/25/26	0/2/2/2
35	5MC	QA	1400	35	-	1/7/25/26	0/2/2/2
4	5MC	RA	1962	4,56	-	0/7/25/26	0/2/2/2
35	MA6	XA	1518	35	-	1/11/29/30	0/3/3/3
35	7MG	QA	527	35,56	-	3/7/37/38	0/3/3/3
35	UR3	QA	1498	35	-	0/7/25/26	0/2/2/2
4	PSU	RA	2605	4	-	0/7/25/26	0/2/2/2
35	MA6	QA	1518	35	-	2/11/29/30	0/3/3/3
35	7MG	XA	527	35	-	2/7/37/38	0/3/3/3
4	PSU	RA	1917	4	-	0/7/25/26	0/2/2/2
35	PSU	XA	516	35	-	0/7/25/26	0/2/2/2
35	MA6	QA	1519	35	-	3/11/29/30	0/3/3/3
4	5MU	YA	1939	4,56	-	0/7/25/26	0/2/2/2
46	0TD	XL	92	46	-	3/7/12/14	-
35	5MC	XA	1407	35	-	0/7/25/26	0/2/2/2
35	PSU	QA	516	35,56	-	0/7/25/26	0/2/2/2
4	5MU	RA	1915	4,56	-	2/7/25/26	0/2/2/2
4	5MC	RA	1942	4,56	-	0/7/25/26	0/2/2/2
35	2MG	XA	1207	35	-	0/9/27/28	0/3/3/3
4	PSU	YA	1917	4	-	0/7/25/26	0/2/2/2
35	4OC	XA	1402	35	-	3/9/29/30	0/2/2/2
35	UR3	XA	1498	35,56	-	0/7/25/26	0/2/2/2
4	5MC	YA	1942	4	-	0/7/25/26	0/2/2/2
35	M2G	XA	966	35	-	0/11/29/30	0/3/3/3
35	M2G	QA	966	35	-	0/11/29/30	0/3/3/3
4	5MU	YA	1915	4	-	4/7/25/26	0/2/2/2
35	5MC	XA	1400	35	-	0/7/25/26	0/2/2/2
4	2MU	YA	2552	4,56	-	0/9/27/28	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
35	5MC	XA	1404	35	-	0/7/25/26	0/2/2/2
35	4OC	QA	1402	35	-	2/9/29/30	0/2/2/2
4	4OC	RA	1920	4	-	1/9/27/30	0/2/2/2
35	5MC	XA	967	35	-	0/7/25/26	0/2/2/2
4	4OC	YA	1920	4	-	2/9/27/30	0/2/2/2
35	MA6	XA	1519	35	-	5/11/29/30	0/3/3/3
4	2MA	RA	2503	4,56	-	0/7/25/26	0/3/3/3

All (136) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
46	XL	92	0TD	CB-CA	-6.39	1.52	1.54
35	QA	1400	5MC	C5-C4	6.20	1.48	1.44
35	QA	1404	5MC	C5-C4	6.09	1.48	1.44
35	XA	967	5MC	C5-C4	6.08	1.48	1.44
46	QL	92	0TD	CB-CA	-6.06	1.52	1.54
35	QA	967	5MC	C5-C4	6.04	1.48	1.44
4	RA	1962	5MC	C5-C4	6.01	1.48	1.44
35	XA	1404	5MC	C5-C4	5.97	1.48	1.44
4	RA	1942	5MC	C5-C4	5.91	1.48	1.44
35	QA	1407	5MC	C5-C4	5.88	1.48	1.44
4	YA	1962	5MC	C5-C4	5.81	1.48	1.44
35	XA	1400	5MC	C5-C4	5.78	1.48	1.44
35	XA	1407	5MC	C5-C4	5.62	1.48	1.44
4	YA	1942	5MC	C5-C4	5.48	1.48	1.44
35	QA	1518	MA6	C5-C4	4.86	1.47	1.39
35	XA	1519	MA6	C5-C4	4.81	1.47	1.39
35	QA	1519	MA6	C5-C4	4.75	1.47	1.39
35	XA	1518	MA6	C5-C4	4.71	1.47	1.39
4	YA	2503	2MA	C5-C4	4.57	1.47	1.39
4	RA	2503	2MA	C5-C4	4.57	1.47	1.39
35	QA	516	PSU	C6-C5	3.49	1.39	1.35
4	YA	1911	PSU	C6-C5	3.47	1.39	1.35
4	RA	1917	PSU	C6-C5	3.47	1.39	1.35
4	RA	2605	PSU	C6-C5	3.43	1.39	1.35
4	YA	1917	PSU	C6-C5	3.37	1.39	1.35
35	XA	516	PSU	C6-C5	3.37	1.39	1.35
4	RA	1911	PSU	C6-C5	3.34	1.39	1.35
35	XA	527	7MG	C5-C4	3.31	1.47	1.37
4	YA	2251	OMG	C5-C4	3.28	1.47	1.38
35	QA	527	7MG	C5-C4	3.26	1.47	1.37
4	YA	2605	PSU	C6-C5	3.26	1.38	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	QA	1207	2MG	C5-C4	3.19	1.47	1.38
35	QA	966	M2G	C5-C4	3.17	1.47	1.38
35	XA	1207	2MG	C5-C4	3.17	1.47	1.38
35	XA	966	M2G	C5-C4	3.17	1.47	1.38
4	RA	2251	OMG	C5-C4	3.16	1.47	1.38
35	QA	1518	MA6	C5-C6	3.14	1.49	1.41
35	XA	1519	MA6	C5-C6	3.13	1.49	1.41
35	QA	1519	MA6	C5-C6	3.03	1.49	1.41
4	YA	1915	5MU	C2-N1	3.03	1.43	1.38
35	XA	527	7MG	C4-N9	-3.01	1.34	1.37
35	XA	1518	MA6	C5-C6	2.96	1.49	1.41
4	RA	1942	5MC	C6-C5	2.91	1.39	1.34
4	YA	1962	5MC	C6-C5	2.91	1.39	1.34
35	XA	1404	5MC	C6-C5	2.88	1.39	1.34
4	YA	1942	5MC	C6-C5	2.88	1.39	1.34
35	QA	966	M2G	C2-N2	2.88	1.40	1.35
4	RA	1915	5MU	C2-N1	2.87	1.43	1.38
4	RA	1939	5MU	C6-C5	2.86	1.39	1.34
35	QA	1404	5MC	C6-C5	2.85	1.39	1.34
35	XA	966	M2G	C2-N2	2.85	1.40	1.35
4	YA	1915	5MU	C6-C5	2.84	1.39	1.34
35	XA	967	5MC	C6-C5	2.82	1.39	1.34
4	YA	1915	5MU	C4-N3	-2.82	1.33	1.38
4	YA	1939	5MU	C6-C5	2.82	1.39	1.34
35	XA	1407	5MC	C6-C5	2.79	1.39	1.34
35	QA	967	5MC	C6-C5	2.76	1.39	1.34
35	QA	1400	5MC	C6-C5	2.75	1.39	1.34
4	YA	1911	PSU	C4-N3	-2.73	1.33	1.38
35	QA	527	7MG	C4-N9	-2.72	1.34	1.37
4	RA	1915	5MU	C6-C5	2.71	1.39	1.34
4	RA	2552	2MU	C4-N3	-2.71	1.34	1.38
4	YA	1917	PSU	C4-N3	-2.70	1.33	1.38
4	RA	2503	2MA	C5-C6	2.67	1.48	1.41
4	RA	1962	5MC	C6-C5	2.67	1.39	1.34
35	QA	1407	5MC	C6-C5	2.67	1.39	1.34
4	RA	2605	PSU	C4-N3	-2.66	1.33	1.38
4	YA	2552	2MU	C4-N3	-2.66	1.34	1.38
4	RA	1915	5MU	C4-N3	-2.66	1.33	1.38
35	XA	1400	5MC	C6-C5	2.64	1.38	1.34
4	YA	1939	5MU	C4-N3	-2.63	1.33	1.38
4	RA	1911	PSU	C4-N3	-2.61	1.34	1.38
4	RA	1917	PSU	C4-N3	-2.61	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	YA	2605	PSU	C4-N3	-2.59	1.34	1.38
4	YA	2503	2MA	C5-C6	2.59	1.48	1.41
4	YA	2251	OMG	C6-N1	-2.58	1.34	1.38
35	XA	516	PSU	C4-N3	-2.56	1.34	1.38
4	RA	1939	5MU	C4-N3	-2.55	1.34	1.38
35	QA	516	PSU	C4-N3	-2.48	1.34	1.38
4	RA	2251	OMG	C6-N1	-2.46	1.34	1.38
35	QA	1518	MA6	C8-N7	2.42	1.36	1.31
35	XA	1207	2MG	C6-N1	-2.41	1.34	1.38
4	YA	2503	2MA	C5-N7	-2.41	1.34	1.39
35	XA	1518	MA6	C8-N7	2.38	1.36	1.31
35	QA	1207	2MG	C6-N1	-2.38	1.34	1.38
4	RA	1939	5MU	C4-C5	2.37	1.48	1.44
4	YA	2552	2MU	C5-C4	2.37	1.48	1.43
4	YA	2251	OMG	C5-N7	-2.34	1.34	1.39
4	RA	2503	2MA	C8-N7	2.34	1.36	1.31
35	QA	966	M2G	C6-N1	-2.34	1.34	1.38
35	QA	527	7MG	C6-N1	-2.33	1.34	1.38
35	QA	1207	2MG	C2-N3	2.33	1.36	1.32
35	XA	1519	MA6	C8-N7	2.32	1.36	1.31
4	YA	1939	5MU	C4-C5	2.31	1.48	1.44
35	XA	1400	5MC	C6-N1	-2.29	1.34	1.38
46	XL	92	0TD	CB-SB	2.29	1.84	1.82
4	YA	1915	5MU	C4-C5	2.28	1.48	1.44
35	QA	1400	5MC	C6-N1	-2.28	1.34	1.38
4	YA	1939	5MU	C6-N1	-2.27	1.34	1.38
35	XA	527	7MG	C6-N1	-2.27	1.34	1.38
4	RA	2552	2MU	C5-C4	2.27	1.48	1.43
35	QA	1519	MA6	C8-N7	2.26	1.36	1.31
4	YA	1962	5MC	C6-N1	-2.26	1.34	1.38
4	RA	2503	2MA	C5-N7	-2.25	1.35	1.39
4	RA	1962	5MC	C6-N1	-2.25	1.34	1.38
4	YA	2503	2MA	C8-N7	2.24	1.36	1.31
4	RA	2251	OMG	C5-N7	-2.23	1.34	1.39
4	RA	1939	5MU	C6-N1	-2.22	1.34	1.38
4	RA	1915	5MU	C4-C5	2.21	1.48	1.44
35	QA	967	5MC	C6-N1	-2.21	1.34	1.38
35	QA	1407	5MC	C6-N1	-2.20	1.34	1.38
35	XA	967	5MC	C6-N1	-2.19	1.34	1.38
35	XA	1207	2MG	C2-N3	2.18	1.36	1.32
35	XA	966	M2G	C6-N1	-2.18	1.34	1.38
35	XA	1498	UR3	C2-N1	2.17	1.41	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	XA	1404	5MC	C6-N1	-2.16	1.34	1.38
4	YA	1939	5MU	C2-N3	-2.16	1.34	1.38
4	YA	1915	5MU	C2-N3	-2.16	1.34	1.38
35	QA	1498	UR3	C2-N1	2.15	1.41	1.38
35	QA	1519	MA6	C5-N7	-2.13	1.35	1.39
4	YA	1942	5MC	C6-N1	-2.12	1.34	1.38
35	QA	1518	MA6	C4-N9	-2.12	1.33	1.37
4	RA	1942	5MC	C6-N1	-2.11	1.34	1.38
35	XA	1518	MA6	C5-N7	-2.07	1.35	1.39
4	YA	1939	5MU	C2-N1	2.06	1.41	1.38
4	RA	1915	5MU	C6-N1	-2.05	1.34	1.38
35	QA	1519	MA6	C4-N9	-2.05	1.33	1.37
35	QA	966	M2G	C5-N7	-2.04	1.35	1.39
35	XA	966	M2G	C5-N7	-2.04	1.35	1.39
4	RA	2552	2MU	C2-N1	2.03	1.41	1.38
35	QA	1207	2MG	C5-N7	-2.03	1.35	1.39
35	QA	1518	MA6	C5-N7	-2.02	1.35	1.39
4	YA	2552	2MU	C2-N1	2.02	1.41	1.38
35	XA	1407	5MC	C6-N1	-2.01	1.34	1.38
35	XA	1498	UR3	C6-C5	2.01	1.39	1.35
35	XA	1207	2MG	C5-N7	-2.00	1.35	1.39

All (231) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	QA	527	7MG	N9-C4-N3	9.17	138.90	125.46
35	XA	527	7MG	N9-C4-N3	8.92	138.53	125.46
4	RA	2503	2MA	C5-C4-N3	-8.37	118.36	127.18
4	YA	2503	2MA	C5-C4-N3	-8.28	118.46	127.18
35	QA	1207	2MG	C2-N3-C4	7.36	121.20	112.00
35	XA	1207	2MG	C2-N3-C4	7.21	121.02	112.00
35	XA	1498	UR3	C4-N3-C2	-6.91	119.02	124.58
35	QA	1498	UR3	C4-N3-C2	-6.87	119.05	124.58
4	YA	2503	2MA	N3-C4-N9	6.66	135.44	126.99
4	YA	2251	OMG	C5-C4-N3	-6.58	117.92	128.39
4	YA	1911	PSU	N1-C2-N3	6.49	122.01	115.17
4	RA	2503	2MA	N3-C4-N9	6.44	135.16	126.99
4	RA	1911	PSU	N1-C2-N3	6.37	121.89	115.17
4	RA	2251	OMG	C5-C4-N3	-6.33	118.31	128.39
35	QA	1207	2MG	C5-C4-N3	-6.31	118.35	128.39
4	RA	2605	PSU	N1-C2-N3	6.31	121.82	115.17
4	YA	1917	PSU	N1-C2-N3	6.29	121.80	115.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	XA	516	PSU	N1-C2-N3	6.24	121.75	115.17
4	YA	2605	PSU	N1-C2-N3	6.23	121.74	115.17
35	XA	1207	2MG	C5-C4-N3	-6.22	118.49	128.39
4	RA	1917	PSU	N1-C2-N3	6.21	121.72	115.17
35	QA	516	PSU	N1-C2-N3	6.10	121.61	115.17
35	QA	966	M2G	C5-C4-N3	-5.97	118.89	128.39
35	XA	966	M2G	C5-C4-N3	-5.95	118.93	128.39
35	QA	527	7MG	C5-C4-N3	-5.54	117.73	128.13
35	XA	1518	MA6	C5-C4-N3	-5.47	119.19	126.72
35	QA	1519	MA6	C5-C4-N3	-5.45	119.21	126.72
4	YA	1939	5MU	C4-N3-C2	-5.41	120.25	127.34
35	XA	527	7MG	C5-C4-N3	-5.39	118.02	128.13
35	XA	1519	MA6	C5-C4-N3	-5.37	119.32	126.72
4	YA	2552	2MU	N3-C2-N1	5.26	121.74	114.89
4	RA	2552	2MU	N3-C2-N1	5.26	121.74	114.89
35	XA	527	7MG	N9-C8-N7	-5.25	95.94	103.37
4	RA	1939	5MU	C4-N3-C2	-5.21	120.51	127.34
4	RA	1939	5MU	N3-C2-N1	5.18	121.63	114.89
35	QA	527	7MG	N9-C8-N7	-5.17	96.05	103.37
4	YA	1939	5MU	N3-C2-N1	5.10	121.54	114.89
4	RA	2251	OMG	C2-N3-C4	5.05	121.00	112.30
35	QA	1518	MA6	C5-C4-N3	-5.04	119.78	126.72
4	RA	1915	5MU	N3-C2-N1	4.98	121.38	114.89
4	YA	1915	5MU	N3-C2-N1	4.97	121.36	114.89
4	YA	2251	OMG	C2-N3-C4	4.96	120.84	112.30
4	YA	2251	OMG	N9-C4-N3	4.91	135.78	125.95
35	XA	1519	MA6	C10-N6-C6	-4.89	108.09	120.52
4	RA	2552	2MU	C4-N3-C2	-4.75	120.72	126.61
4	YA	2552	2MU	C4-N3-C2	-4.73	120.74	126.61
4	RA	2251	OMG	N9-C4-N3	4.71	135.36	125.95
35	XA	966	M2G	C2-N3-C4	4.61	121.04	112.51
35	QA	1207	2MG	N9-C4-N3	4.60	135.16	125.95
4	YA	1915	5MU	C4-N3-C2	-4.57	121.35	127.34
4	YA	1939	5MU	C5-C4-N3	4.54	119.27	115.32
35	QA	966	M2G	C2-N3-C4	4.51	120.84	112.51
35	QA	527	7MG	C2-N3-C4	4.50	120.05	112.30
4	RA	1915	5MU	C4-N3-C2	-4.49	121.45	127.34
35	QA	1518	MA6	C2-N1-C6	4.47	122.74	111.83
35	XA	1207	2MG	N9-C4-N3	4.45	134.85	125.95
35	XA	527	7MG	C2-N3-C4	4.44	119.94	112.30
35	QA	966	M2G	N9-C4-N3	4.38	134.71	125.95
35	XA	1519	MA6	C2-N1-C6	4.38	122.52	111.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	QA	1519	MA6	C9-N6-C6	-4.35	109.45	120.52
35	QA	1518	MA6	C9-N6-C6	-4.35	109.45	120.52
4	RA	1915	5MU	C1'-N1-C2	4.33	125.36	117.59
35	XA	1519	MA6	C4-C5-N7	-4.30	105.67	110.58
4	YA	1939	5MU	C5-C6-N1	-4.29	118.65	123.31
4	YA	1915	5MU	C5-C4-N3	4.28	119.05	115.32
35	QA	1518	MA6	C4-C5-N7	-4.28	105.69	110.58
35	XA	1518	MA6	C2-N1-C6	4.24	122.19	111.83
35	QA	1519	MA6	C2-N1-C6	4.22	122.13	111.83
4	RA	1911	PSU	C4-N3-C2	-4.20	120.59	126.37
4	RA	1939	5MU	C5-C4-N3	4.20	118.97	115.32
35	XA	966	M2G	N9-C4-N3	4.19	134.34	125.95
35	QA	1519	MA6	N3-C4-N9	4.16	134.24	127.17
4	RA	1939	5MU	O4-C4-C5	-4.16	120.16	124.92
4	RA	2605	PSU	C4-N3-C2	-4.15	120.66	126.37
35	XA	1518	MA6	C9-N6-C6	-4.14	109.98	120.52
4	YA	1917	PSU	C4-N3-C2	-4.10	120.72	126.37
35	XA	516	PSU	C4-N3-C2	-4.10	120.73	126.37
4	YA	1911	PSU	C4-N3-C2	-4.09	120.74	126.37
4	YA	1939	5MU	O4-C4-C5	-4.07	120.26	124.92
35	XA	1518	MA6	N3-C4-N9	4.06	134.08	127.17
4	YA	2605	PSU	C4-N3-C2	-4.06	120.78	126.37
35	QA	1519	MA6	C4-C5-N7	-4.01	106.00	110.58
35	XA	1518	MA6	C4-C5-N7	-4.00	106.01	110.58
35	QA	516	PSU	C4-N3-C2	-3.98	120.89	126.37
35	XA	1519	MA6	N3-C4-N9	3.95	133.89	127.17
4	RA	1917	PSU	C4-N3-C2	-3.87	121.04	126.37
4	RA	1915	5MU	O4-C4-C5	-3.75	120.63	124.92
4	RA	1939	5MU	C5-C6-N1	-3.74	119.25	123.31
4	RA	1915	5MU	C5-C4-N3	3.71	118.55	115.32
35	XA	516	PSU	O2-C2-N1	-3.69	118.99	122.79
35	XA	1519	MA6	C2-N3-C4	3.65	120.75	111.83
35	QA	1400	5MC	C5-C6-N1	-3.65	119.35	123.31
35	XA	1518	MA6	C2-N3-C4	3.62	120.68	111.83
35	QA	1518	MA6	N3-C4-N9	3.57	133.24	127.17
4	RA	1915	5MU	C1'-N1-C6	-3.56	115.30	121.15
35	QA	1519	MA6	C2-N3-C4	3.55	120.50	111.83
4	RA	2503	2MA	C4-C5-N7	-3.55	106.52	110.58
46	QL	92	0TD	OD1-CG-CB	-3.52	115.08	122.44
35	QA	516	PSU	O2-C2-N1	-3.49	119.19	122.79
4	YA	1915	5MU	O4-C4-C5	-3.47	120.95	124.92
4	RA	1911	PSU	O2-C2-N1	-3.47	119.21	122.79

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	QA	1518	MA6	C2-N3-C4	3.47	120.30	111.83
4	RA	1917	PSU	O2-C2-N1	-3.45	119.23	122.79
4	YA	1917	PSU	O2-C2-N1	-3.45	119.23	122.79
4	YA	2605	PSU	O2-C2-N1	-3.45	119.23	122.79
35	XA	966	M2G	C6-C5-N7	3.45	136.56	130.29
4	YA	1962	5MC	C5-C6-N1	-3.43	119.59	123.31
4	YA	1915	5MU	C1'-N1-C2	3.41	123.72	117.59
35	XA	1519	MA6	N1-C2-N3	-3.41	123.43	128.58
46	QL	92	0TD	OD2-CG-CB	3.40	120.50	113.15
4	RA	1962	5MC	C5-C6-N1	-3.36	119.66	123.31
4	YA	1942	5MC	C5-C6-N1	-3.35	119.68	123.31
35	XA	1518	MA6	C10-N6-C6	-3.33	112.04	120.52
4	RA	1942	5MC	C5-C6-N1	-3.31	119.72	123.31
35	XA	1207	2MG	C6-C5-N7	3.30	136.29	130.29
4	RA	2605	PSU	O2-C2-N1	-3.28	119.40	122.79
35	XA	1518	MA6	N1-C2-N3	-3.27	123.63	128.58
35	XA	1400	5MC	C5-C6-N1	-3.26	119.77	123.31
35	QA	1518	MA6	N1-C2-N3	-3.26	123.64	128.58
4	YA	2503	2MA	C4-C5-N7	-3.26	106.86	110.58
35	XA	1404	5MC	C5-C6-N1	-3.25	119.78	123.31
4	YA	2503	2MA	N6-C6-N1	3.25	121.41	117.03
35	QA	1207	2MG	C6-C5-N7	3.22	136.14	130.29
35	XA	967	5MC	C5-C6-N1	-3.22	119.82	123.31
35	QA	1498	UR3	C5-C4-N3	3.21	119.27	115.04
35	QA	966	M2G	C6-C5-N7	3.20	136.12	130.29
35	XA	1519	MA6	C9-N6-C6	-3.20	112.38	120.52
35	XA	1407	5MC	C5-C6-N1	-3.19	119.84	123.31
35	QA	967	5MC	C5-C6-N1	-3.19	119.85	123.31
35	XA	1498	UR3	C5-C4-N3	3.19	119.23	115.04
4	RA	1939	5MU	O2-C2-N1	-3.16	118.68	122.80
4	YA	1911	PSU	O2-C2-N1	-3.16	119.53	122.79
35	QA	1519	MA6	N1-C2-N3	-3.16	123.81	128.58
4	YA	2552	2MU	O2-C2-N1	-3.14	118.71	122.80
35	QA	1404	5MC	C5-C6-N1	-3.11	119.94	123.31
35	QA	1407	5MC	C5-C6-N1	-3.10	119.95	123.31
46	XL	92	0TD	OD1-CG-CB	-3.00	116.16	122.44
35	XA	1519	MA6	C5-N7-C8	2.98	108.13	103.45
35	QA	1519	MA6	C10-N6-C6	-2.97	112.98	120.52
46	XL	92	0TD	O-C-CA	-2.95	117.18	124.77
4	YA	1939	5MU	O2-C2-N1	-2.94	118.97	122.80
4	RA	2251	OMG	C6-C5-N7	2.93	135.63	130.29
4	RA	2552	2MU	C5-C4-N3	2.93	118.91	114.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
46	QL	92	0TD	O-C-CA	-2.92	117.25	124.77
35	XA	1404	5MC	C5-C4-N3	-2.90	118.78	121.75
46	XL	92	0TD	OD2-CG-CB	2.89	119.39	113.15
35	QA	1518	MA6	C5-N7-C8	2.89	107.99	103.45
35	QA	1519	MA6	C4-N9-C8	2.88	108.77	105.74
4	YA	1915	5MU	O2-C2-N3	-2.88	116.17	121.49
4	RA	2552	2MU	O2-C2-N1	-2.87	119.06	122.80
35	XA	1519	MA6	C10-N6-C9	-2.85	107.04	116.18
35	XA	1519	MA6	C4-N9-C8	2.84	108.72	105.74
4	RA	2552	2MU	O4-C4-C5	-2.83	120.28	125.16
35	QA	1519	MA6	C5-N7-C8	2.83	107.90	103.45
35	QA	1518	MA6	C10-N6-C6	-2.83	113.33	120.52
35	XA	967	5MC	C5-C4-N3	-2.81	118.87	121.75
35	QA	1404	5MC	C5-C4-N3	-2.81	118.88	121.75
35	XA	527	7MG	C5-C6-N1	2.81	115.88	110.94
35	XA	1518	MA6	C5-N7-C8	2.79	107.84	103.45
35	QA	527	7MG	C5-C6-N1	2.76	115.80	110.94
4	YA	2552	2MU	C5-C4-N3	2.76	118.66	114.80
35	XA	1407	5MC	C5-C4-N3	-2.74	118.94	121.75
4	RA	2503	2MA	N6-C6-N1	2.74	120.72	117.03
4	YA	2552	2MU	O4-C4-C5	-2.73	120.46	125.16
35	QA	1407	5MC	C5-C4-N3	-2.72	118.96	121.75
4	YA	2251	OMG	C6-C5-N7	2.72	135.25	130.29
35	XA	1207	2MG	C4-C5-N7	-2.71	106.37	110.67
4	RA	1942	5MC	C5-C4-N3	-2.70	118.98	121.75
35	XA	966	M2G	C4-C5-N7	-2.69	106.41	110.67
35	QA	1518	MA6	C4-N9-C8	2.68	108.55	105.74
35	QA	967	5MC	C5-C4-N3	-2.67	119.02	121.75
35	XA	1518	MA6	C4-N9-C8	2.67	108.54	105.74
4	YA	1915	5MU	C1'-N1-C6	-2.67	116.76	121.15
4	YA	1915	5MU	C5-C6-N1	-2.67	120.42	123.31
4	YA	2503	2MA	C4-N9-C8	2.65	108.52	105.74
35	XA	1518	MA6	N1-C6-N6	2.63	120.06	116.86
4	YA	1942	5MC	C5-C4-N3	-2.63	119.06	121.75
35	XA	1519	MA6	C6-C5-N7	2.61	137.59	133.43
4	YA	1962	5MC	C5-C4-N3	-2.61	119.08	121.75
4	RA	2503	2MA	C5-N7-C8	2.60	107.54	103.45
35	QA	1207	2MG	C4-C5-N7	-2.60	106.56	110.67
35	XA	1402	4OC	C6-C5-C4	2.58	120.11	117.00
4	RA	1962	5MC	C5-C4-N3	-2.58	119.11	121.75
4	YA	2503	2MA	C2-N1-C6	2.58	122.06	118.10
35	QA	1518	MA6	C6-C5-N7	2.55	137.51	133.43

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	RA	2503	2MA	C4-N9-C8	2.53	108.40	105.74
4	RA	1915	5MU	O2-C2-N3	-2.52	116.85	121.49
4	RA	2503	2MA	C2-N1-C6	2.51	121.95	118.10
4	YA	2251	OMG	C4-C5-N7	-2.49	106.72	110.67
35	XA	1400	5MC	C5-C4-N3	-2.49	119.21	121.75
35	QA	966	M2G	C4-C5-N7	-2.48	106.73	110.67
4	RA	1920	4OC	O2-C2-N3	-2.47	118.43	122.33
4	YA	2503	2MA	C5-N7-C8	2.45	107.30	103.45
4	RA	2251	OMG	C4-C5-N7	-2.45	106.79	110.67
4	RA	1915	5MU	C5-C6-N1	-2.43	120.68	123.31
4	YA	2552	2MU	C2'-C1'-N1	-2.42	109.64	114.24
35	QA	1400	5MC	C5-C4-N3	-2.40	119.29	121.75
35	QA	516	PSU	O4'-C1'-C2'	2.37	108.43	105.15
35	QA	1402	4OC	C6-C5-C4	2.35	119.83	117.00
35	QA	1519	MA6	N1-C6-N6	2.35	119.72	116.86
4	RA	2605	PSU	C5-C6-N1	-2.34	118.89	122.14
35	QA	527	7MG	C5-C4-N9	-2.31	103.37	106.33
4	RA	2251	OMG	O6-C6-C5	-2.29	120.48	126.53
35	XA	1519	MA6	N9-C8-N7	-2.29	110.68	113.94
4	YA	1911	PSU	C5-C6-N1	-2.29	118.97	122.14
35	XA	527	7MG	C5-C4-N9	-2.26	103.44	106.33
35	QA	1518	MA6	C10-N6-C9	-2.25	108.95	116.18
35	XA	1207	2MG	N1-C2-N2	2.24	118.84	116.56
4	YA	1920	4OC	O2-C2-N3	-2.23	118.81	122.33
35	QA	1407	5MC	O2-C2-N3	-2.23	118.81	122.33
35	XA	527	7MG	O6-C6-C5	-2.23	122.14	127.62
35	XA	1518	MA6	C6-C5-N7	2.23	136.99	133.43
35	QA	1519	MA6	N9-C8-N7	-2.23	110.78	113.94
35	QA	1518	MA6	N9-C8-N7	-2.22	110.79	113.94
35	QA	527	7MG	O6-C6-C5	-2.21	122.20	127.62
35	QA	1519	MA6	C6-C5-N7	2.20	136.95	133.43
4	RA	1911	PSU	C5-C6-N1	-2.20	119.09	122.14
35	XA	1407	5MC	O2-C2-N3	-2.17	118.92	122.33
35	XA	1518	MA6	N9-C8-N7	-2.16	110.87	113.94
35	QA	966	M2G	O6-C6-C5	-2.16	120.83	126.53
4	RA	2503	2MA	C6-C5-N7	2.13	136.20	132.09
35	QA	1207	2MG	O6-C6-C5	-2.13	120.90	126.53
35	XA	966	M2G	O6-C6-C5	-2.12	120.93	126.53
4	YA	2251	OMG	O6-C6-C5	-2.10	121.00	126.53
35	XA	1400	5MC	C1'-N1-C6	-2.09	117.71	121.15
35	QA	1207	2MG	O3'-C3'-C2'	2.08	118.48	111.82
4	YA	2605	PSU	C5-C6-N1	-2.08	119.26	122.14

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	YA	1917	PSU	C5-C6-N1	-2.07	119.27	122.14
35	XA	516	PSU	O4'-C1'-C2'	2.02	107.95	105.15
4	RA	2503	2MA	N9-C8-N7	-2.02	111.07	113.94
35	XA	516	PSU	C5-C6-N1	-2.02	119.34	122.14

There are no chirality outliers.

All (36) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
4	YA	1915	5MU	O4'-C1'-N1-C2
4	YA	1915	5MU	O4'-C1'-N1-C6
35	XA	1519	MA6	C5-C6-N6-C10
46	XL	92	0TD	O-C-CA-CB
35	QA	1519	MA6	O4'-C4'-C5'-O5'
4	RA	1915	5MU	O4'-C1'-N1-C2
4	RA	1915	5MU	O4'-C1'-N1-C6
35	XA	1402	4OC	O4'-C4'-C5'-O5'
35	XA	1519	MA6	O4'-C4'-C5'-O5'
35	QA	1402	4OC	O4'-C4'-C5'-O5'
35	XA	1519	MA6	N1-C6-N6-C10
35	QA	527	7MG	C3'-C4'-C5'-O5'
35	QA	1519	MA6	C3'-C4'-C5'-O5'
35	XA	1402	4OC	C3'-C4'-C5'-O5'
35	XA	1519	MA6	C3'-C4'-C5'-O5'
35	XA	1519	MA6	C5-C6-N6-C9
35	QA	1518	MA6	C5-C6-N6-C9
35	QA	1518	MA6	C5-C6-N6-C10
35	QA	1519	MA6	C5-C6-N6-C10
4	YA	1915	5MU	O4'-C4'-C5'-O5'
35	QA	1402	4OC	C3'-C4'-C5'-O5'
4	YA	1915	5MU	C3'-C4'-C5'-O5'
35	XA	527	7MG	C3'-C4'-C5'-O5'
46	XL	92	0TD	CG-CB-SB-CSB
46	QL	92	0TD	CG-CB-SB-CSB
35	QA	527	7MG	O4'-C4'-C5'-O5'
35	QA	1400	5MC	O4'-C4'-C5'-O5'
46	XL	92	0TD	SB-CB-CG-OD1
35	XA	1518	MA6	C5-C6-N6-C10
4	YA	1920	4OC	C3'-C2'-O2'-CM2
4	RA	1920	4OC	C3'-C2'-O2'-CM2
35	QA	527	7MG	C4'-C5'-O5'-P
4	YA	2503	2MA	C4'-C5'-O5'-P

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Mol	Chain	Res	Type	Atoms
35	XA	527	7MG	C4'-C5'-O5'-P
4	YA	1920	4OC	C2'-C1'-N1-C2
35	XA	1402	4OC	C3'-C2'-O2'-CM2

There are no ring outliers.

20 monomers are involved in 25 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	YA	1962	5MC	1	0
35	QA	1404	5MC	1	0
4	RA	1939	5MU	1	0
35	QA	967	5MC	1	0
4	RA	2552	2MU	1	0
46	QL	92	0TD	2	0
4	YA	2251	OMG	1	0
35	QA	1207	2MG	2	0
4	RA	1962	5MC	1	0
35	XA	1518	MA6	1	0
35	QA	1518	MA6	2	0
35	QA	1519	MA6	2	0
46	XL	92	0TD	1	0
4	RA	1942	5MC	2	0
35	XA	1402	4OC	1	0
35	QA	966	M2G	1	0
4	YA	1915	5MU	4	0
35	QA	1402	4OC	1	0
4	RA	1920	4OC	1	0
4	YA	1920	4OC	1	0

5.5 Carbohydrates (i)

There are no oligosaccharides in this entry.

