Full wwPDB X-ray Structure Validation Report (i)

Nov 6, 2023 – 12:37 AM EST

PDB ID	:	5DFE
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:

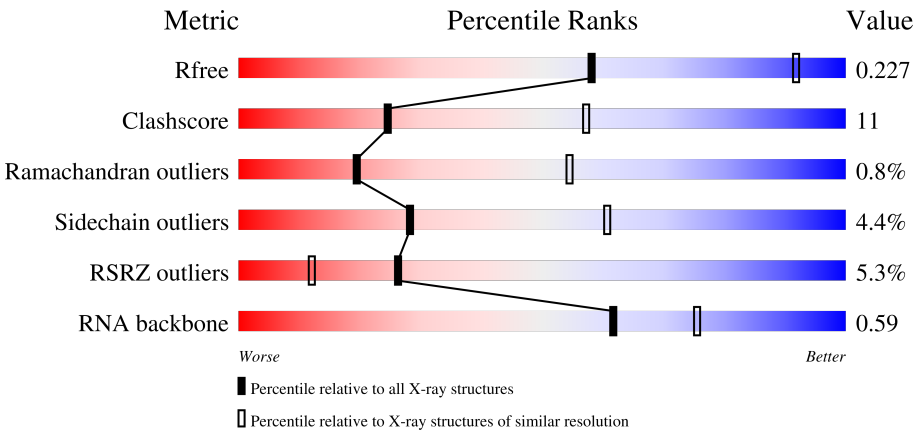
MolProbity	:	4.02b-467
Mogul	:	1.8.5 (274361), CSD as541be (2020)
Xtriage (Phenix)	:	1.13
EDS	:	2.36
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

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}	130704	1094 (3.10-3.10)
Clashscore	141614	1184 (3.10-3.10)
Ramachandran outliers	138981	1141 (3.10-3.10)
Sidechain outliers	138945	1141 (3.10-3.10)
RSRZ outliers	127900	1067 (3.10-3.10)
RNA backbone	3102	1116 (3.40-2.80)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments of the lower bar indicate the fraction of residues that contain outliers for >=3, 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions <=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	4%, 58%, 32%, 6%, •
1	XV	77	4%, 64%, 27%, 8%, •
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	43% 53% 36% 6%
3	XY	380	42% 51% 38% 5% 6%
4	RA	2915	5% 58% 33% 7%
4	YA	2915	4% 58% 33% 6%
5	RB	122	75% 22%
5	YB	122	70% 23% 5%
6	RD	276	79% 18%
6	YD	276	76% 20%
7	RE	206	75% 22%
7	YE	206	73% 23%
8	RF	210	68% 24%
8	YF	210	64% 30%
9	RG	182	3% 64% 34%
9	YG	182	2% 59% 38%
10	RH	180	15% 75% 19%
10	YH	180	66% 28%
11	RI	148	10% 72% 26%
11	YI	148	3% 70% 25%
12	RN	140	3% 76% 22%
12	YN	140	% 77% 19%
13	RO	122	78% 19%
13	YO	122	77% 20%
14	RP	150	2% 78% 19%
14	YP	150	% 75% 19%
15	RQ	141	72% 24%

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Mol	Chain	Length	Quality of chain
15	YQ	141	77% 19%
16	RR	118	67% 30%
16	YR	118	75% 23%
17	RS	112	2% 66% 28%
17	YS	112	62% 31%
18	RT	146	% 60% 25% 10%
18	YT	146	61% 24% 10%
19	RU	118	% 72% 19% 7%
19	YU	118	76% 17%
20	RV	101	76% 18%
20	YV	101	% 76% 21%
21	RW	113	80% 17%
21	YW	113	78% 18%
22	RX	96	2% 84% 12%
22	YX	96	82% 17%
23	RY	110	14% 67% 26%
23	YY	110	2% 68% 25%
24	RZ	206	9% 76% 18%
24	YZ	206	7% 70% 25%
25	R0	85	2% 72% 14% 9%
25	Y0	85	% 68% 18% 9%
26	R1	98	2% 76% 19%
26	Y1	98	63% 30% 5%
27	R2	72	% 71% 26%
27	Y2	72	69% 25%

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Mol	Chain	Length	Quality of chain
28	R3	60	5% 78% 20%
28	Y3	60	2% 82% 15%
29	R4	71	10% 55% 34% 7%
29	Y4	71	11% 48% 39% 6%
30	R5	60	2% 75% 22%
30	Y5	60	78% 15% 5%
31	R6	54	50% 69% 26%
31	Y6	54	30% 81% 15%
32	R7	49	2% 61% 33%
32	Y7	49	73% 18%
33	R8	65	66% 29%
33	Y8	65	60% 37%
34	R9	37	8% 70% 24%
34	Y9	37	3% 78% 19%
35	QA	1521	2% 52% 39% 7%
35	XA	1521	3% 53% 39% 6%
36	QB	256	6% 51% 33% 10%
36	XB	256	4% 48% 34% 5% 10%
37	QC	239	3% 63% 21% 14%
37	XC	239	3% 60% 23% 14%
38	QD	209	59% 36%
38	XD	209	65% 31%
39	QE	162	63% 25% 9%
39	XE	162	% 56% 32% 9%
40	QF	101	2% 63% 26% 10%

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Mol	Chain	Length	Quality of chain
40	XF	101	68% 23% 7%
41	QG	156	10% 83% 15%
41	XG	156	6% 69% 26%
42	QH	138	% 71% 25%
42	XH	138	3% 70% 28%
43	QI	128	16% 63% 30%
43	XI	128	5% 50% 45%
44	QJ	105	15% 54% 35% 8%
44	XJ	105	10% 60% 29% 9%
45	QK	129	3% 72% 16% 12%
45	XK	129	2% 68% 19% 12%
46	QL	132	% 66% 23% 8%
46	XL	132	2% 68% 22% 8%
47	QM	126	6% 63% 29% 8%
47	XM	126	6% 59% 32% 10%
48	QN	61	10% 66% 25% 7%
48	XN	61	2% 77% 20%
49	QO	89	% 72% 25%
49	XO	89	2% 73% 22%
50	QP	88	3% 56% 35% 7%
50	XP	88	7% 61% 26% 7%
51	QQ	105	2% 72% 19% 6%
51	XQ	105	75% 14% 6%
52	QR	88	10% 55% 16% 6% 23%
52	XR	88	% 52% 22% 23%

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Mol	Chain	Length	Quality of chain
53	QS	93	22% 66% 20% 11%
53	XS	93	19% 61% 26% 11%
54	QT	106	% 74% 14% 9%
54	XT	106	5% 69% 20% 8%
55	QU	27	52% 56% 26% 15%
55	XU	27	22% 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	1603	-	-	-	X
56	MG	QA	1608	-	-	-	X
56	MG	QA	1609	-	-	-	X
56	MG	QA	1611	-	-	-	X
56	MG	QA	1612	-	-	-	X
56	MG	QA	1624	-	-	-	X
56	MG	QA	1630	-	-	-	X
56	MG	QA	1632	-	-	-	X
56	MG	QA	1637	-	-	-	X
56	MG	QA	1640	-	-	-	X
56	MG	QA	1641	-	-	-	X
56	MG	QA	1642	-	-	-	X
56	MG	QA	1644	-	-	-	X
56	MG	QA	1646	-	-	-	X
56	MG	QA	1647	-	-	-	X
56	MG	QA	1652	-	-	-	X
56	MG	QA	1653	-	-	-	X
56	MG	QA	1657	-	-	-	X
56	MG	QA	1661	-	-	-	X
56	MG	QA	1662	-	-	-	X
56	MG	QA	1664	-	-	-	X
56	MG	QA	1665	-	-	-	X
56	MG	QA	1668	-	-	-	X
56	MG	QA	1669	-	-	-	X
56	MG	QA	1670	-	-	-	X
56	MG	QA	1672	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	QA	1675	-	-	-	X
56	MG	QA	1676	-	-	-	X
56	MG	QA	1677	-	-	-	X
56	MG	QA	1681	-	-	-	X
56	MG	QA	1685	-	-	-	X
56	MG	QA	1686	-	-	-	X
56	MG	QA	1691	-	-	-	X
56	MG	QA	1698	-	-	-	X
56	MG	QA	1699	-	-	-	X
56	MG	QA	1700	-	-	-	X
56	MG	QA	1704	-	-	-	X
56	MG	QA	1712	-	-	-	X
56	MG	QA	1713	-	-	-	X
56	MG	QA	1715	-	-	-	X
56	MG	QA	1718	-	-	-	X
56	MG	QA	1720	-	-	-	X
56	MG	QA	1721	-	-	-	X
56	MG	QA	1725	-	-	-	X
56	MG	QA	1727	-	-	-	X
56	MG	QA	1731	-	-	-	X
56	MG	QA	1732	-	-	-	X
56	MG	QA	1733	-	-	-	X
56	MG	QA	1734	-	-	-	X
56	MG	QA	1735	-	-	-	X
56	MG	QA	1736	-	-	-	X
56	MG	QA	1737	-	-	-	X
56	MG	QA	1738	-	-	-	X
56	MG	QA	1741	-	-	-	X
56	MG	QA	1745	-	-	-	X
56	MG	QA	1747	-	-	-	X
56	MG	QA	1748	-	-	-	X
56	MG	QA	1749	-	-	-	X
56	MG	QA	1753	-	-	-	X
56	MG	QA	1754	-	-	-	X
56	MG	QA	1755	-	-	-	X
56	MG	QA	1756	-	-	-	X
56	MG	QA	1757	-	-	-	X
56	MG	QA	1758	-	-	-	X
56	MG	QA	1760	-	-	-	X
56	MG	QA	1761	-	-	-	X
56	MG	QA	1762	-	-	-	X
56	MG	QA	1763	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	QA	1766	-	-	-	X
56	MG	QA	1769	-	-	-	X
56	MG	QA	1772	-	-	-	X
56	MG	QA	1774	-	-	-	X
56	MG	QA	1775	-	-	-	X
56	MG	QA	1778	-	-	-	X
56	MG	QA	1784	-	-	-	X
56	MG	QA	1785	-	-	-	X
56	MG	QA	1787	-	-	-	X
56	MG	QA	1788	-	-	-	X
56	MG	QA	1791	-	-	-	X
56	MG	QA	1792	-	-	-	X
56	MG	QA	1793	-	-	-	X
56	MG	QA	1794	-	-	-	X
56	MG	QA	1796	-	-	-	X
56	MG	QA	1797	-	-	-	X
56	MG	QA	1798	-	-	-	X
56	MG	QA	1799	-	-	-	X
56	MG	QA	1804	-	-	-	X
56	MG	QA	1808	-	-	-	X
56	MG	QA	1812	-	-	-	X
56	MG	QA	1813	-	-	-	X
56	MG	QA	1814	-	-	-	X
56	MG	QA	1816	-	-	-	X
56	MG	QA	1819	-	-	-	X
56	MG	QA	1821	-	-	-	X
56	MG	QA	1822	-	-	-	X
56	MG	QA	1823	-	-	-	X
56	MG	QA	1824	-	-	-	X
56	MG	QA	1826	-	-	-	X
56	MG	QA	1829	-	-	-	X
56	MG	QA	1831	-	-	-	X
56	MG	QA	1832	-	-	-	X
56	MG	QA	1835	-	-	-	X
56	MG	QA	1836	-	-	-	X
56	MG	QA	1837	-	-	-	X
56	MG	QA	1839	-	-	-	X
56	MG	QA	1840	-	-	-	X
56	MG	QA	1845	-	-	-	X
56	MG	QA	1847	-	-	-	X
56	MG	QA	1848	-	-	-	X
56	MG	QA	1850	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	QA	1851	-	-	-	X
56	MG	QA	1853	-	-	-	X
56	MG	QA	1856	-	-	-	X
56	MG	QA	1857	-	-	-	X
56	MG	QA	1858	-	-	-	X
56	MG	QA	1860	-	-	-	X
56	MG	QA	1861	-	-	-	X
56	MG	QA	1862	-	-	-	X
56	MG	QA	1864	-	-	-	X
56	MG	QA	1865	-	-	-	X
56	MG	QA	1866	-	-	-	X
56	MG	QA	1867	-	-	-	X
56	MG	QA	1871	-	-	-	X
56	MG	QA	1873	-	-	-	X
56	MG	QA	1878	-	-	-	X
56	MG	QA	1879	-	-	-	X
56	MG	QD	301	-	-	-	X
56	MG	QD	303	-	-	-	X
56	MG	QE	202	-	-	-	X
56	MG	QG	201	-	-	-	X
56	MG	QG	203	-	-	-	X
56	MG	QH	201	-	-	-	X
56	MG	QH	202	-	-	-	X
56	MG	QI	201	-	-	-	X
56	MG	QM	201	-	-	-	X
56	MG	QN	103	-	-	-	X
56	MG	QO	101	-	-	-	X
56	MG	QT	201	-	-	-	X
56	MG	QU	101	-	-	-	X
56	MG	QV	101	-	-	-	X
56	MG	QY	401	-	-	-	X
56	MG	QY	402	-	-	-	X
56	MG	QY	403	-	-	-	X
56	MG	R0	103	-	-	-	X
56	MG	R0	104	-	-	-	X
56	MG	R1	101	-	-	-	X
56	MG	R1	102	-	-	-	X
56	MG	R3	101	-	-	-	X
56	MG	R3	102	-	-	-	X
56	MG	R7	102	-	-	-	X
56	MG	R8	101	-	-	-	X
56	MG	RA	3003	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	RA	3005	-	-	-	X
56	MG	RA	3011	-	-	-	X
56	MG	RA	3013	-	-	-	X
56	MG	RA	3016	-	-	-	X
56	MG	RA	3031	-	-	-	X
56	MG	RA	3034	-	-	-	X
56	MG	RA	3035	-	-	-	X
56	MG	RA	3036	-	-	-	X
56	MG	RA	3039	-	-	-	X
56	MG	RA	3040	-	-	-	X
56	MG	RA	3051	-	-	-	X
56	MG	RA	3057	-	-	-	X
56	MG	RA	3058	-	-	-	X
56	MG	RA	3065	-	-	-	X
56	MG	RA	3066	-	-	-	X
56	MG	RA	3068	-	-	-	X
56	MG	RA	3076	-	-	-	X
56	MG	RA	3078	-	-	-	X
56	MG	RA	3081	-	-	-	X
56	MG	RA	3085	-	-	-	X
56	MG	RA	3086	-	-	-	X
56	MG	RA	3090	-	-	-	X
56	MG	RA	3100	-	-	-	X
56	MG	RA	3102	-	-	-	X
56	MG	RA	3103	-	-	-	X
56	MG	RA	3104	-	-	-	X
56	MG	RA	3105	-	-	-	X
56	MG	RA	3112	-	-	-	X
56	MG	RA	3115	-	-	-	X
56	MG	RA	3122	-	-	-	X
56	MG	RA	3126	-	-	-	X
56	MG	RA	3134	-	-	-	X
56	MG	RA	3138	-	-	-	X
56	MG	RA	3142	-	-	-	X
56	MG	RA	3144	-	-	-	X
56	MG	RA	3152	-	-	-	X
56	MG	RA	3162	-	-	-	X
56	MG	RA	3164	-	-	-	X
56	MG	RA	3166	-	-	-	X
56	MG	RA	3171	-	-	-	X
56	MG	RA	3177	-	-	-	X
56	MG	RA	3179	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	RA	3187	-	-	-	X
56	MG	RA	3193	-	-	-	X
56	MG	RA	3195	-	-	-	X
56	MG	RA	3197	-	-	-	X
56	MG	RA	3198	-	-	-	X
56	MG	RA	3200	-	-	-	X
56	MG	RA	3202	-	-	-	X
56	MG	RA	3203	-	-	-	X
56	MG	RA	3205	-	-	-	X
56	MG	RA	3206	-	-	-	X
56	MG	RA	3207	-	-	-	X
56	MG	RA	3211	-	-	-	X
56	MG	RA	3212	-	-	-	X
56	MG	RA	3224	-	-	-	X
56	MG	RA	3225	-	-	-	X
56	MG	RA	3226	-	-	-	X
56	MG	RA	3227	-	-	-	X
56	MG	RA	3228	-	-	-	X
56	MG	RA	3229	-	-	-	X
56	MG	RA	3236	-	-	-	X
56	MG	RA	3237	-	-	-	X
56	MG	RA	3239	-	-	-	X
56	MG	RA	3240	-	-	-	X
56	MG	RA	3245	-	-	-	X
56	MG	RA	3246	-	-	-	X
56	MG	RA	3249	-	-	-	X
56	MG	RA	3250	-	-	-	X
56	MG	RA	3251	-	-	-	X
56	MG	RA	3252	-	-	-	X
56	MG	RA	3256	-	-	-	X
56	MG	RA	3258	-	-	-	X
56	MG	RA	3261	-	-	-	X
56	MG	RA	3264	-	-	-	X
56	MG	RA	3271	-	-	-	X
56	MG	RA	3275	-	-	-	X
56	MG	RA	3276	-	-	-	X
56	MG	RA	3277	-	-	-	X
56	MG	RA	3279	-	-	-	X
56	MG	RA	3282	-	-	-	X
56	MG	RA	3283	-	-	-	X
56	MG	RA	3285	-	-	-	X
56	MG	RA	3289	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	RA	3291	-	-	-	X
56	MG	RA	3296	-	-	-	X
56	MG	RA	3302	-	-	-	X
56	MG	RA	3303	-	-	-	X
56	MG	RA	3309	-	-	-	X
56	MG	RA	3311	-	-	-	X
56	MG	RA	3312	-	-	-	X
56	MG	RA	3314	-	-	-	X
56	MG	RA	3316	-	-	-	X
56	MG	RA	3322	-	-	-	X
56	MG	RA	3327	-	-	-	X
56	MG	RA	3331	-	-	-	X
56	MG	RA	3339	-	-	-	X
56	MG	RA	3340	-	-	-	X
56	MG	RA	3351	-	-	-	X
56	MG	RA	3358	-	-	-	X
56	MG	RA	3360	-	-	-	X
56	MG	RA	3365	-	-	-	X
56	MG	RA	3367	-	-	-	X
56	MG	RA	3368	-	-	-	X
56	MG	RA	3370	-	-	-	X
56	MG	RA	3372	-	-	-	X
56	MG	RA	3375	-	-	-	X
56	MG	RA	3399	-	-	-	X
56	MG	RA	3402	-	-	-	X
56	MG	RA	3422	-	-	-	X
56	MG	RA	3425	-	-	-	X
56	MG	RA	3426	-	-	-	X
56	MG	RA	3427	-	-	-	X
56	MG	RA	3432	-	-	-	X
56	MG	RA	3436	-	-	-	X
56	MG	RA	3437	-	-	-	X
56	MG	RA	3439	-	-	-	X
56	MG	RA	3441	-	-	-	X
56	MG	RA	3446	-	-	-	X
56	MG	RA	3448	-	-	-	X
56	MG	RA	3457	-	-	-	X
56	MG	RA	3459	-	-	-	X
56	MG	RA	3461	-	-	-	X
56	MG	RA	3463	-	-	-	X
56	MG	RA	3466	-	-	-	X
56	MG	RA	3489	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	RA	3490	-	-	-	X
56	MG	RA	3491	-	-	-	X
56	MG	RA	3499	-	-	-	X
56	MG	RA	3511	-	-	-	X
56	MG	RA	3512	-	-	-	X
56	MG	RA	3515	-	-	-	X
56	MG	RA	3517	-	-	-	X
56	MG	RA	3518	-	-	-	X
56	MG	RA	3519	-	-	-	X
56	MG	RA	3521	-	-	-	X
56	MG	RA	3523	-	-	-	X
56	MG	RA	3524	-	-	-	X
56	MG	RA	3525	-	-	-	X
56	MG	RA	3527	-	-	-	X
56	MG	RA	3530	-	-	-	X
56	MG	RA	3537	-	-	-	X
56	MG	RA	3541	-	-	-	X
56	MG	RA	3542	-	-	-	X
56	MG	RA	3544	-	-	-	X
56	MG	RA	3545	-	-	-	X
56	MG	RA	3546	-	-	-	X
56	MG	RA	3549	-	-	-	X
56	MG	RA	3553	-	-	-	X
56	MG	RA	3556	-	-	-	X
56	MG	RA	3557	-	-	-	X
56	MG	RA	3558	-	-	-	X
56	MG	RA	3564	-	-	-	X
56	MG	RA	3571	-	-	-	X
56	MG	RA	3573	-	-	-	X
56	MG	RA	3577	-	-	-	X
56	MG	RA	3580	-	-	-	X
56	MG	RA	3583	-	-	-	X
56	MG	RA	3586	-	-	-	X
56	MG	RA	3589	-	-	-	X
56	MG	RA	3590	-	-	-	X
56	MG	RA	3591	-	-	-	X
56	MG	RA	3595	-	-	-	X
56	MG	RA	3596	-	-	-	X
56	MG	RA	3600	-	-	-	X
56	MG	RA	3602	-	-	-	X
56	MG	RA	3603	-	-	-	X
56	MG	RA	3608	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	RA	3617	-	-	-	X
56	MG	RA	3620	-	-	-	X
56	MG	RA	3625	-	-	-	X
56	MG	RA	3626	-	-	-	X
56	MG	RA	3628	-	-	-	X
56	MG	RA	3630	-	-	-	X
56	MG	RA	3631	-	-	-	X
56	MG	RA	3634	-	-	-	X
56	MG	RA	3636	-	-	-	X
56	MG	RA	3637	-	-	-	X
56	MG	RA	3639	-	-	-	X
56	MG	RA	3641	-	-	-	X
56	MG	RA	3644	-	-	-	X
56	MG	RA	3645	-	-	-	X
56	MG	RA	3646	-	-	-	X
56	MG	RA	3652	-	-	-	X
56	MG	RA	3654	-	-	-	X
56	MG	RA	3659	-	-	-	X
56	MG	RA	3662	-	-	-	X
56	MG	RA	3663	-	-	-	X
56	MG	RA	3669	-	-	-	X
56	MG	RA	3672	-	-	-	X
56	MG	RA	3681	-	-	-	X
56	MG	RA	3683	-	-	-	X
56	MG	RA	3684	-	-	-	X
56	MG	RA	3691	-	-	-	X
56	MG	RA	3693	-	-	-	X
56	MG	RA	3694	-	-	-	X
56	MG	RA	3699	-	-	-	X
56	MG	RA	3701	-	-	-	X
56	MG	RA	3703	-	-	-	X
56	MG	RA	3704	-	-	-	X
56	MG	RA	3706	-	-	-	X
56	MG	RA	3710	-	-	-	X
56	MG	RA	3719	-	-	-	X
56	MG	RA	3725	-	-	-	X
56	MG	RA	3727	-	-	-	X
56	MG	RA	3729	-	-	-	X
56	MG	RA	3733	-	-	-	X
56	MG	RA	3735	-	-	-	X
56	MG	RA	3740	-	-	-	X
56	MG	RA	3742	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	RA	3746	-	-	-	X
56	MG	RA	3747	-	-	-	X
56	MG	RA	3752	-	-	-	X
56	MG	RA	3754	-	-	-	X
56	MG	RA	3755	-	-	-	X
56	MG	RA	3768	-	-	-	X
56	MG	RA	3772	-	-	-	X
56	MG	RA	3774	-	-	-	X
56	MG	RA	3781	-	-	-	X
56	MG	RA	3782	-	-	-	X
56	MG	RA	3786	-	-	-	X
56	MG	RA	3787	-	-	-	X
56	MG	RA	3790	-	-	-	X
56	MG	RA	3796	-	-	-	X
56	MG	RA	3797	-	-	-	X
56	MG	RA	3798	-	-	-	X
56	MG	RA	3800	-	-	-	X
56	MG	RA	3807	-	-	-	X
56	MG	RA	3809	-	-	-	X
56	MG	RA	3810	-	-	-	X
56	MG	RA	3812	-	-	-	X
56	MG	RA	3817	-	-	-	X
56	MG	RA	3818	-	-	-	X
56	MG	RA	3822	-	-	-	X
56	MG	RA	3823	-	-	-	X
56	MG	RA	3824	-	-	-	X
56	MG	RA	3825	-	-	-	X
56	MG	RA	3828	-	-	-	X
56	MG	RA	3829	-	-	-	X
56	MG	RA	3834	-	-	-	X
56	MG	RA	3836	-	-	-	X
56	MG	RA	3839	-	-	-	X
56	MG	RA	3840	-	-	-	X
56	MG	RA	3842	-	-	-	X
56	MG	RA	3845	-	-	-	X
56	MG	RA	3846	-	-	-	X
56	MG	RA	3847	-	-	-	X
56	MG	RA	3849	-	-	-	X
56	MG	RA	3858	-	-	-	X
56	MG	RA	3862	-	-	-	X
56	MG	RA	3863	-	-	-	X
56	MG	RA	3868	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	RA	3871	-	-	-	X
56	MG	RA	3872	-	-	-	X
56	MG	RA	3875	-	-	-	X
56	MG	RA	3878	-	-	-	X
56	MG	RA	3880	-	-	-	X
56	MG	RA	3882	-	-	-	X
56	MG	RA	3890	-	-	-	X
56	MG	RA	3891	-	-	-	X
56	MG	RA	3892	-	-	-	X
56	MG	RA	3896	-	-	-	X
56	MG	RA	3909	-	-	-	X
56	MG	RA	3910	-	-	-	X
56	MG	RA	3912	-	-	-	X
56	MG	RA	3916	-	-	-	X
56	MG	RA	3921	-	-	-	X
56	MG	RA	3924	-	-	-	X
56	MG	RA	3926	-	-	-	X
56	MG	RA	3933	-	-	-	X
56	MG	RA	3935	-	-	-	X
56	MG	RA	3940	-	-	-	X
56	MG	RA	3942	-	-	-	X
56	MG	RA	3948	-	-	-	X
56	MG	RA	3949	-	-	-	X
56	MG	RA	3950	-	-	-	X
56	MG	RA	3951	-	-	-	X
56	MG	RA	3954	-	-	-	X
56	MG	RA	3958	-	-	-	X
56	MG	RA	3960	-	-	-	X
56	MG	RA	3961	-	-	-	X
56	MG	RA	3962	-	-	-	X
56	MG	RA	3963	-	-	-	X
56	MG	RA	3967	-	-	-	X
56	MG	RA	3968	-	-	-	X
56	MG	RA	3969	-	-	-	X
56	MG	RA	3973	-	-	-	X
56	MG	RA	3974	-	-	-	X
56	MG	RA	3976	-	-	-	X
56	MG	RA	3977	-	-	-	X
56	MG	RA	3982	-	-	-	X
56	MG	RA	3983	-	-	-	X
56	MG	RA	3985	-	-	-	X
56	MG	RA	3986	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	RA	3987	-	-	-	X
56	MG	RA	3988	-	-	-	X
56	MG	RA	3991	-	-	-	X
56	MG	RA	3993	-	-	-	X
56	MG	RA	3994	-	-	-	X
56	MG	RA	3998	-	-	-	X
56	MG	RA	4011	-	-	-	X
56	MG	RA	4015	-	-	-	X
56	MG	RA	4018	-	-	-	X
56	MG	RA	4019	-	-	-	X
56	MG	RA	4031	-	-	-	X
56	MG	RA	4041	-	-	-	X
56	MG	RA	4046	-	-	-	X
56	MG	RA	4047	-	-	-	X
56	MG	RA	4052	-	-	-	X
56	MG	RA	4053	-	-	-	X
56	MG	RA	4054	-	-	-	X
56	MG	RA	4055	-	-	-	X
56	MG	RA	4058	-	-	-	X
56	MG	RA	4059	-	-	-	X
56	MG	RA	4065	-	-	-	X
56	MG	RA	4066	-	-	-	X
56	MG	RB	203	-	-	-	X
56	MG	RB	210	-	-	-	X
56	MG	RB	217	-	-	-	X
56	MG	RB	222	-	-	-	X
56	MG	RB	223	-	-	-	X
56	MG	RB	224	-	-	-	X
56	MG	RB	225	-	-	-	X
56	MG	RB	226	-	-	-	X
56	MG	RB	227	-	-	-	X
56	MG	RB	228	-	-	-	X
56	MG	RB	229	-	-	-	X
56	MG	RD	304	-	-	-	X
56	MG	RD	308	-	-	-	X
56	MG	RD	310	-	-	-	X
56	MG	RD	311	-	-	-	X
56	MG	RD	312	-	-	-	X
56	MG	RD	313	-	-	-	X
56	MG	RE	304	-	-	-	X
56	MG	RF	301	-	-	-	X
56	MG	RF	302	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	RF	310	-	-	-	X
56	MG	RF	311	-	-	-	X
56	MG	RF	312	-	-	-	X
56	MG	RG	201	-	-	-	X
56	MG	RH	201	-	-	-	X
56	MG	RH	202	-	-	-	X
56	MG	RN	201	-	-	-	X
56	MG	RN	202	-	-	-	X
56	MG	RO	201	-	-	-	X
56	MG	RQ	203	-	-	-	X
56	MG	RR	3204	-	-	-	X
56	MG	RR	3205	-	-	-	X
56	MG	RT	201	-	-	-	X
56	MG	RT	203	-	-	-	X
56	MG	RV	201	-	-	-	X
56	MG	RV	204	-	-	-	X
56	MG	RW	202	-	-	-	X
56	MG	XA	1603	-	-	-	X
56	MG	XA	1604	-	-	-	X
56	MG	XA	1605	-	-	-	X
56	MG	XA	1607	-	-	-	X
56	MG	XA	1608	-	-	-	X
56	MG	XA	1609	-	-	-	X
56	MG	XA	1616	-	-	-	X
56	MG	XA	1618	-	-	-	X
56	MG	XA	1621	-	-	-	X
56	MG	XA	1623	-	-	-	X
56	MG	XA	1624	-	-	-	X
56	MG	XA	1626	-	-	-	X
56	MG	XA	1632	-	-	-	X
56	MG	XA	1634	-	-	-	X
56	MG	XA	1637	-	-	-	X
56	MG	XA	1639	-	-	-	X
56	MG	XA	1645	-	-	-	X
56	MG	XA	1648	-	-	-	X
56	MG	XA	1650	-	-	-	X
56	MG	XA	1651	-	-	-	X
56	MG	XA	1652	-	-	-	X
56	MG	XA	1654	-	-	-	X
56	MG	XA	1655	-	-	-	X
56	MG	XA	1666	-	-	-	X
56	MG	XA	1668	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	XA	1669	-	-	-	X
56	MG	XA	1671	-	-	-	X
56	MG	XA	1672	-	-	-	X
56	MG	XA	1673	-	-	-	X
56	MG	XA	1675	-	-	-	X
56	MG	XA	1682	-	-	-	X
56	MG	XA	1692	-	-	-	X
56	MG	XA	1693	-	-	-	X
56	MG	XA	1697	-	-	-	X
56	MG	XA	1698	-	-	-	X
56	MG	XA	1700	-	-	-	X
56	MG	XA	1702	-	-	-	X
56	MG	XA	1703	-	-	-	X
56	MG	XA	1711	-	-	-	X
56	MG	XA	1715	-	-	-	X
56	MG	XA	1718	-	-	-	X
56	MG	XA	1719	-	-	-	X
56	MG	XA	1721	-	-	-	X
56	MG	XA	1725	-	-	-	X
56	MG	XA	1727	-	-	-	X
56	MG	XA	1728	-	-	-	X
56	MG	XA	1735	-	-	-	X
56	MG	XA	1748	-	-	-	X
56	MG	XA	1751	-	-	-	X
56	MG	XA	1753	-	-	-	X
56	MG	XA	1769	-	-	-	X
56	MG	XA	1773	-	-	-	X
56	MG	XA	1781	-	-	-	X
56	MG	XA	1783	-	-	-	X
56	MG	XA	1784	-	-	-	X
56	MG	XA	1785	-	-	-	X
56	MG	XA	1788	-	-	-	X
56	MG	XE	201	-	-	-	X
56	MG	XF	202	-	-	-	X
56	MG	XF	203	-	-	-	X
56	MG	XF	204	-	-	-	X
56	MG	XH	201	-	-	-	X
56	MG	XR	101	-	-	-	X
56	MG	XX	101	-	-	-	X
56	MG	Y0	101	-	-	-	X
56	MG	Y1	101	-	-	-	X
56	MG	Y8	101	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	YA	3003	-	-	-	X
56	MG	YA	3018	-	-	-	X
56	MG	YA	3027	-	-	-	X
56	MG	YA	3037	-	-	-	X
56	MG	YA	3039	-	-	-	X
56	MG	YA	3051	-	-	-	X
56	MG	YA	3053	-	-	-	X
56	MG	YA	3056	-	-	-	X
56	MG	YA	3057	-	-	-	X
56	MG	YA	3059	-	-	-	X
56	MG	YA	3060	-	-	-	X
56	MG	YA	3061	-	-	-	X
56	MG	YA	3065	-	-	-	X
56	MG	YA	3069	-	-	-	X
56	MG	YA	3070	-	-	-	X
56	MG	YA	3075	-	-	-	X
56	MG	YA	3083	-	-	-	X
56	MG	YA	3086	-	-	-	X
56	MG	YA	3094	-	-	-	X
56	MG	YA	3099	-	-	-	X
56	MG	YA	3107	-	-	-	X
56	MG	YA	3108	-	-	-	X
56	MG	YA	3110	-	-	-	X
56	MG	YA	3111	-	-	-	X
56	MG	YA	3119	-	-	-	X
56	MG	YA	3134	-	-	-	X
56	MG	YA	3139	-	-	-	X
56	MG	YA	3148	-	-	-	X
56	MG	YA	3150	-	-	-	X
56	MG	YA	3155	-	-	-	X
56	MG	YA	3161	-	-	-	X
56	MG	YA	3164	-	-	-	X
56	MG	YA	3165	-	-	-	X
56	MG	YA	3166	-	-	-	X
56	MG	YA	3167	-	-	-	X
56	MG	YA	3169	-	-	-	X
56	MG	YA	3170	-	-	-	X
56	MG	YA	3173	-	-	-	X
56	MG	YA	3174	-	-	-	X
56	MG	YA	3176	-	-	-	X
56	MG	YA	3178	-	-	-	X
56	MG	YA	3179	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	YA	3184	-	-	-	X
56	MG	YA	3185	-	-	-	X
56	MG	YA	3186	-	-	-	X
56	MG	YA	3193	-	-	-	X
56	MG	YA	3198	-	-	-	X
56	MG	YA	3203	-	-	-	X
56	MG	YA	3206	-	-	-	X
56	MG	YA	3208	-	-	-	X
56	MG	YA	3211	-	-	-	X
56	MG	YA	3214	-	-	-	X
56	MG	YA	3222	-	-	-	X
56	MG	YA	3226	-	-	-	X
56	MG	YA	3233	-	-	-	X
56	MG	YA	3234	-	-	-	X
56	MG	YA	3237	-	-	-	X
56	MG	YA	3241	-	-	-	X
56	MG	YA	3246	-	-	-	X
56	MG	YA	3247	-	-	-	X
56	MG	YA	3248	-	-	-	X
56	MG	YA	3253	-	-	-	X
56	MG	YA	3260	-	-	-	X
56	MG	YA	3262	-	-	-	X
56	MG	YA	3265	-	-	-	X
56	MG	YA	3267	-	-	-	X
56	MG	YA	3269	-	-	-	X
56	MG	YA	3270	-	-	-	X
56	MG	YA	3273	-	-	-	X
56	MG	YA	3302	-	-	-	X
56	MG	YA	3311	-	-	-	X
56	MG	YA	3312	-	-	-	X
56	MG	YA	3314	-	-	-	X
56	MG	YA	3330	-	-	-	X
56	MG	YA	3336	-	-	-	X
56	MG	YA	3364	-	-	-	X
56	MG	YA	3368	-	-	-	X
56	MG	YA	3375	-	-	-	X
56	MG	YA	3396	-	-	-	X
56	MG	YA	3400	-	-	-	X
56	MG	YA	3403	-	-	-	X
56	MG	YA	3406	-	-	-	X
56	MG	YA	3414	-	-	-	X
56	MG	YA	3415	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	YA	3417	-	-	-	X
56	MG	YA	3418	-	-	-	X
56	MG	YA	3419	-	-	-	X
56	MG	YA	3421	-	-	-	X
56	MG	YA	3422	-	-	-	X
56	MG	YA	3426	-	-	-	X
56	MG	YA	3427	-	-	-	X
56	MG	YA	3431	-	-	-	X
56	MG	YA	3432	-	-	-	X
56	MG	YA	3437	-	-	-	X
56	MG	YA	3439	-	-	-	X
56	MG	YA	3443	-	-	-	X
56	MG	YA	3445	-	-	-	X
56	MG	YA	3446	-	-	-	X
56	MG	YA	3449	-	-	-	X
56	MG	YA	3450	-	-	-	X
56	MG	YA	3455	-	-	-	X
56	MG	YA	3456	-	-	-	X
56	MG	YA	3461	-	-	-	X
56	MG	YA	3462	-	-	-	X
56	MG	YA	3464	-	-	-	X
56	MG	YA	3465	-	-	-	X
56	MG	YA	3466	-	-	-	X
56	MG	YA	3467	-	-	-	X
56	MG	YA	3468	-	-	-	X
56	MG	YA	3473	-	-	-	X
56	MG	YA	3475	-	-	-	X
56	MG	YA	3477	-	-	-	X
56	MG	YA	3478	-	-	-	X
56	MG	YA	3479	-	-	-	X
56	MG	YA	3481	-	-	-	X
56	MG	YA	3485	-	-	-	X
56	MG	YA	3490	-	-	-	X
56	MG	YA	3491	-	-	-	X
56	MG	YA	3497	-	-	-	X
56	MG	YA	3500	-	-	-	X
56	MG	YA	3501	-	-	-	X
56	MG	YA	3502	-	-	-	X
56	MG	YA	3505	-	-	-	X
56	MG	YA	3510	-	-	-	X
56	MG	YA	3511	-	-	-	X
56	MG	YA	3512	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	YA	3517	-	-	-	X
56	MG	YA	3519	-	-	-	X
56	MG	YA	3522	-	-	-	X
56	MG	YA	3528	-	-	-	X
56	MG	YA	3529	-	-	-	X
56	MG	YA	3534	-	-	-	X
56	MG	YA	3535	-	-	-	X
56	MG	YA	3544	-	-	-	X
56	MG	YA	3545	-	-	-	X
56	MG	YA	3547	-	-	-	X
56	MG	YA	3550	-	-	-	X
56	MG	YA	3551	-	-	-	X
56	MG	YA	3557	-	-	-	X
56	MG	YA	3565	-	-	-	X
56	MG	YA	3577	-	-	-	X
56	MG	YA	3578	-	-	-	X
56	MG	YA	3582	-	-	-	X
56	MG	YA	3584	-	-	-	X
56	MG	YA	3599	-	-	-	X
56	MG	YA	3603	-	-	-	X
56	MG	YA	3624	-	-	-	X
56	MG	YA	3628	-	-	-	X
56	MG	YA	3635	-	-	-	X
56	MG	YA	3637	-	-	-	X
56	MG	YA	3641	-	-	-	X
56	MG	YA	3655	-	-	-	X
56	MG	YA	3662	-	-	-	X
56	MG	YA	3667	-	-	-	X
56	MG	YA	3676	-	-	-	X
56	MG	YA	3694	-	-	-	X
56	MG	YA	3695	-	-	-	X
56	MG	YA	3698	-	-	-	X
56	MG	YA	3707	-	-	-	X
56	MG	YA	3715	-	-	-	X
56	MG	YA	3722	-	-	-	X
56	MG	YA	3726	-	-	-	X
56	MG	YA	3727	-	-	-	X
56	MG	YA	3729	-	-	-	X
56	MG	YA	3737	-	-	-	X
56	MG	YA	3738	-	-	-	X
56	MG	YA	3745	-	-	-	X
56	MG	YA	3747	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	YB	201	-	-	-	X
56	MG	YB	204	-	-	-	X
56	MG	YB	205	-	-	-	X
56	MG	YB	206	-	-	-	X
56	MG	YB	207	-	-	-	X
56	MG	YB	209	-	-	-	X
56	MG	YB	218	-	-	-	X
56	MG	YD	301	-	-	-	X
56	MG	YD	305	-	-	-	X
56	MG	YD	307	-	-	-	X
56	MG	YD	310	-	-	-	X
56	MG	YE	301	-	-	-	X
56	MG	YE	302	-	-	-	X
56	MG	YE	303	-	-	-	X
56	MG	YF	302	-	-	-	X
56	MG	YG	201	-	-	-	X
56	MG	YN	201	-	-	-	X
56	MG	YP	201	-	-	-	X
56	MG	YT	201	-	-	-	X
56	MG	YT	202	-	-	-	X
57	ZN	Y4	101	-	-	-	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 (three-letter code: 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

Continued on next page...

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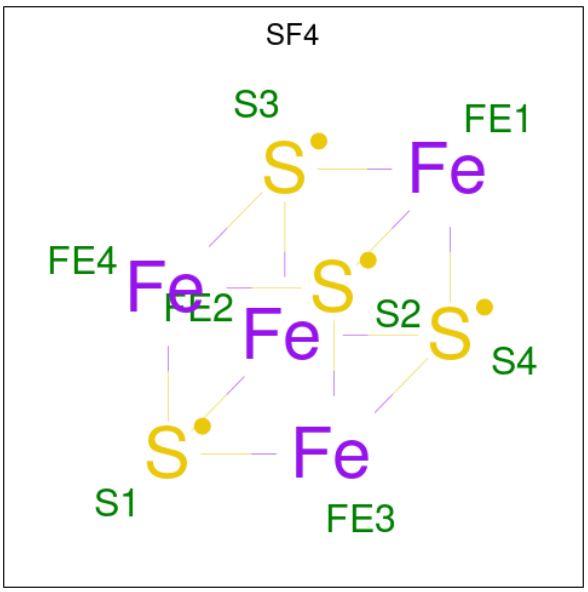
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
			Total	Mg		
56	RN	3	3	3	0	0
56	RO	1	1	1	0	0
56	RP	2	2	2	0	0
56	RQ	4	4	4	0	0
56	RR	5	5	5	0	0
56	RT	3	3	3	0	0
56	RU	3	3	3	0	0
56	RV	4	4	4	0	0
56	RW	2	2	2	0	0
56	RX	1	1	1	0	0
56	RZ	1	1	1	0	0
56	R0	4	4	4	0	0
56	R1	3	3	3	0	0
56	R3	2	2	2	0	0
56	R4	1	1	1	0	0
56	R5	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 (three-letter code: ZN) (formula: Zn).

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

- Molecule 58 is IRON/SULFUR CLUSTER (three-letter code: SF4) (formula: Fe_4S_4).



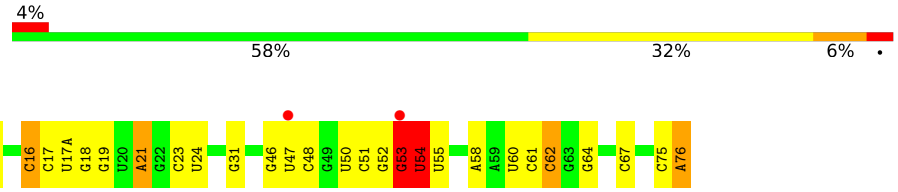
Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
			Total	Fe	S		
58	XD	1	8	4	4	0	0
			Total	Fe	S		
58	QD	1	8	4	4	0	0

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.

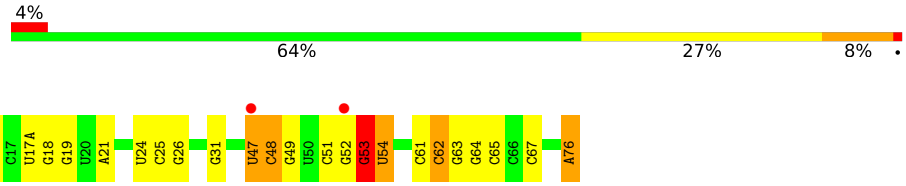
- Molecule 1: P-site tRNA fMet

Chain QV:



- Molecule 1: P-site tRNA fMet

Chain XV:



- Molecule 2: messenger RNA

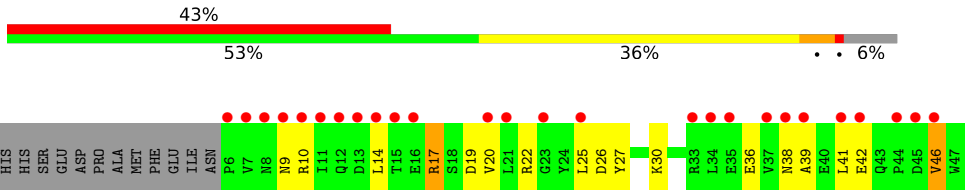
Chain QX:

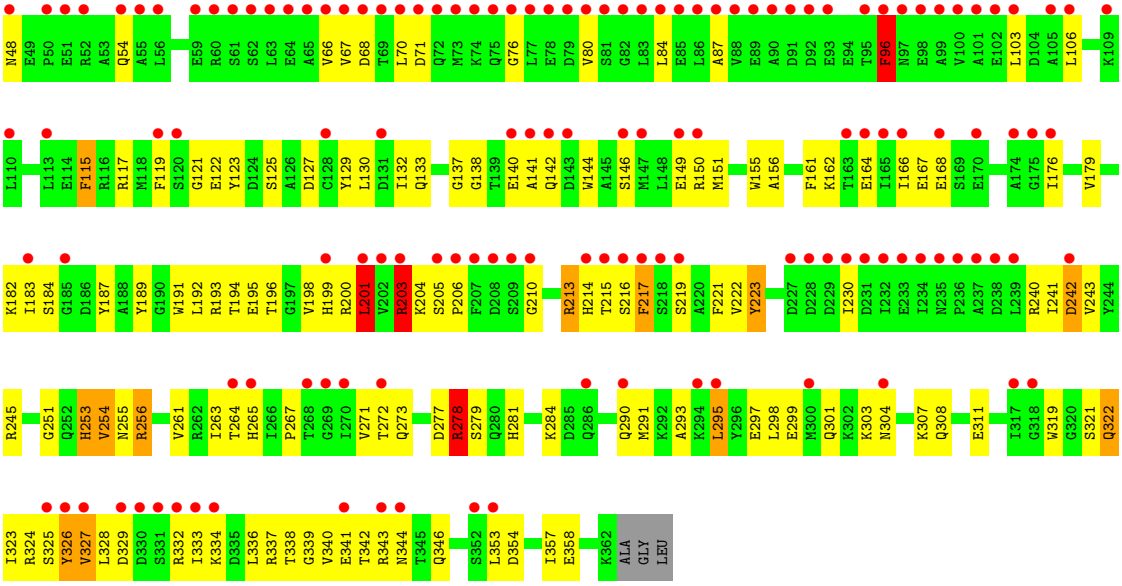
- Molecule 2: messenger RNA

Chain XX:

- Molecule 3: Peptide chain release factor 2

Chain QY:





- Molecule 3: Peptide chain release factor 2

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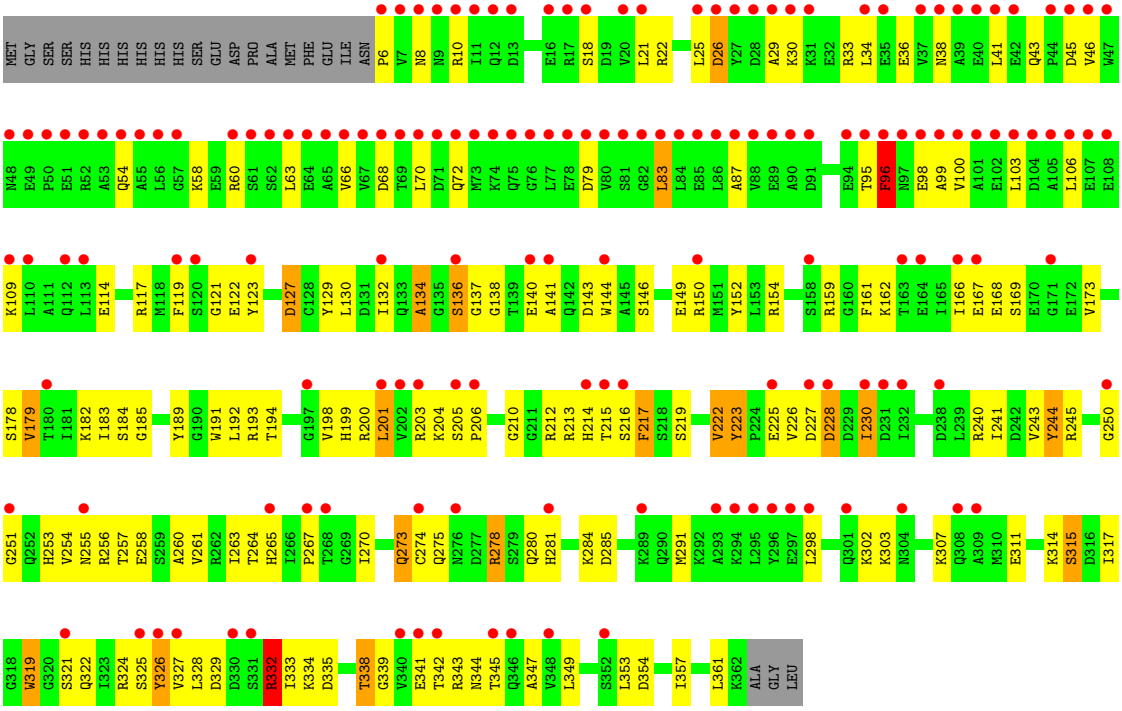

- Molecule 4: T23S rRNA

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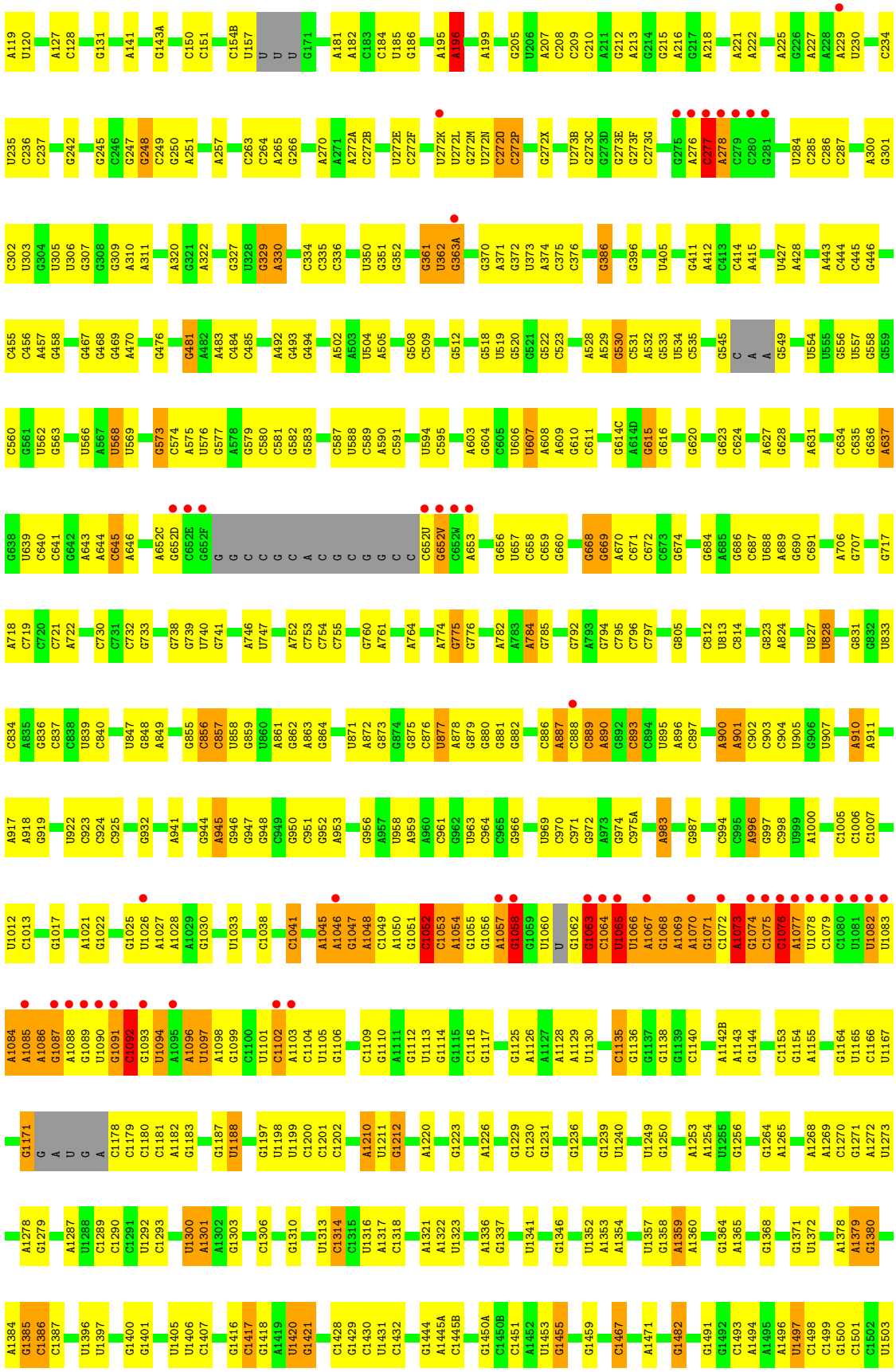
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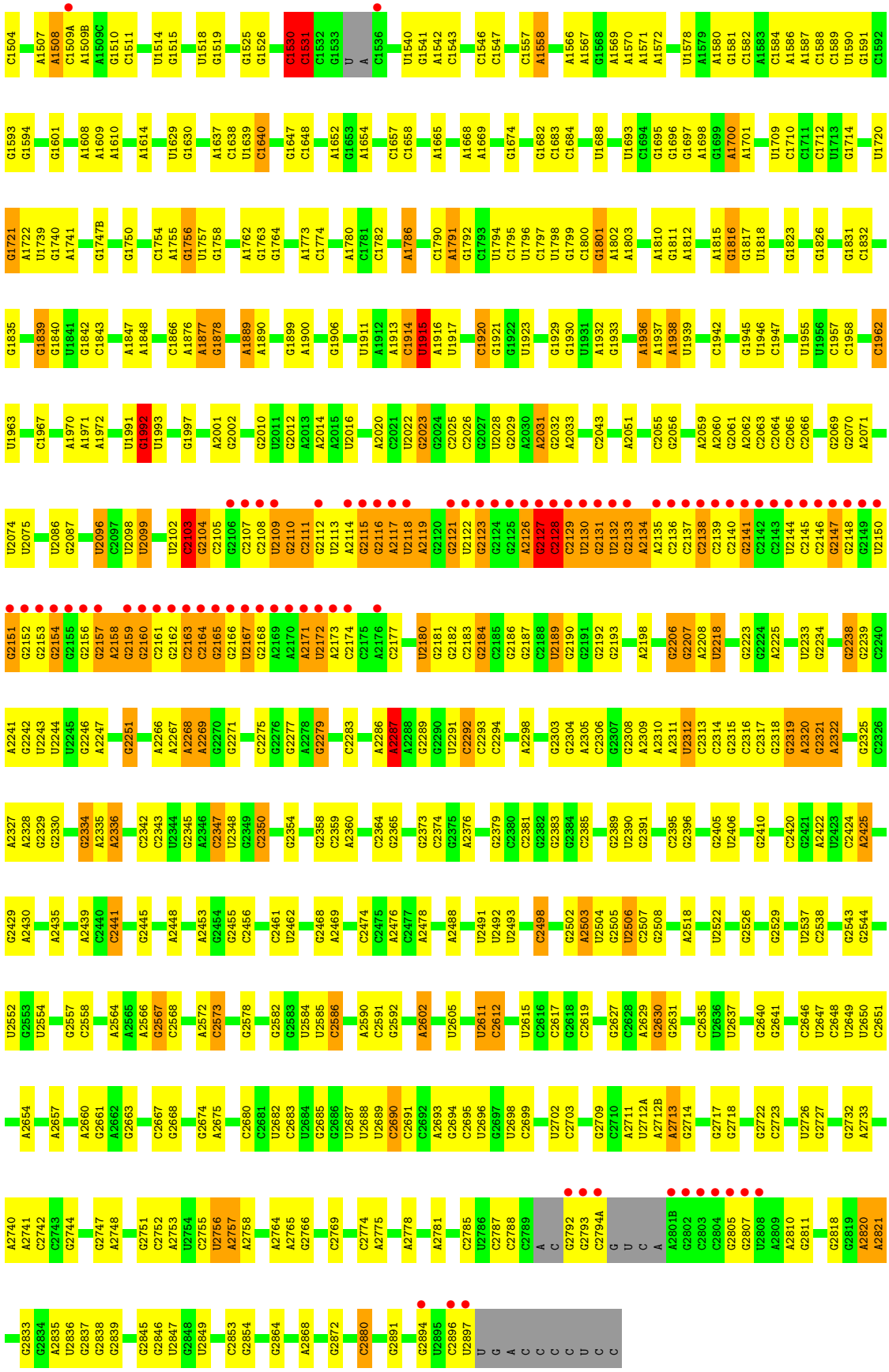
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• Molecule 4: T23S rRNA

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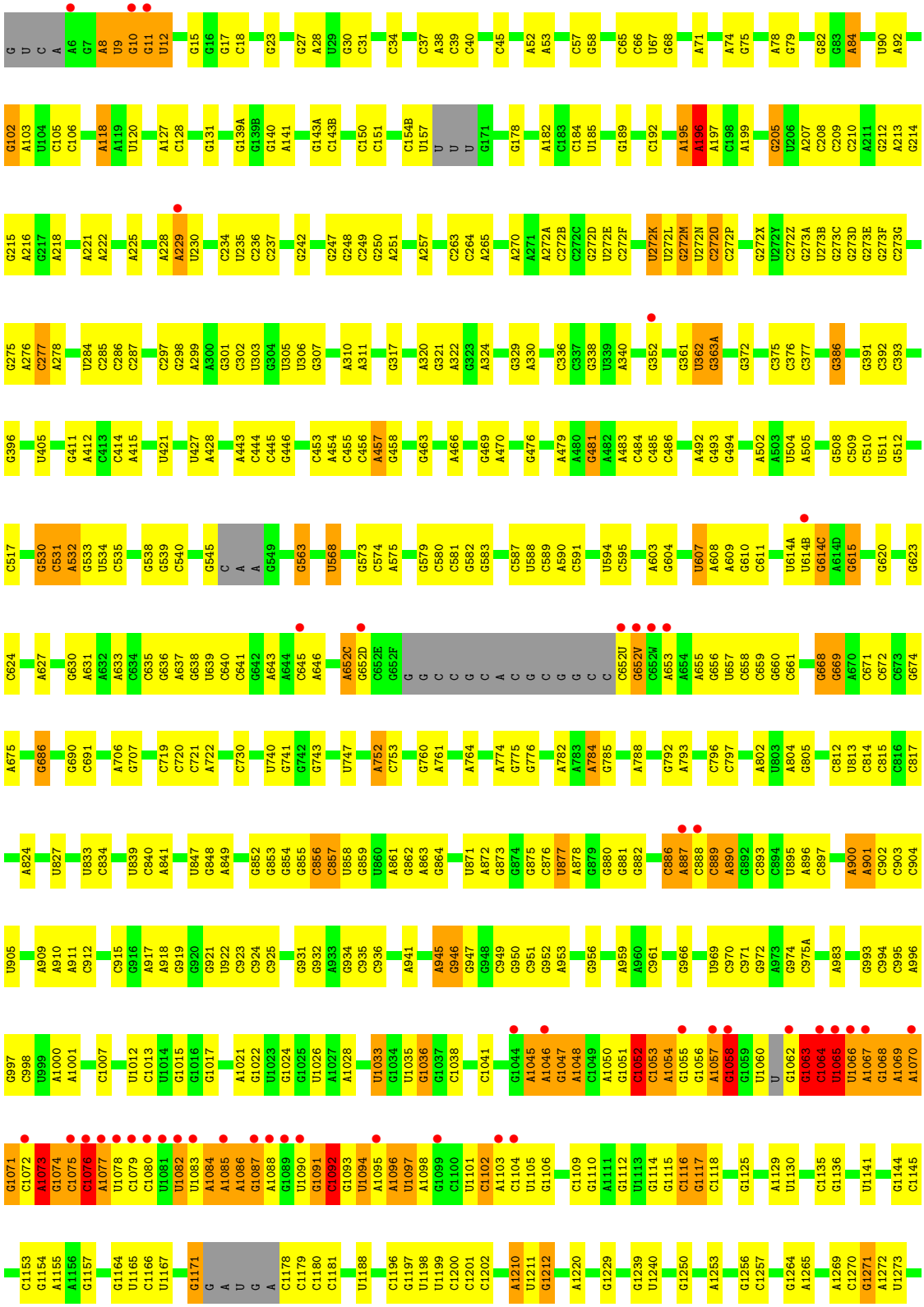

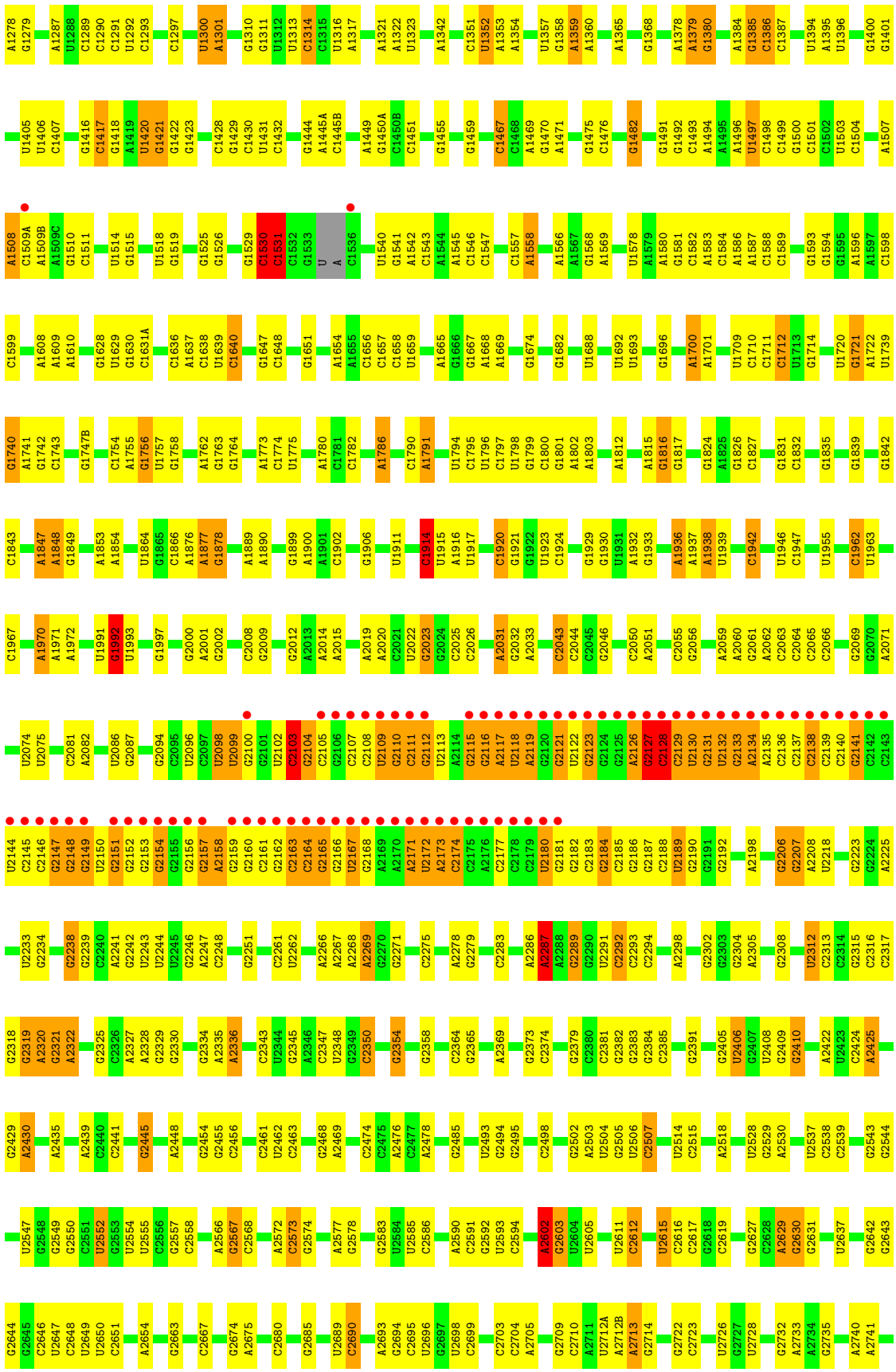
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C1297
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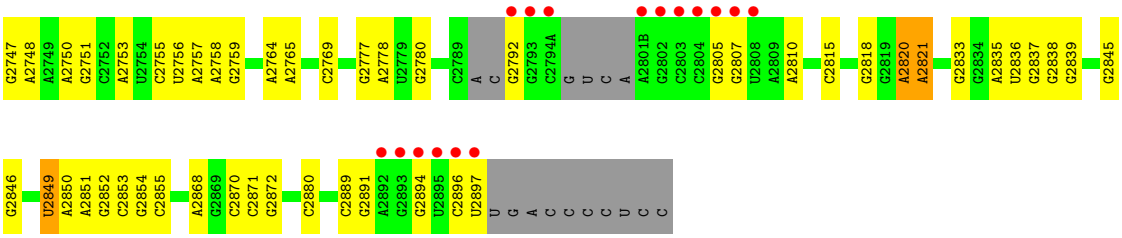
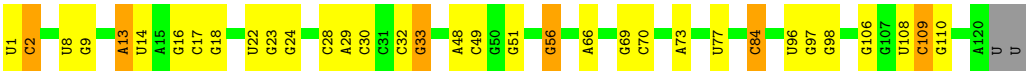


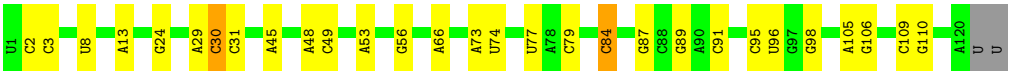
- Molecule 5: 5S rRNA

Chain YB:



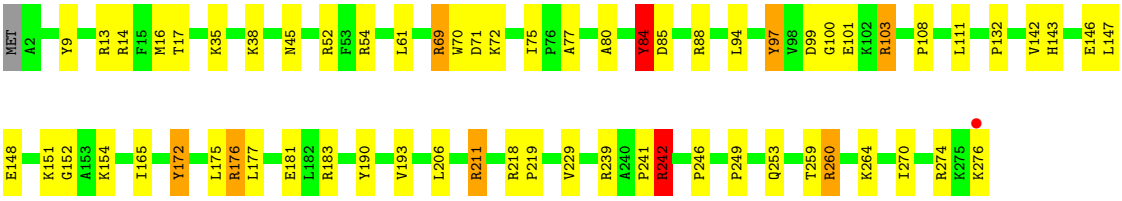
- Molecule 5: 5S rRNA

Chain RB:



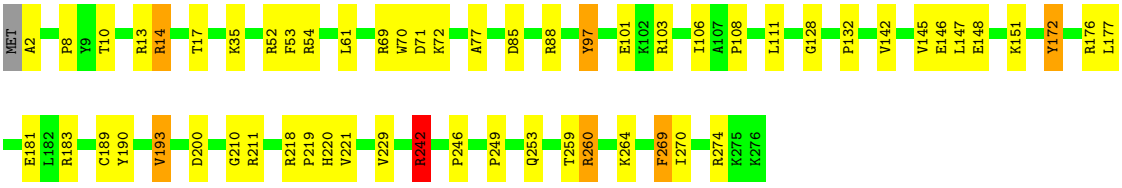
- Molecule 6: 50S ribosomal protein L2

Chain YD:



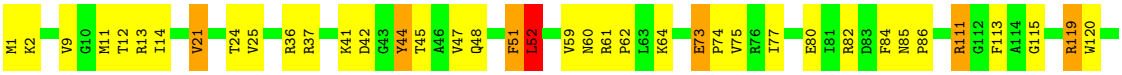
- Molecule 6: 50S ribosomal protein L2

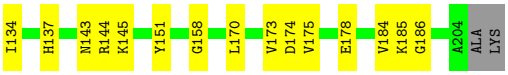
Chain RD:



- Molecule 7: 50S ribosomal protein L3

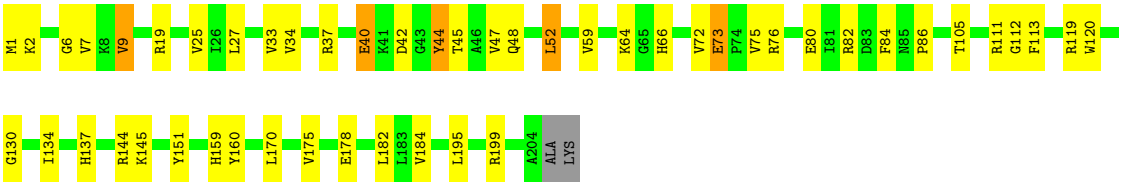
Chain YE:





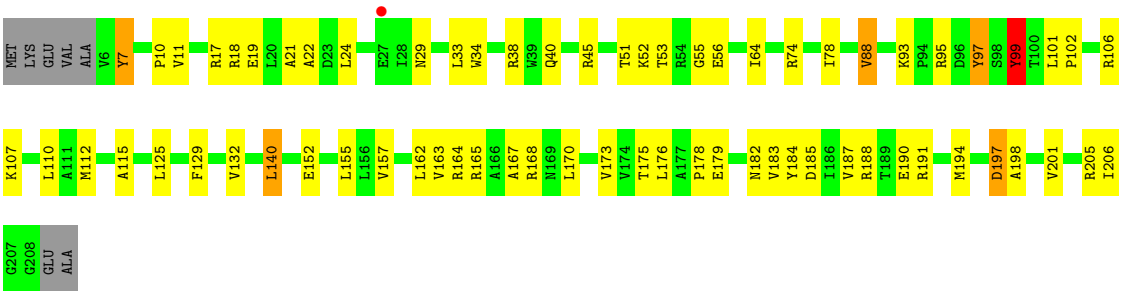
• Molecule 7: 50S ribosomal protein L3

Chain RE:



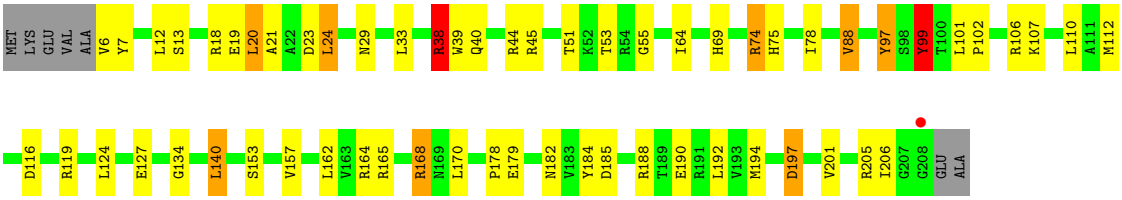
• Molecule 8: 50S ribosomal protein L4

Chain YF:



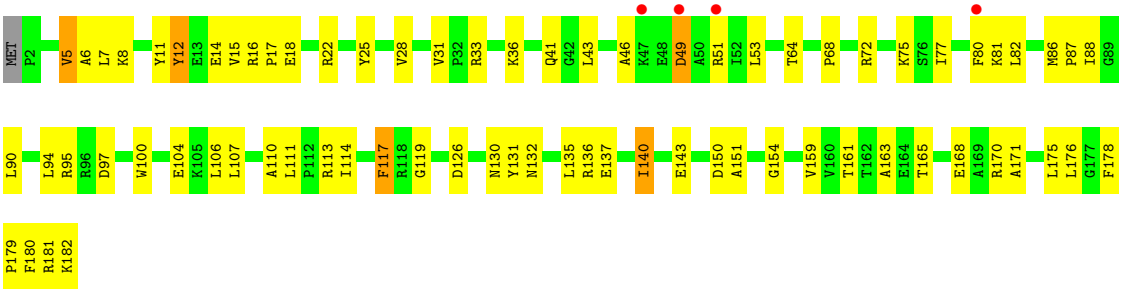
• Molecule 8: 50S ribosomal protein L4

Chain RF:



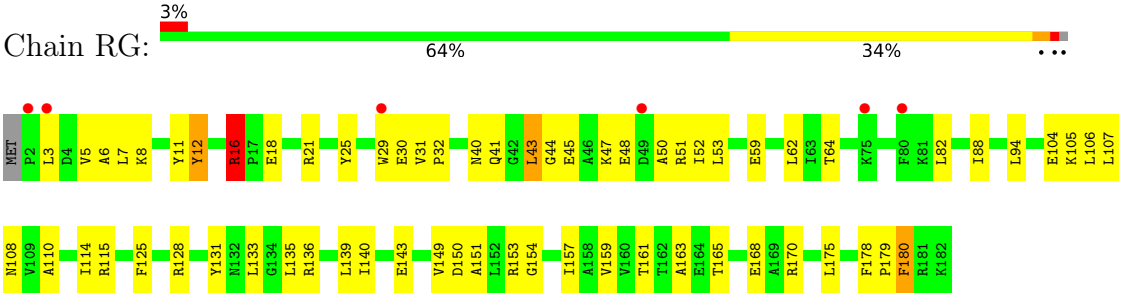
• Molecule 9: 50S ribosomal protein L5

Chain YG:



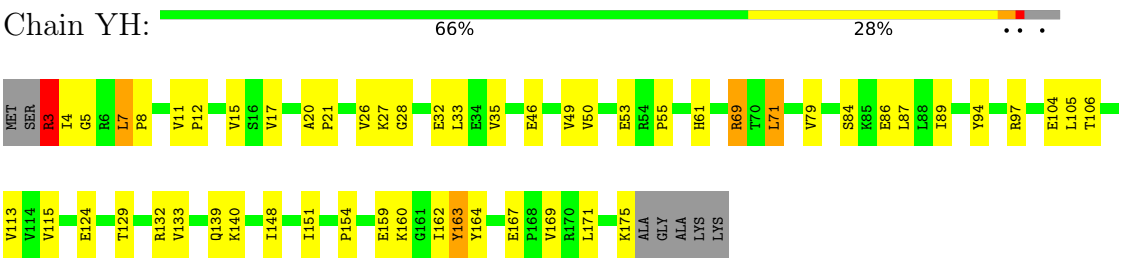
• Molecule 9: 50S ribosomal protein L5

Chain RG:



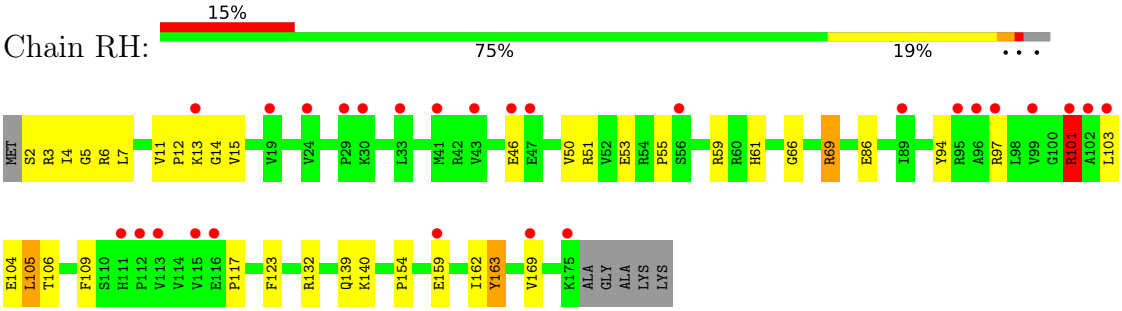
• Molecule 10: 50S ribosomal protein L6

Chain YH:



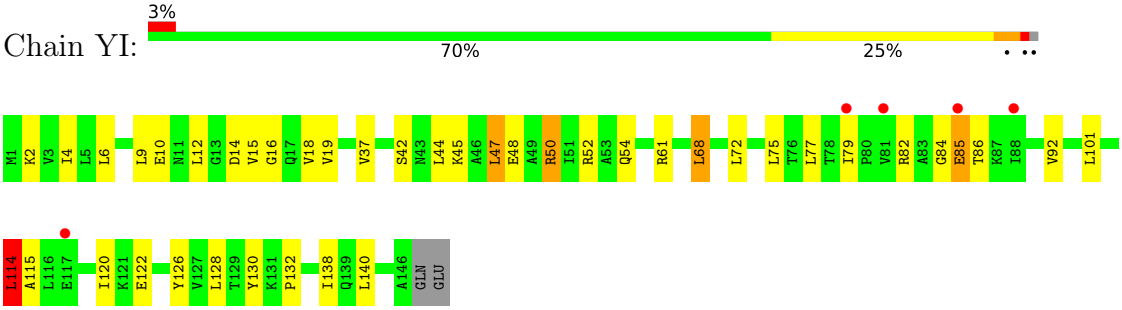
• Molecule 10: 50S ribosomal protein L6

Chain RH:



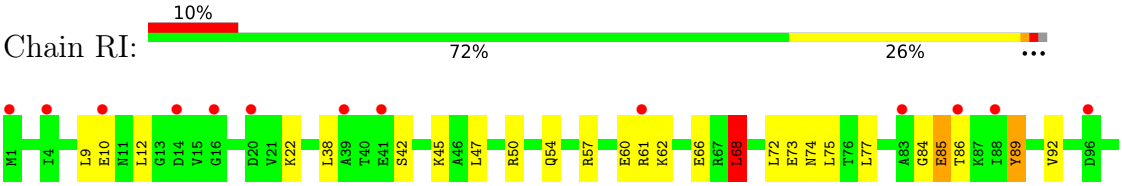
• Molecule 11: 50S ribosomal protein L9

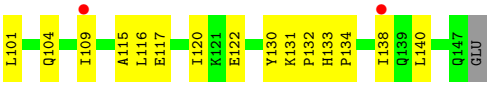
Chain YI:



• Molecule 11: 50S ribosomal protein L9

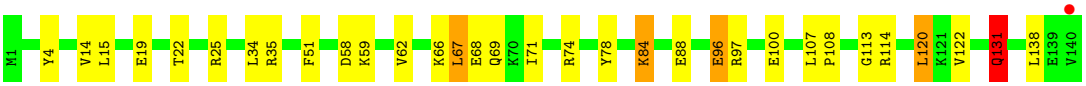
Chain RI:





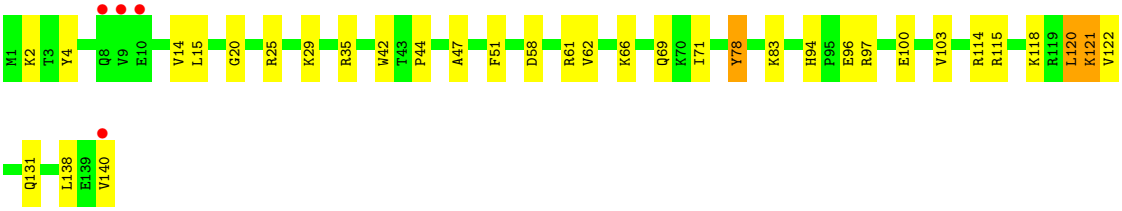
• Molecule 12: 50S ribosomal protein L13

Chain YN:



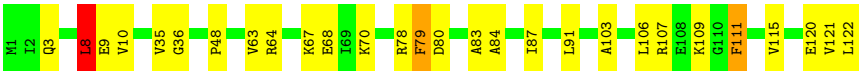
• Molecule 12: 50S ribosomal protein L13

Chain RN:



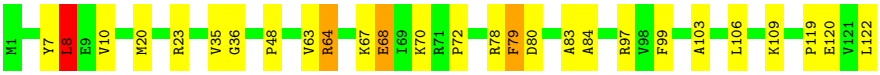
• Molecule 13: 50S ribosomal protein L14

Chain YO:



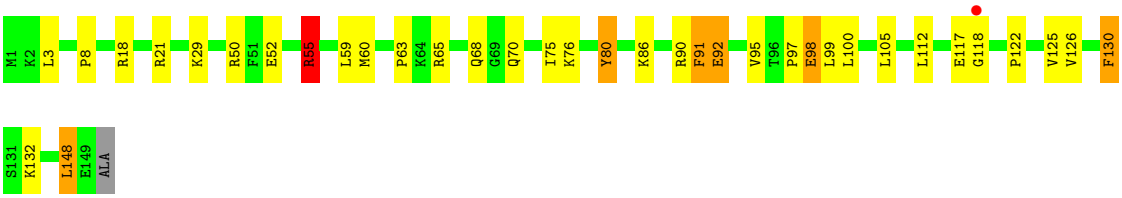
• Molecule 13: 50S ribosomal protein L14

Chain RO:



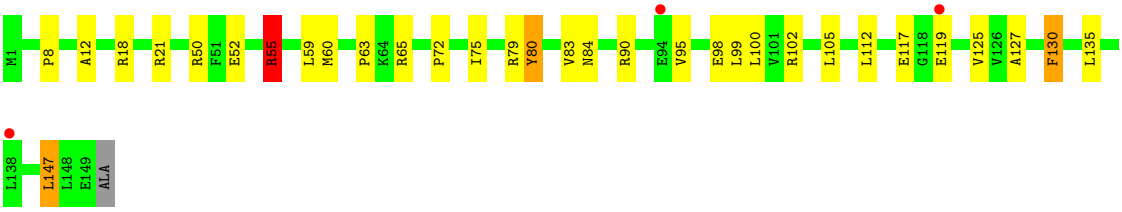
• Molecule 14: 50S ribosomal protein L15

Chain YP:



• Molecule 14: 50S ribosomal protein L15

Chain RP:

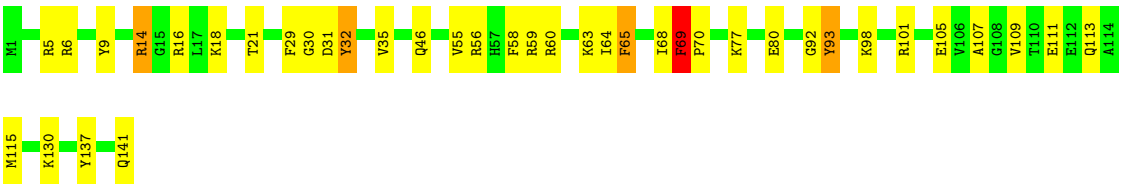


• Molecule 15: 50S ribosomal protein L16

Chain YQ:

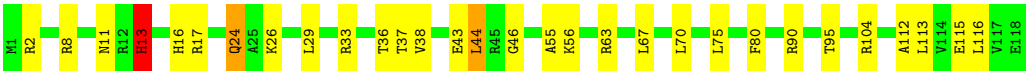
• Molecule 15: 50S ribosomal protein L16

Chain RQ:



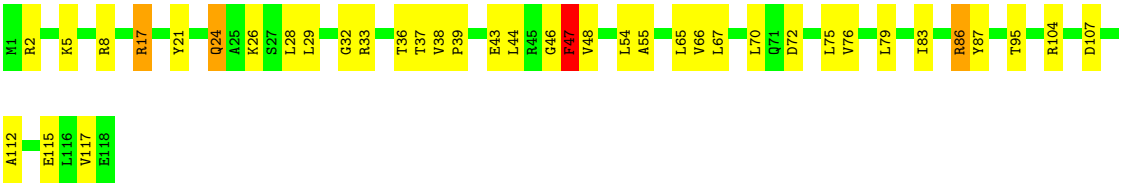
• Molecule 16: 50S ribosomal protein L17

Chain YR:



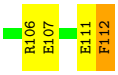
• Molecule 16: 50S ribosomal protein L17

Chain RR:



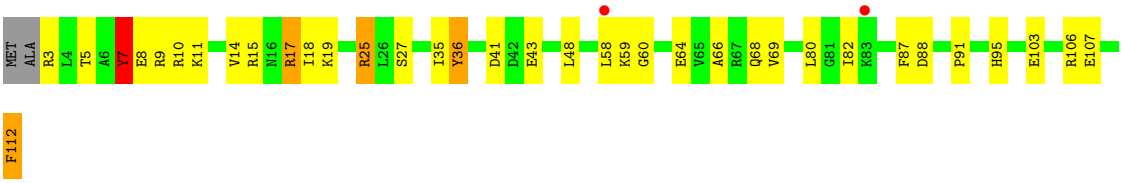
• Molecule 17: 50S ribosomal protein L18

Chain YS:



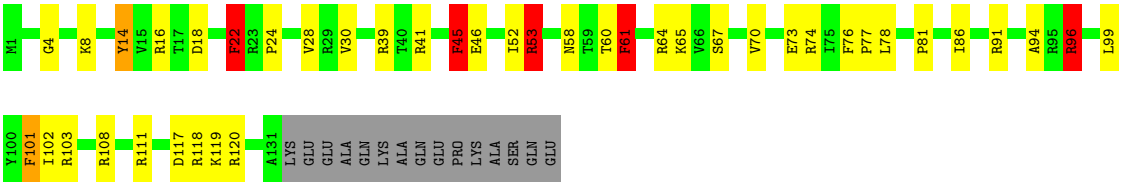
• Molecule 17: 50S ribosomal protein L18

Chain RS:



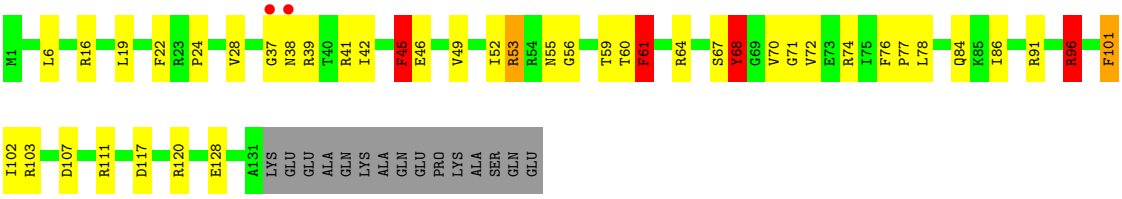
• Molecule 18: 50S ribosomal protein L19

Chain YT:



• Molecule 18: 50S ribosomal protein L19

Chain RT:

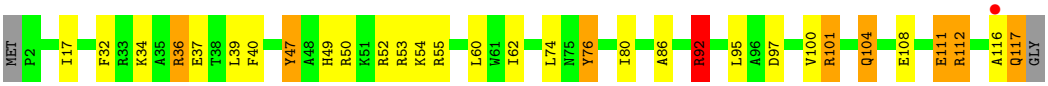


• Molecule 19: 50S ribosomal protein L20

Chain YU:

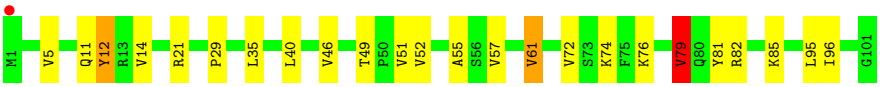
• Molecule 19: 50S ribosomal protein L20

Chain RU:



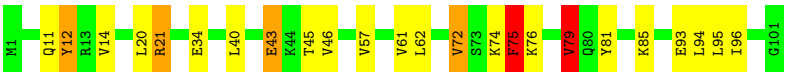
• Molecule 20: 50S ribosomal protein L21

Chain YV:



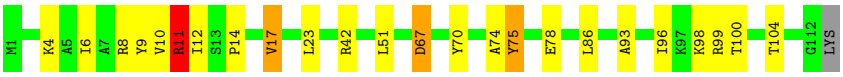
• Molecule 20: 50S ribosomal protein L21

Chain RV:



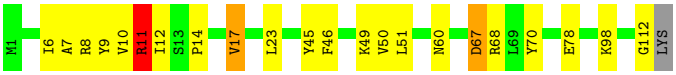
• Molecule 21: 50S ribosomal protein L22

Chain YW:



• Molecule 21: 50S ribosomal protein L22

Chain RW:

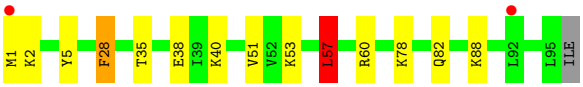


• Molecule 22: 50S ribosomal protein L23

Chain YX:

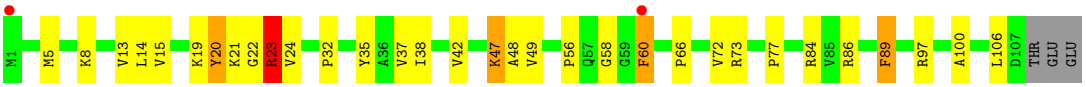
• Molecule 22: 50S ribosomal protein L23

Chain RX:



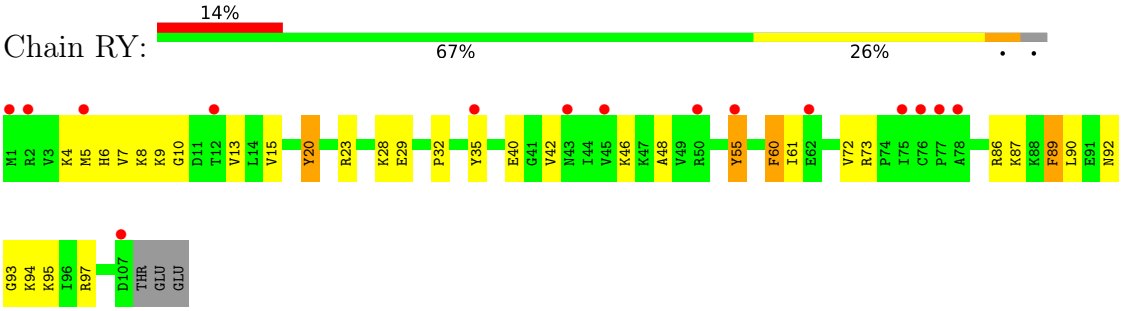
• Molecule 23: 50S ribosomal protein L24

Chain YY:



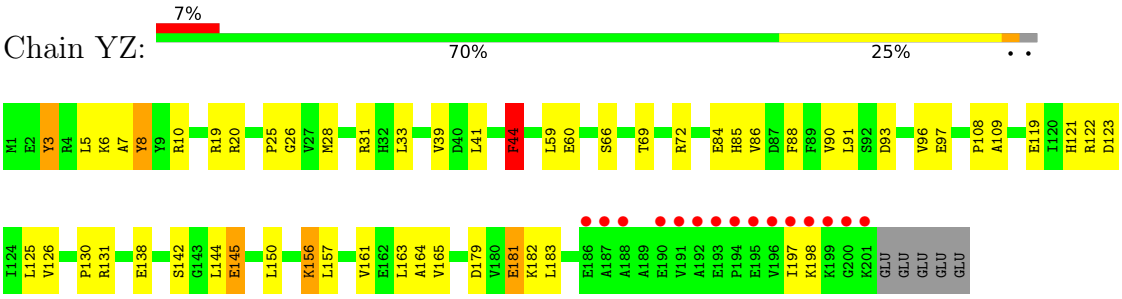
• Molecule 23: 50S ribosomal protein L24

Chain RY:



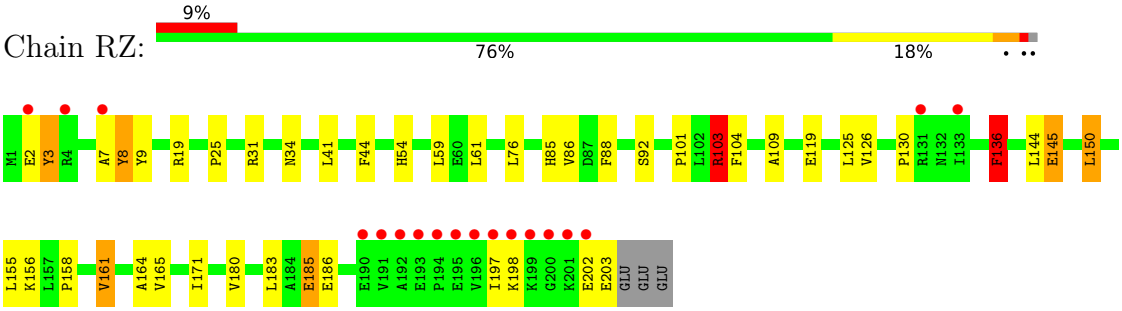
- Molecule 24: 50S ribosomal protein L25

Chain YZ:



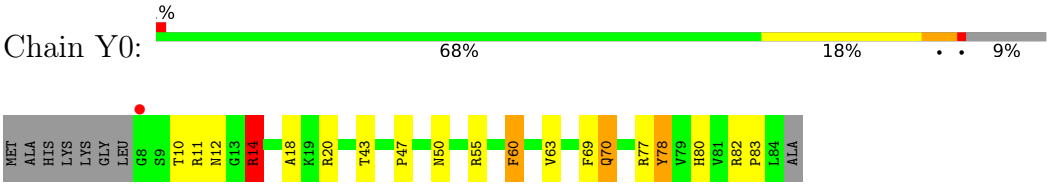
- Molecule 24: 50S ribosomal protein L25

Chain RZ:



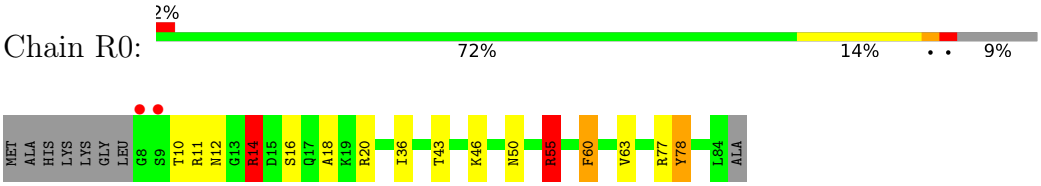
- Molecule 25: 50S ribosomal protein L27

Chain Y0:



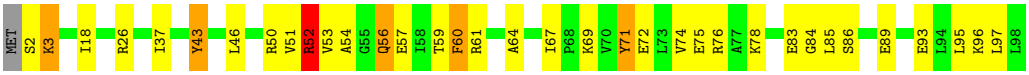
- Molecule 25: 50S ribosomal protein L27

Chain R0:



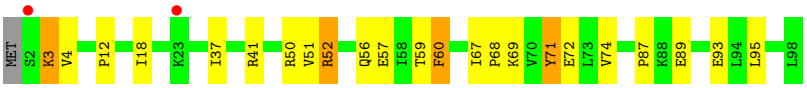
- Molecule 26: 50S ribosomal protein L28

Chain Y1:



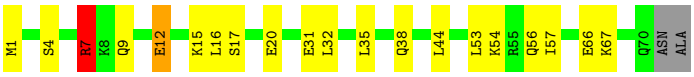
• Molecule 26: 50S ribosomal protein L28

Chain R1:



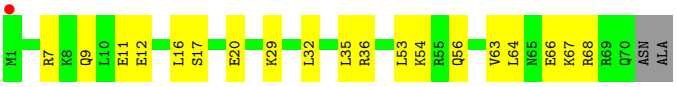
• Molecule 27: 50S ribosomal protein L29

Chain Y2:



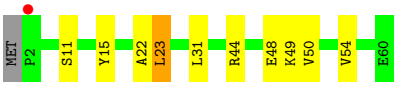
• Molecule 27: 50S ribosomal protein L29

Chain R2:



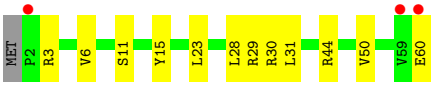
• Molecule 28: 50S ribosomal protein L30

Chain Y3:



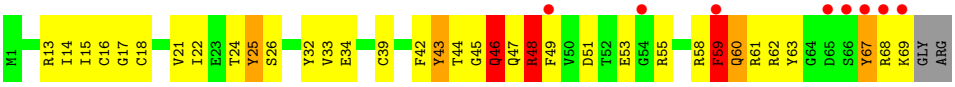
• Molecule 28: 50S ribosomal protein L30

Chain R3:



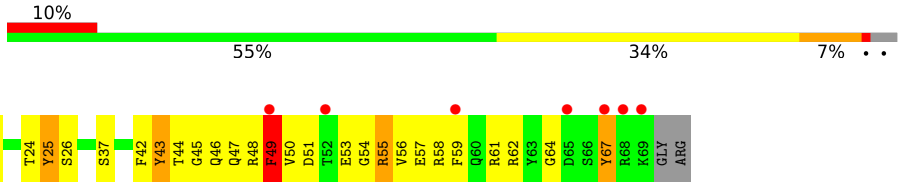
• Molecule 29: 50S ribosomal protein L31

Chain Y4:



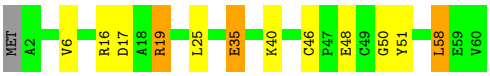
• Molecule 29: 50S ribosomal protein L31

Chain R4:



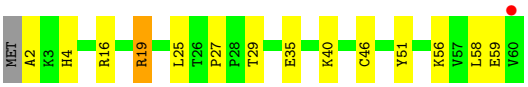
• Molecule 30: 50S ribosomal protein L32

Chain Y5:



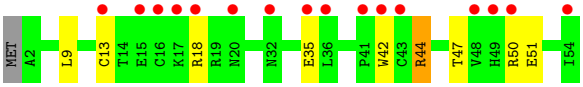
• Molecule 30: 50S ribosomal protein L32

Chain R5:



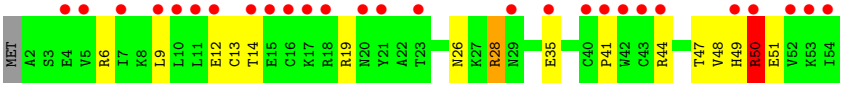
• Molecule 31: 50S ribosomal protein L33

Chain Y6:



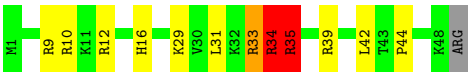
• Molecule 31: 50S ribosomal protein L33

Chain R6:



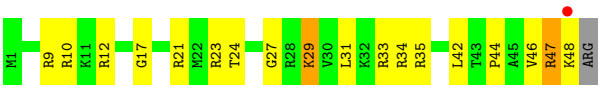
• Molecule 32: 50S ribosomal protein L34

Chain Y7:



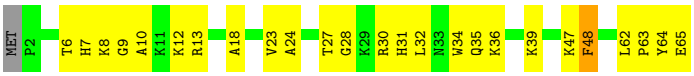
• Molecule 32: 50S ribosomal protein L34

Chain R7:



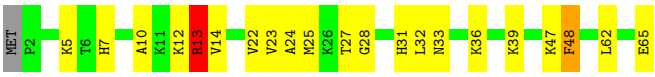
• Molecule 33: 50S ribosomal protein L35

Chain Y8:



• Molecule 33: 50S ribosomal protein L35

Chain R8:

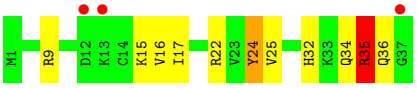


• Molecule 34: 50S ribosomal protein L36

Chain Y9:

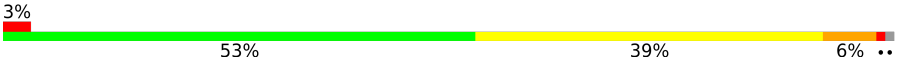
• Molecule 34: 50S ribosomal protein L36

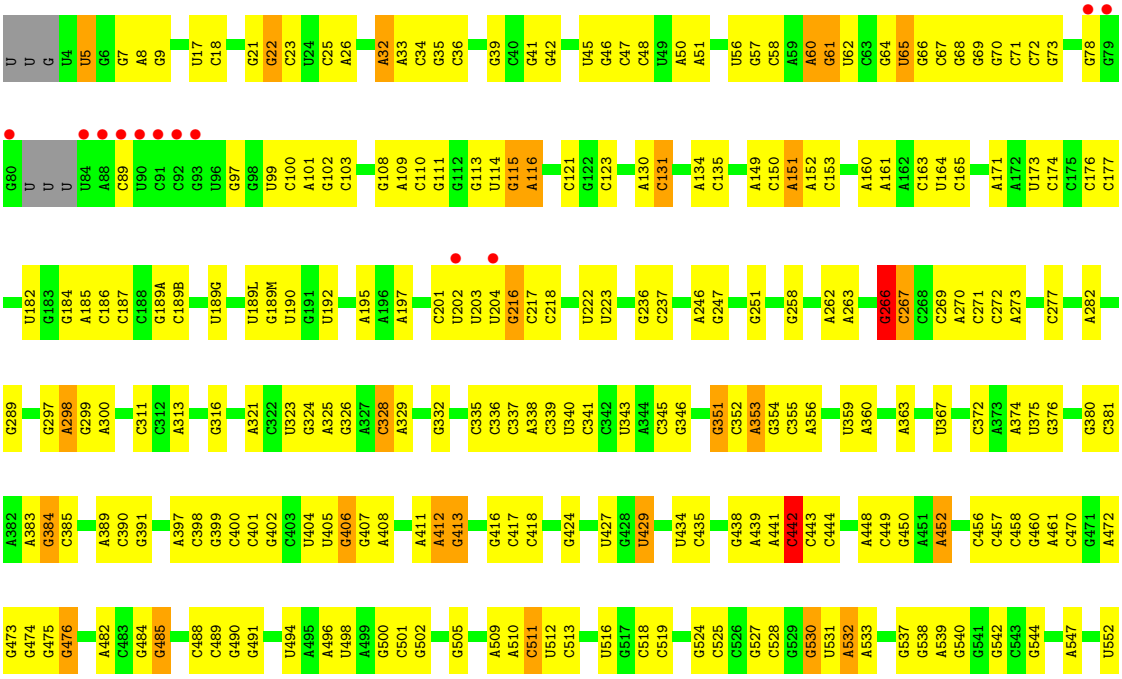
Chain R9:

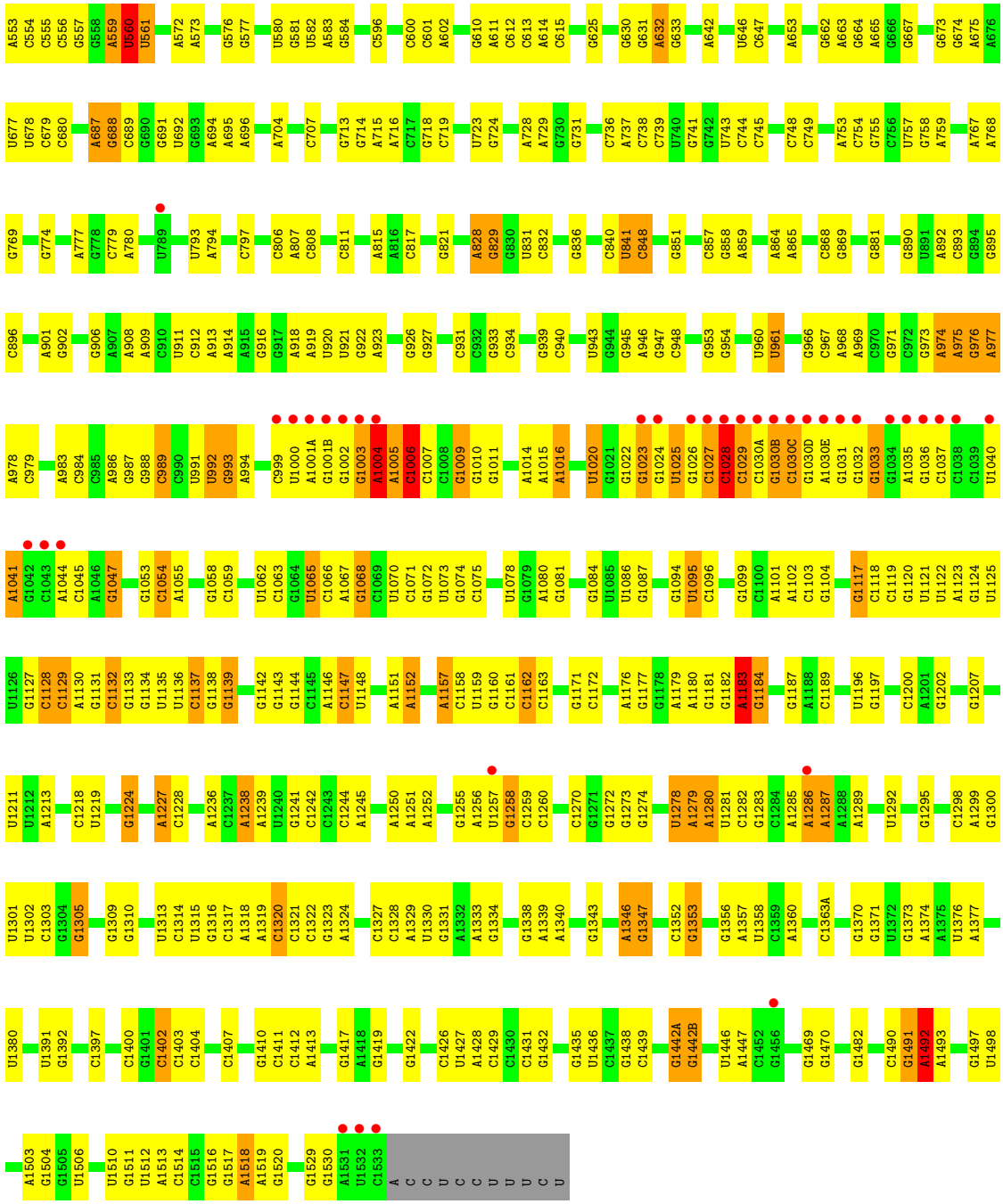


• Molecule 35: 16S rRNA

Chain XA:

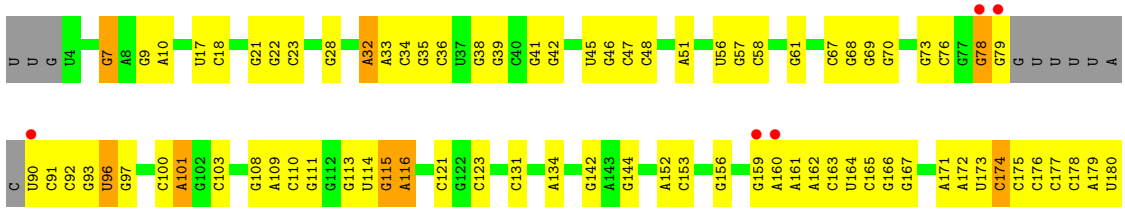


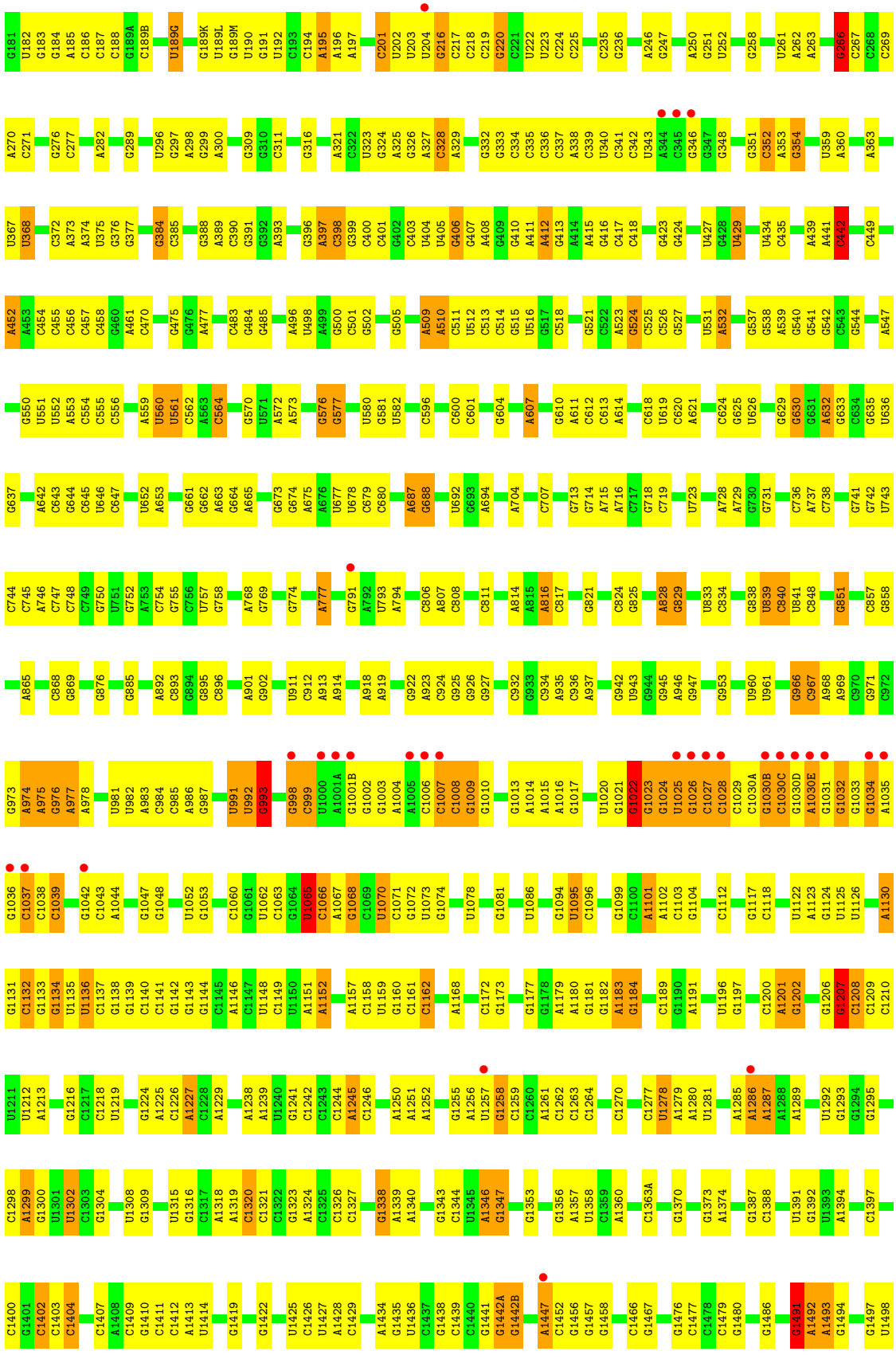




• Molecule 35: 16S rRNA

Chain QA:

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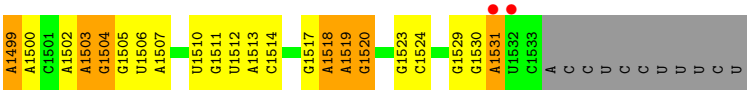
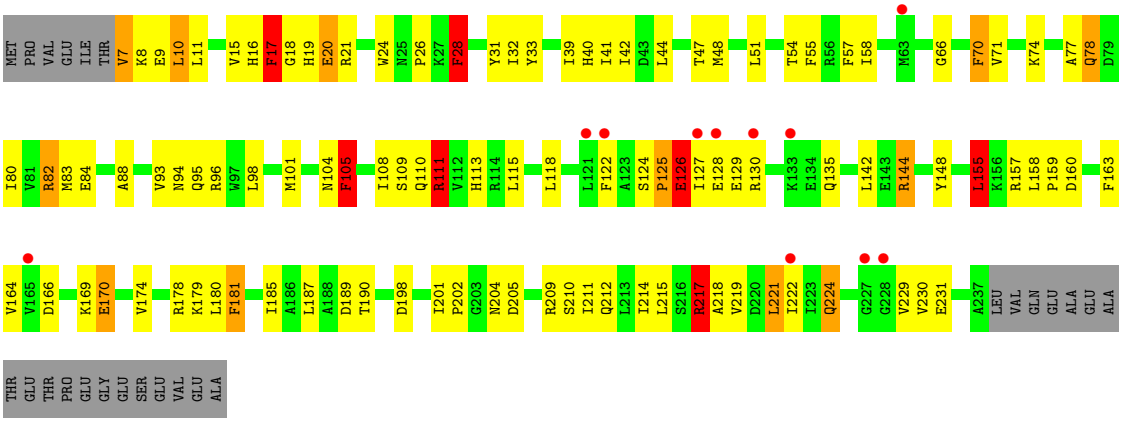
A270 C271 G276 C277 A282 G289 U296 G297 A298 G299 A300 G309 G310 C311 G316 A321 C322 U323 G324 A325 G326 A327 G328 A329 G332 G333 C334 C335 C336 C337 A338 C339 U340 C341 C342 U343 A344 C345 G346 G347 G348 G351 C352 A353 G354 U359 A360 A363
U367 U368 C372 A373 A374 U375 G376 G377 G384 C385 G388 A389 C390 G391 G392 A393 G396 A397 C398 G399 C400 C401 G402 C403 U404 U405 G406 C407 A408 G409 G410 A411 A412 G413 A414 A415 G416 C417 C418 G423 G424 U427 G428 U429 U434 C435 A439 A441 C442 C449
A452 A453 C454 C455 C456 C457 C458 G460 A461 C470 G475 G476 A477 C483 G484 G485 A496 U498 A499 G500 C501 G502 G505 A509 A510 C511 U512 C513 C514 G515 U516 G517 C518 G521 C522 A523 G524 C525 C526 G527 U531 A532 G537 G538 A539 G540 G541 G542 C543 G544 A547
G550 U551 U552 A553 C554 C555 C556 A559 U560 U561 C562 A563 C564 G570 U571 A572 A573 G576 G577 U580 G581 U582 C596 C600 C601 G604 A607 G610 A611 C612 C613 A614 C618 U619 C620 A621 C624 G625 U626 G629 G630 G631 A632 G633 C634 G635 U636
G637 A642 C643 G644 C645 U646 C647 U652 A653 G661 G662 A663 G664 A665 G673 G674 A675 A676 U677 U678 C679 C680 A687 G688 U692 G693 A694 A704 C707 G713 G714 A715 A716 C717 G718 C719 U723 A728 A729 G730 G731 C736 A737 C738 G741 G742 U743
C744 C745 A746 C747 C748 C749 G750 U751 G752 A753 C754 G755 C756 U757 G758 A768 G769 G774 A777 G791 A792 U793 A794 C806 A807 C808 C811 A814 A815 A816 C817 G821 C824 G825 A828 G829 U833 C834 G838 U839 C840 U841 C848 G851 C857 G858
A865 C868 G869 G876 G885 A892 C893 G894 G895 C896 A901 G902 U911 C912 A913 A914 A918 A919 G922 A923 C924 G925 G926 G927 C932 G933 C934 A935 C936 A937 G942 U943 G944 G945 A946 G947 G953 U960 U961 G966 C967 A968 A969 C970 G971 C972
G973 A974 A975 G976 A977 A978 U981 U982 A983 C984 C985 A986 G987 U991 U992 G993 G998 C999 U1000 A1001A G1001B G1002 G1003 A1004 A1005 C1006 C1007 C1008 G1009 G1010 G1013 A1014 A1015 A1016 G1017 U1020 G1021 G1022 G1023 G1024 U1025 G1026 C1027 C1028 C1029 C1030A G1030B C1030C G1030D A1030E G1031 G1032 G1033 G1034 A1035
G1036 C1037 C1038 C1039 G1042 C1043 A1044 G1047 G1048 U1052 G1053 C1060 G1061 U1062 C1063 G1064 U1065 C1066 A1067 G1068 C1069 U1070 C1071 G1072 U1073 G1074 U1078 G1081 U1086 G1094 U1095 C1096 G1099 C1100 A1101 A1102 C1103 G1104 C1112 G1117 C1118 U1122 A1123 G1124 U1125 U1126 A1130
G1131 C1132 G1133 G1134 U1135 U1136 C1137 G1138 G1139 C1140 C1141 G1142 G1143 G1144 C1145 A1146 C1147 U1148 C1149 U1150 A1151 A1152 A1157 C1158 U1159 G1160 C1161 C1162 A1168 C1172 G1173 G1177 G1178 A1179 A1180 G1181 G1182 A1183 G1184 C1189 G1190 A1191 U1196 G1197 C1200 A1201 G1202 G1206 G1207 C1208 C1209 C1210
U1211 U1212 A1213 G1216 C1217 C1218 U1219 G1224 A1225 C1226 A1227 C1228 A1229 A1238 A1239 U1240 G1241 C1242 C1243 C1244 A1245 C1246 A1250 A1251 A1252 G1255 A1256 U1257 G1258 C1259 C1260 A1261 C1262 C1263 C1264 C1270 C1277 U1278 A1279 A1280 U1281 A1285 A1286 A1287 A1288 A1289 U1292 G1293 G1294 G1295
C1298 A1299 G1300 U1301 U1302 C1303 G1304 U1308 G1309 U1315 G1316 C1317 A1318 A1319 C1320 C1321 C1322 G1323 A1324 C1325 C1326 C1327 G1338 A1339 A1340 G1343 C1344 U1345 A1346 G1347 G1353 G1356 A1357 U1358 C1359 A1360 C1363A G1370 G1373 A1374 G1387 C1388 U1391 G1392 U1393 A1394 C1397
C1400 G1401 C1402 C1403 C1404 C1407 A1408 C1409 G1410 C1411 C1412 A1413 U1414 G1419 G1422 U1425 C1426 U1427 A1428 C1429 A1434 G1435 U1436 C1437 G1438 C1439 C1440 G1441 G1442A G1442B A1447 C1452 G1456 G1457 G1458 C1466 G1467 G1476 C1477 C1478 C1479 G1480 G1486 G1491 A1492 A1493 G1494 G1497 U1498



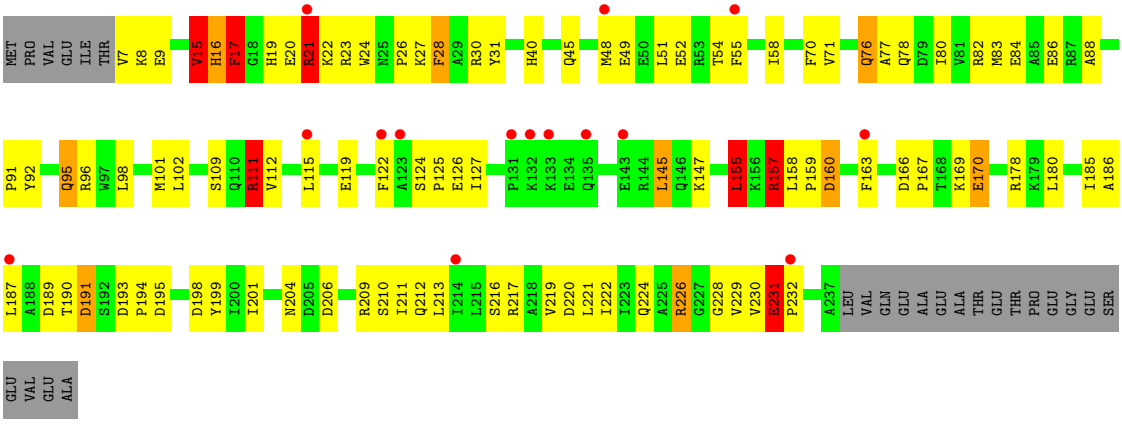
• Molecule 36: 30S ribosomal protein S2

Chain XB:



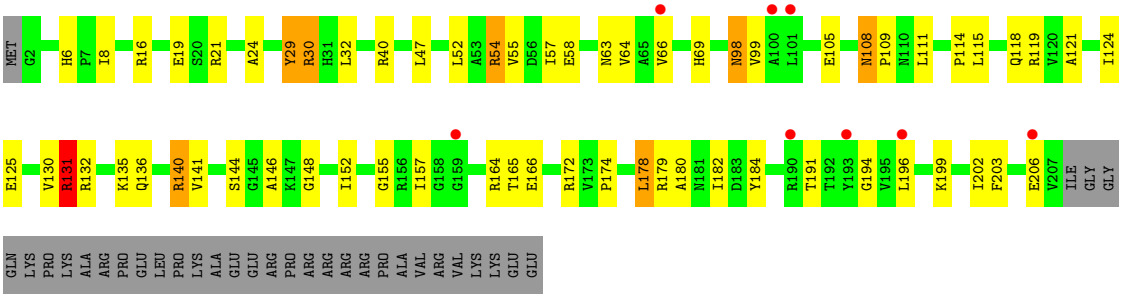
• Molecule 36: 30S ribosomal protein S2

Chain QB:



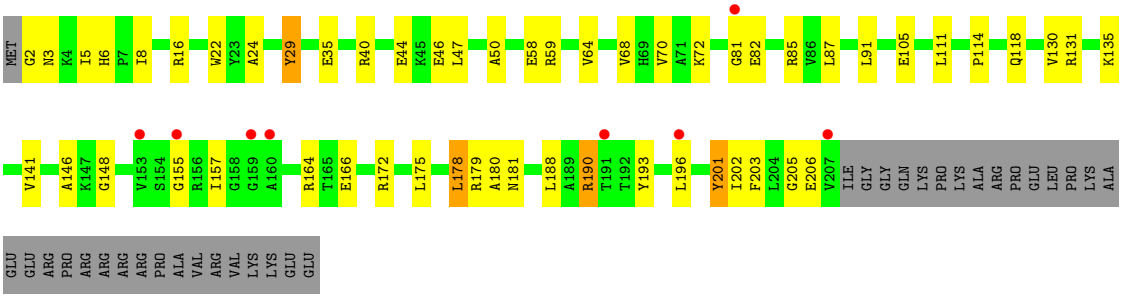
• Molecule 37: 30S ribosomal protein S3

Chain XC:



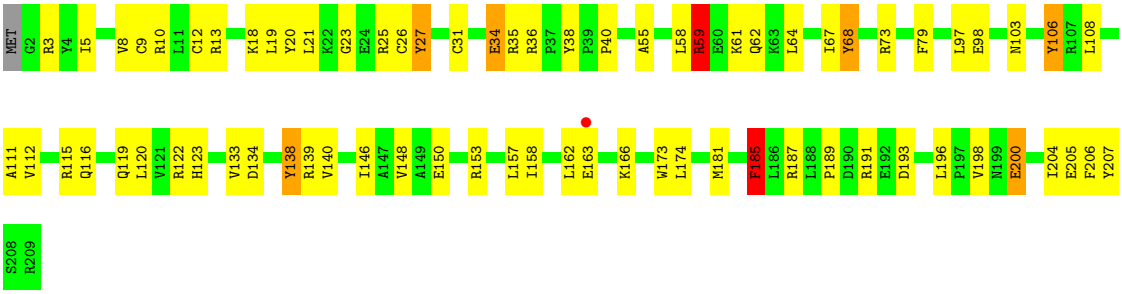
• Molecule 37: 30S ribosomal protein S3

Chain QC:



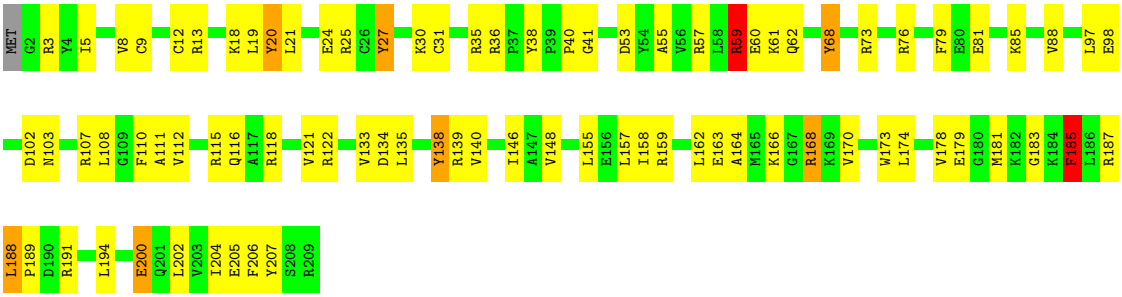
• Molecule 38: 30S ribosomal protein S4

Chain XD:



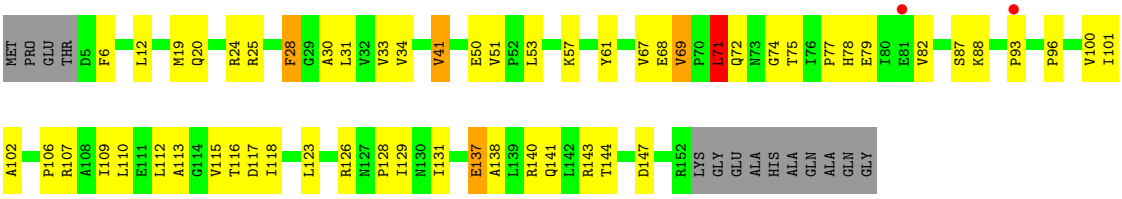
• Molecule 38: 30S ribosomal protein S4

Chain QD:



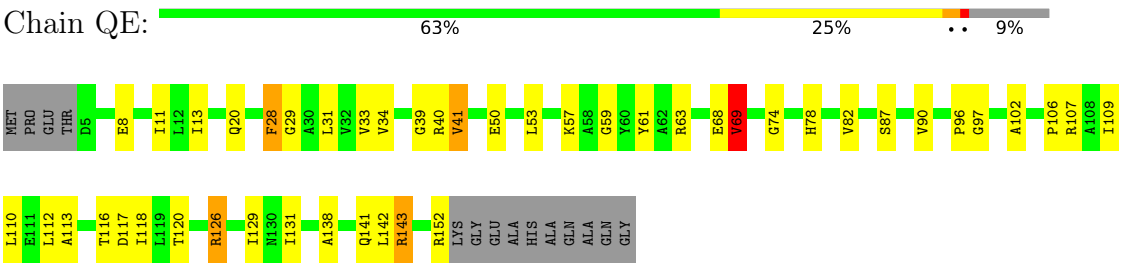
• Molecule 39: 30S ribosomal protein S5

Chain XE:



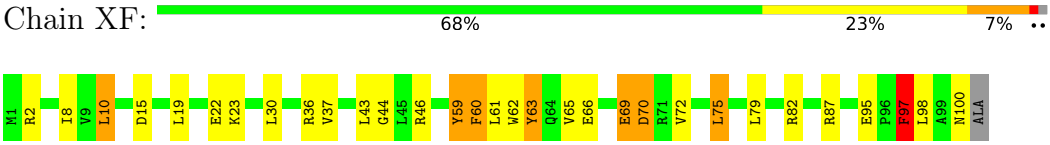
• Molecule 39: 30S ribosomal protein S5

Chain QE:



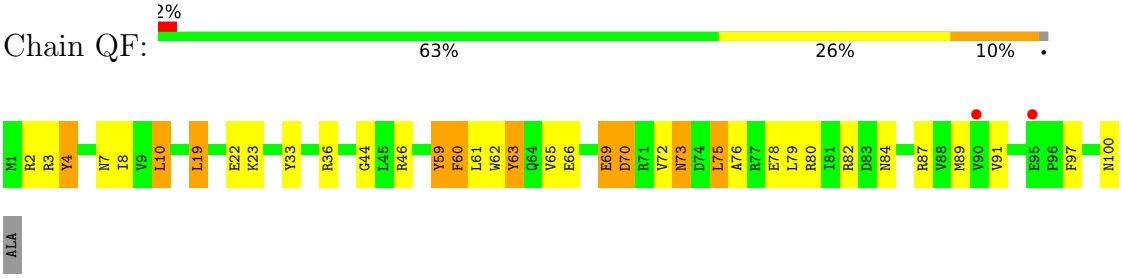
• Molecule 40: 30S ribosomal protein S6

Chain XF:



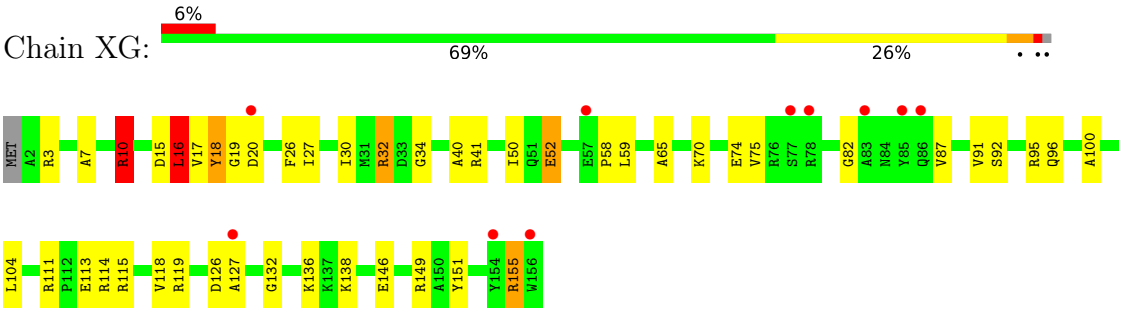
• Molecule 40: 30S ribosomal protein S6

Chain QF:



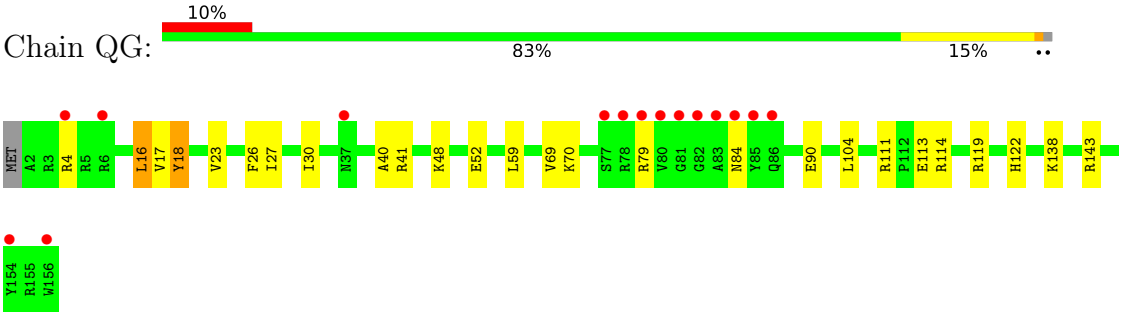
• Molecule 41: 30S ribosomal protein S7

Chain XG:



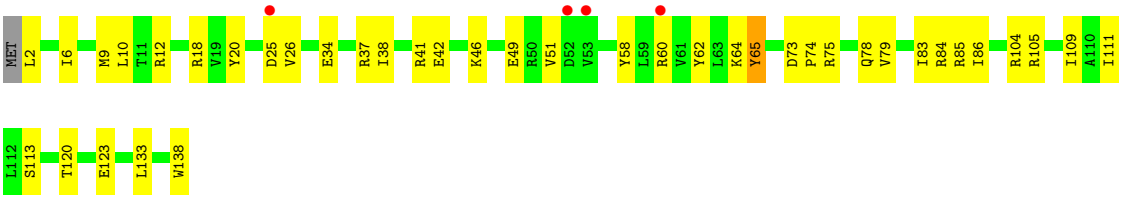
• Molecule 41: 30S ribosomal protein S7

Chain QG:



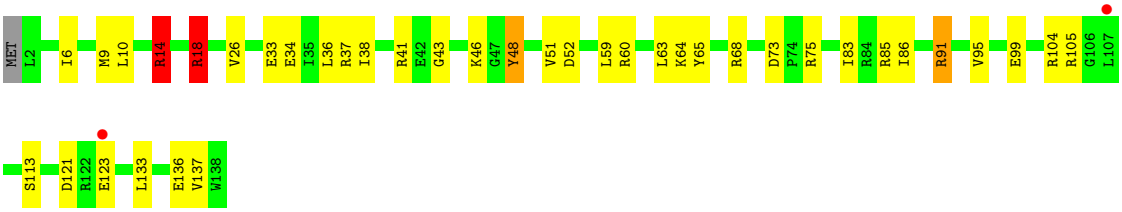
• Molecule 42: 30S ribosomal protein S8

Chain XH:



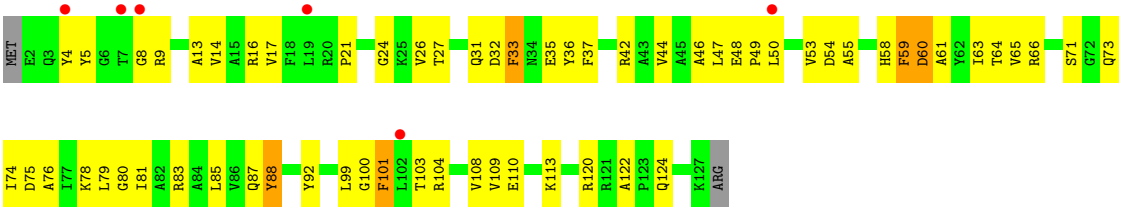
- Molecule 42: 30S ribosomal protein S8

Chain QH:



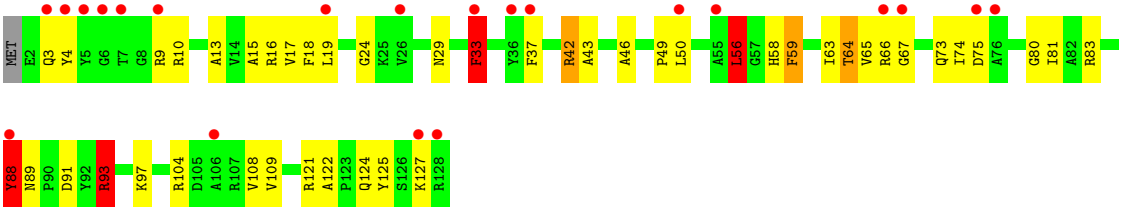
- Molecule 43: 30S ribosomal protein S9

Chain XI:



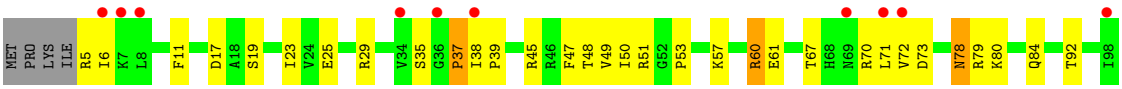
- Molecule 43: 30S ribosomal protein S9

Chain QI:



- Molecule 44: 30S ribosomal protein S10

Chain XJ:



K99 T100 VAL GLY GLY GLY ARG

- Molecule 44: 30S ribosomal protein S10

Chain QJ:

MET PRO LYS I4 R5 I6 K7 G10 F11 L16 S19 A20 Q21 K22 I23 V24 E25 A26 A27 R28 R29 S30 G31 A32 Q33 V34 S35 G36 P37 I38 P39 L40 P41 V44 R45 V49 I50 R51 G52 P53 F54 K55 R60 E61 R66 T67 R70 L71 V72 D73 I74 I75

N76 P77 N78 T81 Q84 L85 D89 T92 T100 VAL GLY GLY GLY ARG

- Molecule 45: 30S ribosomal protein S11

Chain XK:

MET ALA LYS LYS PRO SER LYS LYS LYS VAL LYS ARG Q13 R18 N27 T28 T33 R54 Y59 Q62 L63 A64 A65 D81 V82 I83 V84 R91 E92 Q93 A94 I95 R96 A97 L98 Q99 V105 K106 S107 I108 V109 P115 H116 N117 R126 LYS ALA SER

- Molecule 45: 30S ribosomal protein S11

Chain QK:

MET ALA LYS LYS PRO SER LYS LYS LYS VAL LYS ARG Q13 R18 A19 Y20 N27 T28 T31 I32 T33 D34 N38 I48 R54 Y75 V84 R85 G90 R91 R96 A97 L98 Q99 V105 V109 H116 N117 R120 R126 LYS ALA SER

- Molecule 46: 30S ribosomal protein S12

Chain XL:

MET P5 R12 K28 G29 A30 P31 F32 R33 T42 L52 R53 L60 T61 S62 G63 Y64 I70 L77 V83 L84 I85 R86 G87 OTD92 L93 H99 I100 A107 V110 R113 K114 K115 S116 R117 S118 T122 K123 K124 P125 K126 GLU ALA ALA LYS THR

ALA ALA LYS LYS

- Molecule 46: 30S ribosomal protein S12

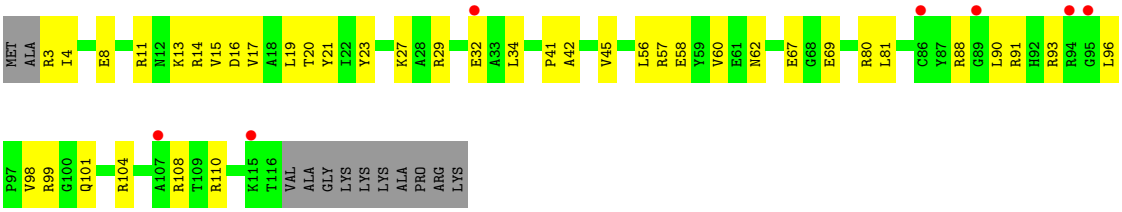
Chain QL:

MET P5 R15 V24 L27 F32 R33 T42 K47 R53 A56 K57 V58 R59 L60 T61 S62 G63 Y64 E65 I70 P71 V83 L84 I85 R86 R89 V90 K91 OTD92 L93 R97 Y98 H99 I100 V101 R102 R113 K114 R117 S118 K119 Y120 G121 T122 K123

K124 P125 K126 GLU ALA ALA LYS THR ALA ALA LYS LYS

- Molecule 47: 30S ribosomal protein S13

Chain XM:

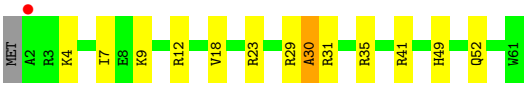


- Molecule 47: 30S ribosomal protein S13

Chain QM:

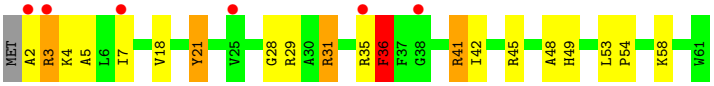
- Molecule 48: 30S ribosomal protein S14 type Z

Chain XN:



- Molecule 48: 30S ribosomal protein S14 type Z

Chain QN:

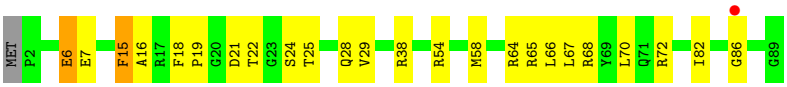


- Molecule 49: 30S ribosomal protein S15

Chain XO:

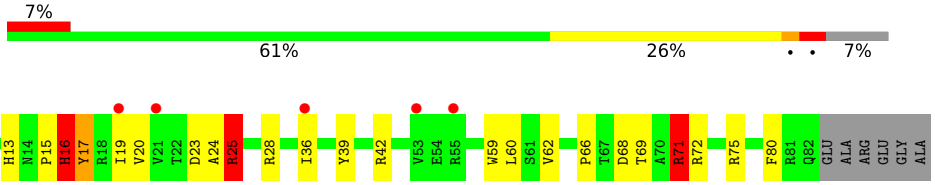
- Molecule 49: 30S ribosomal protein S15

Chain QO:



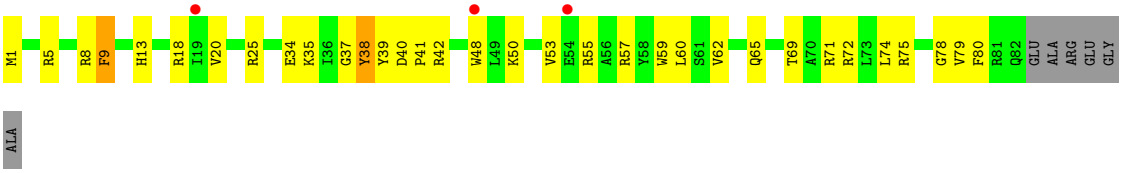
• Molecule 50: 30S ribosomal protein S16

Chain XP:



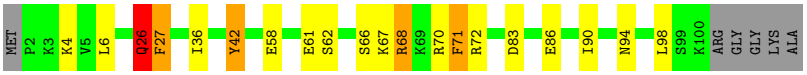
• Molecule 50: 30S ribosomal protein S16

Chain QP:



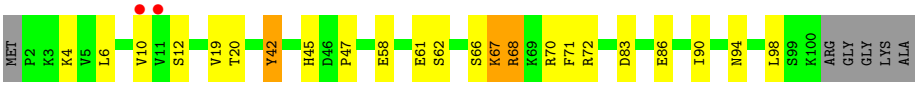
• Molecule 51: 30S ribosomal protein S17

Chain XQ:



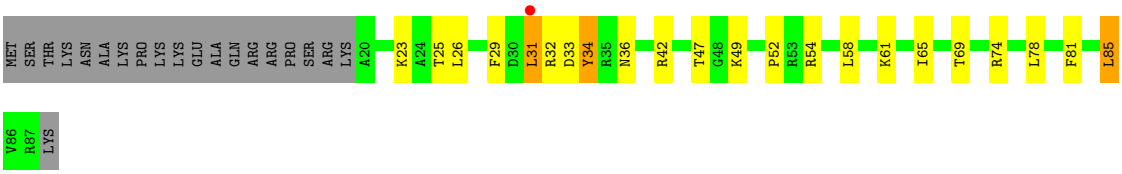
• Molecule 51: 30S ribosomal protein S17

Chain QQ:



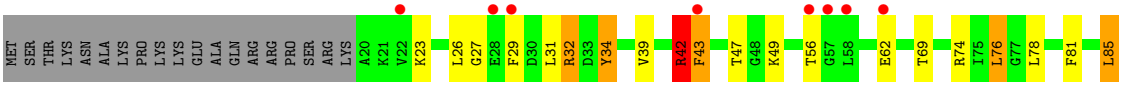
• Molecule 52: 30S ribosomal protein S18

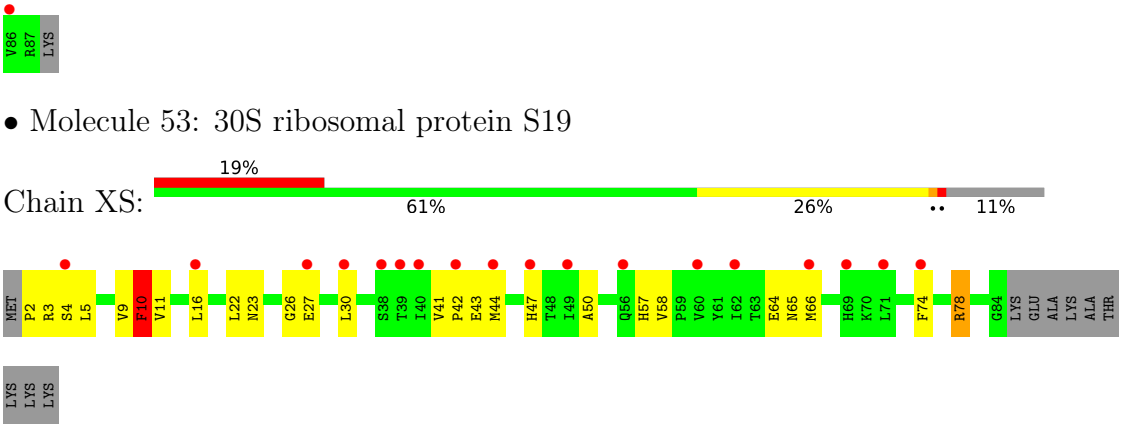
Chain XR:

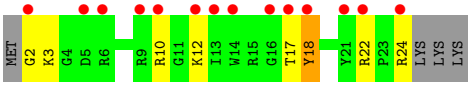


• Molecule 52: 30S ribosomal protein S18

Chain QR:




V86 R87 LYS
• Molecule 53: 30S ribosomal protein S19
Chain XS:
19%
61%
26%
11%
MET P2 R3 S4 L5 V9 F10 V11 L16 L22 N23 G26 E27 L30 S38 T39 I40 V41 P42 E43 M44 H47 T48 I49 A50 Q56 H57 V58 P59 V60 Y61 I62 T63 E64 N65 M66 H69 K70 L71 F74 R78 G84 LYS GLU ALA LYS ALA THR
LYS LYS LYS
• Molecule 53: 30S ribosomal protein S19
Chain QS:
22%
66%
20%
11%
MET P2 R3 S4 L5 K6 K7 F10 V11 D12 D13 H14 L15 L16 L20 E21 L22 K28 R29 L30 I31 S35 S38 T39 I40 V41 P42 E43 M44 V45 G46 H47 T48 I49 A50 V51 Y52 H57 T63 E64 N65 M66 V67 F74 Y80 R81 G82 H83 G84 LYS GLU
ALA LYS ALA THR LYS LYS LYS
• Molecule 54: 30S ribosomal protein S20
Chain XT:
5%
69%
20%
8%
MET ALA GLN LYS LYS P6 K7 L10 R15 H16 R17 Q18 S19 R22 L36 S37 I41 Q42 Q45 E46 G47 K48 A49 E50 I55 M56 R57 E60 S61 L62 A67 A77 M85 R89 E93 A94 A95 L99 I100 G103 LEU SER ALA
• Molecule 54: 30S ribosomal protein S20
Chain QT:
%
74%
14%
9%
MET ALA GLN LYS LYS PRO LYS R8 N9 L10 S11 R15 L24 S31 K34 T35 L36 S37 K38 K39 A40 L43 G47 R57 E60 S61 L62 R79 R89 E93 A94 A95 I100 G103 LEU SER ALA
• Molecule 55: 30S ribosomal protein Thx
Chain XU:
22%
59%
22%
15%
MET G2 D5 R6 R7 R10 G11 T17 Y18 R22 P23 R24 LYS LYS LYS
• Molecule 55: 30S ribosomal protein Thx
Chain QU:
52%
56%
26%
15%


MET
G2
K3
G4
D5
R6
R9
R10
G11
K12
I13
W14
R15
G16
T17
Y18
Y21
R22
P23
R24
LYS
LYS
LYS

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) 100.0 (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 0.196 , 0.227	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)	0.28 , 70.0	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	0.92	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: 2MU, SF4, OMG, 4OC, MA6, 5MU, 2MA, UR3, 0TD, ZN, 5MC, 2MG, PSU, 7MG, M2G, MG