5.6 Ligand geometry (i)

Of 2527 ligands modelled in this entry, 2525 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	38	0,12,12	-	-	-		
58	SF4	QD	302	38	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	38	-	-	0/6/5/5
58	SF4	QD	302	38	-	-	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 (i)

6.1 Protein, DNA and RNA chains (i)

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	QV	77/77 (100%)	-0.18	2 (2%)	57	36	57, 94, 173, 210	0
1	XV	77/77 (100%)	-0.30	2 (2%)	57	36	49, 84, 141, 212	0
2	QX	10/25 (40%)	1.43	3 (30%)	1	1	69, 105, 168, 212	0
2	XX	10/25 (40%)	1.30	3 (30%)	1	1	52, 112, 150, 183	0
3	QY	357/380 (93%)	0.85	39 (10%)	10	5	77, 135, 202, 220	0
3	XY	357/380 (93%)	0.92	40 (11%)	10	5	73, 132, 203, 228	0
4	RA	2856/2915 (97%)	-0.53	38 (1%)	75	56	22, 55, 177, 347	0
4	YA	2856/2915 (97%)	-0.60	59 (2%)	63	42	14, 41, 183, 343	0
5	RB	120/122 (98%)	-0.18	2 (1%)	69	48	56, 91, 116, 152	0
5	YB	120/122 (98%)	-0.52	2 (1%)	69	48	39, 63, 85, 130	0
6	RD	275/276 (99%)	-0.08	2 (0%)	84	68	25, 47, 71, 109	0
6	YD	275/276 (99%)	-0.27	1 (0%)	88	76	16, 39, 69, 132	0
7	RE	204/206 (99%)	-0.07	3 (1%)	72	52	26, 53, 85, 119	0
7	YE	204/206 (99%)	-0.17	1 (0%)	87	73	19, 46, 86, 135	0
8	RF	203/210 (96%)	0.02	2 (0%)	79	61	29, 67, 110, 133	0
8	YF	203/210 (96%)	-0.16	1 (0%)	87	73	15, 45, 89, 139	0
9	RG	181/182 (99%)	0.55	6 (3%)	49	29	76, 103, 134, 155	0
9	YG	181/182 (99%)	0.30	6 (3%)	49	29	55, 78, 121, 184	0
10	RH	174/180 (96%)	0.62	9 (5%)	33	17	74, 111, 147, 158	0
10	YH	173/180 (96%)	0.15	3 (1%)	69	48	40, 64, 95, 139	0
11	RI	147/148 (99%)	0.89	13 (8%)	15	9	59, 103, 135, 164	0
11	YI	146/148 (98%)	0.73	9 (6%)	26	14	51, 92, 127, 150	0
12	RN	140/140 (100%)	0.00	1 (0%)	84	68	40, 62, 101, 140	0
12	YN	140/140 (100%)	-0.12	2 (1%)	73	53	27, 47, 87, 129	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å^2)	Q<0.9
13	RO	122/122 (100%)	-0.10	2 (1%)	70	49	33, 52, 78, 113	0
13	YO	122/122 (100%)	-0.23	1 (0%)	82	65	27, 45, 71, 83	0
14	RP	149/150 (99%)	0.22	2 (1%)	75	56	29, 72, 109, 138	0
14	YP	149/150 (99%)	0.00	1 (0%)	84	68	18, 52, 84, 115	0
15	RQ	141/141 (100%)	0.13	2 (1%)	73	53	43, 67, 88, 112	0
15	YQ	141/141 (100%)	-0.03	1 (0%)	84	68	30, 48, 74, 124	0
16	RR	118/118 (100%)	-0.00	0	100	100	31, 50, 77, 93	0
16	YR	118/118 (100%)	-0.09	1 (0%)	82	65	28, 43, 67, 89	0
17	RS	110/112 (98%)	0.47	5 (4%)	38	20	66, 89, 113, 133	0
17	YS	110/112 (98%)	0.07	2 (1%)	67	47	47, 62, 89, 106	0
18	RT	131/146 (89%)	-0.00	3 (2%)	61	39	37, 59, 105, 155	0
18	YT	131/146 (89%)	0.02	2 (1%)	72	52	36, 53, 98, 122	0
19	RU	116/118 (98%)	0.10	1 (0%)	81	63	33, 57, 91, 113	0
19	YU	116/118 (98%)	-0.25	0	100	100	23, 37, 67, 104	0
20	RV	101/101 (100%)	-0.05	0	100	100	37, 74, 100, 122	0
20	YV	101/101 (100%)	-0.25	2 (1%)	65	44	21, 50, 88, 109	0
21	RW	112/113 (99%)	0.02	3 (2%)	56	35	34, 48, 81, 122	0
21	YW	112/113 (99%)	-0.19	0	100	100	25, 37, 68, 143	0
22	RX	95/96 (98%)	0.26	1 (1%)	78	59	45, 60, 87, 120	0
22	YX	95/96 (98%)	-0.11	1 (1%)	78	59	28, 42, 80, 115	0
23	RY	107/110 (97%)	1.01	13 (12%)	8	5	57, 83, 131, 176	0
23	YY	107/110 (97%)	0.41	3 (2%)	55	34	38, 64, 107, 150	0
24	RZ	203/206 (98%)	0.58	14 (6%)	23	12	71, 100, 156, 194	0
24	YZ	201/206 (97%)	0.38	13 (6%)	25	13	50, 77, 135, 178	0
25	R0	77/85 (90%)	0.18	2 (2%)	57	36	50, 62, 90, 109	0
25	Y0	77/85 (90%)	-0.01	3 (3%)	43	24	31, 45, 80, 110	0
26	R1	97/98 (98%)	0.20	3 (3%)	51	30	33, 58, 89, 111	0
26	Y1	97/98 (98%)	-0.11	0	100	100	27, 47, 95, 114	0
27	R2	70/72 (97%)	0.26	2 (2%)	53	32	53, 74, 106, 130	0
27	Y2	70/72 (97%)	0.32	3 (4%)	40	22	34, 55, 82, 142	0
28	R3	59/60 (98%)	0.09	1 (1%)	69	48	42, 63, 107, 148	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	Y3	59/60 (98%)	0.06	2 (3%) 48 28	28, 43, 106, 122	0
29	R4	69/71 (97%)	0.64	1 (1%) 73 53	99, 136, 177, 184	0
29	Y4	69/71 (97%)	0.71	5 (7%) 21 11	75, 124, 168, 178	0
30	R5	59/60 (98%)	-0.15	0 100 100	29, 51, 94, 160	0
30	Y5	59/60 (98%)	-0.28	1 (1%) 69 48	18, 42, 91, 141	0
31	R6	53/54 (98%)	0.81	3 (5%) 29 16	82, 102, 143, 150	0
31	Y6	53/54 (98%)	0.64	1 (1%) 66 45	75, 88, 116, 130	0
32	R7	48/49 (97%)	0.02	3 (6%) 26 14	28, 42, 83, 120	0
32	Y7	48/49 (97%)	-0.11	2 (4%) 40 22	17, 31, 69, 115	0
33	R8	64/65 (98%)	0.08	1 (1%) 70 49	39, 54, 73, 107	0
33	Y8	64/65 (98%)	-0.08	1 (1%) 70 49	24, 38, 58, 71	0
34	R9	37/37 (100%)	0.75	0 100 100	58, 77, 101, 112	0
34	Y9	37/37 (100%)	0.52	2 (5%) 31 17	49, 61, 81, 93	0
35	QA	1488/1521 (97%)	-0.11	28 (1%) 66 45	42, 86, 173, 260	0
35	XA	1492/1521 (98%)	-0.19	19 (1%) 75 56	32, 84, 168, 253	0
36	QB	231/256 (90%)	0.70	18 (7%) 19 10	85, 122, 153, 178	0
36	XB	231/256 (90%)	0.58	16 (6%) 23 12	80, 110, 143, 161	0
37	QC	206/239 (86%)	0.43	7 (3%) 48 28	88, 115, 144, 168	0
37	XC	206/239 (86%)	0.49	10 (4%) 35 18	80, 104, 134, 167	0
38	QD	208/209 (99%)	0.59	12 (5%) 29 16	62, 91, 125, 150	0
38	XD	208/209 (99%)	0.73	14 (6%) 24 13	68, 96, 133, 152	0
39	QE	148/162 (91%)	0.13	3 (2%) 65 44	64, 86, 114, 143	0
39	XE	148/162 (91%)	0.11	2 (1%) 73 53	62, 78, 114, 139	0
40	QF	100/101 (99%)	0.27	3 (3%) 52 31	70, 95, 118, 132	0
40	XF	100/101 (99%)	-0.00	0 100 100	62, 81, 109, 124	0
41	QG	155/156 (99%)	0.47	7 (4%) 38 20	82, 109, 137, 157	0
41	XG	155/156 (99%)	0.43	5 (3%) 50 30	78, 100, 130, 155	0
42	QH	137/138 (99%)	0.39	3 (2%) 62 41	55, 86, 114, 123	0
42	XH	137/138 (99%)	0.35	1 (0%) 84 68	60, 86, 113, 120	0
43	QI	127/128 (99%)	1.12	15 (11%) 9 5	78, 123, 151, 175	0
43	XI	126/128 (98%)	0.91	14 (11%) 10 5	68, 111, 139, 165	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	QJ	97/105 (92%)	0.91	7 (7%) 21 11	90, 121, 149, 161	0
44	XJ	96/105 (91%)	0.92	10 (10%) 11 6	78, 116, 144, 146	0
45	QK	114/129 (88%)	0.35	7 (6%) 27 15	63, 86, 113, 138	0
45	XK	114/129 (88%)	0.25	5 (4%) 39 21	47, 75, 105, 132	0
46	QL	121/132 (91%)	0.45	4 (3%) 49 29	47, 66, 90, 105	0
46	XL	121/132 (91%)	0.39	7 (5%) 29 16	48, 66, 94, 116	0
47	QM	116/126 (92%)	0.71	11 (9%) 14 7	85, 114, 138, 148	0
47	XM	114/126 (90%)	0.65	7 (6%) 27 15	84, 107, 128, 144	0
48	QN	60/61 (98%)	1.10	7 (11%) 9 5	88, 111, 129, 146	0
48	XN	60/61 (98%)	0.89	6 (10%) 12 6	73, 92, 115, 127	0
49	QO	88/89 (98%)	0.41	0 100 100	60, 80, 109, 121	0
49	XO	88/89 (98%)	0.43	3 (3%) 48 28	48, 80, 112, 123	0
50	QP	82/88 (93%)	0.59	4 (4%) 35 18	58, 76, 104, 114	0
50	XP	82/88 (93%)	0.72	4 (4%) 35 18	71, 93, 118, 141	0
51	QQ	99/105 (94%)	0.44	5 (5%) 33 18	53, 78, 114, 138	0
51	XQ	99/105 (94%)	0.41	2 (2%) 65 44	59, 78, 101, 126	0
52	QR	68/88 (77%)	0.38	0 100 100	72, 90, 119, 139	0
52	XR	68/88 (77%)	0.24	0 100 100	56, 83, 114, 124	0
53	QS	83/93 (89%)	0.83	7 (8%) 17 9	87, 120, 146, 161	0
53	XS	83/93 (89%)	1.01	7 (8%) 17 9	89, 118, 142, 183	0
54	QT	96/106 (90%)	0.71	4 (4%) 40 22	54, 80, 116, 120	0
54	XT	98/106 (92%)	0.74	9 (9%) 14 8	65, 88, 120, 128	0
55	QU	23/27 (85%)	1.65	9 (39%) 1 0	88, 103, 130, 145	0
55	XU	23/27 (85%)	1.69	9 (39%) 1 0	81, 102, 117, 119	0
All	All	21456/22208 (96%)	0.02	669 (3%) 51 30	14, 73, 148, 347	0

All (669) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
23	RY	1	MET	9.6
43	QI	128	ARG	7.7
24	YZ	193	GLU	7.4
24	RZ	199	LYS	7.1
23	YY	1	MET	6.8

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Mol	Chain	Res	Type	RSRZ
47	QM	117	VAL	6.7
24	YZ	192	ALA	6.7
24	RZ	195	GLU	6.6
6	RD	276	LYS	6.4
54	QT	9	ASN	6.4
43	QI	127	LYS	6.3
54	XT	6	PRO	6.1
25	Y0	8	GLY	5.8
47	QM	116	THR	5.7
3	QY	202	VAL	5.7
24	RZ	202	GLU	5.6
4	YA	1076	C	5.3
27	Y2	70	GLN	5.3
55	QU	16	GLY	5.1
54	XT	7	LYS	5.1
24	RZ	196	VAL	5.0
43	QI	105	ASP	5.0
2	XX	23	A	4.9
43	QI	106	ALA	4.9
43	XI	126	SER	4.9
48	XN	2	ALA	4.7
24	YZ	199	LYS	4.7
26	R1	2	SER	4.7
24	YZ	200	GLY	4.6
37	XC	2	GLY	4.6
4	RA	1046	A	4.6
24	RZ	200	GLY	4.6
4	YA	1091	G	4.5
35	XA	90	U	4.5
24	RZ	192	ALA	4.5
43	XI	105	ASP	4.5
35	QA	346	G	4.4
24	RZ	198	LYS	4.4
35	XA	789	U	4.4
3	XY	250	GLY	4.3
17	RS	3	ARG	4.3
2	QX	14	A	4.3
46	QL	64	TYR	4.3
10	YH	47	GLU	4.3
24	RZ	191	VAL	4.3
4	YA	1046	A	4.3
50	XP	1	MET	4.3

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Mol	Chain	Res	Type	RSRZ
35	QA	90	U	4.2
4	RA	1536	C	4.2
3	XY	325	SER	4.2
4	RA	34	C	4.2
32	R7	48	LYS	4.1
4	YA	1536	C	4.1
3	XY	205	SER	4.1
4	RA	1171	G	4.1
35	XA	88	A	4.1
3	QY	329	ASP	4.1
4	YA	2805	G	4.1
35	QA	347	G	4.1
2	QX	23	A	4.0
35	QA	160	A	4.0
36	XB	136	VAL	4.0
48	QN	3	ARG	4.0
10	RH	43	VAL	4.0
55	QU	14	TRP	4.0
54	XT	11	SER	4.0
35	QA	791	G	4.0
25	R0	8	GLY	4.0
42	QH	99	GLU	4.0
3	XY	202	VAL	4.0
43	XI	66	ARG	4.0
24	YZ	201	LYS	3.9
3	QY	6	PRO	3.9
3	XY	174	ALA	3.9
40	QF	90	VAL	3.9
53	XS	56	GLN	3.9
3	XY	44	PRO	3.9
43	QI	126	SER	3.9
43	QI	110	GLU	3.8
37	QC	162	GLN	3.8
11	RI	1	MET	3.8
3	XY	209	SER	3.8
51	QQ	91	ARG	3.8
45	QK	126	ARG	3.8
24	RZ	197	ILE	3.8
35	QA	159	G	3.8
3	XY	172	GLU	3.8
4	YA	1077	A	3.8
35	XA	89	C	3.7

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Mol	Chain	Res	Type	RSRZ
11	RI	83	ALA	3.7
35	QA	158	G	3.7
27	R2	1	MET	3.7
44	XJ	64	GLU	3.6
4	YA	280	C	3.6
3	QY	330	ASP	3.6
4	YA	2141	G	3.6
3	QY	326	TYR	3.6
3	QY	325	SER	3.6
43	XI	106	ALA	3.6
36	QB	187	LEU	3.6
4	YA	2804	C	3.6
23	RY	43	ASN	3.5
47	XM	116	THR	3.5
6	YD	276	LYS	3.5
24	YZ	197	ILE	3.5
42	QH	107	LEU	3.5
4	YA	1075	C	3.5
32	Y7	48	LYS	3.5
35	XA	791	G	3.5
46	XL	91	LYS	3.5
48	XN	13	THR	3.5
39	XE	20	GLN	3.5
41	XG	2	ALA	3.5
47	XM	107	ALA	3.5
35	XA	790	A	3.5
36	XB	165	VAL	3.5
35	QA	1036	G	3.5
39	QE	22	GLY	3.4
27	R2	70	GLN	3.4
24	RZ	201	LYS	3.4
9	RG	35	GLU	3.4
24	YZ	195	GLU	3.4
4	YA	281	G	3.4
3	QY	174	ALA	3.4
3	QY	205	SER	3.4
3	XY	211	GLY	3.4
3	XY	320	GLY	3.4
22	YX	1	MET	3.4
35	QA	1531	A	3.4
45	QK	117	ASN	3.4
5	RB	88	C	3.4

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Mol	Chain	Res	Type	RSRZ
4	YA	2116	G	3.4
47	XM	106	ASN	3.3
3	XY	203	ARG	3.3
24	RZ	194	PRO	3.3
35	QA	630	G	3.3
24	YZ	191	VAL	3.3
3	QY	250	GLY	3.3
24	YZ	187	ALA	3.3
35	QA	345	C	3.3
43	QI	102	LEU	3.3
1	QV	53	G	3.3
3	XY	232	ILE	3.3
4	YA	1070	A	3.3
45	XK	126	ARG	3.3
35	XA	1533	C	3.3
44	XJ	47	PHE	3.3
31	R6	42	TRP	3.3
18	RT	131	ALA	3.3
23	RY	62	GLU	3.3
51	QQ	24	GLU	3.3
3	QY	150	ARG	3.3
38	QD	73	ARG	3.3
43	QI	75	ASP	3.3
44	XJ	49	VAL	3.3
23	RY	5	MET	3.3
24	RZ	190	GLU	3.3
43	QI	66	ARG	3.2
35	QA	344	A	3.2
36	QB	163	PHE	3.2
38	XD	150	GLU	3.2
46	XL	89	ARG	3.2
29	Y4	63	TYR	3.2
3	XY	330	ASP	3.2
37	QC	207	VAL	3.2
3	QY	277	ASP	3.2
11	YI	88	ILE	3.2
36	XB	58	ILE	3.2
3	QY	47	TRP	3.2
44	XJ	57	LYS	3.2
11	RI	39	ALA	3.2
4	RA	1090	U	3.1
45	QK	124	LYS	3.1

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Mol	Chain	Res	Type	RSRZ
35	XA	631	G	3.1
11	RI	109	ILE	3.1
25	Y0	9	SER	3.1
11	RI	117	GLU	3.1
24	YZ	194	PRO	3.1
47	QM	102	ARG	3.1
48	XN	3	ARG	3.1
2	XX	14	A	3.1
43	XI	43	ALA	3.1
4	YA	2161	C	3.1
4	YA	2803	C	3.1
35	XA	84	U	3.1
36	XB	214	ILE	3.1
3	QY	253	HIS	3.1
54	XT	10	LEU	3.1
38	XD	2	GLY	3.1
36	QB	12	GLU	3.1
38	QD	8	VAL	3.1
55	XU	2	GLY	3.1
36	QB	97	TRP	3.1
37	XC	206	GLU	3.1
35	QA	790	A	3.1
3	XY	6	PRO	3.1
3	XY	50	PRO	3.1
50	QP	19	ILE	3.1
17	YS	7	TYR	3.1
9	YG	79	ASN	3.0
24	YZ	198	LYS	3.0
11	YI	10	GLU	3.0
3	XY	326	TYR	3.0
43	XI	111	ARG	3.0
45	XK	117	ASN	3.0
4	RA	2896	C	3.0
35	QA	789	U	3.0
4	RA	2805	G	3.0
35	QA	79	G	3.0
3	XY	346	GLN	3.0
2	XX	15	A	3.0
2	QX	22	C	3.0
4	YA	277	C	3.0
11	RI	96	ASP	3.0
4	YA	11	G	3.0

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Mol	Chain	Res	Type	RSRZ
4	YA	1171	G	3.0
35	QA	161	A	3.0
53	XS	4	SER	3.0
29	Y4	56	VAL	3.0
53	QS	9	VAL	3.0
45	XK	87	THR	3.0
9	YG	35	GLU	2.9
23	RY	29	GLU	2.9
36	XB	134	GLU	2.9
43	XI	110	GLU	2.9
18	YT	131	ALA	2.9
35	XA	1286	A	2.9
46	QL	18	VAL	2.9
4	YA	2108	C	2.9
35	QA	1532	U	2.9
8	YF	27	GLU	2.9
1	XV	53	G	2.9
4	RA	1089	G	2.9
55	QU	24	ARG	2.9
41	QG	8	GLU	2.9
3	XY	253	HIS	2.9
38	QD	156	GLU	2.9
46	QL	16	GLU	2.9
4	RA	1096	A	2.9
4	RA	2804	C	2.9
54	XT	103	GLY	2.9
36	XB	215	LEU	2.9
47	QM	78	ILE	2.9
43	XI	11	LYS	2.9
36	XB	131	PRO	2.9
3	QY	211	GLY	2.9
15	RQ	1	MET	2.9
43	XI	2	GLU	2.8
41	XG	5	ARG	2.8
43	QI	42	ARG	2.8
46	QL	47	LYS	2.8
4	YA	1090	U	2.8
5	RB	1	U	2.8
37	XC	207	VAL	2.8
44	QJ	4	ILE	2.8
14	RP	15	ARG	2.8
21	RW	92	ARG	2.8

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Mol	Chain	Res	Type	RSRZ
55	QU	15	ARG	2.8
11	YI	117	GLU	2.8
48	QN	15	LYS	2.8
54	XT	14	LYS	2.8
35	XA	788	U	2.8
36	QB	55	PHE	2.8
3	QY	320	GLY	2.8
48	QN	55	GLY	2.8
4	YA	2793	G	2.8
44	XJ	60	ARG	2.8
55	QU	22	ARG	2.8
31	R6	54	ILE	2.8
4	YA	2807	G	2.8
4	RA	2110	G	2.8
9	RG	76	SER	2.8
17	RS	58	LEU	2.8
11	RI	20	ASP	2.7
35	XA	532	A	2.7
35	QA	343	U	2.7
7	RE	163	GLU	2.7
24	YZ	186	GLU	2.7
36	QB	214	ILE	2.7
53	XS	69	HIS	2.7
13	RO	91	LEU	2.7
4	YA	1026	U	2.7
39	XE	10	MET	2.7
4	RA	1067	A	2.7
8	RF	208	GLY	2.7
3	QY	204	LYS	2.7
43	XI	75	ASP	2.7
55	QU	18	TYR	2.7
3	QY	55	ALA	2.7
41	QG	84	ASN	2.7
31	Y6	36	LEU	2.7
4	YA	1089	G	2.7
39	QE	20	GLN	2.7
41	QG	81	GLY	2.7
43	QI	11	LYS	2.7
46	XL	47	LYS	2.7
1	XV	1	C	2.7
47	XM	113	PRO	2.7
50	QP	82	GLN	2.7

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Mol	Chain	Res	Type	RSRZ
37	XC	201	TYR	2.7
43	QI	117	HIS	2.7
11	RI	147	GLN	2.6
23	RY	77	PRO	2.6
14	YP	15	ARG	2.6
44	QJ	46	ARG	2.6
26	R1	23	LYS	2.6
3	QY	248	GLY	2.6
37	QC	159	GLY	2.6
53	QS	84	GLY	2.6
36	XB	69	LEU	2.6
3	XY	204	LYS	2.6
44	XJ	46	ARG	2.6
24	RZ	193	GLU	2.6
3	QY	328	LEU	2.6
12	YN	140	VAL	2.6
4	RA	1076	C	2.6
11	YI	42	SER	2.6
10	RH	111	HIS	2.6
47	XM	102	ARG	2.6
3	QY	50	PRO	2.6
21	RW	60	ASN	2.6
4	YA	1117	G	2.6
4	YA	2151	G	2.6
38	XD	21	LEU	2.6
3	XY	327	VAL	2.6
36	QB	173	ALA	2.6
55	XU	14	TRP	2.6
3	XY	177	LYS	2.6
35	QA	532	A	2.6
55	XU	15	ARG	2.6
24	RZ	203	GLU	2.6
3	QY	327	VAL	2.6
43	XI	7	THR	2.6
46	XL	28	LYS	2.6
23	RY	107	ASP	2.6
54	QT	103	GLY	2.6
43	QI	12	GLU	2.6
18	RT	108	ARG	2.6
44	XJ	66	ARG	2.6
9	YG	80	PHE	2.5
44	QJ	63	PHE	2.5

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Mol	Chain	Res	Type	RSRZ
4	YA	1081	U	2.5
28	R3	2	PRO	2.5
25	R0	9	SER	2.5
23	YY	22	GLY	2.5
53	XS	84	GLY	2.5
4	YA	274	G	2.5
4	RA	2318	G	2.5
23	RY	2	ARG	2.5
35	XA	80	G	2.5
41	QG	28	ASN	2.5
18	RT	130	ALA	2.5
23	RY	12	THR	2.5
49	XO	87	ILE	2.5
22	RX	1	MET	2.5
35	QA	342	C	2.5
36	QB	70	PHE	2.5
3	XY	210	GLY	2.5
27	Y2	69	ARG	2.5
45	XK	123	LYS	2.5
3	QY	340	VAL	2.5
51	QQ	11	VAL	2.5
37	XC	3	ASN	2.5
37	QC	163	ALA	2.5
53	XS	40	ILE	2.5
4	RA	1062	G	2.5
4	RA	1087	G	2.5
4	RA	2807	G	2.5
36	XB	133	LYS	2.5
38	QD	49	ARG	2.5
47	QM	115	LYS	2.5
3	QY	209	SER	2.5
4	RA	614(B)	U	2.5
33	Y8	56	GLU	2.5
44	QJ	76	ASN	2.5
55	QU	13	ILE	2.5
41	QG	36	LYS	2.5
49	XO	88	ARG	2.5
3	QY	57	GLY	2.5
24	YZ	196	VAL	2.5
4	YA	2160	G	2.5
35	QA	1491	G	2.5
5	YB	1	U	2.5

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Mol	Chain	Res	Type	RSRZ
23	RY	94	LYS	2.5
38	XD	166	LYS	2.5
36	QB	115	LEU	2.5
43	QI	36	TYR	2.5
46	XL	29	GLY	2.5
53	XS	9	VAL	2.5
3	QY	232	ILE	2.4
3	XY	297	GLU	2.4
23	RY	34	LYS	2.4
32	R7	47	ARG	2.4
53	QS	3	ARG	2.4
3	QY	206	PRO	2.4
48	QN	14	PRO	2.4
3	XY	352	SER	2.4
3	QY	203	ARG	2.4
36	XB	96	ARG	2.4
3	QY	210	GLY	2.4
4	YA	1080	C	2.4
4	RA	2789	C	2.4
35	XA	1030(A)	C	2.4
4	YA	1087	G	2.4
37	XC	8	ILE	2.4
50	XP	19	ILE	2.4
47	XM	115	LYS	2.4
36	QB	11	LEU	2.4
3	XY	7	VAL	2.4
30	Y5	60	VAL	2.4
37	QC	62	ASP	2.4
45	QK	111	ASP	2.4
55	XU	20	LYS	2.4
4	YA	9	U	2.4
4	RA	1064	C	2.4
4	RA	1065	U	2.4
36	QB	141	GLU	2.4
43	XI	12	GLU	2.4
43	XI	102	LEU	2.4
3	XY	20	VAL	2.4
10	RH	19	VAL	2.4
10	RH	114	VAL	2.4
3	XY	323	ILE	2.4
36	XB	237	ALA	2.4
55	XU	3	LYS	2.4

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Mol	Chain	Res	Type	RSRZ
38	XD	3	ARG	2.4
53	QS	16	LEU	2.4
4	RA	229	A	2.4
35	QA	792	A	2.4
38	XD	163	GLU	2.4
38	XD	112	VAL	2.4
4	YA	2140	C	2.3
4	RA	2803	C	2.3
54	XT	102	GLY	2.3
39	QE	13	ILE	2.3
47	QM	99	ARG	2.3
48	QN	2	ALA	2.3
53	QS	13	ASP	2.3
35	QA	1492	A	2.3
54	QT	74	LYS	2.3
26	R1	26	ARG	2.3
29	R4	61	ARG	2.3
4	YA	2139	C	2.3
36	QB	193	ASP	2.3
38	XD	78	LEU	2.3
4	RA	2894	G	2.3
37	QC	153	VAL	2.3
46	XL	18	VAL	2.3
6	RD	275	LYS	2.3
48	XN	29	ARG	2.3
55	XU	6	ARG	2.3
55	XU	23	PRO	2.3
53	QS	38	SER	2.3
50	QP	13	HIS	2.3
17	RS	7	TYR	2.3
10	RH	103	LEU	2.3
35	XA	1447	A	2.3
38	QD	163	GLU	2.3
1	QV	1	C	2.3
3	QY	332	ARG	2.3
11	RI	43	ASN	2.3
41	QG	37	ASN	2.3
29	Y4	60	GLN	2.3
4	YA	653	A	2.3
11	YI	81	VAL	2.3
28	Y3	3	ARG	2.3
35	QA	162	A	2.3

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Mol	Chain	Res	Type	RSRZ
51	QQ	49	GLU	2.3
4	RA	1097	U	2.3
34	Y9	17	ILE	2.3
47	QM	4	ILE	2.3
4	YA	273(K)	C	2.3
10	RH	33	LEU	2.3
13	YO	91	LEU	2.3
50	XP	22	THR	2.3
38	QD	160	GLN	2.3
45	QK	13	GLN	2.3
12	RN	9	VAL	2.3
51	XQ	24	GLU	2.2
4	YA	275	G	2.2
4	YA	2153	G	2.2
11	RI	88	ILE	2.2
11	RI	16	GLY	2.2
4	YA	2150	U	2.2
4	RA	529	A	2.2
35	XA	1531	A	2.2
41	XG	12	LEU	2.2
53	XS	15	LEU	2.2
9	YG	29	TRP	2.2
3	XY	281	HIS	2.2
37	XC	193	TYR	2.2
4	YA	1509(A)	C	2.2
47	QM	110	ARG	2.2
37	XC	162	GLN	2.2
48	QN	25	VAL	2.2
11	RI	14	ASP	2.2
44	QJ	37	PRO	2.2
48	QN	39	LEU	2.2
4	YA	1078	U	2.2
17	RS	20	ARG	2.2
11	YI	91	SER	2.2
53	QS	35	SER	2.2
32	Y7	46	VAL	2.2
36	XB	71	VAL	2.2
45	QK	14	VAL	2.2
50	XP	82	GLN	2.2
38	QD	154	ASN	2.2
36	XB	222	ILE	2.2
42	QH	136	GLU	2.2

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Mol	Chain	Res	Type	RSRZ
3	QY	103	LEU	2.2
18	YT	107	ASP	2.2
21	RW	112	GLY	2.2
28	Y3	2	PRO	2.2
3	XY	96	PHE	2.2
17	YS	3	ARG	2.2
47	XM	88	ARG	2.2
54	QT	80	ARG	2.2
10	RH	113	VAL	2.2
36	QB	136	VAL	2.2
51	XQ	66	SER	2.2
4	RA	2808	U	2.2
35	XA	1532	U	2.2
49	XO	3	ILE	2.2
3	XY	140	GLU	2.2
4	YA	2149	G	2.2
4	RA	1085	A	2.2
4	RA	2141	G	2.2
33	R8	65	GLU	2.2
36	QB	101	MET	2.2
38	QD	122	ARG	2.2
51	QQ	68	ARG	2.2
36	XB	97	TRP	2.2
3	QY	346	GLN	2.2
3	XY	216	SER	2.2
41	QG	16	LEU	2.2
11	RI	122	GLU	2.2
15	YQ	112	GLU	2.2
17	RS	8	GLU	2.2
20	YV	53	GLU	2.2
32	R7	1	MET	2.2
44	XJ	55	LYS	2.2
47	QM	31	LYS	2.2
55	QU	6	ARG	2.2
3	QY	71	ASP	2.2
4	RA	2135	A	2.2
4	YA	363(A)	G	2.2
35	QA	693	G	2.2
34	Y9	20	HIS	2.2
4	YA	279	C	2.1
4	YA	1040	C	2.1
4	RA	2146	C	2.1

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Mol	Chain	Res	Type	RSRZ
9	RG	139	LEU	2.1
11	YI	35	LEU	2.1
37	XC	188	LEU	2.1
3	QY	352	SER	2.1
29	Y4	66	SER	2.1
37	XC	199	LYS	2.1
38	QD	86	LYS	2.1
10	YH	46	GLU	2.1
38	XD	80	GLU	2.1
9	YG	2	PRO	2.1
48	XN	14	PRO	2.1
55	XU	9	ARG	2.1
7	YE	159	HIS	2.1
10	RH	45	VAL	2.1
36	XB	7	VAL	2.1
38	XD	89	THR	2.1
3	QY	317	ILE	2.1
4	YA	1095	A	2.1
44	XJ	74	ILE	2.1
31	R6	10	LEU	2.1
36	QB	215	LEU	2.1
38	QD	188	LEU	2.1
46	XL	126	LYS	2.1
4	YA	1533	G	2.1
4	YA	2318	G	2.1
19	RU	117	GLN	2.1
25	Y0	11	ARG	2.1
43	XI	9	ARG	2.1
11	YI	41	GLU	2.1
20	YV	101	GLY	2.1
38	XD	145	GLU	2.1
44	XJ	93	GLY	2.1
47	QM	100	GLY	2.1
4	YA	645	C	2.1
4	RA	1075	C	2.1
4	RA	2111	C	2.1
5	YB	88	C	2.1
37	QC	124	ILE	2.1
7	RE	151	TYR	2.1
3	QY	278	ARG	2.1
3	XY	200	ARG	2.1
3	XY	332	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
14	RP	79	ARG	2.1
50	QP	26	ARG	2.1
54	XT	18	GLN	2.1
11	YI	119	PRO	2.1
27	Y2	11	GLU	2.1
3	XY	115	PHE	2.1
10	RH	2	SER	2.1
7	RE	60	ASN	2.1
4	YA	2154	G	2.1
4	RA	2893	G	2.1
4	YA	1041	C	2.1
4	RA	2138	C	2.1
3	QY	281	HIS	2.1
9	YG	53	LEU	2.1
16	YR	69	ASP	2.1
38	XD	146	ILE	2.1
9	RG	161	THR	2.1
23	RY	50	ARG	2.1
44	QJ	67	THR	2.1
55	QU	17	THR	2.1
36	XB	12	GLU	2.1
36	QB	57	PHE	2.1
38	QD	24	GLU	2.1
3	QY	331	SER	2.1
4	YA	2629	A	2.1
9	RG	108	ASN	2.1
12	YN	115	ARG	2.1
23	RY	44	ILE	2.1
38	QD	194	LEU	2.1
45	XK	98	LEU	2.1
54	XT	15	ARG	2.1
23	YY	5	MET	2.1
40	QF	83	ASP	2.1
29	Y4	67	TYR	2.1
4	YA	1072	C	2.1
35	XA	92	C	2.1
4	YA	1062	G	2.1
4	RA	171	G	2.1
35	QA	348	G	2.1
35	QA	1202	G	2.1
3	QY	172	GLU	2.1
38	XD	179	GLU	2.1