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\#\|Z\|>5$	RMSZ	$\#\|Z\|>5$
1	QV	0.39	1/1836 (0.1%)	0.88	5/2859 (0.2%)
1	XV	0.35	1/1836 (0.1%)	0.81	2/2859 (0.1%)
2	QX	0.31	0/241	0.88	0/373
2	XX	0.29	0/241	0.85	0/373
3	QY	0.39	1/2873 (0.0%)	0.88	12/3870 (0.3%)
3	XY	0.38	1/2873 (0.0%)	0.77	9/3870 (0.2%)
4	RA	0.28	0/68901	0.90	93/107544 (0.1%)
4	YA	0.30	0/68901	0.88	81/107544 (0.1%)
5	RB	0.24	0/2876	0.85	0/4486
5	YB	0.27	0/2878	0.88	0/4490
6	RD	0.39	1/2181 (0.0%)	0.71	2/2940 (0.1%)
6	YD	0.47	2/2186 (0.1%)	0.88	9/2944 (0.3%)
7	RE	0.35	0/1592	0.68	0/2149
7	YE	0.48	3/1592 (0.2%)	0.74	4/2149 (0.2%)
8	RF	0.34	0/1619	0.75	4/2193 (0.2%)
8	YF	0.33	0/1615	0.71	2/2188 (0.1%)
9	RG	0.49	1/1451 (0.1%)	0.75	3/1961 (0.2%)
9	YG	0.36	0/1449	0.75	0/1957
10	RH	0.35	1/1356 (0.1%)	0.68	1/1834 (0.1%)
10	YH	0.40	1/1350 (0.1%)	0.79	5/1826 (0.3%)
11	RI	0.39	1/1109 (0.1%)	0.75	2/1512 (0.1%)
11	YI	0.41	1/1091 (0.1%)	0.82	6/1490 (0.4%)
12	RN	0.62	3/1148 (0.3%)	0.77	2/1547 (0.1%)
12	YN	0.44	1/1144 (0.1%)	0.71	3/1543 (0.2%)
13	RO	0.32	0/943	0.67	3/1269 (0.2%)
13	YO	0.38	1/943 (0.1%)	0.69	2/1269 (0.2%)
14	RP	0.35	0/1152	0.81	3/1533 (0.2%)
14	YP	0.36	0/1152	0.82	3/1533 (0.2%)
15	RQ	0.37	0/1143	0.78	5/1527 (0.3%)
15	YQ	0.39	0/1143	0.70	1/1527 (0.1%)
16	RR	0.42	1/982 (0.1%)	0.87	6/1312 (0.5%)
16	YR	0.41	1/982 (0.1%)	0.75	2/1312 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	RS	0.39	0/887	0.78	3/1180 (0.3%)
17	YS	0.40	0/880	0.96	4/1172 (0.3%)
18	RT	0.37	0/1105	0.87	6/1477 (0.4%)
18	YT	0.36	0/1097	0.90	7/1468 (0.5%)
19	RU	0.61	3/977 (0.3%)	1.20	9/1301 (0.7%)
19	YU	0.66	3/977 (0.3%)	1.09	8/1301 (0.6%)
20	RV	0.51	1/786 (0.1%)	1.31	5/1053 (0.5%)
20	YV	0.39	0/782	0.80	2/1049 (0.2%)
21	RW	0.31	0/897	0.71	3/1205 (0.2%)
21	YW	0.32	0/897	0.72	3/1205 (0.2%)
22	RX	0.31	0/764	0.66	1/1025 (0.1%)
22	YX	0.30	0/764	0.62	0/1025
23	RY	0.32	0/823	0.67	0/1099
23	YY	0.51	1/823 (0.1%)	0.92	4/1100 (0.4%)
24	RZ	0.36	0/1620	0.77	5/2200 (0.2%)
24	YZ	0.40	1/1590 (0.1%)	0.78	6/2162 (0.3%)
25	R0	0.46	0/616	1.07	5/821 (0.6%)
25	Y0	0.48	1/616 (0.2%)	0.87	2/821 (0.2%)
26	R1	0.33	0/761	0.75	2/1013 (0.2%)
26	Y1	0.73	5/766 (0.7%)	0.85	5/1018 (0.5%)
27	R2	0.35	0/590	0.70	0/781
27	Y2	0.56	2/594 (0.3%)	0.82	3/785 (0.4%)
28	R3	0.41	1/474 (0.2%)	0.63	0/635
28	Y3	0.28	0/469	0.61	0/630
29	R4	0.68	3/559 (0.5%)	1.06	4/754 (0.5%)
29	Y4	0.64	2/549 (0.4%)	1.05	6/741 (0.8%)
30	R5	0.54	1/473 (0.2%)	0.87	2/639 (0.3%)
30	Y5	0.52	0/469	0.73	0/635
31	R6	0.69	2/460 (0.4%)	1.23	5/613 (0.8%)
31	Y6	0.34	0/456	0.62	0/608
32	R7	0.59	2/426 (0.5%)	0.97	2/561 (0.4%)
32	Y7	0.37	0/426	0.92	4/561 (0.7%)
33	R8	0.33	0/525	0.87	2/691 (0.3%)
33	Y8	0.31	0/525	0.66	0/691
34	R9	0.48	1/310 (0.3%)	1.08	4/407 (1.0%)
34	Y9	0.29	0/310	0.69	0/407
35	QA	0.25	0/35795	0.86	32/55864 (0.1%)
35	XA	0.26	0/35890	0.88	34/56012 (0.1%)
36	QB	0.43	1/1876 (0.1%)	0.93	12/2533 (0.5%)
36	XB	0.47	1/1860 (0.1%)	1.14	14/2518 (0.6%)
37	QC	0.36	0/1582	0.69	1/2137 (0.0%)
37	XC	0.43	1/1566 (0.1%)	0.87	6/2119 (0.3%)
38	QD	0.36	0/1695	0.82	6/2274 (0.3%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	XD	0.41	0/1698	0.79	2/2277 (0.1%)
39	QE	0.40	1/1149 (0.1%)	0.79	6/1548 (0.4%)
39	XE	0.41	1/1149 (0.1%)	0.65	1/1548 (0.1%)
40	QF	0.46	0/827	0.87	3/1120 (0.3%)
40	XF	0.39	0/829	0.83	1/1123 (0.1%)
41	QG	0.33	0/1254	0.66	1/1683 (0.1%)
41	XG	0.50	0/1248	0.84	7/1676 (0.4%)
42	QH	0.45	3/1118 (0.3%)	1.03	6/1506 (0.4%)
42	XH	0.41	0/1108	0.79	4/1494 (0.3%)
43	QI	0.71	1/1005 (0.1%)	0.92	5/1351 (0.4%)
43	XI	0.36	0/985	0.76	0/1329
44	QJ	0.36	0/732	0.80	3/993 (0.3%)
44	XJ	0.28	0/723	0.59	0/984
45	QK	0.34	0/849	0.71	2/1150 (0.2%)
45	XK	0.33	0/848	0.70	2/1149 (0.2%)
46	QL	0.34	0/937	0.71	1/1260 (0.1%)
46	XL	0.47	1/937 (0.1%)	0.74	2/1260 (0.2%)
47	QM	0.34	0/924	0.68	0/1242
47	XM	0.29	0/905	0.65	0/1217
48	QN	0.44	0/501	0.97	5/664 (0.8%)
48	XN	0.38	0/501	0.83	4/664 (0.6%)
49	QO	0.49	0/739	1.17	9/985 (0.9%)
49	XO	0.37	0/739	0.76	2/985 (0.2%)
50	QP	0.37	0/697	0.73	0/939
50	XP	0.60	1/693 (0.1%)	1.37	6/935 (0.6%)
51	QQ	0.34	0/836	0.69	0/1117
51	XQ	0.44	1/836 (0.1%)	0.68	1/1117 (0.1%)
52	QR	0.34	0/560	0.92	3/746 (0.4%)
52	XR	0.30	0/560	0.71	0/746
53	QS	0.61	2/663 (0.3%)	0.74	1/895 (0.1%)
53	XS	0.30	0/660	0.69	3/893 (0.3%)
54	QT	0.37	1/734 (0.1%)	0.65	1/969 (0.1%)
54	XT	0.41	1/736 (0.1%)	0.68	3/976 (0.3%)
55	QU	0.35	0/203	0.75	0/266
55	XU	0.32	0/203	0.68	0/266
All	All	0.33	67/318172 (0.0%)	0.86	571/475147 (0.1%)

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 (67) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	QI	93	ARG	CB-CG	-17.94	1.04	1.52
53	QS	28	LYS	CD-CE	-11.05	1.23	1.51
26	Y1	52	ARG	CZ-NH2	10.67	1.47	1.33
1	QV	1	C	OP3-P	-10.63	1.48	1.61
1	XV	1	C	OP3-P	-10.63	1.48	1.61
12	RN	121	LYS	CD-CE	9.58	1.75	1.51
19	RU	112	ARG	CZ-NH1	8.99	1.44	1.33
36	XB	217	ARG	CG-CD	-8.88	1.29	1.51
31	R6	28	ARG	CG-CD	-8.79	1.29	1.51
46	XL	114	LYS	CB-CG	-8.75	1.28	1.52
12	YN	84	LYS	CD-CE	-8.63	1.29	1.51
6	RD	14	ARG	CZ-NH1	8.32	1.43	1.33
19	YU	101	ARG	CG-CD	8.20	1.72	1.51
29	R4	13	ARG	CG-CD	8.10	1.72	1.51
26	Y1	52	ARG	NE-CZ	7.89	1.43	1.33
39	XE	69	VAL	C-N	7.62	1.48	1.34
7	YE	73	GLU	CB-CG	-7.56	1.37	1.52
39	QE	69	VAL	C-N	7.40	1.48	1.34

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
11	YI	50	ARG	CB-CG	-7.28	1.32	1.52
7	YE	73	GLU	CD-OE1	-7.23	1.17	1.25
9	RG	16	ARG	CG-CD	7.06	1.69	1.51
6	YD	69	ARG	NE-CZ	-6.93	1.24	1.33
37	XC	131	ARG	CD-NE	-6.91	1.34	1.46
20	RV	21	ARG	CG-CD	-6.90	1.34	1.51
12	RN	83	LYS	CD-CE	-6.89	1.34	1.51
10	YH	53	GLU	C-N	6.88	1.49	1.34
7	YE	143	ASN	CA-C	-6.84	1.35	1.52
26	Y1	52	ARG	CD-NE	-6.67	1.35	1.46
19	YU	112	ARG	CZ-NH2	6.62	1.41	1.33
51	XQ	68	ARG	NE-CZ	-6.53	1.24	1.33
3	QY	278	ARG	NE-CZ	6.34	1.41	1.33
12	RN	121	LYS	CB-CG	-6.34	1.35	1.52
25	Y0	70	GLN	CB-CG	-6.24	1.35	1.52
42	QH	14	ARG	CG-CD	6.23	1.67	1.51
29	Y4	46	GLN	CD-NE2	6.21	1.48	1.32
42	QH	14	ARG	CB-CG	6.10	1.69	1.52
27	Y2	7	ARG	CZ-NH2	6.05	1.41	1.33
29	Y4	46	GLN	CD-OE1	-6.00	1.10	1.24
19	RU	92	ARG	NE-CZ	5.98	1.40	1.33
16	YR	24	GLN	CG-CD	5.88	1.64	1.51
53	QS	28	LYS	CE-NZ	-5.86	1.34	1.49
11	RI	104	GLN	CB-CG	-5.86	1.36	1.52
30	R5	27	PRO	CA-C	5.69	1.64	1.52
42	QH	14	ARG	NE-CZ	5.69	1.40	1.33
16	RR	24	GLN	CG-CD	5.62	1.64	1.51
27	Y2	7	ARG	CG-CD	5.62	1.66	1.51
23	YY	47	LYS	CE-NZ	5.60	1.63	1.49
32	R7	33	ARG	CG-CD	-5.59	1.38	1.51
29	R4	13	ARG	CZ-NH2	5.56	1.40	1.33
28	R3	44	ARG	CB-CG	-5.56	1.37	1.52
13	YO	3	GLN	CB-CG	-5.53	1.37	1.52
19	YU	101	ARG	CB-CG	5.51	1.67	1.52
50	XP	71	ARG	CZ-NH2	-5.40	1.26	1.33
34	R9	35	ARG	NE-CZ	5.39	1.40	1.33
10	RH	53	GLU	C-N	5.38	1.46	1.34
19	RU	112	ARG	CG-CD	-5.35	1.38	1.51
6	YD	103	ARG	NE-CZ	5.31	1.40	1.33
32	R7	29	LYS	CG-CD	-5.29	1.34	1.52
3	XY	278	ARG	NE-CZ	-5.26	1.26	1.33
29	R4	13	ARG	NE-CZ	5.25	1.39	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
31	R6	28	ARG	NE-CZ	5.21	1.39	1.33
36	QB	76	GLN	CB-CG	-5.21	1.38	1.52
26	Y1	56	GLN	CB-CG	5.19	1.66	1.52
54	QT	89	ARG	CB-CG	-5.18	1.38	1.52
24	YZ	20	ARG	CB-CG	-5.12	1.38	1.52
26	Y1	52	ARG	CZ-NH1	-5.12	1.26	1.33
54	XT	89	ARG	CD-NE	5.02	1.54	1.46

All (571) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	RA	2603	G	O5'-P-OP1	-35.76	67.78	110.70
36	XB	217	ARG	NE-CZ-NH2	-28.77	105.92	120.30
20	RV	21	ARG	NE-CZ-NH2	-27.66	106.47	120.30
50	XP	71	ARG	NE-CZ-NH2	-21.01	109.79	120.30
42	QH	14	ARG	NE-CZ-NH1	19.41	130.01	120.30
3	QY	278	ARG	NE-CZ-NH1	19.11	129.85	120.30
42	QH	14	ARG	NE-CZ-NH2	-18.98	110.81	120.30
31	R6	28	ARG	NE-CZ-NH1	18.96	129.78	120.30
19	YU	101	ARG	NE-CZ-NH1	18.03	129.31	120.30
49	QO	38	ARG	NE-CZ-NH2	-17.76	111.42	120.30
4	RA	2603	G	O5'-P-OP2	-17.75	89.41	110.70
19	RU	92	ARG	NE-CZ-NH1	16.46	128.53	120.30
50	XP	71	ARG	NE-CZ-NH1	16.35	128.48	120.30
37	XC	131	ARG	CG-CD-NE	-16.03	78.13	111.80
19	RU	112	ARG	NE-CZ-NH2	-15.82	112.39	120.30
36	XB	217	ARG	NE-CZ-NH1	15.80	128.20	120.30
4	RA	2602	A	OP1-P-O3'	-15.67	70.73	105.20
19	RU	92	ARG	NE-CZ-NH2	-15.45	112.58	120.30
20	RV	21	ARG	NE-CZ-NH1	15.26	127.93	120.30
6	YD	69	ARG	NE-CZ-NH2	15.08	127.84	120.30
23	YY	23	ARG	NE-CZ-NH1	14.20	127.40	120.30
50	XP	25	ARG	NE-CZ-NH1	13.99	127.30	120.30
3	QY	278	ARG	NE-CZ-NH2	-13.62	113.49	120.30
17	YS	67	ARG	CG-CD-NE	12.64	138.35	111.80
50	XP	25	ARG	NE-CZ-NH2	-12.53	114.04	120.30
43	QI	93	ARG	NE-CZ-NH2	12.48	126.54	120.30
49	QO	65	ARG	CG-CD-NE	12.02	137.04	111.80
39	QE	143	ARG	NE-CZ-NH1	11.77	126.19	120.30
25	R0	55	ARG	NE-CZ-NH2	-11.70	114.45	120.30
4	RA	1064	C	N1-C2-O2	11.52	125.81	118.90
19	YU	101	ARG	NE-CZ-NH2	-11.49	114.55	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
20	RV	21	ARG	CG-CD-NE	11.47	135.90	111.80
4	RA	2603	G	OP1-P-OP2	11.45	136.78	119.60
6	YD	69	ARG	NE-CZ-NH1	-11.36	114.62	120.30
35	QA	1409	C	N1-C2-O2	11.11	125.57	118.90
19	RU	112	ARG	NE-CZ-NH1	11.07	125.84	120.30
43	QI	93	ARG	CG-CD-NE	11.05	135.00	111.80
11	YI	50	ARG	CG-CD-NE	-11.04	88.61	111.80
10	YH	3	ARG	NE-CZ-NH1	-10.90	114.85	120.30
10	YH	3	ARG	CB-CG-CD	10.73	139.50	111.60
35	QA	576	G	OP2-P-O3'	-10.63	81.82	105.20
36	QB	226	ARG	NE-CZ-NH1	10.48	125.54	120.30
35	QA	576	G	OP1-P-O3'	-10.47	82.17	105.20
43	QI	93	ARG	NE-CZ-NH1	-10.29	115.15	120.30
49	QO	38	ARG	CA-CB-CG	10.12	135.66	113.40
27	Y2	7	ARG	NE-CZ-NH1	-10.12	115.24	120.30
33	R8	13	ARG	NE-CZ-NH1	10.11	125.35	120.30
41	XG	10	ARG	NE-CZ-NH2	-9.83	115.39	120.30
8	RF	38	ARG	NE-CZ-NH1	9.79	125.19	120.30
4	YA	1075	C	N1-C2-O2	9.75	124.75	118.90
49	QO	65	ARG	NE-CZ-NH1	-9.73	115.43	120.30
1	QV	54	U	O5'-P-OP1	-9.72	96.96	105.70
6	YD	103	ARG	NE-CZ-NH1	9.67	125.14	120.30
1	QV	53	G	O4'-C1'-N9	9.62	115.90	108.20
14	YP	55	ARG	NE-CZ-NH1	9.62	125.11	120.30
20	YV	21	ARG	CG-CD-NE	9.60	131.96	111.80
18	YT	53	ARG	NE-CZ-NH2	-9.52	115.54	120.30
33	R8	13	ARG	NE-CZ-NH2	-9.48	115.56	120.30
17	YS	67	ARG	CA-CB-CG	-9.43	92.67	113.40
24	RZ	103	ARG	CD-NE-CZ	9.38	136.74	123.60
4	RA	1075	C	N1-C2-O2	9.34	124.50	118.90
29	R4	13	ARG	CG-CD-NE	9.23	131.18	111.80
4	YA	1052	C	C2-N1-C1'	9.17	128.89	118.80
14	RP	55	ARG	NE-CZ-NH1	9.14	124.87	120.30
35	QA	1409	C	N3-C2-O2	-9.03	115.58	121.90
3	QY	278	ARG	CA-CB-CG	9.03	133.26	113.40
25	R0	55	ARG	CD-NE-CZ	8.98	136.17	123.60
34	R9	35	ARG	CB-CG-CD	8.98	134.95	111.60
49	QO	38	ARG	NE-CZ-NH1	8.95	124.78	120.30
4	YA	2128	C	C2-N1-C1'	8.77	128.45	118.80
36	QB	226	ARG	CG-CD-NE	8.73	130.13	111.80
37	XC	30	ARG	CG-CD-NE	8.72	130.11	111.80
31	R6	28	ARG	NE-CZ-NH2	-8.69	115.95	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
34	R9	35	ARG	NE-CZ-NH2	-8.69	115.96	120.30
4	RA	1052	C	C2-N1-C1'	8.67	128.34	118.80
50	XP	71	ARG	CA-CB-CG	8.65	132.43	113.40
3	QY	203	ARG	NE-CZ-NH1	8.62	124.61	120.30
36	QB	155	LEU	CB-CG-CD2	-8.59	96.40	111.00
7	YE	82	ARG	NE-CZ-NH1	8.57	124.58	120.30
4	RA	2128	C	C2-N1-C1'	8.51	128.16	118.80
42	XH	18	ARG	NE-CZ-NH2	8.44	124.52	120.30
8	RF	38	ARG	NE-CZ-NH2	-8.43	116.08	120.30
25	R0	55	ARG	NE-CZ-NH1	8.40	124.50	120.30
4	RA	1087	G	C8-N9-C1'	8.33	137.83	127.00
27	Y2	7	ARG	CG-CD-NE	8.32	129.28	111.80
38	QD	168	ARG	CG-CD-NE	-8.24	94.49	111.80
4	YA	1087	G	C8-N9-C1'	8.23	137.70	127.00
53	QS	28	LYS	CB-CG-CD	8.22	132.98	111.60
4	RA	1087	G	C4-N9-C1'	-8.22	115.81	126.50
4	YA	1087	G	C4-N9-C1'	-8.22	115.82	126.50
42	XH	84	ARG	NE-CZ-NH1	-8.18	116.21	120.30
44	QJ	45	ARG	NE-CZ-NH2	8.13	124.36	120.30
4	YA	1087	G	N3-C4-N9	-8.10	121.14	126.00
4	RA	1087	G	N3-C4-N9	-8.07	121.16	126.00
23	YY	23	ARG	NE-CZ-NH2	-8.05	116.28	120.30
36	QB	226	ARG	NE-CZ-NH2	-8.02	116.29	120.30
21	RW	11	ARG	NE-CZ-NH2	-8.02	116.29	120.30
21	YW	11	ARG	NE-CZ-NH2	-7.99	116.30	120.30
29	R4	13	ARG	CD-NE-CZ	7.99	134.78	123.60
26	Y1	52	ARG	NE-CZ-NH2	-7.99	116.31	120.30
36	XB	155	LEU	CA-CB-CG	7.99	133.66	115.30
44	QJ	45	ARG	CA-CB-CG	7.98	130.96	113.40
29	R4	13	ARG	CA-CB-CG	7.95	130.90	113.40
6	YD	211	ARG	CG-CD-NE	7.95	128.49	111.80
21	YW	11	ARG	NE-CZ-NH1	7.92	124.26	120.30
38	QD	168	ARG	CA-CB-CG	-7.90	96.03	113.40
21	RW	11	ARG	CG-CD-NE	7.89	128.36	111.80
36	QB	155	LEU	CA-CB-CG	7.86	133.38	115.30
24	RZ	103	ARG	NE-CZ-NH1	-7.84	116.38	120.30
19	YU	101	ARG	CD-NE-CZ	7.81	134.53	123.60
4	RA	2602	A	OP2-P-O3'	-7.80	88.04	105.20
3	QY	256	ARG	NE-CZ-NH1	-7.79	116.41	120.30
35	XA	442	C	C2-N1-C1'	7.77	127.35	118.80
14	YP	55	ARG	NE-CZ-NH2	-7.77	116.42	120.30
6	RD	14	ARG	NE-CZ-NH2	7.77	124.18	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
3	XY	332	ARG	CB-CG-CD	-7.76	91.43	111.60
35	QA	1022	G	C6-C5-N7	-7.72	125.77	130.40
4	YA	1531	C	C5-C6-N1	7.68	124.84	121.00
14	RP	55	ARG	NE-CZ-NH2	-7.64	116.48	120.30
35	XA	961	U	N1-C2-N3	7.63	119.48	114.90
20	RV	75	PHE	CB-CG-CD1	7.62	126.13	120.80
3	XY	278	ARG	NE-CZ-NH2	-7.62	116.49	120.30
42	XH	18	ARG	NE-CZ-NH1	-7.58	116.51	120.30
30	R5	19	ARG	CG-CD-NE	-7.58	95.89	111.80
11	YI	50	ARG	NE-CZ-NH1	-7.56	116.52	120.30
4	RA	1092	C	N1-C2-O2	7.55	123.43	118.90
12	RN	83	LYS	CD-CE-NZ	-7.54	94.35	111.70
4	RA	1075	C	N3-C2-O2	-7.54	116.62	121.90
44	QJ	45	ARG	NE-CZ-NH1	-7.53	116.53	120.30
4	YA	1092	C	N1-C2-O2	7.53	123.42	118.90
4	RA	1531	C	C5-C6-N1	7.52	124.76	121.00
4	YA	1092	C	C2-N1-C1'	7.51	127.06	118.80
24	YZ	20	ARG	NE-CZ-NH2	-7.50	116.55	120.30
4	RA	1530	C	C2-N1-C1'	7.50	127.05	118.80
4	YA	1075	C	N3-C2-O2	-7.50	116.65	121.90
35	XA	1003	G	N7-C8-N9	7.49	116.85	113.10
4	RA	1092	C	C2-N1-C1'	7.48	127.03	118.80
11	YI	68	LEU	CA-CB-CG	7.48	132.50	115.30
35	QA	78	G	N3-C4-N9	-7.46	121.52	126.00
42	QH	14	ARG	CD-NE-CZ	7.45	134.03	123.60
21	RW	11	ARG	NE-CZ-NH1	7.45	124.02	120.30
4	YA	1530	C	C2-N1-C1'	7.45	126.99	118.80
48	QN	31	ARG	NE-CZ-NH2	-7.41	116.59	120.30
4	YA	1097	U	C2-N1-C1'	7.39	126.57	117.70
35	QA	577	G	OP1-P-OP2	7.36	130.63	119.60
35	QA	1022	G	N9-C4-C5	-7.35	102.46	105.40
18	RT	53	ARG	CB-CG-CD	7.31	130.62	111.60
36	XB	217	ARG	CD-NE-CZ	7.31	133.84	123.60
24	YZ	44	PHE	CB-CG-CD1	7.27	125.89	120.80
4	YA	512	G	O4'-C1'-N9	7.27	114.02	108.20
34	R9	35	ARG	NE-CZ-NH1	7.26	123.93	120.30
35	XA	1158	C	C2-N1-C1'	7.26	126.78	118.80
24	RZ	103	ARG	CA-CB-CG	7.26	129.37	113.40
48	QN	31	ARG	NE-CZ-NH1	-7.24	116.68	120.30
7	YE	52	LEU	CA-CB-CG	7.24	131.94	115.30
36	XB	144	ARG	CA-CB-CG	7.22	129.28	113.40
16	RR	86	ARG	CG-CD-NE	7.21	126.95	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
19	RU	112	ARG	CB-CG-CD	-7.17	92.97	111.60
36	XB	28	PHE	CB-CG-CD2	-7.16	115.79	120.80
36	XB	155	LEU	CB-CG-CD2	-7.15	98.84	111.00
19	RU	112	ARG	CG-CD-NE	7.15	126.81	111.80
31	R6	28	ARG	CA-CB-CG	7.14	129.10	113.40
35	XA	1003	G	C8-N9-C4	-7.12	103.55	106.40
4	YA	1531	C	C2-N1-C1'	7.12	126.63	118.80
14	RP	147	LEU	CA-CB-CG	7.10	131.62	115.30
35	XA	1003	G	C4-N9-C1'	7.08	135.70	126.50
38	QD	168	ARG	CB-CG-CD	7.07	129.99	111.60
36	QB	111	ARG	CA-CB-CG	7.07	128.95	113.40
39	QE	143	ARG	NE-CZ-NH2	-7.07	116.77	120.30
26	Y1	26	ARG	NE-CZ-NH2	-7.06	116.77	120.30
49	QO	65	ARG	NE-CZ-NH2	7.05	123.83	120.30
29	R4	13	ARG	CB-CG-CD	7.04	129.89	111.60
11	RI	68	LEU	CA-CB-CG	7.03	131.47	115.30
4	RA	1097	U	C2-N1-C1'	7.03	126.13	117.70
31	R6	28	ARG	CG-CD-NE	-7.02	97.05	111.80
36	XB	144	ARG	CD-NE-CZ	7.01	133.41	123.60
41	XG	32	ARG	CG-CD-NE	-7.01	97.08	111.80
32	R7	33	ARG	NE-CZ-NH2	-7.01	116.80	120.30
25	Y0	14	ARG	CB-CG-CD	6.99	129.76	111.60
35	XA	1028	C	C2-N1-C1'	-6.98	111.12	118.80
3	QY	278	ARG	CB-CG-CD	-6.98	93.46	111.60
35	XA	1158	C	N1-C2-O2	6.97	123.08	118.90
4	YA	1052	C	C6-N1-C1'	-6.96	112.45	120.80
29	Y4	46	GLN	CG-CD-OE1	-6.96	107.69	121.60
41	XG	155	ARG	NE-CZ-NH2	6.93	123.76	120.30
35	XA	266	G	P-O3'-C3'	6.92	128.01	119.70
35	QA	78	G	C8-N9-C1'	6.92	136.00	127.00
25	R0	14	ARG	CB-CG-CD	6.91	129.57	111.60
35	XA	961	U	C2-N3-C4	-6.91	122.86	127.00
35	QA	78	G	C4-N9-C1'	-6.91	117.52	126.50
4	RA	1531	C	C2-N1-C1'	6.91	126.40	118.80
27	Y2	7	ARG	CB-CG-CD	6.90	129.54	111.60
19	YU	112	ARG	NE-CZ-NH2	6.89	123.75	120.30
53	XS	78	ARG	NE-CZ-NH2	-6.89	116.85	120.30
54	XT	89	ARG	NE-CZ-NH1	6.89	123.75	120.30
19	YU	101	ARG	CB-CG-CD	6.89	129.51	111.60
6	YD	176	ARG	CG-CD-NE	6.86	126.20	111.80
19	YU	101	ARG	CG-CD-NE	6.84	126.16	111.80
48	XN	31	ARG	CG-CD-NE	6.82	126.12	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
37	QC	190	ARG	NE-CZ-NH2	-6.78	116.91	120.30
4	RA	1313	U	C2-N1-C1'	6.77	125.83	117.70
9	RG	21	ARG	CB-CG-CD	-6.76	94.02	111.60
23	YY	23	ARG	CD-NE-CZ	6.76	133.06	123.60
4	RA	2160	G	N3-C4-N9	-6.75	121.95	126.00
36	QB	226	ARG	CD-NE-CZ	6.74	133.04	123.60
4	RA	1038	C	C2-N1-C1'	6.69	126.16	118.80
16	RR	17	ARG	CB-CG-CD	-6.68	94.23	111.60
35	QA	1022	G	C4-C5-N7	6.66	113.46	110.80
4	YA	1092	C	C5-C6-N1	6.65	124.32	121.00
35	XA	1028	C	C6-N1-C1'	6.65	128.78	120.80
4	YA	2160	G	N3-C4-N9	-6.65	122.01	126.00
7	YE	82	ARG	NE-CZ-NH2	-6.64	116.98	120.30
4	YA	847	U	C2-N1-C1'	6.64	125.67	117.70
4	YA	2128	C	C6-N1-C1'	-6.63	112.84	120.80
4	RA	1052	C	C6-N1-C1'	-6.61	112.86	120.80
15	RQ	5	ARG	NE-CZ-NH2	6.60	123.60	120.30
37	XC	131	ARG	NE-CZ-NH1	-6.60	117.00	120.30
3	QY	203	ARG	NE-CZ-NH2	-6.60	117.00	120.30
32	Y7	35	ARG	NE-CZ-NH1	6.59	123.59	120.30
12	RN	121	LYS	CG-CD-CE	6.58	131.62	111.90
1	QV	53	G	OP1-P-O3'	6.57	119.66	105.20
35	XA	1183	A	P-O3'-C3'	6.56	127.57	119.70
36	QB	28	PHE	CB-CG-CD2	-6.54	116.22	120.80
37	XC	30	ARG	NE-CZ-NH1	-6.54	117.03	120.30
24	YZ	44	PHE	CB-CG-CD2	-6.52	116.23	120.80
54	XT	89	ARG	NE-CZ-NH2	-6.52	117.04	120.30
45	XK	96	ARG	NE-CZ-NH2	-6.50	117.05	120.30
36	XB	144	ARG	NE-CZ-NH1	6.50	123.55	120.30
4	YA	1313	U	C2-N1-C1'	6.49	125.48	117.70
26	Y1	56	GLN	CA-CB-CG	6.45	127.58	113.40
52	QR	42	ARG	NE-CZ-NH1	-6.45	117.08	120.30
40	QF	46	ARG	NE-CZ-NH2	-6.44	117.08	120.30
41	XG	32	ARG	NE-CZ-NH1	-6.44	117.08	120.30
35	XA	1003	G	N3-C4-C5	-6.44	125.38	128.60
19	RU	117	GLN	CA-CB-CG	6.43	127.56	113.40
42	QH	14	ARG	CB-CG-CD	6.42	128.30	111.60
35	XA	754	C	C2-N1-C1'	6.42	125.86	118.80
10	YH	3	ARG	CA-CB-CG	6.41	127.51	113.40
35	QA	78	G	C6-C5-N7	6.38	134.23	130.40
35	QA	1022	G	N1-C6-O6	6.37	123.72	119.90
4	YA	1102	C	C2-N1-C1'	6.36	125.80	118.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	QA	1022	G	N3-C4-N9	6.36	129.82	126.00
4	RA	2128	C	C6-N1-C1'	-6.36	113.17	120.80
35	QA	1022	G	C8-N9-C1'	-6.35	118.74	127.00
30	R5	19	ARG	NE-CZ-NH2	-6.35	117.12	120.30
4	YA	1714	G	N3-C2-N2	-6.35	115.45	119.90
4	YA	1097	U	N1-C2-O2	6.34	127.24	122.80
16	RR	47	PHE	CB-CG-CD2	-6.34	116.36	120.80
1	XV	53	G	OP1-P-O3'	6.34	119.14	105.20
4	RA	1087	G	C6-C5-N7	6.33	134.20	130.40
32	Y7	35	ARG	NE-CZ-NH2	-6.31	117.15	120.30
35	QA	1030(C)	C	C2-N1-C1'	6.30	125.73	118.80
3	QY	96	PHE	CB-CG-CD2	-6.30	116.39	120.80
16	YR	13	HIS	CB-CA-C	6.29	122.99	110.40
26	Y1	52	ARG	NE-CZ-NH1	6.29	123.44	120.30
3	XY	96	PHE	CB-CG-CD2	-6.28	116.40	120.80
4	YA	277	C	N1-C2-O2	6.26	122.66	118.90
4	RA	1064	C	C2-N1-C1'	6.26	125.69	118.80
52	QR	32	ARG	NE-CZ-NH1	-6.26	117.17	120.30
24	YZ	20	ARG	NE-CZ-NH1	6.26	123.43	120.30
8	YF	191	ARG	NE-CZ-NH1	-6.25	117.17	120.30
36	XB	105	PHE	CB-CG-CD1	6.25	125.18	120.80
4	RA	1102	C	C2-N1-C1'	6.25	125.68	118.80
4	RA	847	U	C2-N1-C1'	6.24	125.19	117.70
4	RA	1073	A	C6-N1-C2	6.22	122.33	118.60
4	RA	1064	C	C5-C6-N1	6.22	124.11	121.00
35	XA	961	U	N3-C2-O2	-6.21	117.85	122.20
19	RU	92	ARG	CD-NE-CZ	6.21	132.29	123.60
4	RA	1073	A	N1-C2-N3	-6.20	126.20	129.30
24	YZ	156	LYS	C-N-CA	-6.20	106.21	121.70
45	XK	126	ARG	NE-CZ-NH1	6.19	123.39	120.30
4	YA	1087	G	C6-C5-N7	6.18	134.11	130.40
37	XC	140	ARG	CB-CG-CD	-6.17	95.56	111.60
35	QA	442	C	C2-N1-C1'	6.17	125.59	118.80
26	R1	52	ARG	NE-CZ-NH1	6.17	123.39	120.30
4	RA	1063	G	C8-N9-C1'	6.16	135.01	127.00
3	QY	295	LEU	CA-CB-CG	6.15	129.45	115.30
20	RV	75	PHE	CB-CG-CD2	-6.14	116.50	120.80
45	QK	96	ARG	CG-CD-NE	-6.13	98.92	111.80
15	RQ	69	PHE	CB-CG-CD2	-6.13	116.51	120.80
10	YH	3	ARG	NE-CZ-NH2	6.10	123.35	120.30
9	RG	16	ARG	NE-CZ-NH1	6.10	123.35	120.30
15	YQ	57	HIS	CB-CA-C	-6.10	98.20	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
20	YV	21	ARG	NE-CZ-NH1	-6.10	117.25	120.30
41	XG	16	LEU	CB-CG-CD2	6.09	121.36	111.00
4	RA	512	G	O4'-C1'-N9	6.09	113.07	108.20
4	YA	1097	U	N3-C2-O2	-6.09	117.94	122.20
16	YR	17	ARG	CB-CG-CD	-6.09	95.77	111.60
35	XA	1183	A	OP1-P-O3'	6.07	118.56	105.20
16	RR	47	PHE	CB-CG-CD1	6.07	125.05	120.80
4	RA	1064	C	C2-N3-C4	6.05	122.93	119.90
4	RA	1102	C	C6-N1-C2	-6.05	117.88	120.30
48	XN	31	ARG	CA-CB-CG	6.04	126.69	113.40
4	RA	1082	U	C2-N1-C1'	6.04	124.95	117.70
32	R7	29	LYS	CD-CE-NZ	-6.03	97.83	111.70
10	RH	101	ARG	NE-CZ-NH1	-6.03	117.29	120.30
36	QB	17	PHE	CB-CG-CD2	-6.02	116.59	120.80
4	YA	2792	G	N3-C4-N9	6.01	129.61	126.00
4	RA	1530	C	C6-N1-C1'	-6.01	113.59	120.80
4	YA	1058	G	N3-C4-N9	-5.99	122.41	126.00
35	XA	442	C	C6-N1-C1'	-5.98	113.62	120.80
41	QG	16	LEU	CB-CG-CD2	5.97	121.15	111.00
4	YA	1082	U	C2-N1-C1'	5.97	124.86	117.70
11	YI	61	ARG	CG-CD-NE	-5.97	99.27	111.80
21	YW	11	ARG	CG-CD-NE	5.97	124.33	111.80
4	RA	1712	C	N3-C2-O2	-5.95	117.73	121.90
4	YA	1063	G	C8-N9-C1'	5.95	134.73	127.00
11	YI	61	ARG	CA-CB-CG	-5.94	100.33	113.40
4	YA	1092	C	C6-N1-C2	-5.93	117.93	120.30
29	Y4	46	GLN	CA-CB-CG	-5.93	100.35	113.40
4	RA	2792	G	C6-C5-N7	-5.93	126.84	130.40
4	RA	1076	C	OP1-P-O3'	5.92	118.23	105.20
35	XA	530	G	C5-C6-O6	-5.92	125.05	128.60
18	YT	53	ARG	CB-CG-CD	5.92	126.98	111.60
46	QL	33	ARG	CG-CD-NE	5.91	124.22	111.80
4	RA	2792	G	N1-C6-O6	5.91	123.45	119.90
4	YA	1530	C	C6-N1-C1'	-5.89	113.73	120.80
35	XA	1045	C	C2-N1-C1'	5.89	125.28	118.80
35	QA	1022	G	C4-N9-C1'	5.88	134.14	126.50
15	RQ	69	PHE	CB-CG-CD1	5.87	124.91	120.80
4	RA	1314	C	C2-N1-C1'	5.87	125.26	118.80
4	YA	1038	C	C2-N1-C1'	5.86	125.24	118.80
4	YA	2103	C	N1-C2-O2	5.86	122.42	118.90
12	YN	67	LEU	CA-CB-CG	5.86	128.77	115.30
8	RF	24	LEU	CA-CB-CG	5.86	128.77	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
36	QB	17	PHE	CB-CG-CD1	5.85	124.89	120.80
48	QN	31	ARG	NH1-CZ-NH2	5.84	125.83	119.40
4	YA	1063	G	N3-C4-N9	-5.83	122.50	126.00
4	RA	1064	C	N3-C2-O2	-5.83	117.81	121.90
4	YA	1314	C	C2-N1-C1'	5.83	125.22	118.80
4	YA	1075	C	C6-N1-C2	-5.83	117.97	120.30
18	YT	45	PHE	CB-CG-CD2	-5.81	116.73	120.80
4	RA	1063	G	N3-C4-N9	-5.81	122.51	126.00
38	QD	185	PHE	CB-CG-CD2	-5.80	116.74	120.80
4	RA	2792	G	N3-C4-N9	5.79	129.48	126.00
4	YA	1076	C	OP1-P-O3'	5.79	117.93	105.20
46	XL	86	ARG	CG-CD-NE	5.78	123.94	111.80
16	RR	86	ARG	NE-CZ-NH2	-5.78	117.41	120.30
35	QA	993	G	N3-C4-N9	5.78	129.47	126.00
4	RA	1530	C	P-O3'-C3'	5.77	126.63	119.70
34	R9	35	ARG	CD-NE-CZ	5.76	131.67	123.60
51	XQ	26	GLN	CA-CB-CG	5.76	126.06	113.40
35	QA	1030(C)	C	N1-C2-O2	5.75	122.35	118.90
4	RA	1097	U	N1-C2-O2	5.75	126.83	122.80
13	RO	64	ARG	CB-CG-CD	-5.74	96.67	111.60
18	RT	45	PHE	CB-CG-CD2	-5.74	116.78	120.80
48	QN	36	PHE	CB-CG-CD2	-5.74	116.78	120.80
35	XA	1158	C	N3-C2-O2	-5.73	117.89	121.90
32	Y7	33	ARG	CB-CG-CD	-5.73	96.71	111.60
18	RT	53	ARG	NE-CZ-NH2	-5.73	117.44	120.30
10	YH	3	ARG	CB-CA-C	5.72	121.85	110.40
11	YI	114	LEU	CA-CB-CG	5.72	128.46	115.30
42	XH	84	ARG	NE-CZ-NH2	5.72	123.16	120.30
4	YA	2160	G	C8-N9-C1'	5.71	134.43	127.00
39	QE	143	ARG	CD-NE-CZ	5.69	131.56	123.60
24	RZ	103	ARG	CG-CD-NE	5.69	123.74	111.80
4	RA	2138	C	N1-C2-O2	5.68	122.31	118.90
36	XB	111	ARG	CA-CB-CG	5.68	125.90	113.40
4	RA	1092	C	N3-C2-O2	-5.68	117.93	121.90
36	XB	105	PHE	CB-CG-CD2	-5.67	116.83	120.80
4	YA	2138	C	N1-C2-O2	5.66	122.30	118.90
16	RR	86	ARG	NE-CZ-NH1	5.66	123.13	120.30
49	QO	7	GLU	CA-CB-CG	5.66	125.84	113.40
3	QY	213	ARG	NE-CZ-NH2	-5.65	117.48	120.30
37	XC	140	ARG	NE-CZ-NH1	5.65	123.12	120.30
4	RA	2128	C	N1-C2-O2	5.65	122.29	118.90
23	YY	23	ARG	CG-CD-NE	5.64	123.65	111.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	RA	1992	G	P-O3'-C3'	5.64	126.47	119.70
48	QN	36	PHE	CB-CG-CD1	5.63	124.74	120.80
7	YE	52	LEU	CB-CG-CD2	5.63	120.57	111.00
4	RA	2160	G	C8-N9-C1'	5.62	134.31	127.00
4	YA	196	A	O4'-C1'-N9	5.62	112.70	108.20
4	YA	2128	C	N1-C2-O2	5.62	122.27	118.90
49	QO	65	ARG	N-CA-CB	-5.62	100.49	110.60
49	XO	7	GLU	CA-CB-CG	5.62	125.75	113.40
4	YA	1052	C	N1-C2-O2	5.61	122.26	118.90
8	YF	99	TYR	CB-CG-CD2	-5.61	117.64	121.00
52	QR	42	ARG	CA-CB-CG	5.61	125.73	113.40
40	QF	19	LEU	CB-CG-CD1	-5.59	101.49	111.00
4	RA	1092	C	C5-C6-N1	5.59	123.80	121.00
4	YA	1530	C	P-O3'-C3'	5.59	126.41	119.70
4	RA	1073	A	N9-C4-C5	-5.59	103.56	105.80
26	R1	52	ARG	CA-CB-CG	5.59	125.69	113.40
4	RA	1714	G	N3-C2-N2	-5.58	115.99	119.90
4	RA	1087	G	N9-C4-C5	5.58	107.63	105.40
32	Y7	34	ARG	NE-CZ-NH1	-5.58	117.51	120.30
17	RS	17	ARG	NE-CZ-NH1	-5.57	117.52	120.30
25	Y0	14	ARG	NE-CZ-NH2	-5.56	117.52	120.30
4	YA	1992	G	P-O3'-C3'	5.56	126.37	119.70
40	XF	97	PHE	CB-CG-CD2	-5.56	116.91	120.80
4	YA	1102	C	C6-N1-C2	-5.56	118.08	120.30
4	YA	1075	C	C5-C6-N1	5.55	123.78	121.00
4	YA	277	C	C2-N1-C1'	5.55	124.91	118.80
11	RI	68	LEU	CB-CG-CD2	-5.55	101.57	111.00
36	XB	28	PHE	CB-CG-CD1	5.55	124.68	120.80
18	RT	96	ARG	NE-CZ-NH1	-5.55	117.53	120.30
4	RA	154(B)	C	C2-N1-C1'	5.54	124.89	118.80
4	YA	1087	G	N3-C4-C5	5.53	131.37	128.60
17	RS	7	TYR	CA-CB-CG	5.53	123.91	113.40
3	XY	96	PHE	CB-CG-CD1	5.53	124.67	120.80
4	RA	2735	G	N3-C2-N2	-5.53	116.03	119.90
1	QV	62	C	C6-N1-C2	-5.52	118.09	120.30
4	RA	1097	U	N3-C2-O2	-5.51	118.34	122.20
38	XD	185	PHE	CB-CG-CD2	-5.51	116.94	120.80
38	QD	135	LEU	CB-CG-CD2	-5.51	101.63	111.00
39	QE	143	ARG	CG-CD-NE	-5.51	100.23	111.80
4	RA	2602	A	O3'-P-O5'	5.50	114.45	104.00
25	R0	14	ARG	NE-CZ-NH2	-5.50	117.55	120.30
4	RA	1036	G	C8-N9-C1'	5.50	134.15	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	YA	873	G	N3-C4-N9	-5.49	122.71	126.00
4	YA	1530	C	N1-C2-O2	5.49	122.19	118.90
4	RA	1092	C	C6-N1-C2	-5.48	118.11	120.30
53	XS	10	PHE	CB-CG-CD2	-5.48	116.97	120.80
35	QA	754	C	C2-N1-C1'	5.48	124.82	118.80
15	RQ	14	ARG	NE-CZ-NH1	-5.47	117.56	120.30
4	RA	1058	G	N3-C4-N9	-5.46	122.72	126.00
4	YA	2896	C	C2-N1-C1'	5.46	124.81	118.80
6	YD	103	ARG	NE-CZ-NH2	-5.45	117.57	120.30
35	XA	1006	C	N1-C2-O2	-5.45	115.63	118.90
4	YA	2160	G	C4-N9-C1'	-5.45	119.42	126.50
35	XA	1158	C	C6-N1-C2	-5.45	118.12	120.30
40	QF	46	ARG	NE-CZ-NH1	5.43	123.02	120.30
18	YT	61	PHE	CB-CG-CD2	-5.43	117.00	120.80
18	RT	45	PHE	CB-CG-CD1	5.43	124.60	120.80
35	XA	1054	C	N1-C2-O2	5.42	122.16	118.90
4	RA	2127	G	C6-C5-N7	-5.42	127.15	130.40
29	Y4	60	GLN	N-CA-C	5.42	125.63	111.00
13	YO	3	GLN	CA-CB-CG	5.42	125.31	113.40
48	XN	31	ARG	CB-CA-C	5.42	121.23	110.40
4	RA	2128	C	C6-N1-C2	-5.41	118.14	120.30
17	YS	7	TYR	CA-CB-CG	5.41	123.68	113.40
42	QH	18	ARG	NE-CZ-NH2	-5.41	117.60	120.30
4	RA	1075	C	C6-N1-C2	-5.40	118.14	120.30
50	XP	16	HIS	N-CA-CB	5.40	120.32	110.60
49	QO	65	ARG	CA-CB-CG	5.40	125.28	113.40
17	YS	94	TYR	CB-CG-CD2	-5.40	117.76	121.00
3	XY	302	LYS	CD-CE-NZ	-5.39	99.29	111.70
18	RT	61	PHE	CB-CG-CD2	-5.39	117.03	120.80
18	YT	45	PHE	CB-CG-CD1	5.38	124.57	120.80
18	YT	22	PHE	CB-CG-CD2	-5.38	117.03	120.80
19	RU	101	ARG	CA-CB-CG	5.38	125.23	113.40
54	XT	56	MET	CG-SD-CE	-5.38	91.60	100.20
4	RA	2896	C	C2-N1-C1'	5.38	124.71	118.80
36	QB	157	ARG	CB-CG-CD	-5.37	97.64	111.60
35	QA	266	G	P-O3'-C3'	5.37	126.14	119.70
13	RO	8	LEU	CA-CB-CG	5.37	127.64	115.30
35	QA	191	G	N3-C4-N9	5.36	129.22	126.00
53	XS	10	PHE	CB-CG-CD1	5.36	124.55	120.80
15	RQ	5	ARG	NE-CZ-NH1	-5.36	117.62	120.30
36	QB	76	GLN	CA-CB-CG	5.36	125.18	113.40
4	YA	1092	C	N3-C2-O2	-5.35	118.15	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	XA	1004	A	O4'-C1'-N9	5.35	112.48	108.20
4	YA	1102	C	C5-C6-N1	5.35	123.67	121.00
35	XA	266	G	OP2-P-O3'	5.34	116.96	105.20
4	RA	2160	G	C4-N9-C1'	-5.34	119.55	126.50
4	YA	361	G	N3-C2-N2	-5.34	116.16	119.90
13	YO	8	LEU	CA-CB-CG	5.34	127.58	115.30
3	XY	222	VAL	C-N-CA	5.34	135.04	121.70
3	QY	278	ARG	N-CA-CB	-5.33	101.00	110.60
4	YA	2792	G	C8-N9-C1'	-5.33	120.06	127.00
38	QD	59	ARG	CA-CB-CG	5.33	125.14	113.40
35	QA	570	G	C4-N9-C1'	5.33	133.43	126.50
35	XA	442	C	N1-C2-O2	5.33	122.10	118.90
4	YA	1052	C	C5-C6-N1	5.33	123.67	121.00
1	XV	53	G	P-O3'-C3'	5.33	126.09	119.70
4	YA	1712	C	N3-C2-O2	-5.32	118.17	121.90
4	RA	1775	U	C5-C4-O4	-5.32	122.71	125.90
3	XY	278	ARG	NE-CZ-NH1	5.31	122.96	120.30
35	XA	999	C	C2-N1-C1'	5.31	124.64	118.80
1	QV	53	G	C4-N9-C1'	-5.30	119.60	126.50
4	YA	1063	G	N1-C6-O6	-5.30	116.72	119.90
4	RA	1914	C	N1-C2-O2	5.30	122.08	118.90
4	RA	1530	C	N1-C2-O2	5.30	122.08	118.90
4	RA	1774	C	N3-C2-O2	-5.29	118.19	121.90
54	QT	24	LEU	CA-CB-CG	5.29	127.47	115.30
4	YA	1747(B)	G	N3-C2-N2	-5.29	116.20	119.90
4	YA	2128	C	C6-N1-C2	-5.29	118.19	120.30
4	YA	2792	G	C4-N9-C1'	5.29	133.38	126.50
4	RA	887	A	O4'-C1'-N9	5.29	112.43	108.20
3	XY	98	GLU	CA-CB-CG	5.28	125.02	113.40
6	YD	176	ARG	CB-CG-CD	-5.28	97.88	111.60
39	QE	126	ARG	NE-CZ-NH2	-5.28	117.66	120.30
12	YN	84	LYS	CA-CB-CG	5.27	124.99	113.40
6	YD	242	ARG	CG-CD-NE	5.26	122.85	111.80
39	XE	71	LEU	CB-CG-CD2	-5.26	102.06	111.00
4	RA	196	A	O4'-C1'-N9	5.25	112.40	108.20
4	YA	2287	A	O4'-C1'-N9	5.25	112.40	108.20
6	RD	242	ARG	CG-CD-NE	5.25	122.83	111.80
17	RS	25	ARG	NE-CZ-NH1	-5.25	117.67	120.30
29	Y4	48	ARG	NE-CZ-NH2	-5.25	117.67	120.30
8	RF	99	TYR	CB-CG-CD2	-5.25	117.85	121.00
4	YA	549	G	C6-C5-N7	-5.25	127.25	130.40
24	RZ	136	PHE	CB-CG-CD2	-5.25	117.13	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
6	YD	84	TYR	CA-CB-CG	5.24	123.36	113.40
4	RA	873	G	N3-C4-N9	-5.24	122.85	126.00
4	YA	1058	G	C8-N9-C1'	5.24	133.81	127.00
43	QI	88	TYR	CA-CB-CG	5.24	123.36	113.40
4	RA	1063	G	C4-N9-C1'	-5.24	119.69	126.50
4	YA	2121	G	N3-C4-N9	5.24	129.14	126.00
26	Y1	52	ARG	CA-CB-CG	5.23	124.90	113.40
4	YA	2792	G	C6-C5-N7	-5.22	127.27	130.40
4	RA	752	A	P-O3'-C3'	5.22	125.97	119.70
43	QI	33	PHE	CB-CG-CD1	5.22	124.45	120.80
29	Y4	46	GLN	CB-CA-C	5.21	120.83	110.40
4	YA	1087	G	N9-C4-C5	5.21	107.48	105.40
19	YU	37	GLU	CA-CB-CG	5.21	124.87	113.40
4	RA	1087	G	N3-C4-C5	5.21	131.21	128.60
35	QA	991	U	P-O3'-C3'	5.21	125.95	119.70
39	QE	126	ARG	NE-CZ-NH1	5.21	122.90	120.30
38	XD	59	ARG	CA-CB-CG	5.20	124.85	113.40
4	RA	1058	G	N3-C2-N2	-5.20	116.26	119.90
4	RA	1076	C	P-O3'-C3'	5.20	125.94	119.70
4	RA	1052	C	N1-C2-O2	5.20	122.02	118.90
4	RA	1531	C	C6-N1-C2	-5.19	118.22	120.30
4	YA	887	A	O4'-C1'-N9	5.19	112.35	108.20
4	YA	1065	U	O4'-C1'-N1	5.19	112.35	108.20
4	YA	2127	G	C6-C5-N7	-5.18	127.29	130.40
35	XA	1045	C	N1-C2-O2	5.18	122.01	118.90
4	YA	1063	G	C4-N9-C1'	-5.18	119.77	126.50
35	XA	1492	A	O4'-C1'-N9	-5.17	104.06	108.20
29	Y4	59	PHE	CB-CG-CD2	-5.17	117.18	120.80
35	QA	368	U	C2-N3-C4	-5.17	123.90	127.00
4	YA	2103	C	N3-C2-O2	-5.17	118.28	121.90
19	YU	101	ARG	CA-CB-CG	5.16	124.76	113.40
35	QA	1491	G	O4'-C1'-N9	5.16	112.33	108.20
46	XL	114	LYS	CG-CD-CE	5.16	127.38	111.90
22	RX	57	LEU	CA-CB-CG	5.16	127.16	115.30
35	QA	1043	C	C2-N1-C1'	-5.15	113.13	118.80
4	YA	549	G	N3-C4-N9	5.14	129.09	126.00
4	RA	2121	G	N3-C4-N9	5.14	129.09	126.00
4	YA	893	C	N1-C2-O2	5.13	121.98	118.90
35	XA	1065	U	P-O3'-C3'	5.13	125.86	119.70
42	QH	18	ARG	NE-CZ-NH1	5.12	122.86	120.30
4	RA	1063	G	N1-C6-O6	-5.11	116.83	119.90
35	QA	78	G	N9-C4-C5	5.10	107.44	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	QA	1065	U	P-O3'-C3'	5.10	125.82	119.70
4	RA	2103	C	N1-C2-O2	5.10	121.96	118.90
9	RG	170	ARG	NE-CZ-NH1	-5.10	117.75	120.30
4	YA	1073	A	N9-C4-C5	-5.10	103.76	105.80
12	YN	84	LYS	CD-CE-NZ	-5.09	99.99	111.70
48	XN	31	ARG	CB-CG-CD	5.09	124.84	111.60
31	R6	50	ARG	NE-CZ-NH1	-5.09	117.76	120.30
4	YA	1531	C	C6-N1-C2	-5.08	118.27	120.30
3	QY	96	PHE	CB-CG-CD1	5.08	124.36	120.80
35	QA	570	G	C8-N9-C1'	-5.07	120.40	127.00
36	XB	82	ARG	NE-CZ-NH2	-5.07	117.77	120.30
24	YZ	31	ARG	NE-CZ-NH1	-5.06	117.77	120.30
4	RA	2287	A	O4'-C1'-N9	5.06	112.24	108.20
4	YA	1774	C	N3-C2-O2	-5.05	118.36	121.90
14	YP	55	ARG	CB-CG-CD	-5.05	98.46	111.60
18	YT	96	ARG	NE-CZ-NH1	-5.05	117.78	120.30
35	XA	1003	G	N3-C4-N9	5.05	129.03	126.00
35	XA	5	U	N1-C2-O2	5.05	126.33	122.80
41	XG	155	ARG	NE-CZ-NH1	-5.05	117.78	120.30
4	RA	2792	G	C5-C6-O6	-5.05	125.57	128.60
49	XO	65	ARG	NE-CZ-NH2	-5.04	117.78	120.30
13	RO	64	ARG	CA-CB-CG	5.04	124.50	113.40
4	RA	1063	G	N9-C4-C5	5.04	107.42	105.40
3	XY	278	ARG	CD-NE-CZ	5.04	130.65	123.60
45	QK	96	ARG	CA-CB-CG	-5.04	102.32	113.40
4	RA	1058	G	C8-N9-C1'	5.04	133.55	127.00
41	XG	16	LEU	CA-CB-CG	5.03	126.88	115.30
4	YA	847	U	N1-C2-O2	5.03	126.32	122.80
4	RA	1102	C	C5-C6-N1	5.03	123.52	121.00
35	XA	560	U	C2-N1-C1'	5.03	123.73	117.70
4	RA	1065	U	P-O3'-C3'	5.03	125.73	119.70
35	XA	1033	G	N3-C4-N9	-5.02	122.99	126.00
4	RA	997	G	O5'-P-OP1	-5.02	101.18	105.70
35	QA	570	G	N3-C4-N9	5.01	129.01	126.00
4	YA	154(B)	C	C2-N1-C1'	5.01	124.31	118.80
4	RA	1747(B)	G	N3-C2-N2	-5.01	116.39	119.90