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Mol	Chain	Res	Type	RSRZ
4	RA	2897	U	2.0
15	RQ	22	LYS	2.0
40	QF	88	VAL	2.0
48	XN	15	LYS	2.0
3	QY	216	SER	2.0
10	YH	63	SER	2.0
3	XY	276	ASN	2.0
8	RF	44	ARG	2.0
9	RG	52	ILE	2.0
36	QB	94	ASN	2.0
42	XH	2	LEU	2.0
47	QM	88	ARG	2.0
3	XY	47	TRP	2.0
3	XY	144	TRP	2.0
41	XG	7	ALA	2.0
41	XG	85	TYR	2.0
4	YA	1092	C	2.0
4	YA	1118	C	2.0
4	YA	2789	C	2.0
45	QK	122	LYS	2.0
3	XY	103	LEU	2.0
4	YA	2792	G	2.0
4	YA	1101	U	2.0
13	RO	1	MET	2.0
38	XD	4	TYR	2.0
36	QB	99	GLY	2.0
43	QI	115	GLY	2.0
44	QJ	10	GLY	2.0
3	XY	340	VAL	2.0
4	RA	1070	A	2.0
35	QA	1447	A	2.0
55	XU	24	ARG	2.0
3	XY	230	ILE	2.0
35	XA	91	C	2.0