There are no chirality outliers.

All (25) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
36	QB	15	VAL	Peptide

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Mol	Chain	Res	Type	Group
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	19	0
2	QX	215	0	109	3	0
2	XX	215	0	108	6	0
3	QY	2833	0	2729	139	0
3	XY	2833	0	2729	155	0
4	RA	61758	0	31149	799	0
4	YA	61758	0	31152	795	0
5	RB	2572	0	1305	19	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
5	YB	2573	0	1306	17	0
6	RD	2131	0	2207	63	0
6	YD	2136	0	2217	65	0
7	RE	1559	0	1618	41	0
7	YE	1559	0	1618	43	0
8	RF	1584	0	1625	58	0
8	YF	1580	0	1619	68	0
9	RG	1426	0	1445	51	0
9	YG	1424	0	1441	60	0
10	RH	1330	0	1407	30	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	27	0
12	YN	1117	0	1184	22	0
13	RO	933	0	996	28	0
13	YO	933	0	996	26	0
14	RP	1135	0	1212	33	0
14	YP	1135	0	1212	44	0
15	RQ	1122	0	1179	45	0
15	YQ	1122	0	1179	38	0
16	RR	968	0	1033	32	0
16	YR	968	0	1033	21	0
17	RS	877	0	938	38	0
17	YS	870	0	923	41	0
18	RT	1091	0	1151	44	0
18	YT	1083	0	1136	54	0
19	RU	959	0	1019	31	0
19	YU	959	0	1019	27	0
20	RV	775	0	841	23	0
20	YV	771	0	830	21	0
21	RW	886	0	940	18	0
21	YW	886	0	940	21	0
22	RX	750	0	814	13	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	48	0
24	YZ	1557	0	1564	53	0
25	R0	608	0	622	19	0
25	Y0	608	0	622	21	0
26	R1	754	0	823	17	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
26	Y1	759	0	837	27	0
27	R2	588	0	643	13	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	37	0
29	Y4	536	0	514	45	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	21	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	525	0
35	XA	32331	0	16339	485	0
36	QB	1842	0	1862	88	0
36	XB	1825	0	1828	104	0
37	QC	1558	0	1557	50	0
37	XC	1542	0	1517	49	0
38	QD	1665	0	1688	86	0
38	XD	1668	0	1704	75	0
39	QE	1133	0	1191	33	0
39	XE	1133	0	1191	41	0
40	QF	814	0	808	44	0
40	XF	816	0	808	32	0
41	QG	1235	0	1249	23	0
41	XG	1229	0	1238	34	0
42	QH	1098	0	1143	33	0
42	XH	1088	0	1126	28	0
43	QI	986	0	990	50	0
43	XI	966	0	953	65	0
44	QJ	719	0	672	35	0
44	XJ	710	0	661	27	0
45	QK	834	0	838	13	0
45	XK	833	0	836	21	0
46	QL	932	0	981	36	0
46	XL	932	0	981	31	0
47	QM	914	0	954	36	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
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	16	0
49	XO	728	0	760	17	0
50	QP	681	0	697	30	0
50	XP	677	0	686	33	0
51	QQ	823	0	891	22	0
51	XQ	823	0	891	18	0
52	QR	555	0	618	22	0
52	XR	555	0	618	20	0
53	QS	648	0	658	22	0
53	XS	645	0	635	27	0
54	QT	732	0	809	13	0
54	XT	733	0	795	16	0
55	QU	199	0	208	10	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
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

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
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
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