6.2 Non-standard residues in protein, DNA, RNA chains (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
4	5MU	RA	1915	21/22	0.81	0.12	92,100,114,117	0
35	2MG	QA	1207	24/25	0.88	0.10	101,124,131,134	0
35	2MG	XA	1207	24/25	0.88	0.11	85,98,106,107	0
4	PSU	RA	1917	20/21	0.88	0.10	53,73,89,103	0
46	0TD	XL	92	10/11	0.89	0.13	58,67,84,87	0
46	0TD	QL	92	10/11	0.89	0.13	59,72,74,78	0
4	PSU	YA	1917	20/21	0.90	0.09	51,62,88,91	0
4	5MU	YA	1915	21/22	0.91	0.10	52,76,85,87	0
35	PSU	QA	516	20/21	0.91	0.08	71,77,87,88	0
35	PSU	XA	516	20/21	0.92	0.08	75,86,95,95	0
35	M2G	QA	966	25/26	0.92	0.12	71,80,92,93	0
35	M2G	XA	966	25/26	0.93	0.13	56,75,94,105	0
35	7MG	QA	527	24/25	0.93	0.12	51,70,76,76	0
35	5MC	XA	967	21/22	0.93	0.11	62,75,84,92	0
35	5MC	QA	967	21/22	0.93	0.11	71,84,95,99	0
35	4OC	XA	1402	22/23	0.94	0.11	45,57,67,81	0
4	PSU	YA	1911	20/21	0.94	0.08	45,57,62,63	0
4	4OC	RA	1920	21/23	0.94	0.10	55,62,85,94	0
35	5MC	XA	1400	21/22	0.95	0.10	50,65,74,85	0
35	7MG	XA	527	24/25	0.95	0.09	54,63,74,79	0
35	5MC	XA	1404	21/22	0.95	0.11	34,45,58,63	0
35	4OC	QA	1402	22/23	0.95	0.10	55,67,72,74	0
4	PSU	RA	1911	20/21	0.96	0.07	55,66,73,74	0
35	5MC	XA	1407	21/22	0.96	0.09	46,49,58,59	0
35	MA6	QA	1518	24/25	0.96	0.09	48,58,67,72	0
35	5MC	QA	1400	21/22	0.96	0.10	66,75,85,88	0
4	5MU	YA	1939	21/22	0.97	0.07	15,27,36,48	0
35	5MC	QA	1404	21/22	0.97	0.09	55,62,67,73	0
4	5MC	YA	1942	21/22	0.97	0.07	25,38,47,50	0
35	MA6	QA	1519	24/25	0.97	0.12	41,56,68,79	0
4	OMG	YA	2251	24/25	0.97	0.07	13,25,35,41	0
4	4OC	YA	1920	21/23	0.97	0.07	40,47,55,60	0
35	UR3	XA	1498	21/22	0.97	0.07	34,43,57,66	0
35	MA6	XA	1518	24/25	0.97	0.09	31,41,46,52	0
35	MA6	XA	1519	24/25	0.97	0.08	28,45,53,54	0
4	5MU	RA	1939	21/22	0.97	0.07	23,37,44,52	0
4	5MC	RA	1942	21/22	0.97	0.08	41,50,62,64	0
4	5MC	YA	1962	21/22	0.98	0.06	25,33,47,55	0
35	5MC	QA	1407	21/22	0.98	0.06	44,51,62,68	0
35	UR3	QA	1498	21/22	0.98	0.07	44,57,69,72	0
4	2MA	YA	2503	23/24	0.98	0.06	8,22,36,38	0
4	2MU	YA	2552	21/23	0.98	0.06	19,28,42,46	0
4	PSU	YA	2605	20/21	0.98	0.07	10,25,42,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
4	5MC	RA	1962	21/22	0.98	0.06	39,46,52,62	0
4	OMG	RA	2251	24/25	0.98	0.07	31,38,50,55	0
4	2MA	RA	2503	23/24	0.98	0.06	16,24,31,37	0
4	2MU	RA	2552	21/23	0.98	0.05	19,33,40,48	0
4	PSU	RA	2605	20/21	0.98	0.07	19,36,47,48	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	1673	1/1	-0.17	0.18	103,103,103,103	0
56	MG	QA	1647	1/1	-0.15	0.26	134,134,134,134	0
56	MG	QA	1612	1/1	-0.07	0.37	97,97,97,97	0
56	MG	QA	1839	1/1	-0.06	0.21	93,93,93,93	0
56	MG	XA	1773	1/1	-0.05	0.65	96,96,96,96	0
56	MG	QA	1698	1/1	-0.04	0.28	100,100,100,100	0
56	MG	QG	203	1/1	-0.03	0.17	100,100,100,100	0
56	MG	QA	1799	1/1	-0.01	0.24	83,83,83,83	0
56	MG	QA	1858	1/1	0.01	1.04	115,115,115,115	0
56	MG	QA	1751	1/1	0.01	0.28	83,83,83,83	0
56	MG	XA	1669	1/1	0.04	0.21	103,103,103,103	0
56	MG	QA	1683	1/1	0.05	0.18	112,112,112,112	0
56	MG	RA	3112	1/1	0.06	0.27	117,117,117,117	0
56	MG	Y1	101	1/1	0.09	0.18	104,104,104,104	0
56	MG	RA	3994	1/1	0.09	0.31	88,88,88,88	0
56	MG	YA	3637	1/1	0.12	0.67	101,101,101,101	0
56	MG	QA	1736	1/1	0.14	0.40	86,86,86,86	0
56	MG	YA	3344	1/1	0.16	0.26	80,80,80,80	0
56	MG	QI	201	1/1	0.16	0.26	106,106,106,106	0
56	MG	RH	201	1/1	0.16	0.12	88,88,88,88	0
56	MG	QY	401	1/1	0.17	0.38	111,111,111,111	0
56	MG	XA	1783	1/1	0.18	0.41	99,99,99,99	0
56	MG	RA	3983	1/1	0.18	0.20	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	XA	1725	1/1	0.19	0.48	87,87,87,87	0
56	MG	XA	1727	1/1	0.19	0.26	84,84,84,84	0
56	MG	RA	3546	1/1	0.19	0.33	111,111,111,111	0
56	MG	YA	3185	1/1	0.22	0.41	105,105,105,105	0
56	MG	RG	201	1/1	0.22	0.12	121,121,121,121	0
56	MG	QA	1785	1/1	0.22	0.36	84,84,84,84	0
56	MG	QA	1686	1/1	0.23	0.21	103,103,103,103	0
56	MG	QA	1783	1/1	0.24	0.19	77,77,77,77	0
56	MG	QA	1603	1/1	0.25	0.32	105,105,105,105	0
56	MG	RA	3196	1/1	0.25	0.32	104,104,104,104	0
56	MG	QD	304	1/1	0.25	0.35	111,111,111,111	0
56	MG	RA	3727	1/1	0.25	0.51	108,108,108,108	0
56	MG	QA	1757	1/1	0.26	0.32	86,86,86,86	0
56	MG	RA	3951	1/1	0.26	0.43	87,87,87,87	0
56	MG	QA	1685	1/1	0.26	0.34	91,91,91,91	0
56	MG	RA	3875	1/1	0.27	0.34	90,90,90,90	0
56	MG	QA	1829	1/1	0.27	0.21	94,94,94,94	0
56	MG	QA	1657	1/1	0.28	0.45	98,98,98,98	0
56	MG	XA	1637	1/1	0.29	0.22	89,89,89,89	0
56	MG	RB	208	1/1	0.30	0.24	90,90,90,90	0
56	MG	QU	101	1/1	0.31	0.21	81,81,81,81	0
56	MG	QA	1768	1/1	0.31	0.26	91,91,91,91	0
56	MG	RB	223	1/1	0.32	0.41	102,102,102,102	0
56	MG	QA	1693	1/1	0.32	0.24	88,88,88,88	0
56	MG	QA	1764	1/1	0.32	0.31	101,101,101,101	0
56	MG	XE	201	1/1	0.33	0.31	79,79,79,79	0
56	MG	XF	203	1/1	0.33	0.31	109,109,109,109	0
56	MG	XA	1753	1/1	0.34	0.42	99,99,99,99	0
56	MG	RA	3115	1/1	0.34	0.39	92,92,92,92	0
56	MG	QA	1867	1/1	0.34	0.16	99,99,99,99	0
56	MG	RA	3410	1/1	0.34	0.28	76,76,76,76	0
56	MG	RA	3452	1/1	0.34	0.28	78,78,78,78	0
56	MG	XA	1662	1/1	0.35	0.25	80,80,80,80	0
56	MG	YA	3270	1/1	0.35	0.29	83,83,83,83	0
56	MG	QE	202	1/1	0.35	0.16	91,91,91,91	0
56	MG	RH	202	1/1	0.35	0.12	96,96,96,96	0
56	MG	YA	3524	1/1	0.36	0.25	96,96,96,96	0
56	MG	QA	1871	1/1	0.37	0.18	100,100,100,100	0
56	MG	RA	3358	1/1	0.37	0.18	99,99,99,99	0
56	MG	YN	201	1/1	0.37	0.18	87,87,87,87	0
56	MG	YA	3459	1/1	0.38	0.30	85,85,85,85	0
56	MG	YG	201	1/1	0.38	0.24	116,116,116,116	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YI	201	1/1	0.38	0.14	110,110,110,110	0
56	MG	QA	1633	1/1	0.38	0.11	95,95,95,95	0
56	MG	QA	1780	1/1	0.38	0.23	92,92,92,92	0
56	MG	YA	3628	1/1	0.39	0.36	105,105,105,105	0
56	MG	XA	1639	1/1	0.39	0.32	98,98,98,98	0
56	MG	RA	3058	1/1	0.39	0.70	88,88,88,88	0
56	MG	QD	301	1/1	0.39	0.30	90,90,90,90	0
56	MG	RA	3271	1/1	0.40	0.22	93,93,93,93	0
56	MG	XA	1692	1/1	0.40	0.39	75,75,75,75	0
56	MG	RA	3961	1/1	0.40	0.33	114,114,114,114	0
56	MG	RA	3572	1/1	0.40	0.42	83,83,83,83	0
56	MG	YA	3491	1/1	0.40	0.36	53,53,53,53	0
56	MG	RA	3011	1/1	0.41	0.24	84,84,84,84	0
56	MG	QA	1731	1/1	0.41	0.33	71,71,71,71	0
56	MG	QA	1832	1/1	0.41	0.29	92,92,92,92	0
56	MG	YA	3467	1/1	0.41	0.55	82,82,82,82	0
56	MG	RA	3654	1/1	0.41	0.39	87,87,87,87	0
56	MG	QA	1712	1/1	0.41	0.22	87,87,87,87	0
56	MG	QA	1715	1/1	0.41	0.29	77,77,77,77	0
56	MG	QA	1725	1/1	0.41	0.63	90,90,90,90	0
56	MG	QA	1682	1/1	0.42	0.25	93,93,93,93	0
56	MG	QA	1727	1/1	0.42	0.18	100,100,100,100	0
56	MG	RA	3105	1/1	0.42	0.14	71,71,71,71	0
56	MG	YA	3177	1/1	0.43	0.22	71,71,71,71	0
56	MG	RA	3100	1/1	0.43	0.30	93,93,93,93	0
56	MG	RA	3987	1/1	0.43	0.39	80,80,80,80	0
56	MG	YA	3505	1/1	0.44	0.39	88,88,88,88	0
56	MG	QA	1842	1/1	0.44	0.24	84,84,84,84	0
56	MG	YA	3174	1/1	0.44	0.25	95,95,95,95	0
56	MG	RA	3439	1/1	0.44	0.20	89,89,89,89	0
56	MG	QA	1674	1/1	0.45	0.21	85,85,85,85	0
56	MG	RB	217	1/1	0.45	0.26	94,94,94,94	0
56	MG	XA	1754	1/1	0.45	0.58	86,86,86,86	0
56	MG	XA	1711	1/1	0.46	0.30	92,92,92,92	0
56	MG	RA	3982	1/1	0.46	0.36	83,83,83,83	0
56	MG	RA	3519	1/1	0.46	0.28	82,82,82,82	0
56	MG	RA	3523	1/1	0.46	0.26	64,64,64,64	0
56	MG	YA	3193	1/1	0.46	0.37	101,101,101,101	0
56	MG	YB	209	1/1	0.46	0.44	102,102,102,102	0
56	MG	RA	3635	1/1	0.46	0.17	112,112,112,112	0
56	MG	QA	1789	1/1	0.46	0.39	99,99,99,99	0
56	MG	RA	3099	1/1	0.46	0.33	102,102,102,102	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	QA	1848	1/1	0.46	0.34	68,68,68,68	0
56	MG	QA	1748	1/1	0.46	0.28	92,92,92,92	0
56	MG	R9	101	1/1	0.46	0.40	92,92,92,92	0
56	MG	XA	1609	1/1	0.47	0.51	88,88,88,88	0
56	MG	RA	3922	1/1	0.47	0.30	70,70,70,70	0
56	MG	QA	1844	1/1	0.47	0.22	80,80,80,80	0
56	MG	RA	3062	1/1	0.47	0.19	82,82,82,82	0
56	MG	RA	3733	1/1	0.47	0.47	96,96,96,96	0
56	MG	XA	1608	1/1	0.48	0.25	76,76,76,76	0
56	MG	XA	1787	1/1	0.48	0.56	84,84,84,84	0
56	MG	RA	3780	1/1	0.48	0.47	74,74,74,74	0
56	MG	RA	3198	1/1	0.48	0.15	84,84,84,84	0
56	MG	YA	3415	1/1	0.48	0.35	84,84,84,84	0
56	MG	YA	3488	1/1	0.48	0.18	105,105,105,105	0
56	MG	RA	3634	1/1	0.48	0.18	81,81,81,81	0
56	MG	YA	3028	1/1	0.48	0.23	51,51,51,51	0
56	MG	XA	1654	1/1	0.48	0.33	89,89,89,89	0
56	MG	QA	1812	1/1	0.49	0.41	68,68,68,68	0
56	MG	QA	1713	1/1	0.49	0.29	79,79,79,79	0
56	MG	YA	3662	1/1	0.49	0.56	91,91,91,91	0
56	MG	YA	3379	1/1	0.49	0.32	70,70,70,70	0
56	MG	RA	4004	1/1	0.49	0.56	93,93,93,93	0
56	MG	R4	102	1/1	0.49	0.12	88,88,88,88	0
56	MG	QA	1608	1/1	0.49	0.21	110,110,110,110	0
57	ZN	Y4	101	1/1	0.49	0.14	305,305,305,305	0
56	MG	RA	3553	1/1	0.50	0.38	87,87,87,87	0
56	MG	QA	1798	1/1	0.50	0.33	119,119,119,119	0
56	MG	RA	3511	1/1	0.50	0.41	62,62,62,62	0
56	MG	YA	3057	1/1	0.50	0.38	99,99,99,99	0
56	MG	RA	3942	1/1	0.50	0.26	104,104,104,104	0
56	MG	YA	3632	1/1	0.50	0.27	62,62,62,62	0
56	MG	YA	3421	1/1	0.50	0.30	75,75,75,75	0
56	MG	RA	3552	1/1	0.51	0.23	97,97,97,97	0
56	MG	XA	1709	1/1	0.51	0.26	72,72,72,72	0
56	MG	QA	1601	1/1	0.51	0.72	129,129,129,129	0
56	MG	YA	3293	1/1	0.51	0.36	70,70,70,70	0
56	MG	RA	3437	1/1	0.51	0.26	77,77,77,77	0
56	MG	RA	3540	1/1	0.51	0.28	73,73,73,73	0
56	MG	QA	1606	1/1	0.51	0.24	93,93,93,93	0
56	MG	RA	3993	1/1	0.52	0.26	86,86,86,86	0
56	MG	YA	3528	1/1	0.52	0.56	104,104,104,104	0
56	MG	RA	3752	1/1	0.52	0.43	102,102,102,102	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	QA	1756	1/1	0.52	0.36	114,114,114,114	0
56	MG	RB	215	1/1	0.52	0.25	91,91,91,91	0
56	MG	RA	3293	1/1	0.52	0.12	128,128,128,128	0
56	MG	YA	3396	1/1	0.52	0.36	94,94,94,94	0
56	MG	XA	1651	1/1	0.52	0.21	90,90,90,90	0
56	MG	YA	3414	1/1	0.52	0.50	83,83,83,83	0
56	MG	YA	3242	1/1	0.52	0.53	88,88,88,88	0
56	MG	YA	3253	1/1	0.52	0.28	98,98,98,98	0
56	MG	R5	104	1/1	0.52	0.15	67,67,67,67	0
56	MG	QA	1738	1/1	0.52	0.29	98,98,98,98	0
56	MG	YA	3037	1/1	0.52	0.29	88,88,88,88	0
56	MG	XJ	201	1/1	0.53	0.17	97,97,97,97	0
56	MG	RA	3786	1/1	0.53	0.17	87,87,87,87	0
56	MG	YA	3347	1/1	0.53	0.35	99,99,99,99	0
56	MG	RA	3481	1/1	0.53	0.18	81,81,81,81	0
56	MG	RA	3595	1/1	0.53	0.23	84,84,84,84	0
56	MG	QA	1876	1/1	0.53	0.13	84,84,84,84	0
56	MG	QA	1651	1/1	0.54	0.32	89,89,89,89	0
56	MG	RB	211	1/1	0.54	0.19	95,95,95,95	0
56	MG	QA	1745	1/1	0.54	0.32	98,98,98,98	0
56	MG	XA	1660	1/1	0.54	0.17	99,99,99,99	0
56	MG	QY	403	1/1	0.54	0.45	81,81,81,81	0
56	MG	RD	310	1/1	0.54	0.23	94,94,94,94	0
56	MG	RA	3688	1/1	0.54	0.24	90,90,90,90	0
56	MG	QA	1697	1/1	0.54	0.25	76,76,76,76	0
56	MG	YA	3058	1/1	0.54	0.17	75,75,75,75	0
56	MG	YA	3462	1/1	0.54	0.38	75,75,75,75	0
56	MG	RA	3563	1/1	0.54	0.29	66,66,66,66	0
56	MG	RA	3781	1/1	0.54	0.27	60,60,60,60	0
56	MG	RA	3490	1/1	0.54	0.33	86,86,86,86	0
56	MG	QM	201	1/1	0.55	0.20	85,85,85,85	0
56	MG	RA	3525	1/1	0.55	0.29	65,65,65,65	0
56	MG	QA	1840	1/1	0.55	0.32	89,89,89,89	0
56	MG	QA	1875	1/1	0.55	0.25	75,75,75,75	0
56	MG	QA	1665	1/1	0.55	0.27	102,102,102,102	0
56	MG	YE	303	1/1	0.55	0.58	103,103,103,103	0
56	MG	RA	3728	1/1	0.55	0.47	74,74,74,74	0
56	MG	RA	3399	1/1	0.55	0.28	117,117,117,117	0
56	MG	RA	3158	1/1	0.55	0.30	67,67,67,67	0
56	MG	RA	3339	1/1	0.56	0.30	68,68,68,68	0
56	MG	RA	3179	1/1	0.56	0.25	77,77,77,77	0
56	MG	XA	1758	1/1	0.56	0.29	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RD	313	1/1	0.56	0.36	82,82,82,82	0
56	MG	RA	3065	1/1	0.56	0.27	89,89,89,89	0
56	MG	RA	3412	1/1	0.56	0.39	71,71,71,71	0
56	MG	YA	3465	1/1	0.56	0.47	82,82,82,82	0
56	MG	RA	3277	1/1	0.56	0.31	94,94,94,94	0
56	MG	RA	3683	1/1	0.56	0.19	96,96,96,96	0
56	MG	QA	1763	1/1	0.56	0.28	100,100,100,100	0
56	MG	RA	3463	1/1	0.56	0.38	78,78,78,78	0
56	MG	XA	1682	1/1	0.57	0.43	86,86,86,86	0
56	MG	YA	3311	1/1	0.57	0.52	94,94,94,94	0
56	MG	QA	1653	1/1	0.57	0.28	85,85,85,85	0
56	MG	QA	1735	1/1	0.57	0.25	107,107,107,107	0
56	MG	XA	1624	1/1	0.57	0.17	76,76,76,76	0
56	MG	RA	3237	1/1	0.57	0.54	100,100,100,100	0
56	MG	RA	3247	1/1	0.57	0.33	88,88,88,88	0
56	MG	YA	3547	1/1	0.57	0.23	80,80,80,80	0
56	MG	RA	3067	1/1	0.57	0.21	83,83,83,83	0
56	MG	XA	1666	1/1	0.57	0.22	63,63,63,63	0
56	MG	RA	3322	1/1	0.57	0.34	90,90,90,90	0
56	MG	YF	302	1/1	0.57	0.54	85,85,85,85	0
56	MG	YA	3475	1/1	0.57	0.23	84,84,84,84	0
56	MG	QA	1793	1/1	0.57	0.41	82,82,82,82	0
56	MG	RA	3724	1/1	0.58	0.15	67,67,67,67	0
56	MG	YA	3448	1/1	0.58	0.27	81,81,81,81	0
56	MG	XA	1785	1/1	0.58	0.28	81,81,81,81	0
56	MG	XA	1652	1/1	0.58	0.25	78,78,78,78	0
56	MG	XA	1671	1/1	0.58	0.36	108,108,108,108	0
56	MG	RA	3361	1/1	0.58	0.20	76,76,76,76	0
56	MG	YA	3400	1/1	0.58	0.24	74,74,74,74	0
56	MG	RA	3784	1/1	0.58	0.23	94,94,94,94	0
56	MG	RB	229	1/1	0.58	0.22	108,108,108,108	0
56	MG	RA	3175	1/1	0.58	0.30	70,70,70,70	0
56	MG	XA	1675	1/1	0.58	0.30	82,82,82,82	0
56	MG	YA	3545	1/1	0.58	0.32	99,99,99,99	0
56	MG	YA	3092	1/1	0.58	0.14	113,113,113,113	0
56	MG	XA	1705	1/1	0.58	0.27	67,67,67,67	0
56	MG	QA	1759	1/1	0.58	0.23	78,78,78,78	0
56	MG	QA	1814	1/1	0.58	0.20	97,97,97,97	0
56	MG	XA	1781	1/1	0.58	0.51	110,110,110,110	0
56	MG	RA	3289	1/1	0.58	0.22	83,83,83,83	0
56	MG	RA	3401	1/1	0.59	0.12	44,44,44,44	0
56	MG	RA	3828	1/1	0.59	0.15	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3847	1/1	0.59	0.21	102,102,102,102	0
56	MG	RA	3851	1/1	0.59	0.22	91,91,91,91	0
56	MG	QD	303	1/1	0.59	0.16	79,79,79,79	0
56	MG	YA	3370	1/1	0.59	0.33	67,67,67,67	0
56	MG	QA	1690	1/1	0.59	0.15	72,72,72,72	0
56	MG	YB	205	1/1	0.59	0.24	89,89,89,89	0
56	MG	QA	1694	1/1	0.59	0.40	97,97,97,97	0
56	MG	QA	1720	1/1	0.59	0.43	97,97,97,97	0
56	MG	RA	3217	1/1	0.59	0.18	88,88,88,88	0
56	MG	RN	202	1/1	0.59	0.18	98,98,98,98	0
56	MG	RA	3777	1/1	0.59	0.52	93,93,93,93	0
56	MG	QA	1878	1/1	0.59	0.34	108,108,108,108	0
56	MG	RA	3367	1/1	0.59	0.40	74,74,74,74	0
56	MG	YA	3501	1/1	0.59	0.52	115,115,115,115	0
56	MG	QA	1826	1/1	0.60	0.20	74,74,74,74	0
56	MG	XA	1703	1/1	0.60	0.22	60,60,60,60	0
56	MG	XA	1610	1/1	0.60	0.30	79,79,79,79	0
56	MG	QA	1837	1/1	0.60	0.28	69,69,69,69	0
56	MG	RA	3031	1/1	0.60	0.34	75,75,75,75	0
56	MG	QA	1664	1/1	0.60	0.34	92,92,92,92	0
56	MG	RA	3611	1/1	0.60	0.22	80,80,80,80	0
56	MG	YA	3561	1/1	0.60	0.26	45,45,45,45	0
56	MG	YA	3455	1/1	0.60	0.48	79,79,79,79	0
56	MG	RW	202	1/1	0.60	0.38	89,89,89,89	0
56	MG	YA	3120	1/1	0.60	0.21	72,72,72,72	0
56	MG	QA	1652	1/1	0.60	0.20	83,83,83,83	0
56	MG	QA	1816	1/1	0.60	0.44	76,76,76,76	0
56	MG	RA	3249	1/1	0.60	0.69	94,94,94,94	0
56	MG	RA	3625	1/1	0.61	0.44	91,91,91,91	0
56	MG	RA	3756	1/1	0.61	0.29	83,83,83,83	0
56	MG	RA	3375	1/1	0.61	0.27	73,73,73,73	0
56	MG	QA	1739	1/1	0.61	0.17	87,87,87,87	0
56	MG	YA	3466	1/1	0.61	0.38	80,80,80,80	0
56	MG	RA	3782	1/1	0.61	0.48	94,94,94,94	0
56	MG	XA	1721	1/1	0.61	0.39	86,86,86,86	0
56	MG	YA	3261	1/1	0.61	0.17	55,55,55,55	0
56	MG	RA	3701	1/1	0.61	0.36	64,64,64,64	0
56	MG	RA	3429	1/1	0.61	0.21	89,89,89,89	0
56	MG	RA	3589	1/1	0.61	0.22	100,100,100,100	0
56	MG	QA	1856	1/1	0.61	0.30	89,89,89,89	0
56	MG	YA	3364	1/1	0.61	0.35	67,67,67,67	0
56	MG	RA	3422	1/1	0.62	0.33	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	QA	1675	1/1	0.62	0.19	94,94,94,94	0
56	MG	RA	3577	1/1	0.62	0.29	94,94,94,94	0
56	MG	RA	3431	1/1	0.62	0.35	88,88,88,88	0
56	MG	QA	1805	1/1	0.62	0.15	76,76,76,76	0
56	MG	QA	1810	1/1	0.62	0.29	69,69,69,69	0
56	MG	YA	3478	1/1	0.62	0.23	67,67,67,67	0
56	MG	RA	3823	1/1	0.62	0.32	97,97,97,97	0
56	MG	YA	3131	1/1	0.62	0.31	88,88,88,88	0
56	MG	QL	201	1/1	0.62	0.17	66,66,66,66	0
56	MG	YD	302	1/1	0.62	0.30	71,71,71,71	0
56	MG	RF	312	1/1	0.62	0.18	62,62,62,62	0
56	MG	QA	1822	1/1	0.62	0.36	65,65,65,65	0
56	MG	XA	1719	1/1	0.62	0.41	95,95,95,95	0
56	MG	RA	3028	1/1	0.62	0.26	69,69,69,69	0
56	MG	RA	3943	1/1	0.62	0.31	86,86,86,86	0
56	MG	RT	203	1/1	0.62	0.11	88,88,88,88	0
56	MG	XA	1616	1/1	0.62	0.16	115,115,115,115	0
56	MG	RA	3203	1/1	0.62	0.43	97,97,97,97	0
56	MG	QA	1615	1/1	0.62	0.12	107,107,107,107	0
56	MG	XA	1603	1/1	0.62	0.23	76,76,76,76	0
56	MG	QA	1642	1/1	0.62	0.23	83,83,83,83	0
56	MG	RB	216	1/1	0.63	0.13	59,59,59,59	0
56	MG	RA	3878	1/1	0.63	0.40	81,81,81,81	0
56	MG	YA	3340	1/1	0.63	0.24	59,59,59,59	0
56	MG	QA	1752	1/1	0.63	0.24	77,77,77,77	0
56	MG	XA	1784	1/1	0.63	0.40	72,72,72,72	0
56	MG	RA	3154	1/1	0.63	0.23	88,88,88,88	0
56	MG	RA	3256	1/1	0.63	0.49	103,103,103,103	0
56	MG	QA	1861	1/1	0.63	0.31	75,75,75,75	0
56	MG	YB	218	1/1	0.63	0.21	80,80,80,80	0
56	MG	RA	3278	1/1	0.63	0.37	83,83,83,83	0
56	MG	QA	1726	1/1	0.63	0.38	81,81,81,81	0
56	MG	RA	3549	1/1	0.63	0.29	78,78,78,78	0
56	MG	RA	4001	1/1	0.63	0.34	58,58,58,58	0
56	MG	RA	3187	1/1	0.63	0.51	106,106,106,106	0
56	MG	XA	1648	1/1	0.63	0.18	74,74,74,74	0
56	MG	QA	1819	1/1	0.63	0.15	65,65,65,65	0
56	MG	YA	3099	1/1	0.63	0.23	106,106,106,106	0
56	MG	QA	1843	1/1	0.64	0.16	89,89,89,89	0
56	MG	RA	3675	1/1	0.64	0.31	75,75,75,75	0
56	MG	RA	3364	1/1	0.64	0.23	96,96,96,96	0
56	MG	YA	3544	1/1	0.64	0.40	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3370	1/1	0.64	0.58	88,88,88,88	0
56	MG	RA	3036	1/1	0.64	0.19	69,69,69,69	0
56	MG	YA	3134	1/1	0.64	0.37	89,89,89,89	0
56	MG	RA	3205	1/1	0.64	0.22	76,76,76,76	0
56	MG	QA	1769	1/1	0.64	0.16	95,95,95,95	0
56	MG	RA	3746	1/1	0.64	0.38	112,112,112,112	0
56	MG	YA	3247	1/1	0.64	0.33	106,106,106,106	0
56	MG	QA	1750	1/1	0.64	0.24	67,67,67,67	0
56	MG	RA	3343	1/1	0.64	0.22	68,68,68,68	0
56	MG	YA	3427	1/1	0.64	0.24	75,75,75,75	0
56	MG	YA	3095	1/1	0.65	0.18	68,68,68,68	0
56	MG	QA	1708	1/1	0.65	0.26	77,77,77,77	0
56	MG	QA	1802	1/1	0.65	0.28	79,79,79,79	0
56	MG	YA	3302	1/1	0.65	0.38	72,72,72,72	0
56	MG	RA	3491	1/1	0.65	0.35	81,81,81,81	0
56	MG	QA	1849	1/1	0.65	0.47	81,81,81,81	0
56	MG	RF	302	1/1	0.65	0.20	73,73,73,73	0
56	MG	RA	3051	1/1	0.65	0.28	83,83,83,83	0
56	MG	RA	3404	1/1	0.65	0.18	81,81,81,81	0
56	MG	RA	3644	1/1	0.65	0.29	84,84,84,84	0
56	MG	QA	1831	1/1	0.65	0.43	93,93,93,93	0
56	MG	YA	3308	1/1	0.65	0.25	64,64,64,64	0
56	MG	YA	3740	1/1	0.65	0.23	52,52,52,52	0
56	MG	YA	3107	1/1	0.65	0.34	80,80,80,80	0
56	MG	RA	4019	1/1	0.65	0.43	87,87,87,87	0
56	MG	QA	1766	1/1	0.65	0.36	71,71,71,71	0
56	MG	QA	1874	1/1	0.65	0.27	74,74,74,74	0
56	MG	QN	103	1/1	0.65	0.49	80,80,80,80	0
56	MG	QA	1862	1/1	0.66	0.25	101,101,101,101	0
56	MG	QA	1835	1/1	0.66	0.29	89,89,89,89	0
56	MG	XA	1689	1/1	0.66	0.17	64,64,64,64	0
56	MG	YA	3439	1/1	0.66	0.27	80,80,80,80	0
56	MG	RA	3729	1/1	0.66	0.19	59,59,59,59	0
56	MG	QA	1777	1/1	0.66	0.14	81,81,81,81	0
56	MG	RA	3489	1/1	0.66	0.39	50,50,50,50	0
56	MG	RA	3122	1/1	0.66	0.35	92,92,92,92	0
56	MG	QA	1668	1/1	0.66	0.26	102,102,102,102	0
56	MG	QA	1645	1/1	0.66	0.30	75,75,75,75	0
56	MG	RA	3515	1/1	0.66	0.39	67,67,67,67	0
56	MG	YA	3498	1/1	0.66	0.32	64,64,64,64	0
56	MG	RA	3641	1/1	0.66	0.23	65,65,65,65	0
56	MG	QA	1702	1/1	0.66	0.25	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	4002	1/1	0.66	0.40	83,83,83,83	0
56	MG	YA	3476	1/1	0.66	0.28	52,52,52,52	0
56	MG	YA	3655	1/1	0.66	0.51	86,86,86,86	0
56	MG	YA	3532	1/1	0.66	0.25	60,60,60,60	0
56	MG	YA	3582	1/1	0.66	0.40	101,101,101,101	0
56	MG	RA	3682	1/1	0.67	0.26	81,81,81,81	0
56	MG	RB	227	1/1	0.67	0.29	74,74,74,74	0
56	MG	QA	1650	1/1	0.67	0.11	72,72,72,72	0
56	MG	YA	3150	1/1	0.67	0.40	84,84,84,84	0
56	MG	YA	3406	1/1	0.67	0.38	80,80,80,80	0
56	MG	RA	3722	1/1	0.67	0.26	82,82,82,82	0
56	MG	RA	3191	1/1	0.67	0.23	69,69,69,69	0
56	MG	RA	3725	1/1	0.67	0.19	80,80,80,80	0
56	MG	RG	203	1/1	0.67	0.20	79,79,79,79	0
56	MG	XA	1615	1/1	0.67	0.15	63,63,63,63	0
56	MG	QA	1721	1/1	0.67	0.29	75,75,75,75	0
56	MG	QA	1762	1/1	0.67	0.62	93,93,93,93	0
56	MG	QA	1604	1/1	0.67	0.12	75,75,75,75	0
56	MG	RV	201	1/1	0.67	0.16	110,110,110,110	0
56	MG	RB	210	1/1	0.67	0.25	109,109,109,109	0
56	MG	YA	3233	1/1	0.67	0.23	95,95,95,95	0
56	MG	RA	3647	1/1	0.67	0.45	88,88,88,88	0
56	MG	QA	1820	1/1	0.67	0.13	79,79,79,79	0
56	MG	YA	3148	1/1	0.67	0.34	92,92,92,92	0
56	MG	YA	3159	1/1	0.68	0.36	91,91,91,91	0
56	MG	QA	1866	1/1	0.68	0.47	89,89,89,89	0
56	MG	YA	3508	1/1	0.68	0.35	102,102,102,102	0
56	MG	RA	3757	1/1	0.68	0.32	70,70,70,70	0
56	MG	XA	1672	1/1	0.68	0.09	91,91,91,91	0
56	MG	QY	402	1/1	0.68	0.34	111,111,111,111	0
56	MG	RB	212	1/1	0.68	0.12	74,74,74,74	0
56	MG	RA	3637	1/1	0.68	0.31	66,66,66,66	0
56	MG	XA	1674	1/1	0.68	0.11	73,73,73,73	0
56	MG	RA	3197	1/1	0.68	0.18	85,85,85,85	0
56	MG	RB	222	1/1	0.68	0.31	94,94,94,94	0
56	MG	QA	1734	1/1	0.68	0.37	85,85,85,85	0
56	MG	YA	3735	1/1	0.68	0.37	71,71,71,71	0
56	MG	RA	3671	1/1	0.68	0.24	71,71,71,71	0
56	MG	RA	3672	1/1	0.68	0.21	75,75,75,75	0
56	MG	YA	3393	1/1	0.68	0.16	66,66,66,66	0
56	MG	YA	3265	1/1	0.68	0.22	64,64,64,64	0
56	MG	RA	3220	1/1	0.68	0.26	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	QA	1644	1/1	0.68	0.23	108,108,108,108	0
56	MG	RA	3693	1/1	0.68	0.30	67,67,67,67	0
56	MG	YB	206	1/1	0.68	0.21	99,99,99,99	0
56	MG	YA	3175	1/1	0.68	0.12	123,123,123,123	0
56	MG	QA	1853	1/1	0.68	0.34	107,107,107,107	0
56	MG	RA	3969	1/1	0.68	0.39	98,98,98,98	0
56	MG	QA	1718	1/1	0.68	0.42	82,82,82,82	0
56	MG	RA	3571	1/1	0.68	0.40	94,94,94,94	0
56	MG	QA	1823	1/1	0.68	0.31	70,70,70,70	0
56	MG	RA	3131	1/1	0.68	0.14	67,67,67,67	0
56	MG	QA	1602	1/1	0.68	0.15	95,95,95,95	0
56	MG	RA	3734	1/1	0.68	0.35	70,70,70,70	0
56	MG	YA	3504	1/1	0.69	0.29	74,74,74,74	0
56	MG	QA	1732	1/1	0.69	0.26	96,96,96,96	0
56	MG	YA	3534	1/1	0.69	0.47	124,124,124,124	0
56	MG	YB	211	1/1	0.69	0.28	70,70,70,70	0
56	MG	XA	1788	1/1	0.69	0.34	62,62,62,62	0
56	MG	QA	1737	1/1	0.69	0.49	72,72,72,72	0
56	MG	RA	3863	1/1	0.69	0.32	87,87,87,87	0
56	MG	RA	3280	1/1	0.69	0.24	78,78,78,78	0
56	MG	QA	1623	1/1	0.69	0.21	74,74,74,74	0
56	MG	YA	3417	1/1	0.69	0.50	106,106,106,106	0
56	MG	RA	3314	1/1	0.69	0.36	58,58,58,58	0
56	MG	QA	1743	1/1	0.69	0.16	71,71,71,71	0
56	MG	YA	3349	1/1	0.69	0.29	49,49,49,49	0
56	MG	RA	3960	1/1	0.69	0.58	89,89,89,89	0
56	MG	RA	3617	1/1	0.69	0.30	83,83,83,83	0
56	MG	RA	3963	1/1	0.69	0.20	110,110,110,110	0
56	MG	QA	1681	1/1	0.69	0.15	85,85,85,85	0
56	MG	XH	201	1/1	0.69	0.15	78,78,78,78	0
56	MG	QA	1796	1/1	0.69	0.32	73,73,73,73	0
56	MG	RA	3499	1/1	0.69	0.33	77,77,77,77	0
56	MG	RA	3638	1/1	0.69	0.29	85,85,85,85	0
56	MG	YA	3510	1/1	0.69	0.35	80,80,80,80	0
56	MG	YA	3557	1/1	0.69	0.40	67,67,67,67	0
56	MG	YA	3449	1/1	0.69	0.33	81,81,81,81	0
56	MG	YA	3747	1/1	0.69	0.45	108,108,108,108	0
56	MG	YA	3094	1/1	0.69	0.17	68,68,68,68	0
56	MG	RB	203	1/1	0.69	0.33	106,106,106,106	0
56	MG	RA	3798	1/1	0.70	0.39	99,99,99,99	0
56	MG	RA	3809	1/1	0.70	0.29	76,76,76,76	0
56	MG	RA	3150	1/1	0.70	0.14	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	QA	1788	1/1	0.70	0.20	81,81,81,81	0
56	MG	RA	3035	1/1	0.70	0.24	97,97,97,97	0
56	MG	QA	1761	1/1	0.70	0.41	72,72,72,72	0
56	MG	RA	3040	1/1	0.70	0.40	76,76,76,76	0
56	MG	RA	3864	1/1	0.70	0.33	76,76,76,76	0
56	MG	RA	3872	1/1	0.70	0.45	78,78,78,78	0
56	MG	RA	3292	1/1	0.70	0.11	83,83,83,83	0
56	MG	YA	3060	1/1	0.70	0.20	62,62,62,62	0
56	MG	XA	1770	1/1	0.70	0.19	104,104,104,104	0
56	MG	RA	3935	1/1	0.70	0.24	91,91,91,91	0
56	MG	RA	3061	1/1	0.70	0.12	84,84,84,84	0
56	MG	YA	3136	1/1	0.70	0.16	59,59,59,59	0
56	MG	XA	1777	1/1	0.70	0.59	98,98,98,98	0
56	MG	RF	310	1/1	0.70	0.39	88,88,88,88	0
56	MG	RA	3199	1/1	0.70	0.18	68,68,68,68	0
56	MG	YA	3281	1/1	0.70	0.57	60,60,60,60	0
56	MG	YA	3578	1/1	0.70	0.31	95,95,95,95	0
56	MG	QA	1662	1/1	0.70	0.31	82,82,82,82	0
56	MG	RA	3368	1/1	0.70	0.56	76,76,76,76	0
56	MG	RA	3762	1/1	0.70	0.12	76,76,76,76	0
56	MG	QA	1811	1/1	0.70	0.14	83,83,83,83	0
56	MG	RA	3992	1/1	0.70	0.21	74,74,74,74	0
56	MG	QA	1838	1/1	0.70	0.23	85,85,85,85	0
56	MG	XA	1749	1/1	0.70	0.36	82,82,82,82	0
56	MG	YA	3246	1/1	0.70	0.42	118,118,118,118	0
56	MG	RA	3252	1/1	0.70	0.40	91,91,91,91	0
56	MG	YA	3443	1/1	0.70	0.32	81,81,81,81	0
56	MG	RA	3457	1/1	0.71	0.47	81,81,81,81	0
56	MG	RA	3659	1/1	0.71	0.33	62,62,62,62	0
56	MG	RA	3559	1/1	0.71	0.33	97,97,97,97	0
56	MG	RA	3763	1/1	0.71	0.26	61,61,61,61	0
56	MG	XA	1693	1/1	0.71	0.29	81,81,81,81	0
56	MG	QG	202	1/1	0.71	0.21	92,92,92,92	0
56	MG	RA	3201	1/1	0.71	0.20	70,70,70,70	0
56	MG	XA	1702	1/1	0.71	0.23	61,61,61,61	0
56	MG	RA	3976	1/1	0.71	0.19	81,81,81,81	0
56	MG	RF	301	1/1	0.71	0.48	101,101,101,101	0
56	MG	QA	1624	1/1	0.71	0.41	73,73,73,73	0
56	MG	YA	3100	1/1	0.71	0.14	87,87,87,87	0
56	MG	RA	3791	1/1	0.71	0.26	64,64,64,64	0
56	MG	XA	1683	1/1	0.71	0.28	69,69,69,69	0
56	MG	RA	3228	1/1	0.71	0.39	101,101,101,101	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3620	1/1	0.71	0.18	90,90,90,90	0
56	MG	RA	3517	1/1	0.71	0.55	107,107,107,107	0
56	MG	QA	1754	1/1	0.71	0.28	108,108,108,108	0
56	MG	QA	1643	1/1	0.71	0.33	86,86,86,86	0
56	MG	YA	3729	1/1	0.71	0.29	61,61,61,61	0
56	MG	RA	3433	1/1	0.71	0.22	66,66,66,66	0
56	MG	YA	3267	1/1	0.71	0.37	100,100,100,100	0
56	MG	RA	3735	1/1	0.71	0.23	66,66,66,66	0
56	MG	R8	101	1/1	0.71	0.35	75,75,75,75	0
56	MG	QA	1609	1/1	0.71	0.19	106,106,106,106	0
56	MG	XA	1716	1/1	0.71	0.24	57,57,57,57	0
56	MG	YA	3432	1/1	0.72	0.45	84,84,84,84	0
56	MG	RA	3573	1/1	0.72	0.46	91,91,91,91	0
56	MG	QA	1863	1/1	0.72	0.23	80,80,80,80	0
56	MG	XA	1650	1/1	0.72	0.19	84,84,84,84	0
56	MG	XA	1751	1/1	0.72	0.27	59,59,59,59	0
56	MG	RA	3598	1/1	0.72	0.41	94,94,94,94	0
56	MG	XA	1706	1/1	0.72	0.30	67,67,67,67	0
56	MG	RA	3903	1/1	0.72	0.21	57,57,57,57	0
56	MG	RA	3497	1/1	0.72	0.28	82,82,82,82	0
56	MG	QV	102	1/1	0.72	0.21	45,45,45,45	0
56	MG	RA	3621	1/1	0.72	0.23	61,61,61,61	0
56	MG	QA	1746	1/1	0.72	0.24	65,65,65,65	0
56	MG	RA	3263	1/1	0.72	0.16	67,67,67,67	0
56	MG	RA	3953	1/1	0.72	0.21	86,86,86,86	0
56	MG	YA	3405	1/1	0.72	0.36	86,86,86,86	0
56	MG	XA	1759	1/1	0.72	0.15	56,56,56,56	0
56	MG	YA	3517	1/1	0.72	0.39	92,92,92,92	0
56	MG	QA	1782	1/1	0.72	0.23	69,69,69,69	0
56	MG	RA	3775	1/1	0.72	0.23	56,56,56,56	0
56	MG	RA	3527	1/1	0.72	0.44	67,67,67,67	0
56	MG	RA	3533	1/1	0.72	0.14	49,49,49,49	0
56	MG	RA	3538	1/1	0.72	0.13	80,80,80,80	0
56	MG	YA	3490	1/1	0.72	0.51	104,104,104,104	0
56	MG	XA	1697	1/1	0.72	0.37	70,70,70,70	0
56	MG	QA	1851	1/1	0.72	0.21	94,94,94,94	0
56	MG	R3	101	1/1	0.72	0.55	95,95,95,95	0
56	MG	QA	1787	1/1	0.72	0.27	76,76,76,76	0
56	MG	RA	3319	1/1	0.72	0.29	54,54,54,54	0
56	MG	XA	1661	1/1	0.72	0.20	87,87,87,87	0
56	MG	XA	1726	1/1	0.72	0.23	74,74,74,74	0
56	MG	QA	1676	1/1	0.72	0.13	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3123	1/1	0.73	0.20	86,86,86,86	0
56	MG	YA	3108	1/1	0.73	0.46	98,98,98,98	0
56	MG	RA	3754	1/1	0.73	0.28	92,92,92,92	0
56	MG	YA	3658	1/1	0.73	0.28	77,77,77,77	0
56	MG	RA	3933	1/1	0.73	0.28	76,76,76,76	0
56	MG	YA	3461	1/1	0.73	0.38	81,81,81,81	0
56	MG	QA	1821	1/1	0.73	0.31	90,90,90,90	0
56	MG	RB	225	1/1	0.73	0.09	76,76,76,76	0
56	MG	RB	226	1/1	0.73	0.16	99,99,99,99	0
56	MG	RA	3669	1/1	0.73	0.29	81,81,81,81	0
56	MG	QA	1640	1/1	0.73	0.17	75,75,75,75	0
56	MG	YA	3707	1/1	0.73	0.41	95,95,95,95	0
56	MG	YA	3727	1/1	0.73	0.30	59,59,59,59	0
56	MG	YA	3495	1/1	0.73	0.28	63,63,63,63	0
56	MG	YA	3102	1/1	0.73	0.25	60,60,60,60	0
56	MG	RA	3600	1/1	0.73	0.26	87,87,87,87	0
56	MG	RA	3076	1/1	0.73	0.41	83,83,83,83	0
56	MG	XA	1734	1/1	0.73	0.24	78,78,78,78	0
56	MG	YA	3227	1/1	0.73	0.15	64,64,64,64	0
56	MG	XA	1658	1/1	0.73	0.20	79,79,79,79	0
56	MG	RA	3990	1/1	0.73	0.27	109,109,109,109	0
56	MG	RA	3818	1/1	0.73	0.20	67,67,67,67	0
56	MG	QA	1610	1/1	0.73	0.16	105,105,105,105	0
56	MG	RA	3631	1/1	0.73	0.56	125,125,125,125	0
56	MG	RA	3834	1/1	0.73	0.25	80,80,80,80	0
56	MG	QA	1749	1/1	0.73	0.35	56,56,56,56	0
56	MG	RA	3023	1/1	0.73	0.22	73,73,73,73	0
56	MG	RA	3636	1/1	0.73	0.59	91,91,91,91	0
56	MG	XA	1708	1/1	0.73	0.44	78,78,78,78	0
56	MG	RA	3871	1/1	0.73	0.21	77,77,77,77	0
56	MG	RA	3239	1/1	0.73	0.53	112,112,112,112	0
56	MG	RA	3426	1/1	0.74	0.39	88,88,88,88	0
56	MG	YA	3603	1/1	0.74	0.58	100,100,100,100	0
56	MG	QA	1869	1/1	0.74	0.20	61,61,61,61	0
56	MG	YA	3236	1/1	0.74	0.45	106,106,106,106	0
56	MG	YA	3403	1/1	0.74	0.22	59,59,59,59	0
56	MG	XA	1649	1/1	0.74	0.20	92,92,92,92	0
56	MG	RA	3077	1/1	0.74	0.17	70,70,70,70	0
56	MG	RA	3453	1/1	0.74	0.31	64,64,64,64	0
56	MG	RA	4015	1/1	0.74	0.51	89,89,89,89	0
56	MG	RA	3261	1/1	0.74	0.27	82,82,82,82	0
56	MG	YA	3260	1/1	0.74	0.31	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3468	1/1	0.74	0.42	58,58,58,58	0
56	MG	RA	3272	1/1	0.74	0.14	83,83,83,83	0
56	MG	RA	3102	1/1	0.74	0.32	107,107,107,107	0
56	MG	XA	1686	1/1	0.74	0.25	68,68,68,68	0
56	MG	XA	1747	1/1	0.74	0.28	59,59,59,59	0
56	MG	RA	3283	1/1	0.74	0.33	101,101,101,101	0
56	MG	YA	3523	1/1	0.74	0.20	56,56,56,56	0
56	MG	RA	3839	1/1	0.74	0.13	72,72,72,72	0
56	MG	RA	3514	1/1	0.74	0.22	87,87,87,87	0
56	MG	YA	3198	1/1	0.74	0.19	80,80,80,80	0
56	MG	YB	215	1/1	0.74	0.27	92,92,92,92	0
56	MG	YA	3566	1/1	0.74	0.24	60,60,60,60	0
56	MG	YD	301	1/1	0.74	0.23	60,60,60,60	0
56	MG	YA	3167	1/1	0.74	0.36	88,88,88,88	0
56	MG	RA	3171	1/1	0.74	0.19	89,89,89,89	0
56	MG	XA	1663	1/1	0.74	0.23	107,107,107,107	0
56	MG	RA	3537	1/1	0.74	0.27	93,93,93,93	0
56	MG	RA	3916	1/1	0.74	0.28	72,72,72,72	0
56	MG	RA	3357	1/1	0.74	0.17	61,61,61,61	0
56	MG	XA	1620	1/1	0.74	0.14	63,63,63,63	0
56	MG	QT	201	1/1	0.74	0.38	65,65,65,65	0
56	MG	RA	3940	1/1	0.74	0.18	83,83,83,83	0
56	MG	QA	1808	1/1	0.74	0.28	54,54,54,54	0
56	MG	QA	1809	1/1	0.74	0.16	67,67,67,67	0
56	MG	RT	201	1/1	0.74	0.23	77,77,77,77	0
56	MG	RA	3015	1/1	0.74	0.23	72,72,72,72	0
56	MG	XA	1668	1/1	0.74	0.28	87,87,87,87	0
56	MG	QA	1854	1/1	0.74	0.23	67,67,67,67	0
56	MG	R0	102	1/1	0.74	0.18	84,84,84,84	0
56	MG	R0	104	1/1	0.74	0.30	90,90,90,90	0
56	MG	YA	3154	1/1	0.74	0.28	86,86,86,86	0
56	MG	XA	1625	1/1	0.74	0.19	74,74,74,74	0
56	MG	XA	1715	1/1	0.74	0.27	55,55,55,55	0
56	MG	QA	1733	1/1	0.74	0.25	60,60,60,60	0
56	MG	QA	1765	1/1	0.74	0.26	83,83,83,83	0
56	MG	QA	1636	1/1	0.74	0.27	66,66,66,66	0
57	ZN	R4	101	1/1	0.74	0.18	269,269,269,269	0
56	MG	RA	3731	1/1	0.75	0.23	83,83,83,83	0
56	MG	XL	201	1/1	0.75	0.36	85,85,85,85	0
56	MG	QA	1847	1/1	0.75	0.43	64,64,64,64	0
56	MG	XA	1647	1/1	0.75	0.31	92,92,92,92	0
56	MG	YA	3445	1/1	0.75	0.24	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	QA	1818	1/1	0.75	0.19	63,63,63,63	0
56	MG	QA	1661	1/1	0.75	0.41	81,81,81,81	0
56	MG	QA	1784	1/1	0.75	0.24	64,64,64,64	0
56	MG	QA	1753	1/1	0.75	0.22	71,71,71,71	0
56	MG	QN	102	1/1	0.75	0.15	68,68,68,68	0
56	MG	YA	3657	1/1	0.75	0.26	34,34,34,34	0
56	MG	QA	1639	1/1	0.75	0.22	79,79,79,79	0
56	MG	RA	3957	1/1	0.75	0.13	66,66,66,66	0
56	MG	XA	1698	1/1	0.75	0.32	66,66,66,66	0
56	MG	RA	3126	1/1	0.75	0.28	79,79,79,79	0
56	MG	YA	3190	1/1	0.75	0.12	78,78,78,78	0
56	MG	RA	3542	1/1	0.75	0.34	76,76,76,76	0
56	MG	QA	1864	1/1	0.75	0.29	90,90,90,90	0
56	MG	RA	3785	1/1	0.75	0.21	56,56,56,56	0
56	MG	QA	1672	1/1	0.75	0.34	45,45,45,45	0
56	MG	QA	1709	1/1	0.75	0.30	53,53,53,53	0
56	MG	YA	3492	1/1	0.75	0.39	63,63,63,63	0
56	MG	XA	1704	1/1	0.75	0.17	83,83,83,83	0
56	MG	YA	3249	1/1	0.75	0.34	72,72,72,72	0
56	MG	RA	3039	1/1	0.75	0.27	76,76,76,76	0
56	MG	QA	1611	1/1	0.75	0.48	89,89,89,89	0
56	MG	RA	3193	1/1	0.75	0.42	94,94,94,94	0
56	MG	R1	102	1/1	0.75	0.43	71,71,71,71	0
56	MG	RA	3710	1/1	0.75	0.49	70,70,70,70	0
56	MG	RA	3312	1/1	0.75	0.12	124,124,124,124	0
56	MG	XA	1643	1/1	0.75	0.11	80,80,80,80	0
56	MG	RA	3057	1/1	0.75	0.24	93,93,93,93	0
56	MG	XA	1645	1/1	0.75	0.24	93,93,93,93	0
56	MG	RA	3331	1/1	0.75	0.42	73,73,73,73	0
56	MG	QA	1770	1/1	0.75	0.15	73,73,73,73	0
56	MG	RA	3507	1/1	0.76	0.26	109,109,109,109	0
56	MG	XA	1723	1/1	0.76	0.21	75,75,75,75	0
56	MG	XA	1724	1/1	0.76	0.29	65,65,65,65	0
56	MG	YA	3712	1/1	0.76	0.34	51,51,51,51	0
56	MG	RA	3997	1/1	0.76	0.07	98,98,98,98	0
56	MG	YA	3082	1/1	0.76	0.25	78,78,78,78	0
56	MG	RA	3639	1/1	0.76	0.41	65,65,65,65	0
56	MG	RA	4003	1/1	0.76	0.22	51,51,51,51	0
56	MG	RA	3212	1/1	0.76	0.41	95,95,95,95	0
56	MG	RA	3789	1/1	0.76	0.20	95,95,95,95	0
56	MG	YA	3509	1/1	0.76	0.29	71,71,71,71	0
56	MG	RA	4035	1/1	0.76	0.44	116,116,116,116	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	4042	1/1	0.76	0.17	80,80,80,80	0
56	MG	RB	201	1/1	0.76	0.20	72,72,72,72	0
56	MG	RA	3795	1/1	0.76	0.20	75,75,75,75	0
56	MG	RA	3645	1/1	0.76	0.32	84,84,84,84	0
56	MG	RA	3800	1/1	0.76	0.31	102,102,102,102	0
56	MG	YA	3621	1/1	0.76	0.28	49,49,49,49	0
56	MG	Y7	101	1/1	0.76	0.35	75,75,75,75	0
56	MG	XA	1748	1/1	0.76	0.21	60,60,60,60	0
56	MG	RA	3387	1/1	0.76	0.17	50,50,50,50	0
56	MG	YA	3191	1/1	0.76	0.17	76,76,76,76	0
56	MG	RA	3103	1/1	0.76	0.36	104,104,104,104	0
56	MG	XA	1604	1/1	0.76	0.32	99,99,99,99	0
56	MG	YA	3435	1/1	0.76	0.27	36,36,36,36	0
56	MG	YB	201	1/1	0.76	0.21	89,89,89,89	0
56	MG	RA	3685	1/1	0.76	0.25	97,97,97,97	0
56	MG	YA	3550	1/1	0.76	0.38	76,76,76,76	0
56	MG	QA	1728	1/1	0.76	0.22	64,64,64,64	0
56	MG	RA	3694	1/1	0.76	0.58	107,107,107,107	0
56	MG	RA	3003	1/1	0.76	0.29	73,73,73,73	0
56	MG	RA	3132	1/1	0.76	0.10	63,63,63,63	0
56	MG	RA	3564	1/1	0.76	0.40	101,101,101,101	0
56	MG	YA	3642	1/1	0.76	0.35	58,58,58,58	0
56	MG	RA	3927	1/1	0.76	0.39	81,81,81,81	0
56	MG	XA	1769	1/1	0.76	0.31	64,64,64,64	0
56	MG	YA	3171	1/1	0.76	0.40	104,104,104,104	0
56	MG	RA	3446	1/1	0.76	0.33	63,63,63,63	0
56	MG	RA	3580	1/1	0.76	0.39	112,112,112,112	0
56	MG	RN	203	1/1	0.76	0.19	86,86,86,86	0
56	MG	RP	202	1/1	0.76	0.14	78,78,78,78	0
56	MG	YA	3559	1/1	0.76	0.30	54,54,54,54	0
56	MG	RA	3590	1/1	0.76	0.30	104,104,104,104	0
56	MG	YA	3239	1/1	0.76	0.48	94,94,94,94	0
56	MG	RA	3954	1/1	0.76	0.29	77,77,77,77	0
56	MG	RA	3177	1/1	0.76	0.36	72,72,72,72	0
56	MG	YA	3160	1/1	0.76	0.44	67,67,67,67	0
56	MG	XA	1634	1/1	0.76	0.14	75,75,75,75	0
56	MG	YA	3674	1/1	0.76	0.34	74,74,74,74	0
56	MG	YA	3699	1/1	0.76	0.35	66,66,66,66	0
56	MG	YA	3206	1/1	0.76	0.32	100,100,100,100	0
56	MG	YA	3710	1/1	0.76	0.22	61,61,61,61	0
56	MG	RA	3630	1/1	0.76	0.52	90,90,90,90	0
56	MG	RA	3985	1/1	0.76	0.32	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	XA	1789	1/1	0.76	0.09	58,58,58,58	0
56	MG	RA	3649	1/1	0.77	0.28	85,85,85,85	0
56	MG	RA	3936	1/1	0.77	0.26	74,74,74,74	0
56	MG	RA	3327	1/1	0.77	0.30	62,62,62,62	0
56	MG	QA	1607	1/1	0.77	0.30	71,71,71,71	0
56	MG	YA	3126	1/1	0.77	0.18	91,91,91,91	0
56	MG	RA	3948	1/1	0.77	0.31	89,89,89,89	0
56	MG	RA	3567	1/1	0.77	0.22	81,81,81,81	0
56	MG	RA	3222	1/1	0.77	0.11	72,72,72,72	0
56	MG	YA	3529	1/1	0.77	0.33	73,73,73,73	0
56	MG	QA	1872	1/1	0.77	0.11	85,85,85,85	0
56	MG	YA	3018	1/1	0.77	0.32	75,75,75,75	0
56	MG	RA	3139	1/1	0.77	0.16	72,72,72,72	0
56	MG	RA	3366	1/1	0.77	0.33	72,72,72,72	0
56	MG	YQ	202	1/1	0.77	0.21	59,59,59,59	0
56	MG	RE	304	1/1	0.77	0.34	75,75,75,75	0
56	MG	RA	3973	1/1	0.77	0.34	84,84,84,84	0
56	MG	RA	3974	1/1	0.77	0.37	70,70,70,70	0
56	MG	RF	304	1/1	0.77	0.35	63,63,63,63	0
56	MG	YA	3087	1/1	0.77	0.23	64,64,64,64	0
56	MG	Y5	101	1/1	0.77	0.15	63,63,63,63	0
56	MG	YA	3597	1/1	0.77	0.26	74,74,74,74	0
56	MG	QA	1666	1/1	0.77	0.11	74,74,74,74	0
56	MG	RA	3824	1/1	0.77	0.36	76,76,76,76	0
56	MG	XA	1750	1/1	0.77	0.26	87,87,87,87	0
56	MG	QA	1817	1/1	0.77	0.20	64,64,64,64	0
56	MG	QA	1850	1/1	0.77	0.32	51,51,51,51	0
56	MG	RA	3524	1/1	0.77	0.25	71,71,71,71	0
56	MG	YA	3689	1/1	0.77	0.32	67,67,67,67	0
56	MG	XF	204	1/1	0.77	0.20	101,101,101,101	0
56	MG	YA	3369	1/1	0.77	0.20	63,63,63,63	0
56	MG	YA	3613	1/1	0.77	0.25	53,53,53,53	0
56	MG	YB	217	1/1	0.77	0.27	77,77,77,77	0
56	MG	RA	4011	1/1	0.77	0.14	83,83,83,83	0
56	MG	YA	3164	1/1	0.77	0.45	87,87,87,87	0
56	MG	YA	3166	1/1	0.77	0.33	132,132,132,132	0
56	MG	YA	3179	1/1	0.77	0.26	69,69,69,69	0
56	MG	YA	3223	1/1	0.77	0.28	91,91,91,91	0
56	MG	RA	4058	1/1	0.77	0.42	120,120,120,120	0
56	MG	RA	3550	1/1	0.77	0.28	70,70,70,70	0
56	MG	RA	3444	1/1	0.77	0.69	83,83,83,83	0
56	MG	YA	3469	1/1	0.77	0.42	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	QB	301	1/1	0.78	0.18	91,91,91,91	0
56	MG	XA	1665	1/1	0.78	0.15	73,73,73,73	0
56	MG	RA	3825	1/1	0.78	0.18	98,98,98,98	0
56	MG	RB	224	1/1	0.78	0.28	78,78,78,78	0
56	MG	XA	1644	1/1	0.78	0.19	61,61,61,61	0
56	MG	YA	3678	1/1	0.78	0.30	50,50,50,50	0
56	MG	RA	3248	1/1	0.78	0.16	56,56,56,56	0
56	MG	YA	3745	1/1	0.78	0.33	67,67,67,67	0
56	MG	RA	3251	1/1	0.78	0.33	69,69,69,69	0
56	MG	XA	1731	1/1	0.78	0.22	65,65,65,65	0
56	MG	RA	3486	1/1	0.78	0.44	78,78,78,78	0
56	MG	YE	301	1/1	0.78	0.38	95,95,95,95	0
56	MG	XA	1744	1/1	0.78	0.27	59,59,59,59	0
56	MG	YA	3086	1/1	0.78	0.34	95,95,95,95	0
56	MG	RA	3265	1/1	0.78	0.08	111,111,111,111	0
56	MG	RA	3663	1/1	0.78	0.29	77,77,77,77	0
56	MG	RA	3374	1/1	0.78	0.78	92,92,92,92	0
56	MG	YA	3695	1/1	0.78	0.44	76,76,76,76	0
56	MG	RA	3924	1/1	0.78	0.20	65,65,65,65	0
56	MG	RA	3510	1/1	0.78	0.13	38,38,38,38	0
56	MG	QA	1797	1/1	0.78	0.30	95,95,95,95	0
56	MG	YA	3303	1/1	0.78	0.23	85,85,85,85	0
56	MG	RA	4024	1/1	0.78	0.29	59,59,59,59	0
56	MG	YA	3173	1/1	0.78	0.34	85,85,85,85	0
56	MG	QA	1616	1/1	0.78	0.10	92,92,92,92	0
56	MG	RU	202	1/1	0.78	0.19	78,78,78,78	0
56	MG	RA	4046	1/1	0.78	0.43	86,86,86,86	0
56	MG	RA	4049	1/1	0.78	0.14	92,92,92,92	0
56	MG	QA	1804	1/1	0.78	0.29	71,71,71,71	0
56	MG	QA	1621	1/1	0.78	0.12	71,71,71,71	0
56	MG	RA	3790	1/1	0.78	0.21	82,82,82,82	0
56	MG	YA	3474	1/1	0.78	0.30	72,72,72,72	0
56	MG	RB	209	1/1	0.78	0.08	92,92,92,92	0
56	MG	YA	3255	1/1	0.78	0.20	88,88,88,88	0
56	MG	YB	214	1/1	0.78	0.20	45,45,45,45	0
56	MG	YA	3070	1/1	0.78	0.16	62,62,62,62	0
56	MG	YA	3667	1/1	0.78	0.20	90,90,90,90	0
56	MG	YA	3085	1/1	0.78	0.14	86,86,86,86	0
56	MG	XA	1623	1/1	0.79	0.36	73,73,73,73	0
56	MG	QA	1667	1/1	0.79	0.12	67,67,67,67	0
56	MG	YA	3042	1/1	0.79	0.20	61,61,61,61	0
56	MG	RA	3653	1/1	0.79	0.19	75,75,75,75	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3934	1/1	0.79	0.07	62,62,62,62	0
56	MG	RA	3768	1/1	0.79	0.32	76,76,76,76	0
56	MG	QA	1760	1/1	0.79	0.40	77,77,77,77	0
56	MG	RA	3142	1/1	0.79	0.13	76,76,76,76	0
56	MG	RA	3661	1/1	0.79	0.20	89,89,89,89	0
56	MG	QA	1813	1/1	0.79	0.36	83,83,83,83	0
56	MG	RA	3665	1/1	0.79	0.34	77,77,77,77	0
56	MG	YA	3005	1/1	0.79	0.25	63,63,63,63	0
56	MG	RA	3299	1/1	0.79	0.41	96,96,96,96	0
56	MG	RA	3302	1/1	0.79	0.16	92,92,92,92	0
56	MG	RA	3956	1/1	0.79	0.35	77,77,77,77	0
56	MG	QA	1744	1/1	0.79	0.22	65,65,65,65	0
56	MG	RB	228	1/1	0.79	0.09	93,93,93,93	0
56	MG	RA	3679	1/1	0.79	0.27	54,54,54,54	0
56	MG	RA	3591	1/1	0.79	0.36	77,77,77,77	0
56	MG	YA	3718	1/1	0.79	0.13	60,60,60,60	0
56	MG	RA	3596	1/1	0.79	0.17	83,83,83,83	0
56	MG	RA	3522	1/1	0.79	0.18	55,55,55,55	0
56	MG	RA	3316	1/1	0.79	0.38	84,84,84,84	0
56	MG	RA	3607	1/1	0.79	0.33	98,98,98,98	0
56	MG	RA	3977	1/1	0.79	0.31	62,62,62,62	0
56	MG	YA	3726	1/1	0.79	0.36	81,81,81,81	0
56	MG	RA	3706	1/1	0.79	0.26	58,58,58,58	0
56	MG	RA	3241	1/1	0.79	0.35	108,108,108,108	0
56	MG	QA	1730	1/1	0.79	0.27	49,49,49,49	0
56	MG	XA	1772	1/1	0.79	0.35	51,51,51,51	0
56	MG	RA	3181	1/1	0.79	0.15	90,90,90,90	0
56	MG	RA	3841	1/1	0.79	0.33	64,64,64,64	0
56	MG	RA	3845	1/1	0.79	0.27	94,94,94,94	0
56	MG	XA	1722	1/1	0.79	0.08	67,67,67,67	0
56	MG	YA	3069	1/1	0.79	0.24	78,78,78,78	0
56	MG	YA	3646	1/1	0.79	0.17	69,69,69,69	0
56	MG	RA	3456	1/1	0.79	0.22	58,58,58,58	0
56	MG	RA	3195	1/1	0.79	0.34	115,115,115,115	0
56	MG	QA	1773	1/1	0.79	0.11	71,71,71,71	0
56	MG	YA	3418	1/1	0.79	0.38	56,56,56,56	0
56	MG	RA	4018	1/1	0.79	0.29	70,70,70,70	0
56	MG	QA	1830	1/1	0.79	0.18	85,85,85,85	0
56	MG	RA	3883	1/1	0.79	0.30	93,93,93,93	0
56	MG	RA	3890	1/1	0.79	0.41	57,57,57,57	0
56	MG	RA	3898	1/1	0.79	0.11	48,48,48,48	0
56	MG	RA	3558	1/1	0.79	0.33	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3907	1/1	0.79	0.32	78,78,78,78	0
56	MG	YA	3737	1/1	0.79	0.72	107,107,107,107	0
56	MG	QA	1637	1/1	0.80	0.28	93,93,93,93	0
56	MG	RA	3227	1/1	0.80	0.26	93,93,93,93	0
56	MG	RA	3346	1/1	0.80	0.38	72,72,72,72	0
56	MG	RA	3704	1/1	0.80	0.34	91,91,91,91	0
56	MG	RA	4038	1/1	0.80	0.26	66,66,66,66	0
56	MG	RA	3593	1/1	0.80	0.29	66,66,66,66	0
56	MG	YA	3698	1/1	0.80	0.46	77,77,77,77	0
56	MG	RA	3713	1/1	0.80	0.27	47,47,47,47	0
56	MG	RA	3715	1/1	0.80	0.30	76,76,76,76	0
56	MG	RA	3719	1/1	0.80	0.19	55,55,55,55	0
56	MG	RA	3498	1/1	0.80	0.25	58,58,58,58	0
56	MG	RB	207	1/1	0.80	0.13	82,82,82,82	0
56	MG	YA	3645	1/1	0.80	0.26	67,67,67,67	0
56	MG	RA	3891	1/1	0.80	0.25	59,59,59,59	0
56	MG	RA	3505	1/1	0.80	0.16	64,64,64,64	0
56	MG	QA	1767	1/1	0.80	0.20	90,90,90,90	0
56	MG	RA	3362	1/1	0.80	0.31	93,93,93,93	0
56	MG	RA	3912	1/1	0.80	0.78	76,76,76,76	0
56	MG	YA	3251	1/1	0.80	0.26	100,100,100,100	0
56	MG	RA	3512	1/1	0.80	0.41	80,80,80,80	0
56	MG	YA	3649	1/1	0.80	0.28	60,60,60,60	0
56	MG	XA	1601	1/1	0.80	0.28	75,75,75,75	0
56	MG	RA	3629	1/1	0.80	0.30	60,60,60,60	0
56	MG	RA	3741	1/1	0.80	0.12	61,61,61,61	0
56	MG	QA	1860	1/1	0.80	0.19	100,100,100,100	0
56	MG	YA	3653	1/1	0.80	0.32	55,55,55,55	0
56	MG	RA	3017	1/1	0.80	0.42	68,68,68,68	0
56	MG	YA	3204	1/1	0.80	0.13	42,42,42,42	0
56	MG	QA	1696	1/1	0.80	0.12	73,73,73,73	0
56	MG	YA	3599	1/1	0.80	0.31	70,70,70,70	0
56	MG	XA	1718	1/1	0.80	0.29	73,73,73,73	0
56	MG	RA	3764	1/1	0.80	0.28	60,60,60,60	0
56	MG	XA	1680	1/1	0.80	0.17	77,77,77,77	0
56	MG	RA	3038	1/1	0.80	0.25	63,63,63,63	0
56	MG	RA	3642	1/1	0.80	0.18	70,70,70,70	0
56	MG	YA	3052	1/1	0.80	0.18	45,45,45,45	0
56	MG	YA	3186	1/1	0.80	0.14	39,39,39,39	0
56	MG	RG	202	1/1	0.80	0.16	85,85,85,85	0
56	MG	RA	3646	1/1	0.80	0.34	92,92,92,92	0
56	MG	QA	1660	1/1	0.80	0.21	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	XA	1775	1/1	0.80	0.43	72,72,72,72	0
56	MG	YA	3732	1/1	0.80	0.38	73,73,73,73	0
56	MG	QA	1795	1/1	0.80	0.33	61,61,61,61	0
56	MG	XA	1687	1/1	0.80	0.21	101,101,101,101	0
56	MG	YA	3456	1/1	0.80	0.38	68,68,68,68	0
56	MG	RA	3557	1/1	0.80	0.23	63,63,63,63	0
56	MG	XA	1619	1/1	0.80	0.10	74,74,74,74	0
56	MG	RA	3667	1/1	0.80	0.19	60,60,60,60	0
56	MG	RA	3801	1/1	0.80	0.15	74,74,74,74	0
56	MG	YA	3197	1/1	0.80	0.23	77,77,77,77	0
56	MG	R0	103	1/1	0.80	0.54	81,81,81,81	0
56	MG	RA	3812	1/1	0.80	0.22	106,106,106,106	0
56	MG	YA	3676	1/1	0.80	0.44	73,73,73,73	0
56	MG	YA	3228	1/1	0.80	0.14	75,75,75,75	0
56	MG	RA	3317	1/1	0.80	0.27	73,73,73,73	0
56	MG	RA	3207	1/1	0.80	0.31	69,69,69,69	0
56	MG	RA	3459	1/1	0.80	0.40	78,78,78,78	0
56	MG	YA	3020	1/1	0.80	0.45	80,80,80,80	0
56	MG	XA	1790	1/1	0.80	0.11	98,98,98,98	0
56	MG	YA	3314	1/1	0.80	0.32	55,55,55,55	0
56	MG	RA	3310	1/1	0.81	0.19	96,96,96,96	0
56	MG	YA	3463	1/1	0.81	0.14	47,47,47,47	0
56	MG	YA	3419	1/1	0.81	0.33	66,66,66,66	0
56	MG	RA	3995	1/1	0.81	0.37	111,111,111,111	0
56	MG	YA	3103	1/1	0.81	0.16	63,63,63,63	0
56	MG	RA	3998	1/1	0.81	0.25	87,87,87,87	0
56	MG	YA	3567	1/1	0.81	0.26	42,42,42,42	0
56	MG	RA	3182	1/1	0.81	0.47	85,85,85,85	0
56	MG	RA	3019	1/1	0.81	0.39	113,113,113,113	0
56	MG	QA	1859	1/1	0.81	0.29	50,50,50,50	0
56	MG	RA	4008	1/1	0.81	0.51	86,86,86,86	0
56	MG	YA	3424	1/1	0.81	0.08	27,27,27,27	0
56	MG	RA	3806	1/1	0.81	0.36	78,78,78,78	0
56	MG	XA	1712	1/1	0.81	0.27	61,61,61,61	0
56	MG	YA	3001	1/1	0.81	0.25	90,90,90,90	0
56	MG	YA	3511	1/1	0.81	0.39	60,60,60,60	0
56	MG	YA	3694	1/1	0.81	0.43	80,80,80,80	0
56	MG	YA	3516	1/1	0.81	0.37	78,78,78,78	0
56	MG	QA	1774	1/1	0.81	0.27	77,77,77,77	0
56	MG	YA	3200	1/1	0.81	0.41	70,70,70,70	0
56	MG	YA	3312	1/1	0.81	0.28	73,73,73,73	0
56	MG	RA	4054	1/1	0.81	0.44	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3206	1/1	0.81	0.36	97,97,97,97	0
56	MG	RA	4066	1/1	0.81	0.28	78,78,78,78	0
56	MG	YA	3163	1/1	0.81	0.19	52,52,52,52	0
56	MG	RA	3545	1/1	0.81	0.25	70,70,70,70	0
56	MG	RA	3846	1/1	0.81	0.36	80,80,80,80	0
56	MG	YA	3003	1/1	0.81	0.41	106,106,106,106	0
56	MG	QA	1688	1/1	0.81	0.23	62,62,62,62	0
56	MG	YD	307	1/1	0.81	0.28	64,64,64,64	0
56	MG	RA	3551	1/1	0.81	0.24	72,72,72,72	0
56	MG	YA	3341	1/1	0.81	0.25	42,42,42,42	0
56	MG	RA	3075	1/1	0.81	0.18	56,56,56,56	0
56	MG	YA	3220	1/1	0.81	0.37	87,87,87,87	0
56	MG	RA	3232	1/1	0.81	0.33	57,57,57,57	0
56	MG	RA	3402	1/1	0.81	0.24	71,71,71,71	0
56	MG	YA	3722	1/1	0.81	0.31	89,89,89,89	0
56	MG	RA	3081	1/1	0.81	0.37	91,91,91,91	0
56	MG	RA	3090	1/1	0.81	0.34	93,93,93,93	0
56	MG	YA	3723	1/1	0.81	0.34	67,67,67,67	0
56	MG	XA	1740	1/1	0.81	0.27	65,65,65,65	0
56	MG	YA	3411	1/1	0.81	0.23	83,83,83,83	0
56	MG	YA	3538	1/1	0.81	0.26	44,44,44,44	0
56	MG	YA	3412	1/1	0.81	0.43	72,72,72,72	0
56	MG	RA	3583	1/1	0.81	0.20	72,72,72,72	0
56	MG	RE	302	1/1	0.81	0.35	109,109,109,109	0
56	MG	RA	3926	1/1	0.81	0.41	83,83,83,83	0
56	MG	QH	202	1/1	0.81	0.10	77,77,77,77	0
56	MG	RA	3438	1/1	0.81	0.20	71,71,71,71	0
56	MG	YA	3279	1/1	0.81	0.18	61,61,61,61	0
56	MG	RA	3118	1/1	0.81	0.23	76,76,76,76	0
56	MG	RA	3594	1/1	0.81	0.21	67,67,67,67	0
56	MG	YA	3192	1/1	0.81	0.21	71,71,71,71	0
56	MG	RA	3941	1/1	0.81	0.14	69,69,69,69	0
56	MG	YA	3180	1/1	0.81	0.25	43,43,43,43	0
56	MG	RA	3740	1/1	0.81	0.30	76,76,76,76	0
56	MG	RA	3128	1/1	0.81	0.20	48,48,48,48	0
56	MG	RA	3744	1/1	0.81	0.27	41,41,41,41	0
56	MG	RA	3275	1/1	0.81	0.38	72,72,72,72	0
56	MG	RA	3751	1/1	0.81	0.11	51,51,51,51	0
56	MG	RA	3955	1/1	0.81	0.20	74,74,74,74	0
56	MG	RA	3602	1/1	0.81	0.44	80,80,80,80	0
56	MG	RA	3604	1/1	0.81	0.33	91,91,91,91	0
56	MG	Y8	101	1/1	0.81	0.39	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RV	204	1/1	0.81	0.50	70,70,70,70	0
56	MG	YA	3196	1/1	0.81	0.36	109,109,109,109	0
56	MG	RA	3758	1/1	0.81	0.15	49,49,49,49	0
56	MG	QO	101	1/1	0.81	0.13	79,79,79,79	0
56	MG	RA	3472	1/1	0.81	0.21	51,51,51,51	0
56	MG	QQ	201	1/1	0.81	0.12	71,71,71,71	0
56	MG	RA	3284	1/1	0.81	0.34	97,97,97,97	0
56	MG	QQ	202	1/1	0.81	0.11	68,68,68,68	0
56	MG	QA	1663	1/1	0.81	0.15	73,73,73,73	0
56	MG	QA	1852	1/1	0.81	0.25	60,60,60,60	0
56	MG	RA	3162	1/1	0.81	0.30	72,72,72,72	0
56	MG	RA	3002	1/1	0.81	0.32	70,70,70,70	0
56	MG	RA	3304	1/1	0.81	0.16	39,39,39,39	0
56	MG	XA	1605	1/1	0.82	0.18	72,72,72,72	0
56	MG	RA	4014	1/1	0.82	0.30	83,83,83,83	0
56	MG	RA	3276	1/1	0.82	0.30	91,91,91,91	0
56	MG	RA	3157	1/1	0.82	0.26	72,72,72,72	0
56	MG	YA	3563	1/1	0.82	0.43	76,76,76,76	0
56	MG	RA	3858	1/1	0.82	0.27	80,80,80,80	0
56	MG	RA	4029	1/1	0.82	0.20	91,91,91,91	0
56	MG	YA	3203	1/1	0.82	0.29	84,84,84,84	0
56	MG	YA	3230	1/1	0.82	0.34	57,57,57,57	0
56	MG	YA	3720	1/1	0.82	0.32	83,83,83,83	0
56	MG	RA	3454	1/1	0.82	0.10	51,51,51,51	0
56	MG	RA	3286	1/1	0.82	0.29	118,118,118,118	0
56	MG	QA	1614	1/1	0.82	0.15	48,48,48,48	0
56	MG	RA	3880	1/1	0.82	0.21	54,54,54,54	0