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
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	5370	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 (5370) 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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:QY:245:ARG:HE	4:RA:2573:C:H42	1.24	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
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
54:XT:56:MET:HE1	54:XT:85:MET:HG2	1.61	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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
21:RW:11:ARG:HD2	21:RW:11:ARG:C	2.03	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
36:QB:8:LYS:HZ1	36:QB:52:GLU:HG2	1.49	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
49:XO:35:ARG:HH21	49:XO:59:MET:HE2	1.55	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
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
8:YF:33:LEU:HD13	8:YF:112:MET:HE2	1.71	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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
4:YA:2126:A:H4'	4:YA:2127:G:O5'	1.91	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
8:RF:29:ASN:HB3	8:RF:112:MET:HE1	1.72	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
21:YW:11:ARG:C	21:YW:11:ARG:HD2	2.13	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
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
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
36:QB:16:HIS:C	36:QB:17:PHE:HD1	1.98	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
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
19:YU:104:GLN:N	19:YU:104:GLN:OE1	2.28	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
20:RV:75:PHE:HD1	20:RV:75:PHE:C	1.98	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
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
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:245:G:O6	33:Y8:8:LYS:NZ	2.27	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
35:XA:524:G:H2'	35:XA:525:C:C6	2.31	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
20:RV:75:PHE:C	20:RV:75:PHE:CD1	2.71	0.65
23:RY:55:TYR:HE2	23:RY:61:ILE:HG21	1.62	0.65
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:RO:64:ARG:HH12	18:RT:70:VAL:HG21	1.62	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
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
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
53:XS:10:PHE:HD1	53:XS:10:PHE:C	2.03	0.62
35:QA:108:G:N1	54:QT:15:ARG:HG2	2.15	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
24:YZ:44:PHE:HD1	24:YZ:44:PHE:C	2.04	0.61
40:QF:70:ASP:OD1	40:QF:70:ASP:N	2.31	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
38:XD:106:TYR:C	38:XD:106:TYR:HD1	2.03	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
24:YZ:44:PHE:C	24:YZ:44:PHE:CD1	2.75	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
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
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
4:RA:1587:A:H2'	4:RA:1588:C:C6	2.37	0.60
4:RA:2646:C:OP2	4:RA:2732:G:O2'	2.13	0.60
7:RE:34:VAL:CG2	7:RE:48:GLN:HE21	2.14	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:1371:G:HO2'	4:YA:1372:U:H5	1.50	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
53:XS:10:PHE:C	53:XS:10:PHE:CD1	2.75	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:249:C:O2	33:Y8:12:LYS:NZ	2.30	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
15:RQ:31:ASP:C	15:RQ:32:TYR:HD1	2.05	0.59
19:RU:76:TYR:C	19:RU:76:TYR:HD1	2.06	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
19:YU:76:TYR:HD1	19:YU:76:TYR:C	2.05	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
38:XD:106:TYR:C	38:XD:106:TYR:CD1	2.76	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: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
29:Y4:59:PHE:N	29:Y4:59:PHE:CD1	2.71	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
3:XY:159:ARG:HH21	3:XY:354:ASP:CG	2.06	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
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
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
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:HD1	53:QS:11:VAL:N	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:210:C:OP1	32:R7:29:LYS:HE2	2.02	0.59
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
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
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
4:RA:272(O):C:H2'	4:RA:272(P):C:C6	2.39	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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:343:U:O2'	35:QA:346:G:O6	2.13	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:1024:G:HO2'	4:RA:1144:G:HO2'	1.46	0.58
4:RA:2291:U:H2'	4:RA:2292:C:C6	2.38	0.58
19:RU:76:TYR:C	19:RU:76:TYR:CD1	2.77	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
17:YS:35:ILE:C	17:YS:36:TYR:HD1	2.07	0.57
19:YU:76:TYR:C	19:YU:76:TYR:CD1	2.78	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
36:QB:76:GLN:HE21	36:QB:206:ASP:C	2.08	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
35:XA:692:U:O2'	35:XA:694:A:N7	2.36	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
8:RF:33:LEU:HD13	8:RF:112:MET:HE2	1.87	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
35:QA:56:U:H2'	35:QA:57:G:H8	1.70	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
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
8:YF:29:ASN:HB3	8:YF:112:MET:HE1	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
24:RZ:198:LYS:HB2	24:RZ:203:GLU:C	2.25	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
35:QA:164:U:H2'	35:QA:165:C:H6	1.70	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
4:RA:1497:U:H5"	4:RA:1498:C:H5	1.71	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
43:XI:58:HIS:C	43:XI:59:PHE:HD1	2.09	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
15:RQ:92:GLY:C	15:RQ:93:TYR:HD1	2.09	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
8:YF:29:ASN:H	8:YF:112:MET:CE	2.18	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
15:YQ:31:ASP:C	15:YQ:32:TYR:HD1	2.08	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
35:QA:1003:G:N2	35:QA:1004:A:N3	2.54	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:YZ:125:LEU:HB3	24:YZ:165:VAL:HG13	1.89	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: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
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
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
29:Y4:47:GLN:C	29:Y4:48:ARG:HD2	2.27	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
18:YT:45:PHE:CD1	18:YT:45:PHE:C	2.81	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
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
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
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
10:YH:3:ARG:NH1	10:YH:3:ARG:C	2.61	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
43:XI:88:TYR:C	43:XI:88:TYR:HD1	2.10	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
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
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
18:RT:45:PHE:CD1	18:RT:45:PHE:C	2.81	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:QS:10:PHE:HD1	53:QS:10:PHE:C	2.10	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
3:XY:327:VAL:C	3:XY:329:ASP:H	2.10	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
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
29:Y4:53:GLU:CD	29:Y4:53:GLU:H	2.10	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
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
11:RI:54:GLN:HG3	11:RI:57:ARG:HH11	1.72	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
54:XT:16:HIS:O	54:XT:19:SER:OG	2.22	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
23:RY:92:ASN:N	23:RY:93:GLY:HA2	2.22	0.54
29:R4:64:GLY:O	29:R4:67:TYR:HE1	1.91	0.54
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:29:ASN:H	8:YF:112:MET:HE3	1.73	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
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
53:QS:10:PHE:C	53:QS:10:PHE:CD1	2.79	0.53
4:RA:760:G:H2'	4:RA:761:A:O4'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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: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
8:RF:197:ASP:N	8:RF:197:ASP:OD1	2.41	0.53
1:QV:16:C:O2'	1:QV:61:C:OP1	2.27	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
18:RT:45:PHE:C	18:RT:45:PHE:HD1	2.11	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
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
49:QO:54:ARG:HG2	49:QO:58:MET:HE2	1.91	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
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
36:XB:105:PHE:CD1	36:XB:105:PHE:C	2.81	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
43:QI:88:TYR:HD1	43:QI:88:TYR:C	2.12	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
1:QV:58:A:O2'	1:QV:60:U:OP2	2.17	0.53
2:QX:19:U:O2	3:QY:137:GLY:O	2.27	0.53
3:QY:265:HIS:HB2	3:QY:291:MET:HE2	1.91	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
18:YT:45:PHE:C	18:YT:45:PHE:HD1	2.12	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:2001:A:H2'	4:YA:2002:G:C8	2.44	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
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
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
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: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:1264:G:OP1	30:R5:19:ARG:NH2	2.41	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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:265:A:N1	4:YA:427:U:O2'	2.35	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
15:RQ:69:PHE:C	15:RQ:69:PHE:CD1	2.83	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:QC:40:ARG:O	37:QC:44:GLU:HB2	2.08	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
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
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
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
11:RI:42:SER:O	11:RI:45:LYS:HB2	2.09	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
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
24:RZ:8:TYR:N	24:RZ:8:TYR:HD1	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
15:YQ:92:GLY:C	15:YQ:93:TYR:HD1	2.14	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
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:1739:U:HO2'	4:RA:1740:G:H8	1.57	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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: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
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: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
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: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
40:QF:62:TRP:C	40:QF:63:TYR:HD1	2.14	0.51
4:RA:1518:U:H2'	4:RA:1519:G:O4'	2.09	0.51
9:RG:50:ALA:C	9:RG:52:ILE:H	2.14	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:RY:55:TYR:N	23:RY:55:TYR:HD1	2.08	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
16:YR:26:LYS:HE2	16:YR:70:LEU:O	2.10	0.51
29:Y4:25:TYR:N	29:Y4:25:TYR:HD1	2.09	0.51
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:750:G:O2'	49:QO:22:THR:O	2.23	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
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: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
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
7:YE:44:TYR:H	7:YE:44:TYR:HD1	1.59	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:YH:55:PRO:HG2	10:YH:61:HIS:CE1	2.45	0.51
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: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
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
16:RR:54:LEU:HD21	16:RR:65:LEU:HB3	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:RW:45:TYR:OH	21:RW:49:LYS:NZ	2.44	0.51
29:R4:25:TYR:N	29:R4:25:TYR:HD1	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
4:YA:2365:G:HO2'	25:Y0:60:PHE:HE2	1.57	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
9:YG:117:PHE:CD1	9:YG:117:PHE:C	2.84	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
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:N	46:QL:98:TYR:CD1	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
43:XI:42:ARG:HH12	43:XI:75:ASP:CG	2.15	0.50
43:XI:53:VAL:C	43:XI:55:ALA:H	2.12	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:658:C:H2'	4:RA:659:C:H6	1.74	0.50
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
1:XV:53:G:HO2'	1:XV:54:U:H5	1.60	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
29:Y4:24:THR:C	29:Y4:25:TYR:HD1	2.14	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
24:RZ:7:ALA:C	24:RZ:8:TYR:HD1	2.15	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:QA:189(B):C:H42	35:QA:189(K):G:H1	1.59	0.50
35:QA:824:C:H2'	35:QA:825:G:H8	1.76	0.50
36:QB:109:SER:C	36:QB:111:ARG:H	2.15	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
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
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
17:YS:94:TYR:HD1	17:YS:94:TYR:C	2.15	0.50
23:YY:23:ARG:CD	23:YY:42:VAL:HG22	2.41	0.50
24:YZ:8:TYR:N	24:YZ:8:TYR:HD1	2.09	0.50
35:XA:632:A:H3'	35:XA:633:G:H8	1.75	0.50
35:QA:246:A:C2	35:QA:282:A:C5	3.00	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
43:QI:88:TYR:C	43:QI:88:TYR:CD1	2.85	0.50
51:QQ:70:ARG:C	51:QQ:71:PHE:HD1	2.15	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
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
24:YZ:8:TYR:N	24:YZ:8:TYR:CD1	2.80	0.50
43:XI:59:PHE:HD1	43:XI:59:PHE:N	2.10	0.50
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:143(A):G:H2'	4:RA:143(B):C:C6	2.47	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:N	3:QY:326:TYR:HD1	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
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
8:RF:29:ASN:H	8:RF:112:MET:CE	2.25	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
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
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
35:QA:1183:A:O2'	35:QA:1184:G:OP1	2.27	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
12:RN:62:VAL:CG1	12:RN:66:LYS:HB2	2.42	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:RQ:69:PHE:HD1	15:RQ:69:PHE:C	2.15	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
43:XI:88:TYR:C	43:XI:88:TYR:CD1	2.83	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
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
4:YA:2182:G:H2'	4:YA:2183:C:C6	2.47	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
43:QI:58:HIS:C	43:QI:59:PHE:HD1	2.15	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
3:QY:198:VAL:HB	3:QY:321:SER:O	2.12	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:105:PHE:HD1	36:XB:105:PHE:C	2.16	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: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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
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
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
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
36:XB:9:GLU:C	36:XB:11:LEU:H	2.14	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
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
3:QY:87:ALA:CB	3:QY:96:PHE:HB2	2.42	0.49
3:QY:325:SER:C	3:QY:326:TYR:HD1	2.16	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:N	20:RV:12:TYR:CD1	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:901:A:O2'	35:QA:1513:A:OP1	2.28	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
3:QY:256:ARG:NH1	4:RA:2573:C:C4	2.81	0.48
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
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
47:XM:17:VAL:O	47:XM:20:THR:OG1	2.18	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RA:1581:G:H2'	4:RA:1582:C:O4'	2.12	0.48
17:RS:35:ILE:C	17:RS:36:TYR:HD1	2.16	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:N	20:YV:12:TYR:HD1	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
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
48:QN:36:PHE:CD1	48:QN:36:PHE:C	2.86	0.48
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
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
45:XK:115:PRO:C	45:XK:117:ASN:HA	2.33	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
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
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
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
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:2126:A:N6	4:YA:2162:G:HO2'	2.11	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
49:XO:35:ARG:NH2	49:XO:59:MET:HE2	2.26	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
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
17:YS:94:TYR:C	17:YS:94:TYR:CD1	2.87	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:160:ASP:OD1	36:QB:160:ASP:N	2.45	0.48
43:QI:59:PHE:HD1	43:QI:59:PHE:N	2.11	0.48
47:QM:11:ARG:C	47:QM:13:LYS:H	2.17	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
24:YZ:7:ALA:C	24:YZ:8:TYR:CD1	2.87	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
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
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:N	20:RV:12:TYR:HD1	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:N	20:YV:12:TYR:CD1	2.82	0.47
22:YX:2:LYS:NZ	22:YX:38:GLU:OE2	2.30	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: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
40:XF:62:TRP:C	40:XF:63:TYR:HD1	2.16	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
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
24:RZ:156:LYS:HG3	24:RZ:156:LYS:O	2.14	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
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:163:PHE:HA	36:XB:185:ILE:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
48:QN:36:PHE:HD1	48:QN:36:PHE:C	2.18	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
14:RP:130:PHE:N	14:RP:130:PHE:HD1	2.13	0.47
19:RU:50:ARG:O	19:RU:54:LYS:NZ	2.46	0.47
29:R4:24:THR:C	29:R4:25:TYR:HD1	2.17	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
36:XB:127:ILE:C	36:XB:129:GLU:H	2.18	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
51:XQ:70:ARG:C	51:XQ:71:PHE:HD1	2.17	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:R4:25:TYR:N	29:R4:25:TYR:CD1	2.82	0.47
3:QY:242:ASP:OD1	3:QY:242:ASP:N	2.48	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: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
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
24:YZ:7:ALA:C	24:YZ:8:TYR:HD1	2.17	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:97:ARG:C	46:QL:98:TYR:CD1	2.88	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
20:RV:11:GLN:C	20:RV:12:TYR:HD1	2.18	0.47
20:RV:11:GLN:C	20:RV:12:TYR:CD1	2.88	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:7:TYR:HD1	17:RS:7:TYR:C	2.18	0.47
17:RS:112:PHE:N	17:RS:112:PHE:CD1	2.82	0.47
24:RZ:7:ALA:C	24:RZ:8:TYR:CD1	2.88	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
1:XV:24:U:O2'	4:YA:1923:U:OP1	2.30	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
6:YD:146:GLU:HG2	6:YD:152:GLY:C	2.36	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
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
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
9:YG:6:ALA:N	9:YG:104:GLU:OE2	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:YG:41:GLN:HG2	9:YG:154:GLY:O	2.15	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
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
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:539:A:OP2	46:XL:115:LYS:NZ	2.47	0.46
35:XA:1119:C:H2'	35:XA:1120:G:H8	1.80	0.46
35:XA:1151:A:O2'	35:XA:1152:A:O5'	2.29	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:80:TYR:N	14:RP:80:TYR:HD1	2.13	0.46
14:RP:95:VAL:HG22	14:RP:125:VAL:HA	1.97	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
20:YV:11:GLN:C	20:YV:12:TYR:HD1	2.19	0.46
26:Y1:60:PHE:N	26:Y1:60:PHE:HD1	2.13	0.46
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: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
2:XX:22:C:C6	3:XY:212:ARG:HD3	2.50	0.46
3:XY:265:HIS:HB2	3:XY:291:MET:HE1	1.96	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
6:YD:69:ARG:C	6:YD:71:ASP:H	2.18	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:33:PHE:CD1	43:XI:33:PHE:C	2.89	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
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
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
47:QM:4:ILE:HA	47:QM:5:ALA:HA	1.61	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
9:YG:117:PHE:HD1	9:YG:117:PHE:C	2.19	0.46
17:YS:87:PHE:HB2	17:YS:112:PHE:CE2	2.51	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
50:XP:8:ARG:C	50:XP:9:PHE:HD1	2.19	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
11:RI:130:TYR:HB3	11:RI:138:ILE:HB	1.96	0.46
18:RT:101:PHE:HD2	18:RT:101:PHE:C	2.18	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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
23:RY:5:MET:HE3	23:RY:32:PRO:HA	1.97	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: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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: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
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
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
36:QB:8:LYS:HZ3	36:QB:52:GLU:HG2	1.78	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
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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:458:G:O2'	4:RA:469:G:O6	2.26	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
10:RH:162:ILE:C	10:RH:163:TYR:HD1	2.20	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:1239:A:O2'	41:QG:114:ARG:O	2.28	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
10:YH:162:ILE:C	10:YH:163:TYR:HD1	2.20	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
17:RS:7:TYR:C	17:RS:7:TYR:CD1	2.90	0.45
19:RU:47:TYR:CD1	19:RU:47:TYR:C	2.90	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
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
4:YA:2661:G:O6	10:YH:175:LYS:NZ	2.42	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
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
55:QU:17:THR:C	55:QU:18:TYR:HD1	2.19	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
8:RF:192:LEU:HD22	8:RF:194:MET:HE2	1.97	0.45
15:RQ:93:TYR:HD1	15:RQ:93:TYR:N	2.13	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:2522:U:O2'	4:YA:2647:U:OP1	2.24	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:978:A:O2'	35:XA:1322:C:N3	2.43	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
43:QI:33:PHE:CD1	43:QI:33:PHE:C	2.90	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
20:YV:11:GLN:C	20:YV:12:TYR:CD1	2.89	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
38:XD:138:TYR:CD1	38:XD:138:TYR:C	2.90	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
46:QL:119:LYS:C	46:QL:120:TYR:HD1	2.20	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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
36:XB:160:ASP:N	36:XB:160:ASP:OD1	2.50	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
44:QJ:61:GLU:OE1	48:QN:58:LYS:NZ	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
43:XI:9:ARG:C	43:XI:104:ARG:HE	2.19	0.45
43:XI:17:VAL:HG11	43:XI:80:GLY:C	2.37	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
8:RF:13:SER:OG	8:RF:127:GLU:OE2	2.27	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:YD:70:TRP:NE1	6:YD:146:GLU:OE2	2.40	0.45
6:YD:84:TYR:CD1	6:YD:84:TYR:C	2.89	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
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:407:G:HO2'	38:XD:116:GLN:HG3	1.82	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
50:XP:66:PRO:HG2	50:XP:71:ARG:HG2	1.99	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
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
18:RT:101:PHE:CD2	18:RT:101:PHE:C	2.90	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:1030(B):G:HO2'	35:XA:1030(C):C:H6	1.64	0.45
35:XA:1146:A:H3'	35:XA:1147:C:H5"	1.98	0.45
36:XB:218:ALA:O	36:XB:222:ILE:HG23	2.17	0.45
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
46:XL:42:THR:HA	46:XL:53:ARG:O	2.17	0.45
51:XQ:83:ASP:N	51:XQ:83:ASP:OD1	2.50	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:889:C:O2'	4:RA:890:A:O5'	2.24	0.44
4:RA:2328:A:H2'	4:RA:2329:G:H8	1.82	0.44
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
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:185:PHE:C	38:QD:185:PHE:CD1	2.91	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:RQ:58:PHE:O	15:RQ:60:ARG:N	2.50	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
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
6:YD:69:ARG:C	6:YD:71:ASP:N	2.70	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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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: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
35:QA:1227:A:OP2	47:QM:111:LYS:NZ	2.47	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
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:663:A:H5"	52:XR:61:LYS:HZ2	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
29:R4:59:PHE:C	29:R4:61:ARG:H	2.20	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
1:QV:58:A:H2	1:QV:60:U:HO2'	1.62	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
14:YP:90:ARG:HH12	14:YP:105:LEU:HD21	1.83	0.44
18:YT:101:PHE:HD2	18:YT:101:PHE:C	2.20	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
25:Y0:77:ARG:C	25:Y0:78:TYR:HD1	2.21	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
43:QI:17:VAL:HG11	43:QI:80:GLY:C	2.38	0.44
4:RA:150:C:H2'	4:RA:151:C:C6	2.51	0.44
4:RA:249:C:O2	33:R8:12:LYS:NZ	2.40	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:299:A:N1	4:RA:322:A:O2'	2.37	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:84:C:OP1	28:R3:15:TYR:OH	2.23	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
5:YB:14:U:OP2	5:YB:70:C:O2'	2.26	0.43
7:YE:42:ASP:HB3	7:YE:44:TYR:HE1	1.83	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
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: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
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
6:YD:84:TYR:HD1	6:YD:84:TYR:C	2.22	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:YH:8:PRO:HB2	10:YH:49:VAL:CG2	2.48	0.43
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
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:742:G:H5'	49:QO:58:MET:HE3	2.01	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:16:HIS:C	36:QB:17:PHE:CD1	2.85	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
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
22:RX:2:LYS:NZ	22:RX:38:GLU:OE2	2.36	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
40:XF:59:TYR:CD1	40:XF:59:TYR:C	2.92	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
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:1827:C:O2'	4:RA:1970:A:N3	2.45	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
14:RP:79:ARG:C	14:RP:80:TYR:HD1	2.22	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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: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
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
23:YY:5:MET:HE1	23:YY:35:TYR:HA	2.00	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:2:GLU:C	24:RZ:3:TYR:HD1	2.21	0.43
24:RZ:9:TYR:OH	24:RZ:61:LEU:HD23	2.19	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
4:YA:2059:A:C8	4:YA:2503:2MA:HM23	2.54	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:QA:1244:C:H2'	35:QA:1245:A:H8	1.83	0.43
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
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)
40:QF:59:TYR:CD1	40:QF:59:TYR:C	2.93	0.43
49:QO:82:ILE:O	49:QO:86:GLY:N	2.52	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: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: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:396:G:O2'	35:QA:398:C:OP1	2.24	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:265:A:N1	4:RA:427:U:O2'	2.39	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
19:RU:47:TYR:C	19:RU:47:TYR:HD1	2.22	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
36:XB:77:ALA:O	36:XB:78:GLN:C	2.57	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
48:QN:45:ARG:O	48:QN:49:HIS:HD2	2.02	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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
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: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
16:RR:47:PHE:CD1	16:RR:47:PHE:C	2.92	0.42
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:192:U:O2'	54:XT:60:GLU:OE2	2.19	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
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: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:1667:G:O2'	4:RA:1991:U:O4	2.24	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
19:RU:104:GLN:H	19:RU:104:GLN:CD	2.16	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:XA:456:C:H2'	35:XA:457:C:C6	2.55	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
47:XM:96:LEU:C	47:XM:110:ARG:HD3	2.40	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: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:2115:G:N2	4:YA:2171:A:H61	2.16	0.42
8:YF:56:GLU:OE2	8:YF:93:LYS:NZ	2.50	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
23:YY:56:PRO:C	23:YY:58:GLY:H	2.23	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
54:XT:56:MET:HE3	54:XT:85:MET:HA	2.02	0.42
35:QA:58:C:O2'	35:QA:388:G:N7	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
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:151:MET:HE3	3:QY:353:LEU:HD21	2.02	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:YU:47:TYR:C	19:YU:47:TYR:CD1	2.92	0.42
29:Y4:47:GLN:C	29:Y4:49:PHE:H	2.22	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
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: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:9:U:HO2'	4:YA:10:G:P	2.43	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:YS:14:VAL:O	17:YS:18:ILE:HG12	2.20	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: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
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
25:R0:77:ARG:C	25:R0:78:TYR:HD1	2.23	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:301:G:H1'	4:YA:302:C:C6	2.55	0.41
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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: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: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
39:QE:142:LEU:C	39:QE:143:ARG:HG3	2.40	0.41
40:QF:3:ARG:C	40:QF:4:TYR:HD1	2.23	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
7:RE:178:GLU:H	7:RE:178:GLU:CD	2.23	0.41
20:RV:62:LEU:CD1	20:RV:95:LEU:HB2	2.50	0.41
23:RY:5:MET:HE1	23:RY:35:TYR:HA	2.02	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
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
40:XF:59:TYR:C	40:XF:59:TYR:HD1	2.23	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
47:QM:64:TRP:C	29:R4:50:VAL:HG21	2.39	0.41
51:QQ:83:ASP:N	51:QQ:83:ASP:OD1	2.54	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
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
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
17:YS:7:TYR:HD1	17:YS:7:TYR:C	2.24	0.41
18:YT:101:PHE:CD2	18:YT:101:PHE:C	2.93	0.41
35:XA:687:A:C2	35:XA:704:A:C6	3.08	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
40:QF:59:TYR:C	40:QF:59:TYR:HD1	2.23	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
50:QP:8:ARG:C	50:QP:9:PHE:HD1	2.24	0.41
4:RA:376:C:H2'	4:RA:377:C:H6	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
9:YG:14:GLU:C	9:YG:17:PRO:HD2	2.41	0.41
13:YO:111:PHE:N	13:YO:111:PHE:HD1	2.19	0.41
17:YS:7:TYR:C	17:YS:7:TYR:CD1	2.94	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
38:QD:138:TYR:CD1	38:QD:138:TYR:C	2.94	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
50:QP:71:ARG:HG3	50:QP:80:PHE:HE2	1.85	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: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: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: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
20:YV:81:TYR:C	20:YV:82:ARG:HG3	2.41	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
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
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:1279:A:O2'	35:QA:1281:U:OP2	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
11:RI:72:LEU:C	11:RI:74:ASN:H	2.23	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
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:48:GLU:HB3	43:XI:101:PHE:HE2	1.85	0.41
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
35:QA:35:G:O2'	46:QL:118:SER:O	2.28	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:1053:C:O2'	4:RA:1054:A:O5'	2.36	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:1385:G:O2'	4:RA:1396:U:O2	2.37	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
8:RF:29:ASN:H	8:RF:112:MET:HE3	1.85	0.41
8:RF:40:GLN:HE22	8:RF:182:ASN:HB2	1.86	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
19:RU:47:TYR:HA	19:RU:50:ARG:HG2	2.03	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:XY:258:GLU:OE1	4:YA:2492:U:H4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YA:746:A:HO2'	4:YA:2611:U:HO2'	1.68	0.41
4:YA:2162:G:H2'	4:YA:2163:C:C5	2.55	0.41
4:YA:2718:G:O2'	4:YA:2847:U:OP1	2.36	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
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: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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:9:U:HO2'	4:RA:10:G:P	2.42	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: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
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: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
42:XH:64:LYS:C	42:XH:65:TYR:CD1	2.94	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:QA:1177:G:OP2	43:QI:97:LYS:NZ	2.29	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
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:N	55:QU:18:TYR:CD1	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
4:RA:2728:U:H5'	13:RO:70:LYS:HZ3	1.85	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
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:58:LYS:NZ	4:YA:1067:A:H5"	2.36	0.40
4:YA:370:G:H4'	4:YA:371:A:OP2	2.21	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:N	14:YP:80:TYR:HD1	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:352:C:O2'	35:QA:354:G:OP1	2.27	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
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:1057:A:HO2'	4:RA:1058:G:P	2.44	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
15:RQ:31:ASP:C	15:RQ:32:TYR:CD1	2.91	0.40
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: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:1073:A:HO2'	4:YA:1074:G:C5'	2.34	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
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:739:C:O2'	49:XO:42:HIS:ND1	2.45	0.40
35:XA:1058:G:N2	44:XJ:53:PRO:HG3	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
54:XT:47:GLY:HA2	54:XT:48:LYS:C	2.42	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
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
10:RH:163:TYR:CD1	10:RH:163:TYR:N	2.89	0.40
16:RR:47:PHE:HD1	16:RR:47:PHE:C	2.25	0.40
16:RR:87:TYR:OH	16:RR:117:VAL:O	2.28	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%)	6	28
3	XY	355/380 (93%)	310 (87%)	33 (9%)	12 (3%)	3	21
6	RD	273/276 (99%)	258 (94%)	15 (6%)	0	100	100
6	YD	273/276 (99%)	257 (94%)	15 (6%)	1 (0%)	34	69
7	RE	202/206 (98%)	194 (96%)	7 (4%)	1 (0%)	29	64
7	YE	202/206 (98%)	192 (95%)	8 (4%)	2 (1%)	15	49
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%)	9	36
9	YG	179/182 (98%)	167 (93%)	11 (6%)	1 (1%)	25	59
10	RH	172/180 (96%)	163 (95%)	9 (5%)	0	100	100
10	YH	171/180 (95%)	159 (93%)	12 (7%)	0	100	100
11	RI	145/148 (98%)	130 (90%)	13 (9%)	2 (1%)	11	40
11	YI	144/148 (97%)	136 (94%)	6 (4%)	2 (1%)	11	40
12	RN	138/140 (99%)	131 (95%)	7 (5%)	0	100	100
12	YN	138/140 (99%)	132 (96%)	5 (4%)	1 (1%)	22	57
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%)	11	40
15	RQ	139/141 (99%)	134 (96%)	5 (4%)	0	100	100
15	YQ	139/141 (99%)	131 (94%)	7 (5%)	1 (1%)	22	57
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%)	9	37
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%)	15	49
20	YV	99/101 (98%)	96 (97%)	2 (2%)	1 (1%)	15	49

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
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%)	14	46
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%)	14	46
26	Y1	95/98 (97%)	91 (96%)	3 (3%)	1 (1%)	14	46
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	6
29	Y4	67/71 (94%)	57 (85%)	7 (10%)	3 (4%)	2	15
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%)	2	12
36	XB	229/256 (90%)	198 (86%)	24 (10%)	7 (3%)	4	23
37	QC	204/239 (85%)	195 (96%)	9 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
37	XC	204/239 (85%)	193 (95%)	9 (4%)	2 (1%)	15	49
38	QD	206/209 (99%)	190 (92%)	15 (7%)	1 (0%)	29	64
38	XD	206/209 (99%)	197 (96%)	8 (4%)	1 (0%)	29	64
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%)	7	31
40	XF	98/101 (97%)	93 (95%)	3 (3%)	2 (2%)	7	31
41	QG	153/156 (98%)	149 (97%)	4 (3%)	0	100	100
41	XG	153/156 (98%)	147 (96%)	4 (3%)	2 (1%)	12	42
42	QH	135/138 (98%)	129 (96%)	5 (4%)	1 (1%)	22	57
42	XH	135/138 (98%)	131 (97%)	4 (3%)	0	100	100
43	QI	125/128 (98%)	117 (94%)	7 (6%)	1 (1%)	19	54
43	XI	124/128 (97%)	113 (91%)	9 (7%)	2 (2%)	9	37
44	QJ	95/105 (90%)	84 (88%)	8 (8%)	3 (3%)	4	22
44	XJ	94/105 (90%)	82 (87%)	9 (10%)	3 (3%)	4	22
45	QK	112/129 (87%)	108 (96%)	3 (3%)	1 (1%)	17	52
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%)	17	52
47	XM	112/126 (89%)	104 (93%)	7 (6%)	1 (1%)	17	52
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%)	7	30
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

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
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%)	4	22
54	XT	96/106 (91%)	91 (95%)	2 (2%)	3 (3%)	4	23
55	QU	21/27 (78%)	18 (86%)	2 (10%)	1 (5%)	2	14
55	XU	21/27 (78%)	19 (90%)	1 (5%)	1 (5%)	2	14
All	All	12150/12888 (94%)	11432 (94%)	615 (5%)	103 (1%)	19	54

All (103) Ramachandran outliers are listed below:

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

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Mol	Chain	Res	Type
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
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

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Mol	Chain	Res	Type
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
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%)	290 (95%)	14 (5%)	27	59
3	XY	304/324 (94%)	292 (96%)	12 (4%)	32	65
6	RD	214/218 (98%)	206 (96%)	8 (4%)	34	66
6	YD	215/218 (99%)	208 (97%)	7 (3%)	38	69
7	RE	164/166 (99%)	158 (96%)	6 (4%)	34	66
7	YE	164/166 (99%)	156 (95%)	8 (5%)	25	57
8	RF	160/166 (96%)	149 (93%)	11 (7%)	15	45
8	YF	159/166 (96%)	152 (96%)	7 (4%)	28	61
9	RG	144/156 (92%)	139 (96%)	5 (4%)	36	68
9	YG	142/156 (91%)	137 (96%)	5 (4%)	36	68
10	RH	144/148 (97%)	140 (97%)	4 (3%)	43	73
10	YH	143/148 (97%)	136 (95%)	7 (5%)	25	57
11	RI	111/124 (90%)	105 (95%)	6 (5%)	22	53
11	YI	108/124 (87%)	105 (97%)	3 (3%)	43	73
12	RN	119/119 (100%)	114 (96%)	5 (4%)	30	62
12	YN	118/119 (99%)	111 (94%)	7 (6%)	19	50
13	RO	100/100 (100%)	96 (96%)	4 (4%)	31	65
13	YO	100/100 (100%)	96 (96%)	4 (4%)	31	65
14	RP	115/116 (99%)	111 (96%)	4 (4%)	36	68
14	YP	115/116 (99%)	109 (95%)	6 (5%)	23	55
15	RQ	111/111 (100%)	107 (96%)	4 (4%)	35	67
15	YQ	111/111 (100%)	106 (96%)	5 (4%)	27	60
16	RR	101/101 (100%)	100 (99%)	1 (1%)	76	90
16	YR	101/101 (100%)	99 (98%)	2 (2%)	55	80
17	RS	87/88 (99%)	83 (95%)	4 (5%)	27	59
17	YS	85/88 (97%)	77 (91%)	8 (9%)	8	32
18	RT	115/127 (91%)	106 (92%)	9 (8%)	12	40
18	YT	113/127 (89%)	105 (93%)	8 (7%)	14	44
19	RU	93/94 (99%)	84 (90%)	9 (10%)	8	30
19	YU	93/94 (99%)	85 (91%)	8 (9%)	10	37
20	RV	81/82 (99%)	76 (94%)	5 (6%)	18	49
20	YV	80/82 (98%)	75 (94%)	5 (6%)	18	48

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
21	RW	90/92 (98%)	85 (94%)	5 (6%)	21	52
21	YW	90/92 (98%)	84 (93%)	6 (7%)	16	46
22	RX	77/78 (99%)	75 (97%)	2 (3%)	46	74
22	YX	77/78 (99%)	77 (100%)	0	100	100
23	RY	86/91 (94%)	80 (93%)	6 (7%)	15	45
23	YY	86/91 (94%)	82 (95%)	4 (5%)	26	59
24	RZ	169/179 (94%)	160 (95%)	9 (5%)	22	54
24	YZ	165/179 (92%)	159 (96%)	6 (4%)	35	67
25	R0	61/67 (91%)	57 (93%)	4 (7%)	16	47
25	Y0	61/67 (91%)	57 (93%)	4 (7%)	16	47
26	R1	79/83 (95%)	76 (96%)	3 (4%)	33	66
26	Y1	81/83 (98%)	77 (95%)	4 (5%)	25	57
27	R2	65/67 (97%)	65 (100%)	0	100	100
27	Y2	66/67 (98%)	63 (96%)	3 (4%)	27	60
28	R3	51/52 (98%)	51 (100%)	0	100	100
28	Y3	50/52 (96%)	48 (96%)	2 (4%)	31	65
29	R4	58/63 (92%)	54 (93%)	4 (7%)	15	45
29	Y4	54/63 (86%)	47 (87%)	7 (13%)	4	18
30	R5	51/52 (98%)	51 (100%)	0	100	100
30	Y5	50/52 (96%)	46 (92%)	4 (8%)	12	40
31	R6	51/52 (98%)	50 (98%)	1 (2%)	55	80
31	Y6	50/52 (96%)	49 (98%)	1 (2%)	55	80
32	R7	41/42 (98%)	40 (98%)	1 (2%)	49	76
32	Y7	41/42 (98%)	39 (95%)	2 (5%)	25	57
33	R8	54/55 (98%)	52 (96%)	2 (4%)	34	66
33	Y8	54/55 (98%)	53 (98%)	1 (2%)	57	81
34	R9	34/34 (100%)	32 (94%)	2 (6%)	19	50
34	Y9	34/34 (100%)	33 (97%)	1 (3%)	42	72
36	QB	191/220 (87%)	181 (95%)	10 (5%)	23	55
36	XB	187/220 (85%)	171 (91%)	16 (9%)	10	37
37	QC	144/188 (77%)	141 (98%)	3 (2%)	53	79

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
37	XC	140/188 (74%)	134 (96%)	6 (4%)	29	62
38	QD	171/181 (94%)	163 (95%)	8 (5%)	26	59
38	XD	172/181 (95%)	163 (95%)	9 (5%)	23	55
39	QE	114/123 (93%)	111 (97%)	3 (3%)	46	74
39	XE	114/123 (93%)	110 (96%)	4 (4%)	36	68
40	QF	85/90 (94%)	78 (92%)	7 (8%)	11	38
40	XF	85/90 (94%)	79 (93%)	6 (7%)	14	44
41	QG	120/127 (94%)	117 (98%)	3 (2%)	47	75
41	XG	119/127 (94%)	115 (97%)	4 (3%)	37	69
42	QH	116/119 (98%)	112 (97%)	4 (3%)	37	69
42	XH	114/119 (96%)	112 (98%)	2 (2%)	59	82
43	QI	91/99 (92%)	83 (91%)	8 (9%)	10	36
43	XI	88/99 (89%)	83 (94%)	5 (6%)	20	52
44	QJ	68/92 (74%)	66 (97%)	2 (3%)	42	72
44	XJ	68/92 (74%)	68 (100%)	0	100	100
45	QK	83/99 (84%)	81 (98%)	2 (2%)	49	76
45	XK	83/99 (84%)	82 (99%)	1 (1%)	71	88
46	QL	96/108 (89%)	93 (97%)	3 (3%)	40	70
46	XL	96/108 (89%)	89 (93%)	7 (7%)	14	43
47	QM	90/101 (89%)	89 (99%)	1 (1%)	73	89
47	XM	87/101 (86%)	86 (99%)	1 (1%)	73	89
48	QN	49/50 (98%)	43 (88%)	6 (12%)	5	19
48	XN	49/50 (98%)	49 (100%)	0	100	100
49	QO	78/80 (98%)	76 (97%)	2 (3%)	46	74
49	XO	78/80 (98%)	75 (96%)	3 (4%)	33	66
50	QP	69/74 (93%)	66 (96%)	3 (4%)	29	62
50	XP	68/74 (92%)	62 (91%)	6 (9%)	10	36
51	QQ	94/97 (97%)	93 (99%)	1 (1%)	73	89
51	XQ	94/97 (97%)	90 (96%)	4 (4%)	29	62
52	QR	59/77 (77%)	54 (92%)	5 (8%)	10	37
52	XR	59/77 (77%)	56 (95%)	3 (5%)	24	56

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
53	QS	68/80 (85%)	65 (96%)	3 (4%)	28	61
53	XS	67/80 (84%)	65 (97%)	2 (3%)	41	71
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%)	21	52
55	XU	18/22 (82%)	18 (100%)	0	100	100
All	All	9971/10712 (93%)	9532 (96%)	439 (4%)	28	61

All (439) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	QY	17	ARG
3	QY	20	VAL
3	QY	26	ASP
3	QY	96	PHE
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	322	GLN
3	QY	326	TYR
3	XY	8	ASN
3	XY	83	LEU
3	XY	96	PHE
3	XY	179	VAL
3	XY	201	LEU
3	XY	217	PHE
3	XY	223	TYR
3	XY	244	TYR
3	XY	273	GLN
3	XY	326	TYR
3	XY	332	ARG
3	XY	338	THR
6	YD	61	LEU
6	YD	84	TYR
6	YD	97	TYR

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Mol	Chain	Res	Type
6	YD	172	TYR
6	YD	242	ARG
6	YD	260	ARG
6	YD	276	LYS
7	YE	21	VAL
7	YE	44	TYR
7	YE	52	LEU
7	YE	73	GLU
7	YE	75	VAL
7	YE	111	ARG
7	YE	119	ARG
7	YE	178	GLU
8	YF	7	TYR
8	YF	88	VAL
8	YF	97	TYR
8	YF	99	TYR
8	YF	140	LEU
8	YF	162	LEU
8	YF	197	ASP
9	YG	5	VAL
9	YG	12	TYR
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	163	TYR
10	YH	171	LEU
11	YI	47	LEU
11	YI	68	LEU
11	YI	114	LEU
12	YN	15	LEU
12	YN	51	PHE
12	YN	68	GLU
12	YN	78	TYR
12	YN	96	GLU
12	YN	120	LEU
12	YN	131	GLN
13	YO	8	LEU

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Mol	Chain	Res	Type
13	YO	10	VAL
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	130	PHE
14	YP	148	LEU
15	YQ	32	TYR
15	YQ	65	PHE
15	YQ	93	TYR
15	YQ	104	PHE
15	YQ	141	GLN
16	YR	13	HIS
16	YR	44	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	14	TYR
18	YT	22	PHE
18	YT	45	PHE
18	YT	53	ARG
18	YT	61	PHE
18	YT	78	LEU
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	101	ARG
19	YU	104	GLN
19	YU	111	GLU
19	YU	112	ARG
20	YV	12	TYR
20	YV	51	VAL

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Mol	Chain	Res	Type
20	YV	61	VAL
20	YV	79	VAL
20	YV	95	LEU
21	YW	11	ARG
21	YW	17	VAL
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
26	Y1	95	LEU
27	Y2	7	ARG
27	Y2	12	GLU
27	Y2	66	GLU
28	Y3	23	LEU
28	Y3	54	VAL
29	Y4	25	TYR
29	Y4	34	GLU
29	Y4	43	TYR
29	Y4	48	ARG
29	Y4	59	PHE
29	Y4	63	TYR
29	Y4	67	TYR
30	Y5	19	ARG
30	Y5	35	GLU
30	Y5	48	GLU

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Mol	Chain	Res	Type
30	Y5	58	LEU
31	Y6	44	ARG
32	Y7	34	ARG
32	Y7	35	ARG
33	Y8	48	PHE
34	Y9	24	TYR
36	XB	17	PHE
36	XB	28	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	130	ARG
36	XB	155	LEU
36	XB	170	GLU
36	XB	181	PHE
36	XB	217	ARG
36	XB	221	LEU
36	XB	224	GLN
37	XC	29	TYR
37	XC	32	LEU
37	XC	54	ARG
37	XC	105	GLU
37	XC	131	ARG
37	XC	178	LEU
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	138	TYR
38	XD	185	PHE
38	XD	200	GLU
39	XE	28	PHE
39	XE	41	VAL
39	XE	71	LEU
39	XE	137	GLU
40	XF	10	LEU

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Mol	Chain	Res	Type
40	XF	59	TYR
40	XF	60	PHE
40	XF	63	TYR
40	XF	75	LEU
40	XF	97	PHE
41	XG	10	ARG
41	XG	16	LEU
41	XG	18	TYR
41	XG	52	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
45	XK	96	ARG
46	XL	32	PHE
46	XL	52	LEU
46	XL	60	LEU
46	XL	64	TYR
46	XL	84	LEU
46	XL	86	ARG
46	XL	114	LYS
47	XM	69	GLU
49	XO	6	GLU
49	XO	54	ARG
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	26	GLN
51	XQ	27	PHE
51	XQ	42	TYR
51	XQ	71	PHE
52	XR	31	LEU
52	XR	34	TYR
52	XR	85	LEU
53	XS	10	PHE

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Mol	Chain	Res	Type
53	XS	78	ARG
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
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	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	73	ASN
40	QF	75	LEU
41	QG	16	LEU
41	QG	18	TYR
41	QG	90	GLU
42	QH	14	ARG
42	QH	18	ARG
42	QH	48	TYR
42	QH	91	ARG
43	QI	3	GLN
43	QI	33	PHE
43	QI	42	ARG

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Mol	Chain	Res	Type
43	QI	56	LEU
43	QI	59	PHE
43	QI	64	THR
43	QI	88	TYR
43	QI	93	ARG
44	QJ	38	ILE
44	QJ	84	GLN
45	QK	54	ARG
45	QK	75	TYR
46	QL	60	LEU
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	6	GLU
49	QO	15	PHE
50	QP	9	PHE
50	QP	20	VAL
50	QP	38	TYR
51	QQ	42	TYR
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	260	ARG
6	RD	269	PHE

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Mol	Chain	Res	Type
7	RE	9	VAL
7	RE	33	VAL
7	RE	40	GLU
7	RE	44	TYR
7	RE	73	GLU
7	RE	75	VAL
8	RF	7	TYR
8	RF	20	LEU
8	RF	24	LEU
8	RF	38	ARG
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	197	ASP
9	RG	12	TYR
9	RG	45	GLU
9	RG	53	LEU
9	RG	82	LEU
9	RG	180	PHE
10	RH	69	ARG
10	RH	101	ARG
10	RH	105	LEU
10	RH	163	TYR
11	RI	47	LEU
11	RI	68	LEU
11	RI	75	LEU
11	RI	85	GLU
11	RI	89	TYR
11	RI	116	LEU
12	RN	15	LEU
12	RN	51	PHE
12	RN	78	TYR
12	RN	120	LEU
12	RN	131	GLN
13	RO	8	LEU
13	RO	10	VAL
13	RO	68	GLU
13	RO	79	PHE
14	RP	55	ARG

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Mol	Chain	Res	Type
14	RP	80	TYR
14	RP	119	GLU
14	RP	130	PHE
15	RQ	32	TYR
15	RQ	65	PHE
15	RQ	69	PHE
15	RQ	93	TYR
16	RR	47	PHE
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	96	ARG
18	RT	101	PHE
19	RU	36	ARG
19	RU	47	TYR
19	RU	60	LEU
19	RU	74	LEU
19	RU	76	TYR
19	RU	92	ARG
19	RU	95	LEU
19	RU	104	GLN
19	RU	111	GLU
20	RV	12	TYR
20	RV	43	GLU
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

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Mol	Chain	Res	Type
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	103	ARG
24	RZ	136	PHE
24	RZ	145	GLU
24	RZ	150	LEU
24	RZ	161	VAL
24	RZ	185	GLU
25	R0	14	ARG
25	R0	55	ARG
25	R0	60	PHE
25	R0	78	TYR
26	R1	60	PHE
26	R1	71	TYR
26	R1	95	LEU
29	R4	25	TYR
29	R4	43	TYR
29	R4	49	PHE
29	R4	67	TYR
31	R6	50	ARG
32	R7	47	ARG
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 (31) such sidechains are listed below:

Mol	Chain	Res	Type
3	XY	214	HIS
3	XY	280	GLN
3	XY	281	HIS
11	YI	54	GLN
15	YQ	57	HIS
24	YZ	121	HIS

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Mol	Chain	Res	Type
26	Y1	56	GLN
27	Y2	9	GLN
36	XB	40	HIS
36	XB	78	GLN
36	XB	113	HIS
40	XF	73	ASN
42	XH	78	GLN
42	XH	82	HIS
43	XI	124	GLN
45	XK	116	HIS
36	QB	76	GLN
36	QB	78	GLN
36	QB	113	HIS
37	QC	69	HIS
40	QF	73	ASN
42	QH	82	HIS
43	QI	124	GLN
45	QK	116	HIS
6	RD	96	HIS
7	RE	48	GLN
8	RF	75	HIS
14	RP	27	HIS
21	RW	60	ASN
26	R1	56	GLN
27	R2	9	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	1494/1521 (98%)	229 (15%)	14 (0%)
35	XA	1498/1521 (98%)	226 (15%)	18 (1%)
4	RA	2855/2915 (97%)	452 (15%)	28 (0%)
4	YA	2855/2915 (97%)	457 (16%)	26 (0%)
5	RB	119/122 (97%)	9 (7%)	0
5	YB	119/122 (97%)	14 (11%)	0
All	All	9110/9320 (97%)	1427 (15%)	88 (0%)

All (1427) 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
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

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Mol	Chain	Res	Type
4	YA	12	U
4	YA	15	G
4	YA	34	C
4	YA	45	C
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

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Mol	Chain	Res	Type
4	YA	330	A
4	YA	352	G
4	YA	362	U
4	YA	363(A)	G
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

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Mol	Chain	Res	Type
4	YA	668	G
4	YA	669	G
4	YA	686	G
4	YA	717	G
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

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Mol	Chain	Res	Type
4	YA	961	C
4	YA	974	G
4	YA	975(A)	C
4	YA	983	A
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

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Mol	Chain	Res	Type
4	YA	1090	U
4	YA	1091	G
4	YA	1092	C
4	YA	1093	G
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

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Mol	Chain	Res	Type
4	YA	1416	G
4	YA	1417	C
4	YA	1421	G
4	YA	1428	C
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