56	MG	RA	4065	1/1	0.82	0.25	86,86,86,86	0
56	MG	RA	3037	1/1	0.82	0.25	88,88,88,88	0
56	MG	RA	3461	1/1	0.82	0.41	76,76,76,76	0
56	MG	YA	3336	1/1	0.82	0.35	71,71,71,71	0
56	MG	RB	206	1/1	0.82	0.16	74,74,74,74	0
56	MG	RA	3296	1/1	0.82	0.21	102,102,102,102	0
56	MG	YA	3530	1/1	0.82	0.38	59,59,59,59	0
56	MG	YA	3586	1/1	0.82	0.42	48,48,48,48	0
56	MG	QA	1824	1/1	0.82	0.52	127,127,127,127	0
56	MG	QA	1622	1/1	0.82	0.16	62,62,62,62	0
56	MG	RA	3921	1/1	0.82	0.38	88,88,88,88	0
56	MG	XA	1622	1/1	0.82	0.12	42,42,42,42	0
56	MG	YA	3588	1/1	0.82	0.23	76,76,76,76	0
56	MG	YA	3122	1/1	0.82	0.29	60,60,60,60	0
56	MG	YA	3731	1/1	0.82	0.25	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3929	1/1	0.82	0.28	65,65,65,65	0
56	MG	QA	1742	1/1	0.82	0.23	58,58,58,58	0
56	MG	XA	1627	1/1	0.82	0.20	62,62,62,62	0
56	MG	XA	1632	1/1	0.82	0.31	59,59,59,59	0
56	MG	YA	3046	1/1	0.82	0.30	75,75,75,75	0
56	MG	QA	1791	1/1	0.82	0.38	96,96,96,96	0
56	MG	RA	3340	1/1	0.82	0.31	52,52,52,52	0
56	MG	RA	3088	1/1	0.82	0.54	89,89,89,89	0
56	MG	YA	3507	1/1	0.82	0.25	44,44,44,44	0
56	MG	RA	3093	1/1	0.82	0.11	72,72,72,72	0
56	MG	YG	202	1/1	0.82	0.16	78,78,78,78	0
56	MG	XA	1685	1/1	0.82	0.23	65,65,65,65	0
56	MG	RA	3224	1/1	0.82	0.27	96,96,96,96	0
56	MG	YA	3078	1/1	0.82	0.29	60,60,60,60	0
56	MG	YA	3422	1/1	0.82	0.23	122,122,122,122	0
56	MG	QA	1648	1/1	0.82	0.11	67,67,67,67	0
56	MG	RA	3535	1/1	0.82	0.25	57,57,57,57	0
56	MG	YA	3742	1/1	0.82	0.22	36,36,36,36	0
56	MG	RA	3788	1/1	0.82	0.18	75,75,75,75	0
56	MG	RA	3968	1/1	0.82	0.29	66,66,66,66	0
56	MG	YA	3222	1/1	0.82	0.33	71,71,71,71	0
56	MG	RA	3240	1/1	0.82	0.27	92,92,92,92	0
56	MG	YA	3304	1/1	0.82	0.29	56,56,56,56	0
56	MG	RA	3794	1/1	0.82	0.44	86,86,86,86	0
56	MG	RA	3246	1/1	0.82	0.26	69,69,69,69	0
56	MG	RA	3397	1/1	0.82	0.35	65,65,65,65	0
56	MG	RA	3121	1/1	0.82	0.28	83,83,83,83	0
56	MG	YA	3755	1/1	0.82	0.19	80,80,80,80	0
56	MG	RV	202	1/1	0.82	0.14	55,55,55,55	0
56	MG	YA	3146	1/1	0.82	0.19	60,60,60,60	0
56	MG	YA	3130	1/1	0.82	0.38	65,65,65,65	0
56	MG	RZ	301	1/1	0.82	0.09	66,66,66,66	0
56	MG	RA	3130	1/1	0.82	0.14	69,69,69,69	0
56	MG	RA	3556	1/1	0.82	0.30	75,75,75,75	0
56	MG	QA	1857	1/1	0.82	0.44	71,71,71,71	0
56	MG	RA	3005	1/1	0.82	0.26	99,99,99,99	0
56	MG	YA	3700	1/1	0.82	0.28	71,71,71,71	0
56	MG	RA	3826	1/1	0.82	0.21	62,62,62,62	0
56	MG	RA	3827	1/1	0.82	0.30	57,57,57,57	0
56	MG	YA	3437	1/1	0.82	0.34	85,85,85,85	0
56	MG	QA	1723	1/1	0.82	0.17	50,50,50,50	0
56	MG	RA	3152	1/1	0.82	0.19	106,106,106,106	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3569	1/1	0.82	0.30	64,64,64,64	0
56	MG	XA	1626	1/1	0.83	0.52	77,77,77,77	0
56	MG	RA	3584	1/1	0.83	0.13	45,45,45,45	0
56	MG	YR	201	1/1	0.83	0.21	66,66,66,66	0
56	MG	RA	3059	1/1	0.83	0.21	76,76,76,76	0
56	MG	YT	202	1/1	0.83	0.25	84,84,84,84	0
56	MG	RA	3592	1/1	0.83	0.32	56,56,56,56	0
56	MG	YT	203	1/1	0.83	0.19	78,78,78,78	0
56	MG	YB	207	1/1	0.83	0.48	110,110,110,110	0
56	MG	RA	3726	1/1	0.83	0.24	53,53,53,53	0
56	MG	RA	4047	1/1	0.83	0.45	117,117,117,117	0
56	MG	XA	1778	1/1	0.83	0.29	60,60,60,60	0
56	MG	RA	4052	1/1	0.83	0.17	90,90,90,90	0
56	MG	RA	3074	1/1	0.83	0.10	52,52,52,52	0
56	MG	QA	1825	1/1	0.83	0.26	74,74,74,74	0
56	MG	YA	3161	1/1	0.83	0.30	76,76,76,76	0
56	MG	QA	1776	1/1	0.83	0.29	80,80,80,80	0
56	MG	YA	3464	1/1	0.83	0.33	73,73,73,73	0
56	MG	RB	202	1/1	0.83	0.13	55,55,55,55	0
56	MG	YA	3208	1/1	0.83	0.29	60,60,60,60	0
56	MG	RA	3737	1/1	0.83	0.22	77,77,77,77	0
56	MG	YA	3687	1/1	0.83	0.23	75,75,75,75	0
56	MG	QA	1833	1/1	0.83	0.26	51,51,51,51	0
56	MG	RA	3354	1/1	0.83	0.19	61,61,61,61	0
56	MG	YA	3210	1/1	0.83	0.27	65,65,65,65	0
56	MG	RA	3747	1/1	0.83	0.38	96,96,96,96	0
56	MG	YA	3641	1/1	0.83	0.41	86,86,86,86	0
56	MG	YA	3733	1/1	0.83	0.17	62,62,62,62	0
56	MG	QL	203	1/1	0.83	0.14	60,60,60,60	0
56	MG	RA	3755	1/1	0.83	0.34	71,71,71,71	0
56	MG	RA	3518	1/1	0.83	0.32	82,82,82,82	0
56	MG	QA	1741	1/1	0.83	0.30	45,45,45,45	0
56	MG	XA	1728	1/1	0.83	0.19	101,101,101,101	0
56	MG	RA	3760	1/1	0.83	0.18	74,74,74,74	0
56	MG	YA	3214	1/1	0.83	0.25	111,111,111,111	0
56	MG	QA	1641	1/1	0.83	0.34	105,105,105,105	0
56	MG	RA	3245	1/1	0.83	0.14	81,81,81,81	0
56	MG	RA	3526	1/1	0.83	0.30	51,51,51,51	0
56	MG	RD	304	1/1	0.83	0.35	86,86,86,86	0
56	MG	RA	3772	1/1	0.83	0.25	57,57,57,57	0
56	MG	XF	202	1/1	0.83	0.10	73,73,73,73	0
56	MG	XA	1691	1/1	0.83	0.30	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	QA	1747	1/1	0.83	0.35	72,72,72,72	0
56	MG	YA	3263	1/1	0.83	0.50	81,81,81,81	0
56	MG	YD	310	1/1	0.83	0.11	64,64,64,64	0
56	MG	XA	1653	1/1	0.83	0.33	79,79,79,79	0
56	MG	RF	309	1/1	0.83	0.34	68,68,68,68	0
56	MG	QA	1801	1/1	0.83	0.23	78,78,78,78	0
56	MG	RA	3652	1/1	0.83	0.33	88,88,88,88	0
56	MG	XK	201	1/1	0.83	0.09	53,53,53,53	0
56	MG	QA	1703	1/1	0.83	0.13	60,60,60,60	0
56	MG	XA	1613	1/1	0.83	0.10	51,51,51,51	0
56	MG	QA	1806	1/1	0.83	0.17	73,73,73,73	0
56	MG	RA	3425	1/1	0.83	0.29	94,94,94,94	0
56	MG	YA	3104	1/1	0.83	0.35	85,85,85,85	0
56	MG	YA	3101	1/1	0.83	0.34	70,70,70,70	0
56	MG	RO	201	1/1	0.83	0.21	93,93,93,93	0
56	MG	YA	3053	1/1	0.83	0.36	77,77,77,77	0
56	MG	RA	3670	1/1	0.83	0.17	80,80,80,80	0
56	MG	RA	3805	1/1	0.83	0.33	98,98,98,98	0
56	MG	RA	3034	1/1	0.83	0.34	100,100,100,100	0
56	MG	RA	3166	1/1	0.83	0.28	68,68,68,68	0
56	MG	RA	3169	1/1	0.83	0.19	82,82,82,82	0
56	MG	RA	3816	1/1	0.83	0.34	102,102,102,102	0
56	MG	QA	1655	1/1	0.83	0.20	64,64,64,64	0
56	MG	YA	3138	1/1	0.83	0.23	61,61,61,61	0
56	MG	R0	101	1/1	0.83	0.27	94,94,94,94	0
56	MG	RA	3996	1/1	0.83	0.40	73,73,73,73	0
56	MG	YA	3065	1/1	0.83	0.27	88,88,88,88	0
56	MG	YA	3288	1/1	0.83	0.30	53,53,53,53	0
56	MG	YA	3292	1/1	0.83	0.64	81,81,81,81	0
56	MG	QA	1724	1/1	0.83	0.25	76,76,76,76	0
56	MG	RA	3042	1/1	0.83	0.19	80,80,80,80	0
56	MG	RA	3831	1/1	0.83	0.23	65,65,65,65	0
56	MG	RA	4005	1/1	0.83	0.19	58,58,58,58	0
56	MG	YA	3555	1/1	0.83	0.34	77,77,77,77	0
56	MG	RA	3702	1/1	0.83	0.25	67,67,67,67	0
56	MG	RA	3458	1/1	0.83	0.23	74,74,74,74	0
56	MG	XA	1602	1/1	0.84	0.27	86,86,86,86	0
56	MG	RA	3842	1/1	0.84	0.21	72,72,72,72	0
56	MG	RA	3294	1/1	0.84	0.23	61,61,61,61	0
56	MG	RA	4021	1/1	0.84	0.14	56,56,56,56	0
56	MG	YA	3295	1/1	0.84	0.23	44,44,44,44	0
56	MG	YA	3525	1/1	0.84	0.33	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3587	1/1	0.84	0.39	53,53,53,53	0
56	MG	RA	3095	1/1	0.84	0.40	88,88,88,88	0
56	MG	RA	3862	1/1	0.84	0.24	79,79,79,79	0
56	MG	YA	3562	1/1	0.84	0.25	70,70,70,70	0
56	MG	XA	1606	1/1	0.84	0.06	95,95,95,95	0
56	MG	RA	3311	1/1	0.84	0.37	100,100,100,100	0
56	MG	YA	3050	1/1	0.84	0.16	85,85,85,85	0
56	MG	YA	3238	1/1	0.84	0.24	91,91,91,91	0
56	MG	RA	4056	1/1	0.84	0.39	70,70,70,70	0
56	MG	YA	3470	1/1	0.84	0.18	59,59,59,59	0
56	MG	RA	3485	1/1	0.84	0.51	65,65,65,65	0
56	MG	RA	3881	1/1	0.84	0.48	68,68,68,68	0
56	MG	RA	3111	1/1	0.84	0.30	106,106,106,106	0
56	MG	RA	3214	1/1	0.84	0.23	59,59,59,59	0
56	MG	RA	3601	1/1	0.84	0.54	87,87,87,87	0
56	MG	QA	1630	1/1	0.84	0.16	81,81,81,81	0
56	MG	RA	3739	1/1	0.84	0.31	78,78,78,78	0
56	MG	QA	1677	1/1	0.84	0.35	94,94,94,94	0
56	MG	YA	3570	1/1	0.84	0.36	59,59,59,59	0
56	MG	QA	1771	1/1	0.84	0.13	57,57,57,57	0
56	MG	YA	3531	1/1	0.84	0.25	66,66,66,66	0
56	MG	XA	1733	1/1	0.84	0.16	72,72,72,72	0
56	MG	YB	202	1/1	0.84	0.15	56,56,56,56	0
56	MG	RA	3925	1/1	0.84	0.30	83,83,83,83	0
56	MG	RA	3352	1/1	0.84	0.29	65,65,65,65	0
56	MG	RA	3628	1/1	0.84	0.25	65,65,65,65	0
56	MG	QA	1865	1/1	0.84	0.29	75,75,75,75	0
56	MG	XA	1739	1/1	0.84	0.34	61,61,61,61	0
56	MG	XA	1656	1/1	0.84	0.25	80,80,80,80	0
56	MG	RA	3134	1/1	0.84	0.28	83,83,83,83	0
56	MG	RA	3244	1/1	0.84	0.16	71,71,71,71	0
56	MG	RA	3939	1/1	0.84	0.27	58,58,58,58	0
56	MG	XA	1618	1/1	0.84	0.36	72,72,72,72	0
56	MG	RA	3365	1/1	0.84	0.26	61,61,61,61	0
56	MG	XA	1701	1/1	0.84	0.30	51,51,51,51	0
56	MG	RA	3143	1/1	0.84	0.11	72,72,72,72	0
56	MG	RA	3769	1/1	0.84	0.36	46,46,46,46	0
56	MG	RA	3949	1/1	0.84	0.18	80,80,80,80	0
56	MG	YA	3135	1/1	0.84	0.50	89,89,89,89	0
56	MG	QA	1827	1/1	0.84	0.21	52,52,52,52	0
56	MG	RA	3371	1/1	0.84	0.37	75,75,75,75	0
56	MG	RA	3779	1/1	0.84	0.31	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3051	1/1	0.84	0.18	64,64,64,64	0
56	MG	YA	3351	1/1	0.84	0.30	51,51,51,51	0
56	MG	RA	3380	1/1	0.84	0.24	43,43,43,43	0
56	MG	XT	201	1/1	0.84	0.13	65,65,65,65	0
56	MG	RA	3396	1/1	0.84	0.31	58,58,58,58	0
56	MG	RG	204	1/1	0.84	0.16	67,67,67,67	0
56	MG	RA	3258	1/1	0.84	0.35	96,96,96,96	0
56	MG	YA	3257	1/1	0.84	0.36	84,84,84,84	0
56	MG	YA	3115	1/1	0.84	0.24	52,52,52,52	0
56	MG	QA	1792	1/1	0.84	0.22	69,69,69,69	0
56	MG	YX	101	1/1	0.84	0.25	31,31,31,31	0
56	MG	RP	201	1/1	0.84	0.50	72,72,72,72	0
56	MG	RA	3407	1/1	0.84	0.35	34,34,34,34	0
56	MG	Y0	101	1/1	0.84	0.40	65,65,65,65	0
56	MG	RT	202	1/1	0.84	0.17	65,65,65,65	0
56	MG	RA	3176	1/1	0.84	0.43	96,96,96,96	0
56	MG	QG	201	1/1	0.84	0.21	91,91,91,91	0
56	MG	RA	3555	1/1	0.84	0.55	68,68,68,68	0
56	MG	QA	1711	1/1	0.84	0.17	63,63,63,63	0
56	MG	RA	3180	1/1	0.84	0.22	75,75,75,75	0
56	MG	RA	3279	1/1	0.84	0.31	103,103,103,103	0
56	MG	RX	101	1/1	0.84	0.24	51,51,51,51	0
56	MG	YA	3133	1/1	0.84	0.28	91,91,91,91	0
56	MG	YA	3330	1/1	0.84	0.26	62,62,62,62	0
56	MG	YA	3616	1/1	0.84	0.38	53,53,53,53	0
56	MG	RA	3566	1/1	0.84	0.21	57,57,57,57	0
56	MG	RA	3689	1/1	0.84	0.45	70,70,70,70	0
56	MG	RA	3285	1/1	0.84	0.20	85,85,85,85	0
56	MG	R1	103	1/1	0.84	0.13	55,55,55,55	0
56	MG	XA	1771	1/1	0.84	0.32	62,62,62,62	0
56	MG	RA	3696	1/1	0.84	0.36	74,74,74,74	0
56	MG	YA	3248	1/1	0.84	0.21	105,105,105,105	0
56	MG	YA	3493	1/1	0.84	0.21	74,74,74,74	0
56	MG	RA	3703	1/1	0.84	0.33	71,71,71,71	0
56	MG	RA	3837	1/1	0.84	0.19	59,59,59,59	0
56	MG	RA	3448	1/1	0.84	0.28	71,71,71,71	0
56	MG	RA	3865	1/1	0.85	0.30	51,51,51,51	0
56	MG	RA	3866	1/1	0.85	0.11	76,76,76,76	0
56	MG	RA	3867	1/1	0.85	0.17	63,63,63,63	0
56	MG	YA	3551	1/1	0.85	0.31	60,60,60,60	0
56	MG	RA	3603	1/1	0.85	0.38	101,101,101,101	0
56	MG	RA	3129	1/1	0.85	0.19	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	XA	1713	1/1	0.85	0.24	49,49,49,49	0
56	MG	YA	3693	1/1	0.85	0.25	60,60,60,60	0
56	MG	YA	3359	1/1	0.85	0.25	72,72,72,72	0
56	MG	YA	3622	1/1	0.85	0.30	49,49,49,49	0
56	MG	RA	3136	1/1	0.85	0.29	84,84,84,84	0
56	MG	XA	1629	1/1	0.85	0.13	51,51,51,51	0
56	MG	XA	1720	1/1	0.85	0.33	63,63,63,63	0
56	MG	QA	1868	1/1	0.85	0.35	58,58,58,58	0
56	MG	YA	3519	1/1	0.85	0.44	79,79,79,79	0
56	MG	RA	3250	1/1	0.85	0.29	69,69,69,69	0
56	MG	RA	3151	1/1	0.85	0.27	59,59,59,59	0
56	MG	RA	3918	1/1	0.85	0.40	71,71,71,71	0
56	MG	YA	3420	1/1	0.85	0.13	39,39,39,39	0
56	MG	YA	3218	1/1	0.85	0.39	89,89,89,89	0
56	MG	RA	3759	1/1	0.85	0.26	67,67,67,67	0
56	MG	YB	208	1/1	0.85	0.15	81,81,81,81	0
56	MG	RA	3259	1/1	0.85	0.11	87,87,87,87	0
56	MG	RA	3377	1/1	0.85	0.29	42,42,42,42	0
56	MG	QA	1679	1/1	0.85	0.19	64,64,64,64	0
56	MG	RA	3528	1/1	0.85	0.31	76,76,76,76	0
56	MG	RA	3530	1/1	0.85	0.19	75,75,75,75	0
56	MG	QA	1632	1/1	0.85	0.15	70,70,70,70	0
56	MG	RA	3163	1/1	0.85	0.69	93,93,93,93	0
56	MG	RA	3536	1/1	0.85	0.30	64,64,64,64	0
56	MG	RA	3268	1/1	0.85	0.26	95,95,95,95	0
56	MG	RA	3650	1/1	0.85	0.32	69,69,69,69	0
56	MG	RA	3053	1/1	0.85	0.35	89,89,89,89	0
56	MG	QA	1877	1/1	0.85	0.19	94,94,94,94	0
56	MG	XA	1642	1/1	0.85	0.22	55,55,55,55	0
56	MG	YA	3497	1/1	0.85	0.21	63,63,63,63	0
56	MG	RA	3950	1/1	0.85	0.26	87,87,87,87	0
56	MG	YA	3450	1/1	0.85	0.36	79,79,79,79	0
56	MG	RA	3952	1/1	0.85	0.26	49,49,49,49	0
56	MG	YA	3565	1/1	0.85	0.34	85,85,85,85	0
56	MG	YA	3368	1/1	0.85	0.25	62,62,62,62	0
56	MG	RA	3415	1/1	0.85	0.28	42,42,42,42	0
56	MG	QE	201	1/1	0.85	0.27	84,84,84,84	0
56	MG	QA	1689	1/1	0.85	0.29	80,80,80,80	0
56	MG	YA	3502	1/1	0.85	0.29	79,79,79,79	0
56	MG	QA	1691	1/1	0.85	0.27	104,104,104,104	0
56	MG	YA	3176	1/1	0.85	0.22	102,102,102,102	0
56	MG	YA	3221	1/1	0.85	0.40	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3290	1/1	0.85	0.27	74,74,74,74	0
56	MG	RA	3086	1/1	0.85	0.49	124,124,124,124	0
56	MG	YA	3375	1/1	0.85	0.36	55,55,55,55	0
56	MG	RA	3810	1/1	0.85	0.18	75,75,75,75	0
56	MG	RA	3440	1/1	0.85	0.32	57,57,57,57	0
56	MG	RA	3978	1/1	0.85	0.35	55,55,55,55	0
56	MG	RA	3981	1/1	0.85	0.08	69,69,69,69	0
56	MG	RA	3089	1/1	0.85	0.21	67,67,67,67	0
56	MG	YA	3124	1/1	0.85	0.26	54,54,54,54	0
56	MG	YA	3541	1/1	0.85	0.24	20,20,20,20	0
56	MG	QA	1700	1/1	0.85	0.26	66,66,66,66	0
56	MG	YA	3485	1/1	0.85	0.50	77,77,77,77	0
56	MG	RA	3305	1/1	0.85	0.17	98,98,98,98	0
56	MG	RA	3578	1/1	0.85	0.21	60,60,60,60	0
56	MG	XA	1655	1/1	0.85	0.28	84,84,84,84	0
56	MG	YA	3384	1/1	0.85	0.24	38,38,38,38	0
56	MG	YA	3043	1/1	0.85	0.28	62,62,62,62	0
56	MG	RA	3835	1/1	0.85	0.38	56,56,56,56	0
56	MG	RA	3208	1/1	0.85	0.15	70,70,70,70	0
56	MG	YA	3609	1/1	0.85	0.18	51,51,51,51	0
56	MG	YA	3682	1/1	0.85	0.13	37,37,37,37	0
56	MG	RA	3466	1/1	0.85	0.34	56,56,56,56	0
56	MG	QA	1758	1/1	0.85	0.36	76,76,76,76	0
56	MG	RA	3476	1/1	0.85	0.30	30,30,30,30	0
56	MG	YA	3683	1/1	0.85	0.30	39,39,39,39	0
56	MG	RA	3849	1/1	0.85	0.12	52,52,52,52	0
56	MG	RA	4013	1/1	0.85	0.22	76,76,76,76	0
56	MG	R5	101	1/1	0.85	0.37	105,105,105,105	0
56	MG	QA	1714	1/1	0.85	0.13	42,42,42,42	0
56	MG	RA	3329	1/1	0.85	0.16	86,86,86,86	0
56	MG	YA	3026	1/1	0.85	0.29	93,93,93,93	0
56	MG	XA	1760	1/1	0.85	0.30	71,71,71,71	0
56	MG	YA	3688	1/1	0.85	0.30	62,62,62,62	0
56	MG	YD	305	1/1	0.86	0.33	82,82,82,82	0
56	MG	YA	3264	1/1	0.86	0.21	88,88,88,88	0
56	MG	RA	3520	1/1	0.86	0.19	34,34,34,34	0
56	MG	RA	4051	1/1	0.86	0.25	63,63,63,63	0
56	MG	YA	3019	1/1	0.86	0.32	81,81,81,81	0
56	MG	RA	3018	1/1	0.86	0.28	89,89,89,89	0
56	MG	XA	1617	1/1	0.86	0.23	44,44,44,44	0
56	MG	YA	3032	1/1	0.86	0.34	80,80,80,80	0
56	MG	RA	3369	1/1	0.86	0.23	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3596	1/1	0.86	0.24	39,39,39,39	0
56	MG	YA	3313	1/1	0.86	0.34	46,46,46,46	0
56	MG	XA	1667	1/1	0.86	0.10	77,77,77,77	0
56	MG	YA	3383	1/1	0.86	0.25	70,70,70,70	0
56	MG	QV	101	1/1	0.86	0.28	118,118,118,118	0
56	MG	YA	3429	1/1	0.86	0.34	67,67,67,67	0
56	MG	RA	3260	1/1	0.86	0.43	71,71,71,71	0
56	MG	YA	3271	1/1	0.86	0.23	70,70,70,70	0
56	MG	RA	3156	1/1	0.86	0.32	117,117,117,117	0
56	MG	YO	201	1/1	0.86	0.21	78,78,78,78	0
56	MG	QA	1704	1/1	0.86	0.24	74,74,74,74	0
56	MG	RA	3662	1/1	0.86	0.34	89,89,89,89	0
56	MG	YA	3434	1/1	0.86	0.23	55,55,55,55	0
56	MG	RA	3050	1/1	0.86	0.43	88,88,88,88	0
56	MG	RB	218	1/1	0.86	0.19	79,79,79,79	0
56	MG	RB	221	1/1	0.86	0.20	64,64,64,64	0
56	MG	RA	3274	1/1	0.86	0.29	101,101,101,101	0
56	MG	YA	3272	1/1	0.86	0.20	39,39,39,39	0
56	MG	YA	3038	1/1	0.86	0.28	48,48,48,48	0
56	MG	YA	3225	1/1	0.86	0.23	74,74,74,74	0
56	MG	YW	202	1/1	0.86	0.14	55,55,55,55	0
56	MG	YA	3757	1/1	0.86	0.21	70,70,70,70	0
56	MG	XA	1736	1/1	0.86	0.20	58,58,58,58	0
56	MG	QA	1656	1/1	0.86	0.25	58,58,58,58	0
56	MG	RA	3063	1/1	0.86	0.18	41,41,41,41	0
56	MG	RA	3432	1/1	0.86	0.14	58,58,58,58	0
56	MG	RA	3064	1/1	0.86	0.10	54,54,54,54	0
56	MG	RA	3814	1/1	0.86	0.37	63,63,63,63	0
56	MG	XR	101	1/1	0.86	0.23	89,89,89,89	0
56	MG	RA	3817	1/1	0.86	0.34	76,76,76,76	0
56	MG	RA	3970	1/1	0.86	0.32	31,31,31,31	0
56	MG	RA	3066	1/1	0.86	0.24	56,56,56,56	0
56	MG	XA	1641	1/1	0.86	0.25	61,61,61,61	0
56	MG	YA	3514	1/1	0.86	0.38	62,62,62,62	0
56	MG	RF	311	1/1	0.86	0.35	74,74,74,74	0
56	MG	YA	3635	1/1	0.86	0.25	80,80,80,80	0
56	MG	QA	1772	1/1	0.86	0.36	79,79,79,79	0
56	MG	YA	3039	1/1	0.86	0.31	73,73,73,73	0
56	MG	YA	3140	1/1	0.86	0.35	65,65,65,65	0
56	MG	XA	1646	1/1	0.86	0.21	63,63,63,63	0
56	MG	XA	1696	1/1	0.86	0.23	67,67,67,67	0
56	MG	QA	1778	1/1	0.86	0.27	61,61,61,61	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RN	201	1/1	0.86	0.25	85,85,85,85	0
56	MG	YA	3706	1/1	0.86	0.28	79,79,79,79	0
56	MG	YA	3004	1/1	0.86	0.08	43,43,43,43	0
56	MG	QA	1669	1/1	0.86	0.29	71,71,71,71	0
56	MG	YA	3169	1/1	0.86	0.28	91,91,91,91	0
56	MG	QA	1673	1/1	0.86	0.13	52,52,52,52	0
56	MG	RQ	203	1/1	0.86	0.27	82,82,82,82	0
56	MG	RR	3203	1/1	0.86	0.32	84,84,84,84	0
56	MG	YA	3127	1/1	0.86	0.13	50,50,50,50	0
56	MG	YA	3713	1/1	0.86	0.50	67,67,67,67	0
56	MG	RA	3219	1/1	0.86	0.16	66,66,66,66	0
56	MG	RA	3104	1/1	0.86	0.17	57,57,57,57	0
56	MG	QA	1613	1/1	0.86	0.10	97,97,97,97	0
56	MG	YA	3716	1/1	0.86	0.27	65,65,65,65	0
56	MG	RA	3332	1/1	0.86	0.13	53,53,53,53	0
56	MG	RA	3334	1/1	0.86	0.26	46,46,46,46	0
56	MG	RA	4006	1/1	0.86	0.26	81,81,81,81	0
56	MG	RA	3338	1/1	0.86	0.36	38,38,38,38	0
56	MG	RA	4010	1/1	0.86	0.23	76,76,76,76	0
56	MG	QR	101	1/1	0.86	0.17	71,71,71,71	0
56	MG	XA	1764	1/1	0.86	0.33	52,52,52,52	0
56	MG	RA	3229	1/1	0.86	0.36	82,82,82,82	0
56	MG	RA	3344	1/1	0.86	0.29	51,51,51,51	0
56	MG	YA	3360	1/1	0.86	0.27	53,53,53,53	0
56	MG	RA	3351	1/1	0.86	0.18	70,70,70,70	0
56	MG	YA	3526	1/1	0.86	0.21	43,43,43,43	0
56	MG	YA	3056	1/1	0.86	0.26	81,81,81,81	0
56	MG	RA	3753	1/1	0.86	0.35	48,48,48,48	0
56	MG	YA	3097	1/1	0.86	0.20	37,37,37,37	0
56	MG	RA	3009	1/1	0.86	0.11	53,53,53,53	0
56	MG	RA	4040	1/1	0.86	0.29	69,69,69,69	0
56	MG	RA	3243	1/1	0.86	0.25	73,73,73,73	0
56	MG	RA	3342	1/1	0.87	0.33	60,60,60,60	0
56	MG	YA	3031	1/1	0.87	0.24	46,46,46,46	0
56	MG	RA	3859	1/1	0.87	0.31	72,72,72,72	0
56	MG	RA	3462	1/1	0.87	0.21	52,52,52,52	0
56	MG	RA	4026	1/1	0.87	0.25	71,71,71,71	0
56	MG	YA	3748	1/1	0.87	0.30	95,95,95,95	0
56	MG	RA	4031	1/1	0.87	0.29	102,102,102,102	0
56	MG	RA	4034	1/1	0.87	0.22	73,73,73,73	0
56	MG	QA	1836	1/1	0.87	0.27	89,89,89,89	0
56	MG	YA	3479	1/1	0.87	0.24	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3475	1/1	0.87	0.40	46,46,46,46	0
56	MG	YA	3623	1/1	0.87	0.25	54,54,54,54	0
56	MG	RA	3868	1/1	0.87	0.25	48,48,48,48	0
56	MG	QH	201	1/1	0.87	0.28	76,76,76,76	0
56	MG	RA	3484	1/1	0.87	0.25	30,30,30,30	0
56	MG	RA	3599	1/1	0.87	0.22	66,66,66,66	0
56	MG	RA	3167	1/1	0.87	0.10	69,69,69,69	0
56	MG	RA	4053	1/1	0.87	0.20	74,74,74,74	0
56	MG	YA	3624	1/1	0.87	0.42	71,71,71,71	0
56	MG	RA	4055	1/1	0.87	0.25	86,86,86,86	0
56	MG	RA	3360	1/1	0.87	0.33	66,66,66,66	0
56	MG	YA	3482	1/1	0.87	0.29	65,65,65,65	0
56	MG	RA	3887	1/1	0.87	0.22	53,53,53,53	0
56	MG	XA	1681	1/1	0.87	0.19	106,106,106,106	0
56	MG	RA	3363	1/1	0.87	0.22	50,50,50,50	0
56	MG	YA	3372	1/1	0.87	0.33	49,49,49,49	0
56	MG	YA	3109	1/1	0.87	0.19	35,35,35,35	0
56	MG	RA	3178	1/1	0.87	0.28	79,79,79,79	0
56	MG	RA	3909	1/1	0.87	0.25	73,73,73,73	0
56	MG	RA	3911	1/1	0.87	0.18	46,46,46,46	0
56	MG	YA	3012	1/1	0.87	0.14	56,56,56,56	0
56	MG	RA	3914	1/1	0.87	0.25	56,56,56,56	0
56	MG	YA	3639	1/1	0.87	0.33	74,74,74,74	0
56	MG	RA	3083	1/1	0.87	0.25	80,80,80,80	0
56	MG	YA	3116	1/1	0.87	0.19	58,58,58,58	0
56	MG	YA	3231	1/1	0.87	0.21	59,59,59,59	0
56	MG	RA	3373	1/1	0.87	0.28	44,44,44,44	0
56	MG	QA	1699	1/1	0.87	0.15	65,65,65,65	0
56	MG	RB	220	1/1	0.87	0.36	47,47,47,47	0
56	MG	YB	213	1/1	0.87	0.28	57,57,57,57	0
56	MG	YA	3392	1/1	0.87	0.28	54,54,54,54	0
56	MG	RA	3379	1/1	0.87	0.33	44,44,44,44	0
56	MG	YA	3181	1/1	0.87	0.22	66,66,66,66	0
56	MG	RA	3386	1/1	0.87	0.23	26,26,26,26	0
56	MG	RA	3282	1/1	0.87	0.26	109,109,109,109	0
56	MG	RA	3389	1/1	0.87	0.24	23,23,23,23	0
56	MG	RA	3390	1/1	0.87	0.26	27,27,27,27	0
56	MG	YA	3576	1/1	0.87	0.28	37,37,37,37	0
56	MG	YA	3183	1/1	0.87	0.14	47,47,47,47	0
56	MG	QA	1654	1/1	0.87	0.21	64,64,64,64	0
56	MG	RA	3648	1/1	0.87	0.28	82,82,82,82	0
56	MG	RE	301	1/1	0.87	0.42	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3532	1/1	0.87	0.10	52,52,52,52	0
56	MG	RA	3008	1/1	0.87	0.08	46,46,46,46	0
56	MG	YA	3273	1/1	0.87	0.18	72,72,72,72	0
56	MG	XA	1700	1/1	0.87	0.23	43,43,43,43	0
56	MG	RF	303	1/1	0.87	0.32	80,80,80,80	0
56	MG	RA	3108	1/1	0.87	0.25	69,69,69,69	0
56	MG	YA	3584	1/1	0.87	0.21	56,56,56,56	0
56	MG	XA	1611	1/1	0.87	0.18	73,73,73,73	0
56	MG	RA	3413	1/1	0.87	0.20	34,34,34,34	0
56	MG	RA	3114	1/1	0.87	0.33	91,91,91,91	0
56	MG	RA	3797	1/1	0.87	0.32	84,84,84,84	0
56	MG	RA	3418	1/1	0.87	0.38	36,36,36,36	0
56	MG	RA	3421	1/1	0.87	0.12	42,42,42,42	0
56	MG	RA	3962	1/1	0.87	0.29	62,62,62,62	0
56	MG	YA	3118	1/1	0.87	0.17	91,91,91,91	0
56	MG	RA	3802	1/1	0.87	0.41	89,89,89,89	0
56	MG	RA	3215	1/1	0.87	0.29	98,98,98,98	0
56	MG	YA	3659	1/1	0.87	0.23	29,29,29,29	0
56	MG	RA	3807	1/1	0.87	0.30	70,70,70,70	0
56	MG	XA	1755	1/1	0.87	0.22	43,43,43,43	0
56	MG	YA	3661	1/1	0.87	0.38	63,63,63,63	0
56	MG	RA	3811	1/1	0.87	0.12	55,55,55,55	0
56	MG	YA	3404	1/1	0.87	0.29	13,13,13,13	0
56	MG	YA	3064	1/1	0.87	0.17	55,55,55,55	0
56	MG	RA	3434	1/1	0.87	0.32	61,61,61,61	0
56	MG	XA	1762	1/1	0.87	0.08	48,48,48,48	0
56	MG	RA	3687	1/1	0.87	0.17	57,57,57,57	0
56	MG	RA	3821	1/1	0.87	0.27	29,29,29,29	0
56	MG	YA	3671	1/1	0.87	0.27	37,37,37,37	0
56	MG	XA	1767	1/1	0.87	0.27	37,37,37,37	0
56	MG	RA	3690	1/1	0.87	0.46	74,74,74,74	0
56	MG	YA	3361	1/1	0.87	0.13	65,65,65,65	0
56	MG	YA	3071	1/1	0.87	0.23	77,77,77,77	0
56	MG	YA	3442	1/1	0.87	0.27	53,53,53,53	0
56	MG	RA	3829	1/1	0.87	0.51	65,65,65,65	0
56	MG	RA	3699	1/1	0.87	0.14	98,98,98,98	0
56	MG	XA	1714	1/1	0.87	0.16	58,58,58,58	0
56	MG	RA	3450	1/1	0.87	0.48	53,53,53,53	0
56	MG	RA	3836	1/1	0.87	0.26	91,91,91,91	0
56	MG	YA	3316	1/1	0.87	0.17	53,53,53,53	0
56	MG	RA	3575	1/1	0.87	0.25	62,62,62,62	0
56	MG	RA	3840	1/1	0.87	0.16	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3324	1/1	0.87	0.35	39,39,39,39	0
56	MG	R5	103	1/1	0.87	0.25	59,59,59,59	0
56	MG	RA	3052	1/1	0.87	0.26	85,85,85,85	0
56	MG	QA	1779	1/1	0.87	0.12	80,80,80,80	0
56	MG	YA	3447	1/1	0.87	0.26	68,68,68,68	0
56	MG	QA	1627	1/1	0.87	0.10	42,42,42,42	0
56	MG	RA	3586	1/1	0.87	0.26	73,73,73,73	0
56	MG	XA	1630	1/1	0.88	0.18	62,62,62,62	0
56	MG	QA	1705	1/1	0.88	0.21	37,37,37,37	0
56	MG	QA	1670	1/1	0.88	0.24	81,81,81,81	0
56	MG	YA	3454	1/1	0.88	0.49	52,52,52,52	0
56	MG	YA	3024	1/1	0.88	0.43	59,59,59,59	0
56	MG	RA	3732	1/1	0.88	0.11	54,54,54,54	0
56	MG	RD	301	1/1	0.88	0.41	76,76,76,76	0
56	MG	YA	3309	1/1	0.88	0.14	37,37,37,37	0
56	MG	RA	3428	1/1	0.88	0.16	60,60,60,60	0
56	MG	RD	311	1/1	0.88	0.24	70,70,70,70	0
56	MG	RD	312	1/1	0.88	0.18	76,76,76,76	0
56	MG	YA	3520	1/1	0.88	0.20	68,68,68,68	0
56	MG	RA	3815	1/1	0.88	0.11	68,68,68,68	0
56	MG	YA	3178	1/1	0.88	0.15	62,62,62,62	0
56	MG	RA	3085	1/1	0.88	0.17	76,76,76,76	0
56	MG	RE	306	1/1	0.88	0.17	59,59,59,59	0
56	MG	YA	3438	1/1	0.88	0.21	45,45,45,45	0
56	MG	RA	3819	1/1	0.88	0.19	33,33,33,33	0
56	MG	RA	3657	1/1	0.88	0.22	65,65,65,65	0
56	MG	RA	3742	1/1	0.88	0.12	81,81,81,81	0
56	MG	RA	3931	1/1	0.88	0.31	73,73,73,73	0
56	MG	RA	3223	1/1	0.88	0.14	63,63,63,63	0
56	MG	RA	3026	1/1	0.88	0.28	72,72,72,72	0
56	MG	QA	1815	1/1	0.88	0.24	65,65,65,65	0
56	MG	RA	3750	1/1	0.88	0.44	66,66,66,66	0
56	MG	XA	1786	1/1	0.88	0.13	72,72,72,72	0
56	MG	RA	3033	1/1	0.88	0.36	91,91,91,91	0
56	MG	RA	3164	1/1	0.88	0.25	87,87,87,87	0
56	MG	RA	3832	1/1	0.88	0.12	74,74,74,74	0
56	MG	XA	1695	1/1	0.88	0.34	52,52,52,52	0
56	MG	RA	3097	1/1	0.88	0.28	93,93,93,93	0
56	MG	RA	3449	1/1	0.88	0.20	45,45,45,45	0
56	MG	RA	4045	1/1	0.88	0.26	71,71,71,71	0
56	MG	RA	3295	1/1	0.88	0.12	73,73,73,73	0
56	MG	RA	3674	1/1	0.88	0.35	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3017	1/1	0.88	0.33	60,60,60,60	0
56	MG	RQ	202	1/1	0.88	0.11	51,51,51,51	0
56	MG	YA	3709	1/1	0.88	0.24	58,58,58,58	0
56	MG	RR	3202	1/1	0.88	0.26	69,69,69,69	0
56	MG	RA	3101	1/1	0.88	0.21	68,68,68,68	0
56	MG	YA	3045	1/1	0.88	0.14	27,27,27,27	0
56	MG	YA	3040	1/1	0.88	0.20	66,66,66,66	0
56	MG	XE	202	1/1	0.88	0.10	67,67,67,67	0
56	MG	RA	3959	1/1	0.88	0.10	43,43,43,43	0
56	MG	QA	1619	1/1	0.88	0.12	75,75,75,75	0
56	MG	QL	202	1/1	0.88	0.16	68,68,68,68	0
56	MG	RA	3048	1/1	0.88	0.25	78,78,78,78	0
56	MG	RA	3612	1/1	0.88	0.33	64,64,64,64	0
56	MG	YA	3049	1/1	0.88	0.31	78,78,78,78	0
56	MG	RA	3695	1/1	0.88	0.14	52,52,52,52	0
56	MG	RA	3547	1/1	0.88	0.21	74,74,74,74	0
56	MG	YA	3378	1/1	0.88	0.22	53,53,53,53	0
56	MG	YA	3643	1/1	0.88	0.34	36,36,36,36	0
56	MG	QA	1794	1/1	0.88	0.22	79,79,79,79	0
56	MG	R1	101	1/1	0.88	0.27	82,82,82,82	0
56	MG	XA	1766	1/1	0.88	0.44	52,52,52,52	0
56	MG	RA	3480	1/1	0.88	0.28	42,42,42,42	0
56	MG	YA	3644	1/1	0.88	0.31	57,57,57,57	0
56	MG	R3	102	1/1	0.88	0.32	80,80,80,80	0
56	MG	RA	3709	1/1	0.88	0.25	75,75,75,75	0
56	MG	YA	3355	1/1	0.88	0.30	75,75,75,75	0
56	MG	YE	304	1/1	0.88	0.22	51,51,51,51	0
56	MG	YA	3084	1/1	0.88	0.20	66,66,66,66	0
56	MG	RA	3336	1/1	0.88	0.22	66,66,66,66	0
56	MG	QA	1635	1/1	0.88	0.10	58,58,58,58	0
57	ZN	YY	201	1/1	0.88	0.11	221,221,221,221	0
56	MG	YA	3068	1/1	0.88	0.12	65,65,65,65	0
57	ZN	RY	201	1/1	0.88	0.15	210,210,210,210	0
56	MG	YA	3535	1/1	0.88	0.35	75,75,75,75	0
56	MG	RA	3608	1/1	0.89	0.18	104,104,104,104	0
56	MG	RA	3270	1/1	0.89	0.33	103,103,103,103	0
56	MG	RA	3882	1/1	0.89	0.25	77,77,77,77	0
56	MG	YA	3117	1/1	0.89	0.08	42,42,42,42	0
56	MG	QF	201	1/1	0.89	0.14	59,59,59,59	0
56	MG	YA	3187	1/1	0.89	0.17	40,40,40,40	0
56	MG	YA	3701	1/1	0.89	0.40	60,60,60,60	0
56	MG	RA	3896	1/1	0.89	0.34	59,59,59,59	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3436	1/1	0.89	0.28	51,51,51,51	0
56	MG	YA	3232	1/1	0.89	0.30	104,104,104,104	0
56	MG	RA	4062	1/1	0.89	0.21	78,78,78,78	0
56	MG	RA	4063	1/1	0.89	0.37	68,68,68,68	0
56	MG	RA	3905	1/1	0.89	0.31	41,41,41,41	0
56	MG	YA	3188	1/1	0.89	0.36	94,94,94,94	0
56	MG	YA	3513	1/1	0.89	0.30	80,80,80,80	0
56	MG	RA	3384	1/1	0.89	0.31	21,21,21,21	0
56	MG	RA	3385	1/1	0.89	0.21	27,27,27,27	0
56	MG	YA	3471	1/1	0.89	0.29	58,58,58,58	0
56	MG	RA	3281	1/1	0.89	0.35	85,85,85,85	0
56	MG	QA	1834	1/1	0.89	0.14	43,43,43,43	0
56	MG	RA	3920	1/1	0.89	0.30	41,41,41,41	0
56	MG	RA	3521	1/1	0.89	0.32	81,81,81,81	0
56	MG	YA	3473	1/1	0.89	0.25	77,77,77,77	0
56	MG	YA	3715	1/1	0.89	0.24	58,58,58,58	0
56	MG	YA	3021	1/1	0.89	0.23	69,69,69,69	0
56	MG	YA	3648	1/1	0.89	0.19	40,40,40,40	0
56	MG	YA	3719	1/1	0.89	0.37	79,79,79,79	0
56	MG	RA	3776	1/1	0.89	0.30	73,73,73,73	0
56	MG	YE	302	1/1	0.89	0.25	79,79,79,79	0
56	MG	YA	3083	1/1	0.89	0.42	99,99,99,99	0
56	MG	RA	3406	1/1	0.89	0.16	60,60,60,60	0
56	MG	YA	3310	1/1	0.89	0.27	38,38,38,38	0
56	MG	YE	305	1/1	0.89	0.21	57,57,57,57	0
56	MG	QA	1845	1/1	0.89	0.35	77,77,77,77	0
56	MG	RA	3204	1/1	0.89	0.24	59,59,59,59	0
56	MG	RA	3297	1/1	0.89	0.12	39,39,39,39	0
56	MG	RA	3656	1/1	0.89	0.26	44,44,44,44	0
56	MG	RA	3416	1/1	0.89	0.23	60,60,60,60	0
56	MG	YA	3105	1/1	0.89	0.21	37,37,37,37	0
56	MG	RD	302	1/1	0.89	0.25	53,53,53,53	0
56	MG	RA	3301	1/1	0.89	0.38	66,66,66,66	0
56	MG	YA	3725	1/1	0.89	0.23	68,68,68,68	0
56	MG	YA	3446	1/1	0.89	0.34	71,71,71,71	0
56	MG	RA	3796	1/1	0.89	0.39	67,67,67,67	0
56	MG	RA	3664	1/1	0.89	0.26	48,48,48,48	0
56	MG	YG	203	1/1	0.89	0.12	54,54,54,54	0
56	MG	RA	3548	1/1	0.89	0.25	38,38,38,38	0
56	MG	YA	3481	1/1	0.89	0.34	77,77,77,77	0
56	MG	RA	3107	1/1	0.89	0.36	109,109,109,109	0
56	MG	XA	1638	1/1	0.89	0.10	118,118,118,118	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3269	1/1	0.89	0.15	78,78,78,78	0
56	MG	YA	3241	1/1	0.89	0.21	85,85,85,85	0
56	MG	YP	201	1/1	0.89	0.25	79,79,79,79	0
56	MG	RF	305	1/1	0.89	0.32	69,69,69,69	0
56	MG	XX	101	1/1	0.89	0.30	122,122,122,122	0
56	MG	RA	3967	1/1	0.89	0.34	61,61,61,61	0
56	MG	YA	3664	1/1	0.89	0.29	42,42,42,42	0
56	MG	RA	3024	1/1	0.89	0.28	74,74,74,74	0
56	MG	QA	1678	1/1	0.89	0.21	80,80,80,80	0
56	MG	RA	3560	1/1	0.89	0.27	23,23,23,23	0
56	MG	RA	3027	1/1	0.89	0.37	103,103,103,103	0
56	MG	RA	3127	1/1	0.89	0.22	52,52,52,52	0
56	MG	RA	3565	1/1	0.89	0.12	44,44,44,44	0
56	MG	RA	3691	1/1	0.89	0.16	64,64,64,64	0
56	MG	RA	3692	1/1	0.89	0.24	87,87,87,87	0
56	MG	XA	1763	1/1	0.89	0.39	49,49,49,49	0
56	MG	YA	3048	1/1	0.89	0.19	57,57,57,57	0
56	MG	YA	3059	1/1	0.89	0.39	79,79,79,79	0
56	MG	QA	1620	1/1	0.89	0.10	75,75,75,75	0
56	MG	YA	3278	1/1	0.89	0.17	38,38,38,38	0
56	MG	YA	3110	1/1	0.89	0.19	63,63,63,63	0
56	MG	YA	3611	1/1	0.89	0.20	31,31,31,31	0
56	MG	YA	3457	1/1	0.89	0.13	33,33,33,33	0
56	MG	YA	3423	1/1	0.89	0.31	59,59,59,59	0
56	MG	RA	3705	1/1	0.89	0.32	50,50,50,50	0
56	MG	YA	3684	1/1	0.89	0.36	39,39,39,39	0
56	MG	RA	3581	1/1	0.89	0.26	75,75,75,75	0
56	MG	RA	3460	1/1	0.89	0.36	51,51,51,51	0
56	MG	RU	203	1/1	0.89	0.53	64,64,64,64	0
56	MG	QA	1692	1/1	0.89	0.18	52,52,52,52	0
56	MG	XA	1774	1/1	0.89	0.31	59,59,59,59	0
56	MG	RA	3355	1/1	0.89	0.28	24,24,24,24	0
56	MG	RA	3588	1/1	0.89	0.12	63,63,63,63	0
56	MG	RA	3844	1/1	0.89	0.41	113,113,113,113	0
56	MG	RA	3464	1/1	0.89	0.31	71,71,71,71	0
56	MG	RA	3356	1/1	0.89	0.07	23,23,23,23	0
56	MG	RA	3468	1/1	0.89	0.18	40,40,40,40	0
56	MG	YA	3199	1/1	0.89	0.25	102,102,102,102	0
56	MG	XA	1776	1/1	0.89	0.36	61,61,61,61	0
56	MG	YA	3499	1/1	0.89	0.14	38,38,38,38	0
56	MG	RA	3730	1/1	0.89	0.12	51,51,51,51	0
56	MG	RA	3861	1/1	0.89	0.08	43,43,43,43	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3426	1/1	0.89	0.19	50,50,50,50	0
56	MG	XA	1779	1/1	0.89	0.38	60,60,60,60	0
56	MG	YA	3034	1/1	0.89	0.18	68,68,68,68	0
56	MG	YA	3055	1/1	0.89	0.25	45,45,45,45	0
56	MG	XA	1659	1/1	0.89	0.10	75,75,75,75	0
56	MG	RA	3736	1/1	0.89	0.18	74,74,74,74	0
56	MG	R7	101	1/1	0.89	0.15	66,66,66,66	0
56	MG	RA	3165	1/1	0.89	0.26	99,99,99,99	0
56	MG	RA	4037	1/1	0.89	0.28	69,69,69,69	0
56	MG	YA	3629	1/1	0.89	0.17	44,44,44,44	0
56	MG	YA	3229	1/1	0.89	0.20	71,71,71,71	0
56	MG	RA	3493	1/1	0.89	0.20	60,60,60,60	0
56	MG	RA	3495	1/1	0.89	0.36	43,43,43,43	0
56	MG	QA	1659	1/1	0.90	0.38	84,84,84,84	0
56	MG	RA	4025	1/1	0.90	0.15	32,32,32,32	0
56	MG	XA	1657	1/1	0.90	0.28	65,65,65,65	0
56	MG	YA	3332	1/1	0.90	0.25	28,28,28,28	0
56	MG	YA	3607	1/1	0.90	0.21	53,53,53,53	0
56	MG	RA	3697	1/1	0.90	0.30	55,55,55,55	0
56	MG	YA	3335	1/1	0.90	0.20	30,30,30,30	0
56	MG	YA	3428	1/1	0.90	0.15	44,44,44,44	0
56	MG	YB	203	1/1	0.90	0.22	72,72,72,72	0
56	MG	YA	3536	1/1	0.90	0.13	42,42,42,42	0
56	MG	RA	3055	1/1	0.90	0.33	85,85,85,85	0
56	MG	XA	1729	1/1	0.90	0.19	58,58,58,58	0
56	MG	YA	3294	1/1	0.90	0.22	52,52,52,52	0
56	MG	QA	1873	1/1	0.90	0.23	70,70,70,70	0
56	MG	QA	1807	1/1	0.90	0.23	65,65,65,65	0
56	MG	RA	3712	1/1	0.90	0.24	53,53,53,53	0
56	MG	YA	3500	1/1	0.90	0.28	53,53,53,53	0
56	MG	YA	3089	1/1	0.90	0.30	80,80,80,80	0
56	MG	YA	3184	1/1	0.90	0.18	80,80,80,80	0
56	MG	YA	3546	1/1	0.90	0.30	47,47,47,47	0
56	MG	RA	3723	1/1	0.90	0.22	68,68,68,68	0
56	MG	YA	3201	1/1	0.90	0.12	87,87,87,87	0
56	MG	RA	3183	1/1	0.90	0.35	81,81,81,81	0
56	MG	RA	3441	1/1	0.90	0.17	61,61,61,61	0
56	MG	RA	4064	1/1	0.90	0.19	64,64,64,64	0
56	MG	RA	3185	1/1	0.90	0.30	94,94,94,94	0
56	MG	RA	3445	1/1	0.90	0.17	58,58,58,58	0
56	MG	XA	1743	1/1	0.90	0.32	44,44,44,44	0
56	MG	RA	3447	1/1	0.90	0.13	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3582	1/1	0.90	0.34	72,72,72,72	0
56	MG	RA	3189	1/1	0.90	0.10	39,39,39,39	0
56	MG	RA	3892	1/1	0.90	0.35	55,55,55,55	0
56	MG	RA	3190	1/1	0.90	0.28	62,62,62,62	0
56	MG	RA	3308	1/1	0.90	0.13	64,64,64,64	0
56	MG	RA	3902	1/1	0.90	0.16	49,49,49,49	0
56	MG	RA	3451	1/1	0.90	0.27	27,27,27,27	0
56	MG	RA	3071	1/1	0.90	0.27	63,63,63,63	0
56	MG	RA	3192	1/1	0.90	0.26	92,92,92,92	0
56	MG	YA	3074	1/1	0.90	0.21	63,63,63,63	0
56	MG	YA	3307	1/1	0.90	0.31	73,73,73,73	0
56	MG	YA	3703	1/1	0.90	0.23	35,35,35,35	0
56	MG	RB	219	1/1	0.90	0.14	57,57,57,57	0
56	MG	YA	3634	1/1	0.90	0.42	48,48,48,48	0
56	MG	YA	3552	1/1	0.90	0.37	52,52,52,52	0
56	MG	YA	3636	1/1	0.90	0.15	45,45,45,45	0
56	MG	RA	3325	1/1	0.90	0.26	42,42,42,42	0
56	MG	RA	3200	1/1	0.90	0.29	99,99,99,99	0
56	MG	XA	1621	1/1	0.90	0.29	68,68,68,68	0
56	MG	QA	1684	1/1	0.90	0.17	97,97,97,97	0
56	MG	YD	303	1/1	0.90	0.25	44,44,44,44	0
56	MG	YA	3044	1/1	0.90	0.13	35,35,35,35	0
56	MG	RA	3471	1/1	0.90	0.22	42,42,42,42	0
56	MG	RA	3335	1/1	0.90	0.19	46,46,46,46	0
56	MG	QA	1687	1/1	0.90	0.14	97,97,97,97	0
56	MG	RA	3091	1/1	0.90	0.27	104,104,104,104	0
56	MG	RD	305	1/1	0.90	0.18	86,86,86,86	0
56	MG	RD	307	1/1	0.90	0.27	83,83,83,83	0
56	MG	RA	3478	1/1	0.90	0.26	34,34,34,34	0
56	MG	YA	3354	1/1	0.90	0.38	47,47,47,47	0
56	MG	YA	3472	1/1	0.90	0.28	23,23,23,23	0
56	MG	RA	3937	1/1	0.90	0.11	38,38,38,38	0
56	MG	YA	3441	1/1	0.90	0.23	34,34,34,34	0
56	MG	XA	1761	1/1	0.90	0.18	38,38,38,38	0
56	MG	RA	3766	1/1	0.90	0.23	29,29,29,29	0
56	MG	YA	3275	1/1	0.90	0.27	53,53,53,53	0
56	MG	YA	3276	1/1	0.90	0.33	67,67,67,67	0
56	MG	YA	3564	1/1	0.90	0.19	42,42,42,42	0
56	MG	YA	3262	1/1	0.90	0.27	88,88,88,88	0
56	MG	RA	3492	1/1	0.90	0.26	68,68,68,68	0
56	MG	QA	1629	1/1	0.90	0.11	51,51,51,51	0
56	MG	RF	308	1/1	0.90	0.27	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	XA	1633	1/1	0.90	0.22	51,51,51,51	0
56	MG	RA	3496	1/1	0.90	0.20	16,16,16,16	0
56	MG	RA	3225	1/1	0.90	0.31	109,109,109,109	0
56	MG	YE	307	1/1	0.90	0.07	64,64,64,64	0
56	MG	XA	1636	1/1	0.90	0.06	60,60,60,60	0
56	MG	RA	3640	1/1	0.90	0.16	48,48,48,48	0
56	MG	YA	3149	1/1	0.90	0.21	56,56,56,56	0
56	MG	YA	3182	1/1	0.90	0.15	68,68,68,68	0
56	MG	RA	3509	1/1	0.90	0.35	69,69,69,69	0
56	MG	RA	3233	1/1	0.90	0.24	72,72,72,72	0
56	MG	RA	3234	1/1	0.90	0.12	64,64,64,64	0
56	MG	RA	3966	1/1	0.90	0.32	65,65,65,65	0
56	MG	RA	3113	1/1	0.90	0.30	65,65,65,65	0
56	MG	YA	3366	1/1	0.90	0.26	59,59,59,59	0
56	MG	QA	1841	1/1	0.90	0.20	28,28,28,28	0
56	MG	RA	3117	1/1	0.90	0.17	64,64,64,64	0
56	MG	RQ	201	1/1	0.90	0.12	47,47,47,47	0
56	MG	RA	3651	1/1	0.90	0.11	41,41,41,41	0
56	MG	YA	3573	1/1	0.90	0.35	38,38,38,38	0
56	MG	RA	3120	1/1	0.90	0.11	63,63,63,63	0
56	MG	QA	1775	1/1	0.90	0.27	72,72,72,72	0
56	MG	RR	3204	1/1	0.90	0.32	83,83,83,83	0
56	MG	RA	3013	1/1	0.90	0.37	71,71,71,71	0
56	MG	YA	3522	1/1	0.90	0.29	65,65,65,65	0
56	MG	YA	3577	1/1	0.90	0.36	53,53,53,53	0
56	MG	YA	3250	1/1	0.90	0.14	45,45,45,45	0
56	MG	YA	3660	1/1	0.90	0.21	34,34,34,34	0
56	MG	YA	3483	1/1	0.90	0.27	26,26,26,26	0
56	MG	RA	3989	1/1	0.90	0.07	39,39,39,39	0
56	MG	XA	1780	1/1	0.90	0.34	40,40,40,40	0
56	MG	YA	3315	1/1	0.90	0.34	62,62,62,62	0
56	MG	RA	3666	1/1	0.90	0.23	69,69,69,69	0
56	MG	RA	3529	1/1	0.90	0.27	77,77,77,77	0
56	MG	YT	201	1/1	0.90	0.12	57,57,57,57	0
56	MG	RA	3531	1/1	0.90	0.10	34,34,34,34	0
56	MG	YA	3291	1/1	0.90	0.28	24,24,24,24	0
56	MG	RA	3029	1/1	0.90	0.33	66,66,66,66	0
56	MG	RA	3140	1/1	0.90	0.24	93,93,93,93	0
56	MG	YA	3323	1/1	0.90	0.18	37,37,37,37	0
56	MG	RA	3264	1/1	0.90	0.34	63,63,63,63	0
56	MG	RA	3680	1/1	0.90	0.21	46,46,46,46	0
56	MG	RA	3681	1/1	0.90	0.14	119,119,119,119	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3741	1/1	0.90	0.20	57,57,57,57	0
56	MG	RA	3148	1/1	0.90	0.17	66,66,66,66	0
56	MG	RA	3149	1/1	0.90	0.08	39,39,39,39	0
56	MG	RA	3686	1/1	0.90	0.28	62,62,62,62	0
56	MG	RA	3544	1/1	0.90	0.36	78,78,78,78	0
56	MG	R7	102	1/1	0.90	0.24	72,72,72,72	0
56	MG	YA	3593	1/1	0.90	0.23	28,28,28,28	0
56	MG	YA	3266	1/1	0.90	0.33	70,70,70,70	0
56	MG	RA	4017	1/1	0.90	0.28	90,90,90,90	0
56	MG	YA	3377	1/1	0.90	0.35	52,52,52,52	0
56	MG	YA	3189	1/1	0.90	0.24	96,96,96,96	0
56	MG	YA	3751	1/1	0.90	0.14	39,39,39,39	0
56	MG	YA	3209	1/1	0.91	0.21	48,48,48,48	0
56	MG	YA	3738	1/1	0.91	0.11	68,68,68,68	0
56	MG	YA	3548	1/1	0.91	0.27	32,32,32,32	0
56	MG	YA	3407	1/1	0.91	0.32	18,18,18,18	0
56	MG	RA	3500	1/1	0.91	0.28	25,25,25,25	0
56	MG	RA	3504	1/1	0.91	0.32	38,38,38,38	0
56	MG	XA	1676	1/1	0.91	0.25	42,42,42,42	0
56	MG	YA	3007	1/1	0.91	0.17	63,63,63,63	0
56	MG	YA	3512	1/1	0.91	0.28	62,62,62,62	0
56	MG	RA	3708	1/1	0.91	0.18	54,54,54,54	0
56	MG	RA	3125	1/1	0.91	0.14	36,36,36,36	0
56	MG	RA	3300	1/1	0.91	0.31	68,68,68,68	0
56	MG	YA	3061	1/1	0.91	0.25	57,57,57,57	0
56	MG	RA	3958	1/1	0.91	0.32	104,104,104,104	0
56	MG	YA	3556	1/1	0.91	0.17	41,41,41,41	0
56	MG	RA	3303	1/1	0.91	0.41	79,79,79,79	0
56	MG	RA	3716	1/1	0.91	0.12	52,52,52,52	0
56	MG	RA	3218	1/1	0.91	0.15	65,65,65,65	0
56	MG	RA	3609	1/1	0.91	0.12	71,71,71,71	0
56	MG	RA	3830	1/1	0.91	0.15	66,66,66,66	0
56	MG	XA	1737	1/1	0.91	0.23	47,47,47,47	0
56	MG	QA	1649	1/1	0.91	0.15	50,50,50,50	0
56	MG	RA	3613	1/1	0.91	0.19	35,35,35,35	0
56	MG	XA	1684	1/1	0.91	0.29	40,40,40,40	0
56	MG	YA	3367	1/1	0.91	0.15	56,56,56,56	0
56	MG	YA	3558	1/1	0.91	0.09	25,25,25,25	0
56	MG	RA	3424	1/1	0.91	0.24	80,80,80,80	0
56	MG	YA	3287	1/1	0.91	0.36	35,35,35,35	0
56	MG	XA	1745	1/1	0.91	0.25	44,44,44,44	0
56	MG	RA	3427	1/1	0.91	0.29	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3843	1/1	0.91	0.20	72,72,72,72	0
56	MG	YA	3758	1/1	0.91	0.19	76,76,76,76	0
56	MG	RE	305	1/1	0.91	0.13	33,33,33,33	0
56	MG	YA	3416	1/1	0.91	0.44	39,39,39,39	0
56	MG	YA	3234	1/1	0.91	0.15	76,76,76,76	0
56	MG	YA	3235	1/1	0.91	0.24	91,91,91,91	0
56	MG	YB	204	1/1	0.91	0.14	99,99,99,99	0
56	MG	RA	3991	1/1	0.91	0.18	73,73,73,73	0
56	MG	RA	3235	1/1	0.91	0.19	70,70,70,70	0
56	MG	RA	3852	1/1	0.91	0.14	47,47,47,47	0
56	MG	RA	3856	1/1	0.91	0.19	33,33,33,33	0
56	MG	RA	3436	1/1	0.91	0.31	56,56,56,56	0
56	MG	YA	3521	1/1	0.91	0.27	95,95,95,95	0
56	MG	YA	3145	1/1	0.91	0.22	59,59,59,59	0
56	MG	YA	3451	1/1	0.91	0.28	64,64,64,64	0
56	MG	RA	3643	1/1	0.91	0.36	71,71,71,71	0
56	MG	YA	3062	1/1	0.91	0.12	57,57,57,57	0
56	MG	RA	3748	1/1	0.91	0.12	61,61,61,61	0
56	MG	YA	3113	1/1	0.91	0.18	104,104,104,104	0
56	MG	RA	3541	1/1	0.91	0.22	74,74,74,74	0
56	MG	YA	3114	1/1	0.91	0.22	90,90,90,90	0
56	MG	RA	3072	1/1	0.91	0.43	93,93,93,93	0
56	MG	YA	3575	1/1	0.91	0.25	30,30,30,30	0
56	MG	RA	3873	1/1	0.91	0.27	31,31,31,31	0
56	MG	RA	3159	1/1	0.91	0.29	107,107,107,107	0
56	MG	QA	1781	1/1	0.91	0.24	54,54,54,54	0
56	MG	YA	3297	1/1	0.91	0.25	19,19,19,19	0
56	MG	QA	1729	1/1	0.91	0.27	50,50,50,50	0
56	MG	RA	3080	1/1	0.91	0.22	81,81,81,81	0
56	MG	RQ	204	1/1	0.91	0.25	72,72,72,72	0
56	MG	YA	3381	1/1	0.91	0.17	11,11,11,11	0
56	MG	RA	3253	1/1	0.91	0.14	66,66,66,66	0
56	MG	RA	3889	1/1	0.91	0.26	48,48,48,48	0
56	MG	RA	3658	1/1	0.91	0.47	95,95,95,95	0
56	MG	RA	3082	1/1	0.91	0.33	62,62,62,62	0
56	MG	RA	3554	1/1	0.91	0.30	55,55,55,55	0
56	MG	XA	1607	1/1	0.91	0.17	47,47,47,47	0
56	MG	RA	3084	1/1	0.91	0.23	79,79,79,79	0
56	MG	QA	1786	1/1	0.91	0.14	54,54,54,54	0
56	MG	XA	1707	1/1	0.91	0.25	58,58,58,58	0
56	MG	RA	3087	1/1	0.91	0.37	99,99,99,99	0
56	MG	YA	3425	1/1	0.91	0.15	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3580	1/1	0.91	0.29	27,27,27,27	0
56	MG	QA	1617	1/1	0.91	0.11	61,61,61,61	0
56	MG	YA	3581	1/1	0.91	0.29	24,24,24,24	0
56	MG	YA	3029	1/1	0.91	0.37	57,57,57,57	0
56	MG	YA	3243	1/1	0.91	0.14	67,67,67,67	0
56	MG	RA	3470	1/1	0.91	0.23	34,34,34,34	0
56	MG	YA	3079	1/1	0.91	0.30	91,91,91,91	0
56	MG	RA	3098	1/1	0.91	0.07	12,12,12,12	0
56	MG	QA	1680	1/1	0.91	0.24	64,64,64,64	0
56	MG	YA	3226	1/1	0.91	0.35	75,75,75,75	0
56	MG	RA	3372	1/1	0.91	0.26	61,61,61,61	0
56	MG	RA	4057	1/1	0.91	0.23	77,77,77,77	0
56	MG	YA	3025	1/1	0.91	0.15	55,55,55,55	0
56	MG	QA	1625	1/1	0.91	0.17	61,61,61,61	0
56	MG	QA	1800	1/1	0.91	0.23	41,41,41,41	0
56	MG	YA	3010	1/1	0.91	0.14	41,41,41,41	0
56	MG	YA	3402	1/1	0.91	0.25	32,32,32,32	0
56	MG	YA	3119	1/1	0.91	0.27	78,78,78,78	0
56	MG	RA	3381	1/1	0.91	0.23	39,39,39,39	0
56	MG	YA	3027	1/1	0.91	0.19	45,45,45,45	0
56	MG	YA	3669	1/1	0.91	0.22	15,15,15,15	0
56	MG	YA	3252	1/1	0.91	0.32	70,70,70,70	0
56	MG	YA	3608	1/1	0.91	0.30	44,44,44,44	0
56	MG	YA	3554	1/1	0.92	0.21	44,44,44,44	0
56	MG	RA	3623	1/1	0.92	0.21	34,34,34,34	0
56	MG	RA	4050	1/1	0.92	0.30	59,59,59,59	0
56	MG	YA	3444	1/1	0.92	0.30	27,27,27,27	0
56	MG	RA	3626	1/1	0.92	0.10	68,68,68,68	0
56	MG	YA	3373	1/1	0.92	0.23	41,41,41,41	0
56	MG	YW	201	1/1	0.92	0.19	75,75,75,75	0
56	MG	YA	3121	1/1	0.92	0.27	47,47,47,47	0
56	MG	YA	3749	1/1	0.92	0.16	54,54,54,54	0
56	MG	RA	3632	1/1	0.92	0.26	55,55,55,55	0
56	MG	RA	3383	1/1	0.92	0.34	40,40,40,40	0
56	MG	YA	3376	1/1	0.92	0.22	58,58,58,58	0
56	MG	YA	3752	1/1	0.92	0.06	52,52,52,52	0
56	MG	YA	3147	1/1	0.92	0.19	84,84,84,84	0
56	MG	YA	3343	1/1	0.92	0.22	21,21,21,21	0
56	MG	YA	3280	1/1	0.92	0.24	14,14,14,14	0
56	MG	RA	3174	1/1	0.92	0.14	62,62,62,62	0
56	MG	RA	3392	1/1	0.92	0.22	28,28,28,28	0
56	MG	YA	3692	1/1	0.92	0.15	39,39,39,39	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3915	1/1	0.92	0.20	41,41,41,41	0
56	MG	YA	3035	1/1	0.92	0.24	73,73,73,73	0
56	MG	YA	3630	1/1	0.92	0.20	32,32,32,32	0
56	MG	YA	3487	1/1	0.92	0.31	46,46,46,46	0
56	MG	YA	3633	1/1	0.92	0.32	47,47,47,47	0
56	MG	YA	3137	1/1	0.92	0.18	40,40,40,40	0
56	MG	YA	3489	1/1	0.92	0.24	15,15,15,15	0
56	MG	YA	3224	1/1	0.92	0.12	66,66,66,66	0
56	MG	RA	3408	1/1	0.92	0.23	24,24,24,24	0
56	MG	XA	1664	1/1	0.92	0.23	67,67,67,67	0
56	MG	YA	3386	1/1	0.92	0.26	23,23,23,23	0
56	MG	YA	3638	1/1	0.92	0.23	65,65,65,65	0
56	MG	RA	3288	1/1	0.92	0.24	95,95,95,95	0
56	MG	RA	3783	1/1	0.92	0.16	42,42,42,42	0
56	MG	YA	3387	1/1	0.92	0.28	37,37,37,37	0
56	MG	YA	3708	1/1	0.92	0.31	37,37,37,37	0
56	MG	XA	1614	1/1	0.92	0.17	60,60,60,60	0
56	MG	RA	3938	1/1	0.92	0.24	100,100,100,100	0
56	MG	RA	3787	1/1	0.92	0.48	105,105,105,105	0
56	MG	XA	1670	1/1	0.92	0.17	80,80,80,80	0
56	MG	YA	3458	1/1	0.92	0.30	46,46,46,46	0
56	MG	YA	3389	1/1	0.92	0.19	50,50,50,50	0
56	MG	QA	1755	1/1	0.92	0.21	69,69,69,69	0
56	MG	XA	1741	1/1	0.92	0.23	67,67,67,67	0
56	MG	RD	303	1/1	0.92	0.10	41,41,41,41	0
56	MG	XA	1742	1/1	0.92	0.25	52,52,52,52	0
56	MG	YA	3390	1/1	0.92	0.36	33,33,33,33	0
56	MG	YA	3289	1/1	0.92	0.25	38,38,38,38	0
56	MG	YA	3714	1/1	0.92	0.44	80,80,80,80	0
56	MG	RA	3202	1/1	0.92	0.21	92,92,92,92	0
56	MG	YA	3165	1/1	0.92	0.15	73,73,73,73	0
56	MG	XA	1678	1/1	0.92	0.18	81,81,81,81	0
56	MG	XA	1679	1/1	0.92	0.26	52,52,52,52	0
56	MG	YA	3268	1/1	0.92	0.28	73,73,73,73	0
56	MG	QA	1618	1/1	0.92	0.10	96,96,96,96	0
56	MG	YA	3080	1/1	0.92	0.37	80,80,80,80	0
56	MG	RA	3313	1/1	0.92	0.17	21,21,21,21	0
56	MG	RA	3209	1/1	0.92	0.31	100,100,100,100	0
56	MG	RA	3211	1/1	0.92	0.14	88,88,88,88	0
56	MG	RA	3561	1/1	0.92	0.12	42,42,42,42	0
56	MG	RA	3110	1/1	0.92	0.16	70,70,70,70	0
56	MG	RA	3010	1/1	0.92	0.08	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RF	306	1/1	0.92	0.22	79,79,79,79	0
56	MG	RA	3320	1/1	0.92	0.21	14,14,14,14	0
56	MG	YA	3540	1/1	0.92	0.25	27,27,27,27	0
56	MG	RA	3216	1/1	0.92	0.23	77,77,77,77	0
56	MG	RA	3972	1/1	0.92	0.21	81,81,81,81	0
56	MG	YA	3650	1/1	0.92	0.30	48,48,48,48	0
56	MG	RA	3822	1/1	0.92	0.11	37,37,37,37	0
56	MG	RA	3975	1/1	0.92	0.14	63,63,63,63	0
56	MG	YA	3401	1/1	0.92	0.28	19,19,19,19	0
56	MG	YA	3036	1/1	0.92	0.17	55,55,55,55	0
56	MG	YA	3656	1/1	0.92	0.16	34,34,34,34	0
56	MG	RA	3980	1/1	0.92	0.17	49,49,49,49	0
56	MG	RA	3574	1/1	0.92	0.24	62,62,62,62	0
56	MG	XA	1628	1/1	0.92	0.16	56,56,56,56	0
56	MG	XA	1688	1/1	0.92	0.16	56,56,56,56	0
56	MG	YA	3589	1/1	0.92	0.21	31,31,31,31	0
56	MG	RA	3700	1/1	0.92	0.14	53,53,53,53	0
56	MG	XA	1690	1/1	0.92	0.29	53,53,53,53	0
56	MG	RA	3226	1/1	0.92	0.59	104,104,104,104	0
56	MG	YA	3590	1/1	0.92	0.15	41,41,41,41	0
56	MG	RA	3341	1/1	0.92	0.29	30,30,30,30	0
56	MG	XA	1765	1/1	0.92	0.34	49,49,49,49	0
56	MG	QA	1634	1/1	0.92	0.09	44,44,44,44	0
56	MG	RA	3707	1/1	0.92	0.32	69,69,69,69	0
56	MG	XA	1631	1/1	0.92	0.23	60,60,60,60	0
56	MG	RR	3205	1/1	0.92	0.15	60,60,60,60	0
56	MG	YF	301	1/1	0.92	0.19	54,54,54,54	0
56	MG	RA	3349	1/1	0.92	0.18	40,40,40,40	0
56	MG	RA	3350	1/1	0.92	0.18	65,65,65,65	0
56	MG	YA	3591	1/1	0.92	0.24	42,42,42,42	0
56	MG	QA	1638	1/1	0.92	0.14	41,41,41,41	0
56	MG	QA	1855	1/1	0.92	0.19	56,56,56,56	0
56	MG	RA	3717	1/1	0.92	0.28	38,38,38,38	0
56	MG	RV	203	1/1	0.92	0.18	55,55,55,55	0
56	MG	RA	3133	1/1	0.92	0.12	79,79,79,79	0
56	MG	YA	3730	1/1	0.92	0.29	87,87,87,87	0
56	MG	YA	3254	1/1	0.92	0.20	67,67,67,67	0
56	MG	RA	3853	1/1	0.92	0.64	64,64,64,64	0
56	MG	RA	3242	1/1	0.92	0.11	54,54,54,54	0
56	MG	RA	3857	1/1	0.92	0.24	35,35,35,35	0
56	MG	YA	3329	1/1	0.92	0.23	19,19,19,19	0
56	MG	YA	3240	1/1	0.92	0.29	70,70,70,70	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	QA	1716	1/1	0.92	0.14	81,81,81,81	0
56	MG	RA	3045	1/1	0.92	0.30	71,71,71,71	0
56	MG	RA	4020	1/1	0.92	0.21	88,88,88,88	0
56	MG	RA	3145	1/1	0.92	0.08	43,43,43,43	0
56	MG	QA	1717	1/1	0.92	0.26	29,29,29,29	0
56	MG	RA	3605	1/1	0.92	0.17	70,70,70,70	0
56	MG	RA	3606	1/1	0.92	0.45	53,53,53,53	0
56	MG	YA	3168	1/1	0.92	0.18	88,88,88,88	0
56	MG	XA	1640	1/1	0.92	0.18	66,66,66,66	0
56	MG	RA	3869	1/1	0.92	0.66	77,77,77,77	0
56	MG	YA	3549	1/1	0.92	0.20	34,34,34,34	0
56	MG	YA	3215	1/1	0.92	0.09	54,54,54,54	0
56	MG	YA	3030	1/1	0.92	0.18	39,39,39,39	0
56	MG	R9	103	1/1	0.92	0.18	67,67,67,67	0
56	MG	RA	3254	1/1	0.92	0.18	92,92,92,92	0
56	MG	RA	3876	1/1	0.92	0.44	54,54,54,54	0
56	MG	RA	3155	1/1	0.92	0.20	78,78,78,78	0
56	MG	YA	3338	1/1	0.92	0.31	16,16,16,16	0
56	MG	RA	3886	1/1	0.93	0.29	52,52,52,52	0
56	MG	RA	4041	1/1	0.93	0.36	77,77,77,77	0
56	MG	RA	3405	1/1	0.93	0.22	32,32,32,32	0
56	MG	RA	4043	1/1	0.93	0.15	86,86,86,86	0
56	MG	QA	1803	1/1	0.93	0.23	49,49,49,49	0
56	MG	XA	1756	1/1	0.93	0.20	27,27,27,27	0
56	MG	YA	3754	1/1	0.93	0.20	26,26,26,26	0
56	MG	RA	4048	1/1	0.93	0.20	81,81,81,81	0
56	MG	RA	3043	1/1	0.93	0.07	38,38,38,38	0
56	MG	RA	3411	1/1	0.93	0.21	31,31,31,31	0
56	MG	RA	3897	1/1	0.93	0.26	61,61,61,61	0
56	MG	YA	3162	1/1	0.93	0.12	27,27,27,27	0
56	MG	RA	3046	1/1	0.93	0.17	68,68,68,68	0
56	MG	RA	3414	1/1	0.93	0.22	34,34,34,34	0
56	MG	RA	3307	1/1	0.93	0.11	76,76,76,76	0
56	MG	YA	3756	1/1	0.93	0.22	80,80,80,80	0
56	MG	RA	3908	1/1	0.93	0.21	22,22,22,22	0
56	MG	YA	3585	1/1	0.93	0.26	75,75,75,75	0
56	MG	RA	4059	1/1	0.93	0.27	101,101,101,101	0
56	MG	RA	4061	1/1	0.93	0.20	96,96,96,96	0
56	MG	RA	3910	1/1	0.93	0.49	66,66,66,66	0
56	MG	YA	3348	1/1	0.93	0.17	17,17,17,17	0
56	MG	RA	3774	1/1	0.93	0.14	59,59,59,59	0
56	MG	YA	3155	1/1	0.93	0.22	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3423	1/1	0.93	0.23	21,21,21,21	0
56	MG	RA	3137	1/1	0.93	0.26	97,97,97,97	0
56	MG	RA	3917	1/1	0.93	0.40	67,67,67,67	0
56	MG	YA	3318	1/1	0.93	0.24	26,26,26,26	0
56	MG	RA	3315	1/1	0.93	0.20	29,29,29,29	0
56	MG	RA	3054	1/1	0.93	0.22	78,78,78,78	0
56	MG	RA	3660	1/1	0.93	0.22	46,46,46,46	0
56	MG	YA	3298	1/1	0.93	0.23	19,19,19,19	0
56	MG	YA	3211	1/1	0.93	0.24	89,89,89,89	0
56	MG	RA	3144	1/1	0.93	0.30	84,84,84,84	0
56	MG	YA	3409	1/1	0.93	0.23	120,120,120,120	0
56	MG	RA	3230	1/1	0.93	0.44	81,81,81,81	0
56	MG	RA	3326	1/1	0.93	0.08	20,20,20,20	0
56	MG	RA	3932	1/1	0.93	0.28	61,61,61,61	0
56	MG	RA	3231	1/1	0.93	0.36	97,97,97,97	0
56	MG	RA	3328	1/1	0.93	0.16	34,34,34,34	0
56	MG	RA	3146	1/1	0.93	0.08	37,37,37,37	0
56	MG	RA	3330	1/1	0.93	0.14	41,41,41,41	0
56	MG	XA	1768	1/1	0.93	0.17	45,45,45,45	0
56	MG	YA	3594	1/1	0.93	0.21	35,35,35,35	0
56	MG	QA	1626	1/1	0.93	0.04	78,78,78,78	0
56	MG	RA	3678	1/1	0.93	0.21	31,31,31,31	0
56	MG	RA	3236	1/1	0.93	0.53	69,69,69,69	0
56	MG	YA	3410	1/1	0.93	0.24	31,31,31,31	0
56	MG	YA	3170	1/1	0.93	0.22	56,56,56,56	0
56	MG	RA	3945	1/1	0.93	0.21	25,25,25,25	0
56	MG	RA	3804	1/1	0.93	0.19	78,78,78,78	0
56	MG	YA	3598	1/1	0.93	0.21	49,49,49,49	0
56	MG	YA	3156	1/1	0.93	0.27	40,40,40,40	0
56	MG	RA	3684	1/1	0.93	0.29	71,71,71,71	0
56	MG	YA	3494	1/1	0.93	0.19	36,36,36,36	0
56	MG	YA	3413	1/1	0.93	0.30	36,36,36,36	0
56	MG	YA	3331	1/1	0.93	0.29	9,9,9,9	0
56	MG	YA	3217	1/1	0.93	0.14	75,75,75,75	0
56	MG	RA	3345	1/1	0.93	0.21	20,20,20,20	0
56	MG	YA	3717	1/1	0.93	0.13	45,45,45,45	0
56	MG	YA	3610	1/1	0.93	0.22	20,20,20,20	0
56	MG	QA	1828	1/1	0.93	0.17	41,41,41,41	0
56	MG	YA	3111	1/1	0.93	0.26	58,58,58,58	0
56	MG	QA	1701	1/1	0.93	0.32	50,50,50,50	0
56	MG	YA	3142	1/1	0.93	0.17	58,58,58,58	0
56	MG	XA	1782	1/1	0.93	0.20	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3721	1/1	0.93	0.17	65,65,65,65	0
56	MG	YA	3391	1/1	0.93	0.21	18,18,18,18	0
56	MG	YA	3619	1/1	0.93	0.24	38,38,38,38	0
56	MG	YA	3665	1/1	0.93	0.21	31,31,31,31	0
56	MG	QA	1646	1/1	0.93	0.26	46,46,46,46	0
56	MG	YA	3666	1/1	0.93	0.30	36,36,36,36	0
56	MG	YA	3207	1/1	0.93	0.27	70,70,70,70	0
56	MG	RA	3474	1/1	0.93	0.13	45,45,45,45	0
56	MG	YA	3139	1/1	0.93	0.28	66,66,66,66	0
56	MG	YA	3394	1/1	0.93	0.24	19,19,19,19	0
56	MG	XA	1732	1/1	0.93	0.37	44,44,44,44	0
56	MG	XA	1677	1/1	0.93	0.29	71,71,71,71	0
56	MG	RA	3184	1/1	0.93	0.18	60,60,60,60	0
56	MG	YA	3537	1/1	0.93	0.18	57,57,57,57	0
56	MG	RA	3186	1/1	0.93	0.17	77,77,77,77	0
56	MG	RA	3714	1/1	0.93	0.20	36,36,36,36	0
56	MG	RA	3984	1/1	0.93	0.23	41,41,41,41	0
56	MG	XA	1735	1/1	0.93	0.26	53,53,53,53	0
56	MG	RA	3986	1/1	0.93	0.33	79,79,79,79	0
56	MG	RA	3488	1/1	0.93	0.24	57,57,57,57	0
56	MG	RA	3988	1/1	0.93	0.27	75,75,75,75	0
56	MG	RA	3188	1/1	0.93	0.34	115,115,115,115	0
56	MG	YA	3626	1/1	0.93	0.22	25,25,25,25	0
56	MG	YA	3677	1/1	0.93	0.26	42,42,42,42	0
56	MG	YA	3574	1/1	0.93	0.27	30,30,30,30	0
56	MG	RA	3376	1/1	0.93	0.14	52,52,52,52	0
56	MG	RA	3494	1/1	0.93	0.38	55,55,55,55	0
56	MG	RA	3850	1/1	0.93	0.17	43,43,43,43	0
56	MG	QA	1658	1/1	0.93	0.10	94,94,94,94	0
56	MG	YA	3679	1/1	0.93	0.13	36,36,36,36	0
56	MG	YA	3680	1/1	0.93	0.39	50,50,50,50	0
56	MG	RA	4000	1/1	0.93	0.16	30,30,30,30	0
56	MG	RA	3854	1/1	0.93	0.25	47,47,47,47	0
56	MG	RU	201	1/1	0.93	0.18	70,70,70,70	0
56	MG	RA	3610	1/1	0.93	0.15	67,67,67,67	0
56	MG	RA	3021	1/1	0.93	0.30	101,101,101,101	0
56	MG	YA	3395	1/1	0.93	0.18	17,17,17,17	0
56	MG	YA	3539	1/1	0.93	0.20	18,18,18,18	0
56	MG	RA	3860	1/1	0.93	0.23	25,25,25,25	0
56	MG	RA	4007	1/1	0.93	0.20	49,49,49,49	0
56	MG	RW	201	1/1	0.93	0.12	64,64,64,64	0
56	MG	RA	3614	1/1	0.93	0.27	32,32,32,32	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3631	1/1	0.93	0.18	55,55,55,55	0
56	MG	YA	3244	1/1	0.93	0.25	39,39,39,39	0
56	MG	RA	4012	1/1	0.93	0.18	89,89,89,89	0
56	MG	YA	3746	1/1	0.93	0.15	35,35,35,35	0
56	MG	RA	3388	1/1	0.93	0.24	49,49,49,49	0
56	MG	YA	3477	1/1	0.93	0.34	70,70,70,70	0
56	MG	RA	4016	1/1	0.93	0.18	68,68,68,68	0
56	MG	YA	3258	1/1	0.93	0.22	68,68,68,68	0
56	MG	RA	3391	1/1	0.93	0.27	17,17,17,17	0
56	MG	YA	3690	1/1	0.93	0.16	31,31,31,31	0
56	MG	RA	3394	1/1	0.93	0.27	31,31,31,31	0
56	MG	YA	3750	1/1	0.93	0.27	22,22,22,22	0
56	MG	RA	4023	1/1	0.93	0.10	49,49,49,49	0
56	MG	XA	1752	1/1	0.93	0.24	51,51,51,51	0
56	MG	RA	3398	1/1	0.93	0.27	20,20,20,20	0
56	MG	RA	3749	1/1	0.93	0.15	63,63,63,63	0
56	MG	RA	4027	1/1	0.93	0.25	39,39,39,39	0
56	MG	YV	201	1/1	0.93	0.15	44,44,44,44	0
56	MG	YA	3453	1/1	0.93	0.12	35,35,35,35	0
56	MG	RA	4032	1/1	0.93	0.25	76,76,76,76	0
56	MG	YA	3245	1/1	0.93	0.30	107,107,107,107	0
56	MG	RA	3403	1/1	0.93	0.20	25,25,25,25	0
56	MG	RA	3210	1/1	0.93	0.23	67,67,67,67	0
56	MG	RA	3884	1/1	0.93	0.19	71,71,71,71	0
56	MG	RA	3930	1/1	0.94	0.29	54,54,54,54	0
56	MG	RA	3562	1/1	0.94	0.17	59,59,59,59	0
56	MG	RA	3677	1/1	0.94	0.38	61,61,61,61	0
56	MG	RA	3347	1/1	0.94	0.25	23,23,23,23	0
56	MG	RA	3161	1/1	0.94	0.15	72,72,72,72	0
56	MG	YA	3334	1/1	0.94	0.31	14,14,14,14	0
56	MG	YA	3704	1/1	0.94	0.25	29,29,29,29	0
56	MG	YA	3072	1/1	0.94	0.36	99,99,99,99	0
56	MG	RA	3568	1/1	0.94	0.21	27,27,27,27	0
56	MG	YA	3277	1/1	0.94	0.24	17,17,17,17	0
56	MG	RA	3078	1/1	0.94	0.34	70,70,70,70	0
56	MG	RB	204	1/1	0.94	0.23	71,71,71,71	0
56	MG	YA	3553	1/1	0.94	0.33	58,58,58,58	0
56	MG	YA	3654	1/1	0.94	0.43	54,54,54,54	0
56	MG	YA	3216	1/1	0.94	0.19	25,25,25,25	0
56	MG	RA	3257	1/1	0.94	0.18	100,100,100,100	0
56	MG	RA	3947	1/1	0.94	0.07	20,20,20,20	0
56	MG	RA	3172	1/1	0.94	0.25	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3173	1/1	0.94	0.09	50,50,50,50	0
56	MG	RB	213	1/1	0.94	0.43	58,58,58,58	0
56	MG	QA	1707	1/1	0.94	0.20	28,28,28,28	0
56	MG	YA	3711	1/1	0.94	0.32	47,47,47,47	0
56	MG	YA	3339	1/1	0.94	0.27	15,15,15,15	0
56	MG	QA	1710	1/1	0.94	0.18	28,28,28,28	0
56	MG	YA	3202	1/1	0.94	0.20	38,38,38,38	0
56	MG	YB	212	1/1	0.94	0.36	57,57,57,57	0
56	MG	YA	3081	1/1	0.94	0.34	71,71,71,71	0
56	MG	RA	3477	1/1	0.94	0.21	46,46,46,46	0
56	MG	YA	3219	1/1	0.94	0.16	60,60,60,60	0
56	MG	YA	3484	1/1	0.94	0.21	21,21,21,21	0
56	MG	RA	3007	1/1	0.94	0.11	61,61,61,61	0
56	MG	RA	3482	1/1	0.94	0.22	21,21,21,21	0
56	MG	YA	3153	1/1	0.94	0.07	37,37,37,37	0
56	MG	YA	3486	1/1	0.94	0.32	30,30,30,30	0
56	MG	RA	3965	1/1	0.94	0.13	45,45,45,45	0
56	MG	YA	3663	1/1	0.94	0.33	38,38,38,38	0
56	MG	YA	3345	1/1	0.94	0.19	39,39,39,39	0
56	MG	RA	3012	1/1	0.94	0.07	53,53,53,53	0
56	MG	YA	3073	1/1	0.94	0.12	67,67,67,67	0
56	MG	RA	3711	1/1	0.94	0.27	80,80,80,80	0
56	MG	YA	3620	1/1	0.94	0.20	34,34,34,34	0
56	MG	RD	308	1/1	0.94	0.41	80,80,80,80	0
56	MG	RD	309	1/1	0.94	0.15	78,78,78,78	0
56	MG	YA	3194	1/1	0.94	0.17	70,70,70,70	0
56	MG	YA	3668	1/1	0.94	0.20	28,28,28,28	0
56	MG	YA	3047	1/1	0.94	0.11	44,44,44,44	0
56	MG	RA	3106	1/1	0.94	0.17	102,102,102,102	0
56	MG	YA	3350	1/1	0.94	0.15	23,23,23,23	0
56	MG	RA	3287	1/1	0.94	0.22	83,83,83,83	0
56	MG	RA	3721	1/1	0.94	0.18	73,73,73,73	0
56	MG	YA	3672	1/1	0.94	0.39	26,26,26,26	0
56	MG	RA	3109	1/1	0.94	0.16	66,66,66,66	0
56	MG	YA	3075	1/1	0.94	0.09	43,43,43,43	0
56	MG	QA	1605	1/1	0.94	0.07	67,67,67,67	0
56	MG	YA	3675	1/1	0.94	0.20	29,29,29,29	0
56	MG	RA	3393	1/1	0.94	0.20	14,14,14,14	0
56	MG	RA	3508	1/1	0.94	0.18	42,42,42,42	0
56	MG	YA	3066	1/1	0.94	0.24	50,50,50,50	0
56	MG	RA	3615	1/1	0.94	0.27	34,34,34,34	0
56	MG	YA	3098	1/1	0.94	0.10	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3618	1/1	0.94	0.25	48,48,48,48	0
56	MG	YA	3734	1/1	0.94	0.27	41,41,41,41	0
56	MG	RA	3116	1/1	0.94	0.21	104,104,104,104	0
56	MG	RA	3298	1/1	0.94	0.11	24,24,24,24	0
56	MG	YF	303	1/1	0.94	0.27	85,85,85,85	0
56	MG	QA	1671	1/1	0.94	0.10	64,64,64,64	0
56	MG	RA	3738	1/1	0.94	0.29	53,53,53,53	0
56	MG	YA	3356	1/1	0.94	0.38	50,50,50,50	0
56	MG	YA	3213	1/1	0.94	0.24	67,67,67,67	0
56	MG	YA	3023	1/1	0.94	0.09	16,16,16,16	0
56	MG	RA	3124	1/1	0.94	0.06	46,46,46,46	0
56	MG	RA	3743	1/1	0.94	0.14	35,35,35,35	0
56	MG	QA	1740	1/1	0.94	0.28	55,55,55,55	0
56	MG	RA	3213	1/1	0.94	0.22	105,105,105,105	0
56	MG	YA	3397	1/1	0.94	0.34	68,68,68,68	0
56	MG	RA	3309	1/1	0.94	0.11	63,63,63,63	0
56	MG	YA	3579	1/1	0.94	0.22	36,36,36,36	0
56	MG	YA	3326	1/1	0.94	0.27	27,27,27,27	0
56	MG	QA	1870	1/1	0.94	0.26	47,47,47,47	0
56	MG	RR	3201	1/1	0.94	0.28	62,62,62,62	0
56	MG	RA	3044	1/1	0.94	0.08	29,29,29,29	0
56	MG	YA	3743	1/1	0.94	0.29	43,43,43,43	0
56	MG	XA	1699	1/1	0.94	0.32	44,44,44,44	0
56	MG	YQ	201	1/1	0.94	0.13	33,33,33,33	0
56	MG	YA	3744	1/1	0.94	0.27	33,33,33,33	0
56	MG	RA	3534	1/1	0.94	0.11	44,44,44,44	0
56	MG	RA	3135	1/1	0.94	0.13	77,77,77,77	0
56	MG	YA	3328	1/1	0.94	0.20	15,15,15,15	0
56	MG	RA	3321	1/1	0.94	0.17	19,19,19,19	0
56	MG	YA	3365	1/1	0.94	0.23	48,48,48,48	0
56	MG	RA	4022	1/1	0.94	0.12	73,73,73,73	0
56	MG	RA	3539	1/1	0.94	0.31	39,39,39,39	0
56	MG	RA	3138	1/1	0.94	0.21	53,53,53,53	0
56	MG	YA	3583	1/1	0.94	0.23	29,29,29,29	0
56	MG	RA	3767	1/1	0.94	0.28	37,37,37,37	0
56	MG	RA	3899	1/1	0.94	0.16	66,66,66,66	0
56	MG	RA	3900	1/1	0.94	0.16	30,30,30,30	0
56	MG	YA	3274	1/1	0.94	0.21	48,48,48,48	0
56	MG	QA	1879	1/1	0.94	0.26	78,78,78,78	0
56	MG	YA	3691	1/1	0.94	0.23	38,38,38,38	0
56	MG	YA	3543	1/1	0.94	0.22	36,36,36,36	0
56	MG	YA	3640	1/1	0.94	0.30	40,40,40,40	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3299	1/1	0.94	0.25	10,10,10,10	0
56	MG	RA	3333	1/1	0.94	0.29	24,24,24,24	0
56	MG	YA	3753	1/1	0.94	0.18	54,54,54,54	0
56	MG	YA	3506	1/1	0.94	0.14	53,53,53,53	0
56	MG	RA	3913	1/1	0.94	0.27	43,43,43,43	0
56	MG	YA	3301	1/1	0.94	0.20	42,42,42,42	0
56	MG	RA	3238	1/1	0.94	0.25	106,106,106,106	0
56	MG	YA	3259	1/1	0.94	0.23	66,66,66,66	0
56	MG	YA	3333	1/1	0.94	0.24	26,26,26,26	0
56	MG	YA	3408	1/1	0.94	0.24	17,17,17,17	0
56	MG	RA	3668	1/1	0.94	0.24	49,49,49,49	0
56	MG	RA	3068	1/1	0.94	0.19	79,79,79,79	0
56	MG	RA	3069	1/1	0.94	0.10	55,55,55,55	0
56	MG	XA	1717	1/1	0.94	0.28	59,59,59,59	0
56	MG	YA	3760	1/1	0.94	0.18	85,85,85,85	0
56	MG	RA	3673	1/1	0.94	0.22	45,45,45,45	0
56	MG	RA	3792	1/1	0.94	0.21	35,35,35,35	0
56	MG	RA	3073	1/1	0.94	0.20	64,64,64,64	0
56	MG	RA	3622	1/1	0.95	0.19	20,20,20,20	0
56	MG	RA	3141	1/1	0.95	0.47	93,93,93,93	0
56	MG	RA	3255	1/1	0.95	0.22	100,100,100,100	0
56	MG	XA	1757	1/1	0.95	0.16	30,30,30,30	0
56	MG	RA	3627	1/1	0.95	0.26	76,76,76,76	0
56	MG	YA	3724	1/1	0.95	0.28	51,51,51,51	0
56	MG	YA	3014	1/1	0.95	0.07	39,39,39,39	0
56	MG	RA	3793	1/1	0.95	0.28	38,38,38,38	0
56	MG	YA	3571	1/1	0.95	0.21	23,23,23,23	0
56	MG	YA	3430	1/1	0.95	0.05	20,20,20,20	0
56	MG	YA	3144	1/1	0.95	0.22	57,57,57,57	0
56	MG	RA	3262	1/1	0.95	0.20	80,80,80,80	0
56	MG	RA	3893	1/1	0.95	0.28	34,34,34,34	0
56	MG	YA	3286	1/1	0.95	0.08	35,35,35,35	0
56	MG	RA	3799	1/1	0.95	0.16	54,54,54,54	0
56	MG	YA	3157	1/1	0.95	0.14	44,44,44,44	0
56	MG	RA	3999	1/1	0.95	0.13	21,21,21,21	0
56	MG	RA	3096	1/1	0.95	0.12	48,48,48,48	0
56	MG	RA	3266	1/1	0.95	0.14	74,74,74,74	0
56	MG	RA	3803	1/1	0.95	0.11	64,64,64,64	0
56	MG	RA	3267	1/1	0.95	0.11	47,47,47,47	0
56	MG	RA	3718	1/1	0.95	0.18	62,62,62,62	0
56	MG	YA	3618	1/1	0.95	0.18	24,24,24,24	0
56	MG	RA	3269	1/1	0.95	0.11	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3483	1/1	0.95	0.23	21,21,21,21	0
56	MG	YA	3237	1/1	0.95	0.20	69,69,69,69	0
56	MG	RA	4009	1/1	0.95	0.11	70,70,70,70	0
56	MG	YA	3518	1/1	0.95	0.22	16,16,16,16	0
56	MG	YA	3357	1/1	0.95	0.20	39,39,39,39	0
56	MG	RA	3813	1/1	0.95	0.23	23,23,23,23	0
56	MG	YB	216	1/1	0.95	0.26	45,45,45,45	0
56	MG	RA	3409	1/1	0.95	0.17	33,33,33,33	0
56	MG	YA	3736	1/1	0.95	0.10	39,39,39,39	0
56	MG	RF	307	1/1	0.95	0.26	65,65,65,65	0
56	MG	YA	3158	1/1	0.95	0.29	49,49,49,49	0
56	MG	YA	3076	1/1	0.95	0.19	4,4,4,4	0
56	MG	RA	3919	1/1	0.95	0.27	47,47,47,47	0
56	MG	YA	3440	1/1	0.95	0.14	29,29,29,29	0
56	MG	RA	3820	1/1	0.95	0.14	28,28,28,28	0
56	MG	YA	3702	1/1	0.95	0.13	30,30,30,30	0
56	MG	RA	3923	1/1	0.95	0.25	79,79,79,79	0
56	MG	XA	1730	1/1	0.95	0.14	47,47,47,47	0
56	MG	YA	3625	1/1	0.95	0.19	19,19,19,19	0
56	MG	RA	3417	1/1	0.95	0.11	42,42,42,42	0
56	MG	RA	3221	1/1	0.95	0.24	63,63,63,63	0
56	MG	RA	3928	1/1	0.95	0.30	59,59,59,59	0
56	MG	YA	3077	1/1	0.95	0.09	35,35,35,35	0
56	MG	YA	3705	1/1	0.95	0.17	32,32,32,32	0
56	MG	RA	3502	1/1	0.95	0.19	20,20,20,20	0
56	MG	RA	3503	1/1	0.95	0.16	21,21,21,21	0
56	MG	YA	3212	1/1	0.95	0.14	62,62,62,62	0
56	MG	RA	3353	1/1	0.95	0.21	35,35,35,35	0
56	MG	RA	3506	1/1	0.95	0.14	26,26,26,26	0
56	MG	RA	4039	1/1	0.95	0.16	73,73,73,73	0
56	MG	RA	3170	1/1	0.95	0.14	66,66,66,66	0
56	MG	YA	3054	1/1	0.95	0.14	27,27,27,27	0
56	MG	YA	3033	1/1	0.95	0.07	13,13,13,13	0
56	MG	YA	3587	1/1	0.95	0.14	31,31,31,31	0
56	MG	YA	3125	1/1	0.95	0.14	58,58,58,58	0
56	MG	RA	3359	1/1	0.95	0.12	32,32,32,32	0
56	MG	RA	3513	1/1	0.95	0.07	14,14,14,14	0
56	MG	YE	306	1/1	0.95	0.21	13,13,13,13	0
56	MG	RA	3001	1/1	0.95	0.17	68,68,68,68	0
56	MG	QA	1719	1/1	0.95	0.28	32,32,32,32	0
56	MG	YA	3002	1/1	0.95	0.12	64,64,64,64	0
56	MG	YA	3342	1/1	0.95	0.17	20,20,20,20	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3006	1/1	0.95	0.10	33,33,33,33	0
56	MG	RA	3848	1/1	0.95	0.30	50,50,50,50	0
56	MG	QA	1722	1/1	0.95	0.24	61,61,61,61	0
56	MG	YA	3319	1/1	0.95	0.21	20,20,20,20	0
56	MG	YA	3399	1/1	0.95	0.29	36,36,36,36	0
56	MG	YA	3371	1/1	0.95	0.21	14,14,14,14	0
56	MG	YA	3321	1/1	0.95	0.26	29,29,29,29	0
56	MG	YA	3088	1/1	0.95	0.07	42,42,42,42	0
56	MG	RA	3765	1/1	0.95	0.29	40,40,40,40	0
56	MG	YA	3009	1/1	0.95	0.13	37,37,37,37	0
56	MG	XF	201	1/1	0.95	0.11	39,39,39,39	0
56	MG	RA	3306	1/1	0.95	0.34	66,66,66,66	0
56	MG	RA	3016	1/1	0.95	0.34	77,77,77,77	0
56	MG	RA	3770	1/1	0.95	0.21	22,22,22,22	0
56	MG	RA	3771	1/1	0.95	0.08	45,45,45,45	0
56	MG	YA	3325	1/1	0.95	0.17	20,20,20,20	0
56	MG	YA	3759	1/1	0.95	0.38	64,64,64,64	0
56	MG	RA	3378	1/1	0.95	0.22	25,25,25,25	0
56	MG	YA	3602	1/1	0.95	0.22	16,16,16,16	0
56	MG	RA	3455	1/1	0.95	0.27	48,48,48,48	0
56	MG	YA	3205	1/1	0.95	0.21	58,58,58,58	0
56	MG	RA	3194	1/1	0.95	0.16	67,67,67,67	0
56	MG	RA	3870	1/1	0.95	0.23	24,24,24,24	0
56	MG	XA	1710	1/1	0.95	0.20	66,66,66,66	0
56	MG	YA	3604	1/1	0.95	0.23	11,11,11,11	0
56	MG	RA	3619	1/1	0.95	0.23	27,27,27,27	0
56	MG	RA	3874	1/1	0.95	0.24	25,25,25,25	0
56	MG	RA	3025	1/1	0.95	0.06	23,23,23,23	0
57	ZN	Y6	101	1/1	0.95	0.18	169,169,169,169	0
56	MG	YA	3569	1/1	0.95	0.29	32,32,32,32	0
56	MG	RA	3877	1/1	0.95	0.19	23,23,23,23	0
57	ZN	R6	101	1/1	0.95	0.15	160,160,160,160	0
56	MG	RA	3633	1/1	0.96	0.28	74,74,74,74	0
56	MG	RA	3778	1/1	0.96	0.28	41,41,41,41	0
56	MG	XA	1738	1/1	0.96	0.29	58,58,58,58	0
56	MG	YA	3011	1/1	0.96	0.15	40,40,40,40	0
56	MG	RA	3435	1/1	0.96	0.31	23,23,23,23	0
56	MG	YA	3686	1/1	0.96	0.20	15,15,15,15	0
56	MG	YA	3352	1/1	0.96	0.26	11,11,11,11	0
56	MG	RA	3047	1/1	0.96	0.04	12,12,12,12	0
56	MG	YA	3647	1/1	0.96	0.20	27,27,27,27	0
56	MG	RA	3570	1/1	0.96	0.13	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3049	1/1	0.96	0.13	48,48,48,48	0
56	MG	YA	3172	1/1	0.96	0.17	69,69,69,69	0
56	MG	YA	3615	1/1	0.96	0.24	11,11,11,11	0
56	MG	RA	4030	1/1	0.96	0.25	71,71,71,71	0
56	MG	RA	3324	1/1	0.96	0.18	14,14,14,14	0
56	MG	RA	3160	1/1	0.96	0.28	83,83,83,83	0
56	MG	RA	4033	1/1	0.96	0.18	17,17,17,17	0
56	MG	RA	3576	1/1	0.96	0.21	43,43,43,43	0
56	MG	YA	3096	1/1	0.96	0.14	26,26,26,26	0
56	MG	RA	4036	1/1	0.96	0.23	85,85,85,85	0
56	MG	RA	3720	1/1	0.96	0.08	33,33,33,33	0
56	MG	YA	3617	1/1	0.96	0.13	17,17,17,17	0
56	MG	RA	3004	1/1	0.96	0.06	29,29,29,29	0
56	MG	YA	3063	1/1	0.96	0.10	35,35,35,35	0
56	MG	QA	1706	1/1	0.96	0.24	35,35,35,35	0
56	MG	YA	3152	1/1	0.96	0.14	50,50,50,50	0
56	MG	YA	3022	1/1	0.96	0.16	62,62,62,62	0
56	MG	RA	3060	1/1	0.96	0.06	21,21,21,21	0
56	MG	YA	3696	1/1	0.96	0.21	17,17,17,17	0
56	MG	RA	3879	1/1	0.96	0.14	29,29,29,29	0
56	MG	YA	3015	1/1	0.96	0.17	23,23,23,23	0
56	MG	YA	3090	1/1	0.96	0.18	54,54,54,54	0
56	MG	YA	3296	1/1	0.96	0.35	32,32,32,32	0
56	MG	YA	3533	1/1	0.96	0.16	48,48,48,48	0
56	MG	YA	3560	1/1	0.96	0.07	6,6,6,6	0
56	MG	RA	3885	1/1	0.96	0.20	66,66,66,66	0
56	MG	RA	3119	1/1	0.96	0.12	74,74,74,74	0
56	MG	RA	3400	1/1	0.96	0.28	21,21,21,21	0
56	MG	YA	3132	1/1	0.96	0.21	86,86,86,86	0
56	MG	YA	3627	1/1	0.96	0.28	38,38,38,38	0
56	MG	RA	3465	1/1	0.96	0.20	27,27,27,27	0
56	MG	YA	3006	1/1	0.96	0.11	18,18,18,18	0
56	MG	RA	3467	1/1	0.96	0.20	21,21,21,21	0
56	MG	RA	3894	1/1	0.96	0.23	23,23,23,23	0
56	MG	RA	3895	1/1	0.96	0.20	54,54,54,54	0
56	MG	RA	3070	1/1	0.96	0.24	78,78,78,78	0
56	MG	RA	3469	1/1	0.96	0.35	40,40,40,40	0
56	MG	YA	3093	1/1	0.96	0.08	18,18,18,18	0
56	MG	YA	3592	1/1	0.96	0.23	28,28,28,28	0
56	MG	RA	3022	1/1	0.96	0.20	76,76,76,76	0
56	MG	RA	3901	1/1	0.96	0.16	16,16,16,16	0
56	MG	RA	3291	1/1	0.96	0.20	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3300	1/1	0.96	0.18	40,40,40,40	0
56	MG	YA	3322	1/1	0.96	0.14	9,9,9,9	0
56	MG	RA	3906	1/1	0.96	0.19	20,20,20,20	0
56	MG	YA	3067	1/1	0.96	0.36	53,53,53,53	0
56	MG	YA	3283	1/1	0.96	0.18	36,36,36,36	0
56	MG	RA	3543	1/1	0.96	0.16	26,26,26,26	0
56	MG	RA	3479	1/1	0.96	0.24	19,19,19,19	0
56	MG	YA	3568	1/1	0.96	0.14	19,19,19,19	0
56	MG	RB	214	1/1	0.96	0.27	44,44,44,44	0
56	MG	RA	3079	1/1	0.96	0.11	64,64,64,64	0
56	MG	QA	1846	1/1	0.96	0.36	47,47,47,47	0
56	MG	RA	3616	1/1	0.96	0.17	33,33,33,33	0
56	MG	YA	3515	1/1	0.96	0.19	12,12,12,12	0
56	MG	RA	3030	1/1	0.96	0.39	113,113,113,113	0
56	MG	XA	1612	1/1	0.96	0.10	41,41,41,41	0
56	MG	RA	3761	1/1	0.96	0.17	22,22,22,22	0
56	MG	RA	3032	1/1	0.96	0.12	49,49,49,49	0
56	MG	RA	3487	1/1	0.96	0.06	17,17,17,17	0
56	MG	YA	3600	1/1	0.96	0.36	51,51,51,51	0
56	MG	YA	3398	1/1	0.96	0.16	25,25,25,25	0
56	MG	RA	3624	1/1	0.96	0.18	38,38,38,38	0
56	MG	YA	3285	1/1	0.96	0.29	25,25,25,25	0
56	MG	YA	3256	1/1	0.96	0.24	43,43,43,43	0
56	MG	YA	3606	1/1	0.96	0.27	25,25,25,25	0
56	MG	RA	3698	1/1	0.96	0.12	73,73,73,73	0
56	MG	YA	3327	1/1	0.96	0.22	7,7,7,7	0
56	MG	YA	3681	1/1	0.96	0.35	38,38,38,38	0
56	MG	YA	3305	1/1	0.96	0.08	19,19,19,19	0
56	MG	RA	3094	1/1	0.96	0.44	71,71,71,71	0
56	MG	YA	3496	1/1	0.96	0.22	18,18,18,18	0
56	MG	YA	3614	1/1	0.97	0.22	26,26,26,26	0
56	MG	RA	3473	1/1	0.97	0.15	26,26,26,26	0
56	MG	YA	3572	1/1	0.97	0.12	28,28,28,28	0
56	MG	RA	3382	1/1	0.97	0.14	20,20,20,20	0
56	MG	YA	3388	1/1	0.97	0.13	33,33,33,33	0
56	MG	RA	3944	1/1	0.97	0.04	22,22,22,22	0
56	MG	YA	3431	1/1	0.97	0.12	57,57,57,57	0
56	MG	RA	3676	1/1	0.97	0.13	86,86,86,86	0
56	MG	RA	3430	1/1	0.97	0.12	9,9,9,9	0
56	MG	YD	306	1/1	0.97	0.14	53,53,53,53	0
56	MG	YA	3337	1/1	0.97	0.17	35,35,35,35	0
56	MG	YA	3433	1/1	0.97	0.14	19,19,19,19	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3374	1/1	0.97	0.27	34,34,34,34	0
56	MG	YA	3128	1/1	0.97	0.06	26,26,26,26	0
56	MG	YA	3452	1/1	0.97	0.09	46,46,46,46	0
56	MG	RA	3147	1/1	0.97	0.15	39,39,39,39	0
56	MG	YA	3320	1/1	0.97	0.20	26,26,26,26	0
56	MG	RA	3585	1/1	0.97	0.30	59,59,59,59	0
56	MG	YA	3141	1/1	0.97	0.21	23,23,23,23	0
56	MG	YA	3129	1/1	0.97	0.06	31,31,31,31	0
56	MG	RA	3395	1/1	0.97	0.06	22,22,22,22	0
56	MG	RA	3904	1/1	0.97	0.10	24,24,24,24	0
56	MG	RA	3443	1/1	0.97	0.29	20,20,20,20	0
56	MG	Y8	102	1/1	0.97	0.28	41,41,41,41	0
56	MG	RA	3964	1/1	0.97	0.08	44,44,44,44	0
56	MG	YA	3670	1/1	0.97	0.19	12,12,12,12	0
56	MG	RA	3041	1/1	0.97	0.05	44,44,44,44	0
56	MG	RA	3745	1/1	0.97	0.13	21,21,21,21	0
56	MG	YA	3527	1/1	0.97	0.27	50,50,50,50	0
56	MG	RA	3855	1/1	0.97	0.45	62,62,62,62	0
56	MG	RA	3273	1/1	0.97	0.23	76,76,76,76	0
56	MG	RA	3971	1/1	0.97	0.20	19,19,19,19	0
56	MG	QA	1631	1/1	0.97	0.03	34,34,34,34	0
56	MG	YA	3605	1/1	0.97	0.18	19,19,19,19	0
56	MG	YA	3697	1/1	0.97	0.36	38,38,38,38	0
56	MG	YA	3091	1/1	0.97	0.06	36,36,36,36	0
56	MG	QA	1695	1/1	0.97	0.31	48,48,48,48	0
56	MG	RA	3501	1/1	0.97	0.32	22,22,22,22	0
56	MG	YA	3282	1/1	0.97	0.18	10,10,10,10	0
56	MG	RA	3979	1/1	0.97	0.16	37,37,37,37	0
56	MG	RA	3808	1/1	0.97	0.16	56,56,56,56	0
56	MG	RA	3014	1/1	0.97	0.12	38,38,38,38	0
56	MG	QA	1790	1/1	0.97	0.33	56,56,56,56	0
56	MG	YA	3290	1/1	0.97	0.24	47,47,47,47	0
56	MG	RA	4044	1/1	0.97	0.18	95,95,95,95	0
56	MG	RA	3655	1/1	0.97	0.16	25,25,25,25	0
56	MG	XA	1635	1/1	0.97	0.14	29,29,29,29	0
56	MG	YA	3106	1/1	0.97	0.06	30,30,30,30	0
56	MG	YA	3385	1/1	0.97	0.20	23,23,23,23	0
56	MG	RA	3168	1/1	0.97	0.10	71,71,71,71	0
56	MG	RA	3020	1/1	0.97	0.27	89,89,89,89	0
56	MG	RA	3092	1/1	0.97	0.15	79,79,79,79	0
56	MG	RA	3056	1/1	0.97	0.14	70,70,70,70	0
56	MG	XA	1694	1/1	0.97	0.26	30,30,30,30	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3358	1/1	0.97	0.28	18,18,18,18	0
56	MG	RA	3420	1/1	0.97	0.07	19,19,19,19	0
56	MG	YA	3284	1/1	0.97	0.14	8,8,8,8	0
56	MG	YA	3728	1/1	0.97	0.12	8,8,8,8	0
56	MG	YB	219	1/1	0.97	0.23	31,31,31,31	0
56	MG	RA	3337	1/1	0.97	0.26	81,81,81,81	0
56	MG	RA	4060	1/1	0.97	0.20	82,82,82,82	0
58	SF4	XD	301	8/8	0.97	0.06	58,74,100,102	0
56	MG	RA	3323	1/1	0.98	0.07	38,38,38,38	0
56	MG	YA	3143	1/1	0.98	0.10	56,56,56,56	0
56	MG	YA	3542	1/1	0.98	0.17	21,21,21,21	0
56	MG	YA	3016	1/1	0.98	0.06	29,29,29,29	0
56	MG	YA	3151	1/1	0.98	0.03	8,8,8,8	0
56	MG	RA	4028	1/1	0.98	0.11	78,78,78,78	0
56	MG	YA	3041	1/1	0.98	0.05	35,35,35,35	0
56	MG	RA	3123	1/1	0.98	0.12	30,30,30,30	0
56	MG	RE	303	1/1	0.98	0.11	15,15,15,15	0
56	MG	YA	3503	1/1	0.98	0.10	18,18,18,18	0
56	MG	RB	205	1/1	0.98	0.07	47,47,47,47	0
56	MG	YA	3353	1/1	0.98	0.12	14,14,14,14	0
56	MG	RA	3597	1/1	0.98	0.12	19,19,19,19	0
56	MG	YB	210	1/1	0.98	0.36	57,57,57,57	0
56	MG	YA	3195	1/1	0.98	0.07	33,33,33,33	0
56	MG	YA	3685	1/1	0.98	0.24	19,19,19,19	0
56	MG	YA	3317	1/1	0.98	0.07	24,24,24,24	0
56	MG	YA	3595	1/1	0.98	0.27	12,12,12,12	0
56	MG	YA	3480	1/1	0.98	0.21	17,17,17,17	0
56	MG	RA	3888	1/1	0.98	0.28	24,24,24,24	0
56	MG	YA	3008	1/1	0.98	0.11	47,47,47,47	0
56	MG	YA	3013	1/1	0.98	0.06	23,23,23,23	0
56	MG	YA	3651	1/1	0.98	0.32	15,15,15,15	0
56	MG	YA	3652	1/1	0.98	0.29	24,24,24,24	0
56	MG	YA	3112	1/1	0.98	0.10	9,9,9,9	0
56	MG	YA	3673	1/1	0.98	0.15	13,13,13,13	0
56	MG	YA	3382	1/1	0.98	0.19	29,29,29,29	0
56	MG	YD	304	1/1	0.98	0.13	49,49,49,49	0
56	MG	YA	3601	1/1	0.98	0.30	29,29,29,29	0
56	MG	YA	3739	1/1	0.98	0.35	79,79,79,79	0
56	MG	RA	3579	1/1	0.98	0.15	24,24,24,24	0
56	MG	RA	3348	1/1	0.98	0.14	34,34,34,34	0
56	MG	XA	1746	1/1	0.98	0.30	35,35,35,35	0
56	MG	RA	3318	1/1	0.98	0.16	19,19,19,19	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3460	1/1	0.98	0.10	28,28,28,28	0
56	MG	YD	308	1/1	0.98	0.10	71,71,71,71	0
56	MG	QA	1628	1/1	0.98	0.26	49,49,49,49	0
56	MG	YD	309	1/1	0.98	0.10	14,14,14,14	0
57	ZN	Y9	101	1/1	0.98	0.07	107,107,107,107	0
56	MG	RA	3833	1/1	0.98	0.20	29,29,29,29	0
56	MG	RA	3419	1/1	0.98	0.24	17,17,17,17	0
56	MG	RD	306	1/1	0.98	0.07	33,33,33,33	0
56	MG	RA	3946	1/1	0.98	0.04	18,18,18,18	0
58	SF4	QD	302	8/8	0.98	0.07	51,57,76,106	0
56	MG	YA	3612	1/1	0.99	0.09	23,23,23,23	0
56	MG	RA	3838	1/1	0.99	0.27	17,17,17,17	0
56	MG	RA	3516	1/1	0.99	0.23	13,13,13,13	0
56	MG	YA	3306	1/1	0.99	0.12	9,9,9,9	0
57	ZN	Y5	102	1/1	0.99	0.06	119,119,119,119	0
56	MG	YA	3362	1/1	0.99	0.25	18,18,18,18	0
56	MG	YA	3363	1/1	0.99	0.29	11,11,11,11	0
57	ZN	XN	101	1/1	0.99	0.02	94,94,94,94	0
57	ZN	QN	101	1/1	0.99	0.03	105,105,105,105	0
56	MG	YA	3380	1/1	0.99	0.14	7,7,7,7	0
56	MG	RA	3773	1/1	0.99	0.18	25,25,25,25	0
57	ZN	R5	102	1/1	0.99	0.03	119,119,119,119	0
56	MG	RA	3153	1/1	0.99	0.04	35,35,35,35	0
57	ZN	R9	102	1/1	0.99	0.07	92,92,92,92	0
56	MG	YA	3346	1/1	0.99	0.30	16,16,16,16	0
56	MG	RA	3442	1/1	0.99	0.26	18,18,18,18	0

6.5 Other polymers (i)

There are no such residues in this entry.