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Mol	Chain	Res	Type
4	YA	1756	G
4	YA	1762	A
4	YA	1763	G
4	YA	1764	G
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

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Mol	Chain	Res	Type
4	YA	2033	A
4	YA	2043	C
4	YA	2055	C
4	YA	2056	G
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

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Mol	Chain	Res	Type
4	YA	2148	G
4	YA	2151	G
4	YA	2154	G
4	YA	2157	G
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

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Mol	Chain	Res	Type
4	YA	2321	G
4	YA	2322	A
4	YA	2325	G
4	YA	2334	G
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	2504	U
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

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Mol	Chain	Res	Type
4	YA	2611	U
4	YA	2612	C
4	YA	2615	U
4	YA	2629	A
4	YA	2630	G
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

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Mol	Chain	Res	Type
5	YB	73	A
5	YB	84	C
5	YB	106	G
5	YB	108	U
5	YB	109	C
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

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Mol	Chain	Res	Type
35	XA	328	C
35	XA	332	G
35	XA	351	G
35	XA	352	C
35	XA	353	A
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

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Mol	Chain	Res	Type
35	XA	576	G
35	XA	577	G
35	XA	596	C
35	XA	630	G
35	XA	631	G
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

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Mol	Chain	Res	Type
35	XA	968	A
35	XA	969	A
35	XA	971	G
35	XA	974	A
35	XA	975	A
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

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Mol	Chain	Res	Type
35	XA	1130	A
35	XA	1132	C
35	XA	1134	G
35	XA	1136	U
35	XA	1137	C
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

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Mol	Chain	Res	Type
35	XA	1346	A
35	XA	1347	G
35	XA	1353	G
35	XA	1363(A)	C
35	XA	1370	G
35	XA	1380	U
35	XA	1397	C
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

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Mol	Chain	Res	Type
35	QA	182	U
35	QA	189(G)	U
35	QA	195	A
35	QA	197	A
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

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Mol	Chain	Res	Type
35	QA	477	A
35	QA	484	G
35	QA	485	G
35	QA	496	A
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

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Mol	Chain	Res	Type
35	QA	817	C
35	QA	821	G
35	QA	828	A
35	QA	829	G
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

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Mol	Chain	Res	Type
35	QA	1030(C)	C
35	QA	1030(E)	A
35	QA	1032	G
35	QA	1033	G
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

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Mol	Chain	Res	Type
35	QA	1245	A
35	QA	1256	A
35	QA	1257	U
35	QA	1258	G
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	1520	G
35	QA	1529	G
35	QA	1530	G
35	QA	1531	A
4	RA	8	A

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Mol	Chain	Res	Type
4	RA	10	G
4	RA	11	G
4	RA	12	U
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

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Mol	Chain	Res	Type
4	RA	352	G
4	RA	362	U
4	RA	363(A)	G
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

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Mol	Chain	Res	Type
4	RA	668	G
4	RA	669	G
4	RA	686	G
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	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

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Mol	Chain	Res	Type
4	RA	974	G
4	RA	975(A)	C
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

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Mol	Chain	Res	Type
4	RA	1090	U
4	RA	1091	G
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

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Mol	Chain	Res	Type
4	RA	1428	C
4	RA	1445(A)	A
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

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Mol	Chain	Res	Type
4	RA	1762	A
4	RA	1763	G
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

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Mol	Chain	Res	Type
4	RA	2056	G
4	RA	2060	A
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

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Mol	Chain	Res	Type
4	RA	2154	G
4	RA	2157	G
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

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Mol	Chain	Res	Type
4	RA	2334	G
4	RA	2335	A
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	2504	U
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

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Mol	Chain	Res	Type
4	RA	2612	C
4	RA	2615	U
4	RA	2629	A
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
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	PSU	YA	1917	4	18,21,22	1.35	2 (11%)	22,30,33	1.87	3 (13%)
35	M2G	XA	966	35	20,27,28	1.37	3 (15%)	22,40,43	1.07	3 (13%)
35	5MC	QA	1400	35	18,22,23	0.96	2 (11%)	26,32,35	1.14	2 (7%)
4	4OC	YA	1920	4	19,22,24	0.81	0	26,31,35	0.89	1 (3%)
4	5MU	RA	1915	4,56	19,22,23	1.43	5 (26%)	28,32,35	2.16	8 (28%)
4	OMG	YA	2251	4,56,1	18,26,27	0.97	1 (5%)	19,38,41	1.04	2 (10%)
4	5MC	YA	1942	4	18,22,23	0.95	2 (11%)	26,32,35	1.10	2 (7%)
35	5MC	XA	1407	35	18,22,23	0.95	2 (11%)	26,32,35	1.14	3 (11%)
4	5MU	YA	1915	4	19,22,23	1.48	5 (26%)	28,32,35	2.09	8 (28%)
35	PSU	QA	516	56,35	18,21,22	1.34	2 (11%)	22,30,33	1.86	4 (18%)
4	PSU	YA	2605	4	18,21,22	1.34	2 (11%)	22,30,33	1.85	3 (13%)
4	2MU	YA	2552	4,56	19,22,24	1.24	2 (10%)	26,31,36	1.81	6 (23%)
35	MA6	XA	1518	35	19,26,27	0.98	1 (5%)	18,38,41	1.71	5 (27%)
4	5MC	RA	1942	4,56	18,22,23	0.96	2 (11%)	26,32,35	1.09	2 (7%)
4	PSU	YA	1911	4	18,21,22	1.36	2 (11%)	22,30,33	1.87	4 (18%)
4	5MU	RA	1939	4	19,22,23	1.39	4 (21%)	28,32,35	2.11	6 (21%)
35	4OC	XA	1402	35	20,23,24	0.75	0	26,32,35	0.97	1 (3%)
4	5MC	RA	1962	4,56	18,22,23	0.94	2 (11%)	26,32,35	1.12	2 (7%)
4	PSU	RA	1917	4	18,21,22	1.37	2 (11%)	22,30,33	1.82	3 (13%)
35	5MC	XA	967	35	18,22,23	0.96	2 (11%)	26,32,35	1.12	2 (7%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\#\|Z\| > 2$	Counts	RMSZ	$\#\|Z\| > 2$
35	5MC	QA	967	35	18,22,23	0.95	2 (11%)	26,32,35	1.10	2 (7%)
4	PSU	RA	2605	4	18,21,22	1.33	2 (11%)	22,30,33	1.88	4 (18%)
4	2MA	YA	2503	4,56	17,25,26	1.00	1 (5%)	17,37,40	0.96	2 (11%)
4	OMG	RA	2251	4,56,1	18,26,27	0.92	1 (5%)	19,38,41	1.11	2 (10%)
35	5MC	QA	1404	35	18,22,23	0.94	1 (5%)	26,32,35	1.07	2 (7%)
35	MA6	QA	1519	35	19,26,27	0.99	1 (5%)	18,38,41	1.64	5 (27%)
35	MA6	XA	1519	35	19,26,27	0.98	1 (5%)	18,38,41	1.79	5 (27%)
35	2MG	QA	1207	56,35	18,26,27	0.93	1 (5%)	16,38,41	1.37	3 (18%)
35	5MC	XA	1404	35	18,22,23	0.98	2 (11%)	26,32,35	1.12	2 (7%)
4	2MU	RA	2552	4,56	19,22,24	1.23	2 (10%)	26,31,36	1.79	5 (19%)
4	2MA	RA	2503	4,56	17,25,26	1.01	1 (5%)	17,37,40	0.98	2 (11%)
35	PSU	XA	516	35	18,21,22	1.33	2 (11%)	22,30,33	1.87	3 (13%)
35	5MC	XA	1400	35	18,22,23	0.95	2 (11%)	26,32,35	1.17	3 (11%)
35	5MC	QA	1407	35	18,22,23	0.97	2 (11%)	26,32,35	1.16	3 (11%)
35	2MG	XA	1207	35	18,26,27	0.89	1 (5%)	16,38,41	1.13	3 (18%)
4	PSU	RA	1911	4	18,21,22	1.33	2 (11%)	22,30,33	1.89	4 (18%)
35	7MG	QA	527	56,35	22,26,27	1.31	3 (13%)	29,39,42	2.54	7 (24%)
35	M2G	QA	966	35	20,27,28	1.42	3 (15%)	22,40,43	0.96	2 (9%)
4	4OC	RA	1920	4	19,22,24	0.82	0	26,31,35	0.97	1 (3%)
35	UR3	XA	1498	56,35	19,22,23	1.02	2 (10%)	26,32,35	1.44	1 (3%)
35	UR3	QA	1498	35	19,22,23	0.99	1 (5%)	26,32,35	1.45	1 (3%)
35	4OC	QA	1402	35	20,23,24	0.77	0	26,32,35	0.96	1 (3%)
46	0TD	XL	92	46	7,9,10	1.19	1 (14%)	6,11,13	2.12	3 (50%)
46	0TD	QL	92	46	7,9,10	1.07	0	6,11,13	2.34	3 (50%)
4	5MU	YA	1939	4,56	19,22,23	1.41	6 (31%)	28,32,35	2.19	6 (21%)
35	MA6	QA	1518	35	19,26,27	0.98	1 (5%)	18,38,41	1.69	5 (27%)
4	5MC	YA	1962	4,56	18,22,23	0.99	2 (11%)	26,32,35	1.14	2 (7%)
35	7MG	XA	527	35	22,26,27	1.36	4 (18%)	29,39,42	2.50	7 (24%)

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	PSU	YA	1917	4	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
35	M2G	XA	966	35	-	0/7/29/30	0/3/3/3
35	5MC	QA	1400	35	-	2/7/25/26	0/2/2/2
4	4OC	YA	1920	4	-	2/9/27/30	0/2/2/2
4	5MU	RA	1915	4,56	-	2/7/25/26	0/2/2/2
4	OMG	YA	2251	4,56,1	-	0/5/27/28	0/3/3/3
4	5MC	YA	1942	4	-	0/7/25/26	0/2/2/2
35	5MC	XA	1407	35	-	0/7/25/26	0/2/2/2
4	5MU	YA	1915	4	-	4/7/25/26	0/2/2/2
35	PSU	QA	516	56,35	-	0/7/25/26	0/2/2/2
4	PSU	YA	2605	4	-	0/7/25/26	0/2/2/2
4	2MU	YA	2552	4,56	-	0/9/27/28	0/2/2/2
35	MA6	XA	1518	35	-	1/7/29/30	0/3/3/3
4	5MC	RA	1942	4,56	-	0/7/25/26	0/2/2/2
4	PSU	YA	1911	4	-	0/7/25/26	0/2/2/2
4	5MU	RA	1939	4	-	0/7/25/26	0/2/2/2
35	4OC	XA	1402	35	-	3/9/29/30	0/2/2/2
4	5MC	RA	1962	4,56	-	0/7/25/26	0/2/2/2
4	PSU	RA	1917	4	-	0/7/25/26	0/2/2/2
35	5MC	XA	967	35	-	0/7/25/26	0/2/2/2
35	5MC	QA	967	35	-	0/7/25/26	0/2/2/2
4	PSU	RA	2605	4	-	0/7/25/26	0/2/2/2
4	2MA	YA	2503	4,56	-	2/3/25/26	0/3/3/3
4	OMG	RA	2251	4,56,1	-	0/5/27/28	0/3/3/3
35	5MC	QA	1404	35	-	0/7/25/26	0/2/2/2
35	MA6	QA	1519	35	-	3/7/29/30	0/3/3/3
35	MA6	XA	1519	35	-	5/7/29/30	0/3/3/3
35	2MG	QA	1207	56,35	-	0/5/27/28	0/3/3/3
35	5MC	XA	1404	35	-	0/7/25/26	0/2/2/2
4	2MU	RA	2552	4,56	-	0/9/27/28	0/2/2/2
4	2MA	RA	2503	4,56	-	1/3/25/26	0/3/3/3
35	PSU	XA	516	35	-	0/7/25/26	0/2/2/2
35	5MC	XA	1400	35	-	0/7/25/26	0/2/2/2
35	5MC	QA	1407	35	-	0/7/25/26	0/2/2/2
35	2MG	XA	1207	35	-	0/5/27/28	0/3/3/3
4	PSU	RA	1911	4	-	0/7/25/26	0/2/2/2
35	7MG	QA	527	56,35	-	3/7/37/38	0/3/3/3
35	M2G	QA	966	35	-	0/7/29/30	0/3/3/3
4	4OC	RA	1920	4	-	2/9/27/30	0/2/2/2
35	UR3	XA	1498	56,35	-	0/7/25/26	0/2/2/2
35	UR3	QA	1498	35	-	0/7/25/26	0/2/2/2

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
35	4OC	QA	1402	35	-	2/9/29/30	0/2/2/2
46	0TD	XL	92	46	-	3/7/12/14	-
46	0TD	QL	92	46	-	2/7/12/14	-
4	5MU	YA	1939	4,56	-	0/7/25/26	0/2/2/2
35	MA6	QA	1518	35	-	2/7/29/30	0/3/3/3
4	5MC	YA	1962	4,56	-	0/7/25/26	0/2/2/2
35	7MG	XA	527	35	-	2/7/37/38	0/3/3/3

All (90) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	QA	966	M2G	C2-N3	4.48	1.36	1.30
35	XA	966	M2G	C2-N3	4.27	1.35	1.30
35	QA	516	PSU	C6-C5	3.29	1.39	1.35
4	YA	1911	PSU	C6-C5	3.27	1.39	1.35
4	RA	1917	PSU	C6-C5	3.26	1.39	1.35
4	RA	2605	PSU	C6-C5	3.24	1.39	1.35
4	YA	1917	PSU	C6-C5	3.18	1.39	1.35
35	XA	516	PSU	C6-C5	3.17	1.39	1.35
4	RA	1911	PSU	C6-C5	3.15	1.39	1.35
4	YA	2605	PSU	C6-C5	3.07	1.38	1.35
35	XA	527	7MG	C4-N9	-3.06	1.34	1.37
35	XA	527	7MG	C5-C4	2.98	1.47	1.38
4	YA	1915	5MU	C2-N1	2.97	1.43	1.38
35	QA	527	7MG	C5-C4	2.94	1.47	1.38
4	RA	1942	5MC	C6-C5	2.90	1.39	1.34
4	YA	1962	5MC	C6-C5	2.89	1.39	1.34
4	YA	1942	5MC	C6-C5	2.88	1.39	1.34
35	XA	1404	5MC	C6-C5	2.87	1.39	1.34
4	RA	1939	5MU	C6-C5	2.85	1.39	1.34
4	YA	1915	5MU	C4-N3	-2.84	1.33	1.38
35	QA	1404	5MC	C6-C5	2.84	1.39	1.34
4	YA	1915	5MU	C6-C5	2.83	1.39	1.34
35	XA	967	5MC	C6-C5	2.81	1.39	1.34
4	YA	1939	5MU	C6-C5	2.81	1.39	1.34
4	RA	1915	5MU	C2-N1	2.81	1.43	1.38
35	XA	1407	5MC	C6-C5	2.78	1.39	1.34
35	QA	966	M2G	C2-N2	2.78	1.40	1.35
35	QA	527	7MG	C4-N9	-2.76	1.34	1.37
4	YA	1911	PSU	C4-N3	-2.75	1.33	1.38
35	QA	967	5MC	C6-C5	2.75	1.39	1.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	XA	966	M2G	C2-N2	2.75	1.40	1.35
35	QA	1400	5MC	C6-C5	2.73	1.39	1.34
4	YA	1917	PSU	C4-N3	-2.72	1.33	1.38
4	RA	1915	5MU	C6-C5	2.70	1.39	1.34
4	RA	2605	PSU	C4-N3	-2.68	1.33	1.38
4	RA	1915	5MU	C4-N3	-2.67	1.33	1.38
4	RA	1962	5MC	C6-C5	2.66	1.39	1.34
35	QA	1407	5MC	C6-C5	2.66	1.39	1.34
4	YA	1939	5MU	C4-N3	-2.64	1.33	1.38
35	XA	1400	5MC	C6-C5	2.63	1.38	1.34
4	RA	1917	PSU	C4-N3	-2.62	1.34	1.38
4	RA	1911	PSU	C4-N3	-2.62	1.34	1.38
4	YA	2605	PSU	C4-N3	-2.61	1.34	1.38
4	YA	2251	OMG	C6-N1	-2.58	1.34	1.37
35	QA	1518	MA6	C5-C4	2.58	1.47	1.40
35	XA	516	PSU	C4-N3	-2.57	1.34	1.38
4	RA	1939	5MU	C4-N3	-2.56	1.34	1.38
4	RA	2552	2MU	C4-N3	-2.56	1.34	1.38
35	XA	1519	MA6	C5-C4	2.55	1.47	1.40
4	YA	2552	2MU	C4-N3	-2.51	1.34	1.38
35	QA	1519	MA6	C5-C4	2.51	1.47	1.40
35	QA	516	PSU	C4-N3	-2.49	1.34	1.38
35	XA	1518	MA6	C5-C4	2.48	1.47	1.40
4	RA	2251	OMG	C6-N1	-2.43	1.34	1.37
35	XA	1207	2MG	C6-N1	-2.38	1.34	1.37
4	RA	1939	5MU	C4-C5	2.35	1.48	1.44
4	YA	2552	2MU	C5-C4	2.35	1.48	1.43
35	QA	527	7MG	C6-N1	-2.34	1.34	1.38
4	YA	2503	2MA	C2-N3	2.34	1.36	1.31
35	QA	1207	2MG	C6-N1	-2.33	1.34	1.37
35	XA	1400	5MC	C6-N1	-2.31	1.34	1.38
46	XL	92	0TD	CB-SB	2.30	1.84	1.82
4	YA	1939	5MU	C4-C5	2.29	1.48	1.44
35	QA	1400	5MC	C6-N1	-2.29	1.34	1.38
4	YA	1939	5MU	C6-N1	-2.29	1.34	1.38
35	XA	527	7MG	C6-N1	-2.28	1.34	1.38
35	QA	966	M2G	C6-N1	-2.28	1.34	1.37
4	RA	2503	2MA	C2-N3	2.28	1.36	1.31
4	YA	1962	5MC	C6-N1	-2.27	1.34	1.38
4	RA	1962	5MC	C6-N1	-2.27	1.34	1.38
4	RA	2552	2MU	C5-C4	2.25	1.48	1.43
4	YA	1915	5MU	C4-C5	2.25	1.48	1.44

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	RA	1939	5MU	C6-N1	-2.23	1.34	1.38
35	QA	967	5MC	C6-N1	-2.22	1.34	1.38
35	QA	1407	5MC	C6-N1	-2.21	1.34	1.38
35	XA	967	5MC	C6-N1	-2.21	1.34	1.38
4	RA	1915	5MU	C4-C5	2.19	1.48	1.44
35	XA	1404	5MC	C6-N1	-2.18	1.34	1.38
35	XA	527	7MG	C8-N9	2.14	1.47	1.46
4	YA	1942	5MC	C6-N1	-2.14	1.34	1.38
4	RA	1942	5MC	C6-N1	-2.12	1.34	1.38
4	YA	1939	5MU	C2-N3	-2.11	1.34	1.38
4	YA	1915	5MU	C2-N3	-2.10	1.34	1.38
35	XA	966	M2G	C6-N1	-2.09	1.34	1.37
35	XA	1498	UR3	C2-N1	2.08	1.41	1.38
4	RA	1915	5MU	C6-N1	-2.07	1.34	1.38
35	QA	1498	UR3	C2-N1	2.05	1.41	1.38
35	XA	1498	UR3	C6-C5	2.03	1.39	1.35
35	XA	1407	5MC	C6-N1	-2.03	1.34	1.38
4	YA	1939	5MU	C2-N1	2.02	1.41	1.38

All (159) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	QA	527	7MG	N9-C4-N3	8.98	138.90	125.47
35	XA	527	7MG	N9-C4-N3	8.73	138.53	125.47
4	YA	1911	PSU	N1-C2-N3	6.07	122.01	115.13
4	RA	1911	PSU	N1-C2-N3	5.97	121.89	115.13
4	RA	2605	PSU	N1-C2-N3	5.90	121.82	115.13
4	YA	1917	PSU	N1-C2-N3	5.89	121.80	115.13
35	XA	1498	UR3	C4-N3-C2	-5.88	119.02	124.56
35	QA	1498	UR3	C4-N3-C2	-5.85	119.05	124.56
35	XA	516	PSU	N1-C2-N3	5.84	121.75	115.13
4	YA	2605	PSU	N1-C2-N3	5.83	121.74	115.13
4	RA	1917	PSU	N1-C2-N3	5.82	121.72	115.13
35	QA	516	PSU	N1-C2-N3	5.72	121.61	115.13
4	YA	1939	5MU	C4-N3-C2	-5.49	120.25	127.35
35	QA	527	7MG	C5-C4-N3	-5.46	117.73	128.13
35	XA	527	7MG	C5-C4-N3	-5.30	118.02	128.13
4	RA	1939	5MU	C4-N3-C2	-5.28	120.52	127.35
35	XA	527	7MG	N9-C8-N7	-5.20	95.94	103.38
4	YA	2552	2MU	N3-C2-N1	5.16	121.74	114.89
4	RA	2552	2MU	N3-C2-N1	5.16	121.74	114.89
35	QA	527	7MG	N9-C8-N7	-5.12	96.05	103.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	RA	1939	5MU	N3-C2-N1	5.08	121.63	114.89
4	YA	1939	5MU	N3-C2-N1	5.01	121.54	114.89
4	RA	1915	5MU	N3-C2-N1	4.89	121.38	114.89
4	YA	1915	5MU	N3-C2-N1	4.87	121.36	114.89
4	YA	1915	5MU	C4-N3-C2	-4.64	121.34	127.35
4	YA	1939	5MU	C5-C4-N3	4.64	119.27	115.31
4	YA	1939	5MU	C5-C6-N1	-4.56	118.65	123.34
4	RA	1915	5MU	C4-N3-C2	-4.56	121.45	127.35
4	RA	2552	2MU	C4-N3-C2	-4.45	120.72	126.58
4	YA	2552	2MU	C4-N3-C2	-4.42	120.74	126.58
4	YA	1915	5MU	C5-C4-N3	4.38	119.05	115.31
35	QA	527	7MG	C2-N3-C4	4.35	120.05	112.30
4	RA	1915	5MU	C1'-N1-C2	4.31	125.36	117.57
35	XA	527	7MG	C2-N3-C4	4.29	119.94	112.30
4	RA	1939	5MU	C5-C4-N3	4.28	118.97	115.31
4	RA	1939	5MU	O4-C4-C5	-4.09	120.16	124.90
4	YA	1939	5MU	O4-C4-C5	-4.01	120.26	124.90
4	RA	1911	PSU	C4-N3-C2	-3.99	120.59	126.34
4	RA	1939	5MU	C5-C6-N1	-3.98	119.25	123.34
4	RA	2605	PSU	C4-N3-C2	-3.94	120.66	126.34
4	YA	1917	PSU	C4-N3-C2	-3.90	120.72	126.34
35	XA	516	PSU	C4-N3-C2	-3.89	120.73	126.34
4	YA	1911	PSU	C4-N3-C2	-3.89	120.74	126.34
35	QA	1400	5MC	C5-C6-N1	-3.88	119.35	123.34
4	YA	2605	PSU	C4-N3-C2	-3.86	120.78	126.34
4	RA	1915	5MU	C5-C4-N3	3.80	118.56	115.31
35	QA	516	PSU	C4-N3-C2	-3.79	120.88	126.34
35	XA	1519	MA6	C10-N6-C6	-3.77	108.09	119.51
4	RA	1915	5MU	O4-C4-C5	-3.69	120.63	124.90
4	RA	1917	PSU	C4-N3-C2	-3.68	121.04	126.34
4	YA	1962	5MC	C5-C6-N1	-3.64	119.60	123.34
35	XA	1519	MA6	C4-C5-N7	-3.58	105.67	109.40
4	RA	1962	5MC	C5-C6-N1	-3.57	119.66	123.34
35	QA	1518	MA6	C4-C5-N7	-3.55	105.69	109.40
4	YA	1942	5MC	C5-C6-N1	-3.55	119.68	123.34
4	RA	1942	5MC	C5-C6-N1	-3.52	119.72	123.34
46	QL	92	0TD	OD1-CG-CB	-3.51	115.08	122.44
4	RA	1915	5MU	C1'-N1-C6	-3.50	115.30	121.12
35	XA	1400	5MC	C5-C6-N1	-3.47	119.77	123.34
35	XA	516	PSU	O2-C2-N1	-3.45	118.99	122.79
35	XA	1404	5MC	C5-C6-N1	-3.45	119.78	123.34
35	XA	967	5MC	C5-C6-N1	-3.42	119.82	123.34

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	YA	1915	5MU	O4-C4-C5	-3.41	120.95	124.90
46	QL	92	0TD	OD2-CG-CB	3.40	120.49	113.15
35	XA	1407	5MC	C5-C6-N1	-3.40	119.84	123.34
4	YA	1915	5MU	C1'-N1-C2	3.39	123.72	117.57
35	QA	967	5MC	C5-C6-N1	-3.39	119.85	123.34
35	XA	1519	MA6	N3-C2-N1	-3.36	123.42	128.68
35	QA	1519	MA6	C9-N6-C6	-3.32	109.45	119.51
35	QA	1518	MA6	C9-N6-C6	-3.32	109.45	119.51
35	QA	1404	5MC	C5-C6-N1	-3.30	119.94	123.34
35	QA	1407	5MC	C5-C6-N1	-3.30	119.95	123.34
35	QA	516	PSU	O2-C2-N1	-3.27	119.19	122.79
35	QA	1519	MA6	C4-C5-N7	-3.26	106.00	109.40
4	RA	1911	PSU	O2-C2-N1	-3.25	119.21	122.79
35	XA	1518	MA6	C4-C5-N7	-3.25	106.01	109.40
4	RA	1917	PSU	O2-C2-N1	-3.24	119.23	122.79
4	YA	1917	PSU	O2-C2-N1	-3.24	119.23	122.79
4	YA	2605	PSU	O2-C2-N1	-3.24	119.23	122.79
35	XA	1518	MA6	N3-C2-N1	-3.23	123.63	128.68
35	QA	1518	MA6	N3-C2-N1	-3.22	123.65	128.68
35	XA	1518	MA6	C9-N6-C6	-3.15	109.98	119.51
35	QA	1519	MA6	N3-C2-N1	-3.12	123.81	128.68
4	RA	1939	5MU	O2-C2-N1	-3.09	118.68	122.79
4	RA	2605	PSU	O2-C2-N1	-3.07	119.41	122.79
4	YA	2552	2MU	O2-C2-N1	-3.07	118.70	122.79
46	XL	92	0TD	OD1-CG-CB	-3.00	116.16	122.44
4	YA	1911	PSU	O2-C2-N1	-2.96	119.53	122.79
46	XL	92	0TD	O-C-CA	-2.90	117.18	124.78
46	XL	92	0TD	OD2-CG-CB	2.89	119.39	113.15
4	YA	1939	5MU	O2-C2-N1	-2.87	118.97	122.79
46	QL	92	0TD	O-C-CA	-2.87	117.25	124.78
4	YA	1915	5MU	O2-C2-N3	-2.86	116.17	121.50
35	XA	1518	MA6	N1-C6-N6	2.86	120.06	117.06
4	YA	1915	5MU	C5-C6-N1	-2.84	120.42	123.34
35	XA	1519	MA6	C10-N6-C9	-2.82	107.04	116.12
4	RA	2552	2MU	O2-C2-N1	-2.81	119.06	122.79
4	RA	2552	2MU	O4-C4-C5	-2.77	120.28	125.16
35	XA	527	7MG	C5-C6-N1	2.77	115.88	110.99
35	QA	527	7MG	C5-C6-N1	2.73	115.80	110.99
4	RA	2552	2MU	C5-C4-N3	2.72	118.91	114.84
35	XA	1404	5MC	C5-C4-N3	-2.68	118.78	121.67
4	YA	2552	2MU	O4-C4-C5	-2.67	120.46	125.16
4	YA	1915	5MU	C1'-N1-C6	-2.62	116.76	121.12

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
35	XA	967	5MC	C5-C4-N3	-2.60	118.87	121.67
35	QA	1404	5MC	C5-C4-N3	-2.59	118.88	121.67
4	RA	1915	5MU	C5-C6-N1	-2.58	120.68	123.34
35	XA	1402	4OC	C6-C5-C4	2.57	120.11	116.96
4	YA	2552	2MU	C5-C4-N3	2.55	118.66	114.84
35	QA	1519	MA6	N1-C6-N6	2.53	119.72	117.06
35	XA	1407	5MC	C5-C4-N3	-2.53	118.95	121.67
35	QA	1407	5MC	C5-C4-N3	-2.51	118.96	121.67
4	RA	1915	5MU	O2-C2-N3	-2.50	116.85	121.50
4	RA	1942	5MC	C5-C4-N3	-2.49	118.98	121.67
35	XA	1518	MA6	C10-N6-C6	-2.47	112.04	119.51
35	QA	967	5MC	C5-C4-N3	-2.46	119.02	121.67
4	RA	2503	2MA	C5-C6-N1	2.45	118.25	114.02
4	YA	2503	2MA	C5-C6-N1	2.45	118.25	114.02
4	YA	1942	5MC	C5-C4-N3	-2.42	119.06	121.67
4	YA	1962	5MC	C5-C4-N3	-2.40	119.08	121.67
4	RA	1920	4OC	O2-C2-N3	-2.40	118.43	122.33
4	RA	2503	2MA	C8-N7-C5	2.39	107.54	102.99
35	XA	1207	2MG	C8-N7-C5	2.39	107.54	102.99
4	RA	1962	5MC	C5-C4-N3	-2.37	119.11	121.67
35	QA	1207	2MG	C8-N7-C5	2.37	107.50	102.99
4	YA	2552	2MU	C2'-C1'-N1	-2.36	109.64	114.22
35	XA	1519	MA6	C9-N6-C6	-2.36	112.38	119.51
35	QA	1207	2MG	C5-C6-N1	2.35	118.11	113.95
35	QA	1402	4OC	C6-C5-C4	2.35	119.83	116.96
35	QA	516	PSU	O4'-C1'-C2'	2.33	108.43	105.14
35	XA	966	M2G	C8-N7-C5	2.30	107.38	102.99
35	QA	527	7MG	C5-C4-N9	-2.29	103.37	106.35
35	XA	1400	5MC	C5-C4-N3	-2.29	119.21	121.67
4	RA	2251	OMG	C5-C6-N1	2.28	117.98	113.95
4	YA	2251	OMG	C8-N7-C5	2.27	107.31	102.99
4	YA	2503	2MA	C8-N7-C5	2.26	107.30	102.99
35	XA	1207	2MG	C5-C6-N1	2.25	117.93	113.95
4	RA	2251	OMG	C8-N7-C5	2.24	107.26	102.99
35	XA	527	7MG	C5-C4-N9	-2.24	103.44	106.35
35	QA	1518	MA6	C10-N6-C9	-2.22	108.95	116.12
35	QA	966	M2G	C5-C6-N1	2.22	117.88	113.95
35	XA	966	M2G	C5-C6-N1	2.22	117.88	113.95
35	QA	1400	5MC	C5-C4-N3	-2.21	119.28	121.67
35	XA	527	7MG	O6-C6-C5	-2.20	122.14	127.54
35	QA	966	M2G	C8-N7-C5	2.19	107.17	102.99
35	QA	527	7MG	O6-C6-C5	-2.18	122.20	127.54

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
4	YA	1920	4OC	O2-C2-N3	-2.17	118.81	122.33
35	QA	1407	5MC	O2-C2-N3	-2.16	118.81	122.33
35	QA	1519	MA6	C10-N6-C6	-2.16	112.98	119.51
35	XA	966	M2G	N1-C2-N2	2.16	119.87	118.04
4	RA	2605	PSU	C5-C6-N1	-2.15	118.89	122.11
4	YA	2251	OMG	C5-C6-N1	2.13	117.71	113.95
35	XA	1407	5MC	O2-C2-N3	-2.10	118.92	122.33
4	YA	1911	PSU	C5-C6-N1	-2.10	118.97	122.11
35	QA	1207	2MG	O3'-C3'-C2'	2.06	118.48	111.82
35	XA	1400	5MC	C1'-N1-C6	-2.05	117.71	121.12
35	QA	1518	MA6	C10-N6-C6	-2.04	113.33	119.51
35	XA	1207	2MG	CM2-N2-C2	-2.04	119.35	123.86
4	RA	1911	PSU	C5-C6-N1	-2.01	119.10	122.11

There are no chirality outliers.

All (41) 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-C9
35	XA	1519	MA6	C5-C6-N6-C10
46	XL	92	0TD	O-C-CA-CB
35	QA	1518	MA6	C5-C6-N6-C10
35	QA	1519	MA6	O4'-C4'-C5'-O5'
35	QA	1519	MA6	C5-C6-N6-C10
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	1519	MA6	C3'-C4'-C5'-O5'
35	XA	1402	4OC	C3'-C4'-C5'-O5'
35	XA	1519	MA6	C3'-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	1402	4OC	C3'-C4'-C5'-O5'
4	YA	1915	5MU	O4'-C4'-C5'-O5'
35	QA	1518	MA6	C5-C6-N6-C9
46	XL	92	0TD	CG-CB-SB-CSB
46	QL	92	0TD	CG-CB-SB-CSB
4	YA	1915	5MU	C3'-C4'-C5'-O5'

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

There are no ring outliers.

19 monomers are involved in 23 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
4	YA	1920	4OC	1	0
4	YA	2251	OMG	1	0
4	YA	1915	5MU	4	0
35	XA	1518	MA6	1	0
4	RA	1942	5MC	1	0
35	XA	1402	4OC	1	0
4	RA	1962	5MC	1	0
35	QA	967	5MC	1	0
4	YA	2503	2MA	1	0
35	QA	1404	5MC	1	0
35	QA	1519	MA6	2	0
35	QA	1207	2MG	2	0
4	RA	2552	2MU	1	0
35	QA	966	M2G	1	0
4	RA	1920	4OC	1	0
35	QA	1402	4OC	1	0
46	QL	92	0TD	2	0
35	QA	1518	MA6	2	0
4	YA	1962	5MC	1	0

5.5 Carbohydrates (i)

There are no monosaccharides 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%)	0.25	3 (3%)	39	20	57, 94, 173, 210	0
1	XV	77/77 (100%)	0.34	3 (3%)	39	20	49, 84, 141, 212	0
2	QX	10/25 (40%)	1.15	3 (30%)	0	0	69, 105, 168, 212	0
2	XX	10/25 (40%)	1.06	3 (30%)	0	0	52, 112, 150, 183	0
3	QY	357/380 (93%)	2.08	163 (45%)	0	0	77, 135, 202, 220	0
3	XY	357/380 (93%)	2.16	158 (44%)	0	0	73, 132, 203, 228	0
4	RA	2856/2915 (97%)	0.06	136 (4%)	30	14	22, 55, 177, 347	0
4	YA	2856/2915 (97%)	0.04	128 (4%)	33	16	14, 41, 183, 343	0
5	RB	120/122 (98%)	-0.18	0	100	100	56, 91, 116, 152	0
5	YB	120/122 (98%)	-0.27	0	100	100	39, 63, 85, 130	0
6	RD	275/276 (99%)	-0.27	0	100	100	25, 47, 71, 109	0
6	YD	275/276 (99%)	-0.31	1 (0%)	92	84	16, 39, 69, 132	0
7	RE	204/206 (99%)	-0.16	0	100	100	26, 53, 85, 119	0
7	YE	204/206 (99%)	-0.15	0	100	100	19, 46, 86, 135	0
8	RF	203/210 (96%)	-0.13	1 (0%)	91	81	29, 67, 110, 133	0
8	YF	203/210 (96%)	-0.29	1 (0%)	91	81	15, 45, 89, 139	0
9	RG	181/182 (99%)	0.19	6 (3%)	46	24	76, 103, 134, 155	0
9	YG	181/182 (99%)	-0.10	4 (2%)	62	41	55, 78, 121, 184	0
10	RH	174/180 (96%)	0.78	27 (15%)	2	1	74, 111, 147, 158	0
10	YH	173/180 (96%)	-0.11	0	100	100	40, 64, 95, 139	0
11	RI	147/148 (99%)	0.63	15 (10%)	6	2	59, 103, 135, 164	0
11	YI	146/148 (98%)	0.33	5 (3%)	45	24	51, 92, 127, 150	0
12	RN	140/140 (100%)	0.08	4 (2%)	51	28	40, 62, 101, 140	0
12	YN	140/140 (100%)	-0.19	1 (0%)	87	75	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%)	-0.24	0	100	100	33, 52, 78, 113	0
13	YO	122/122 (100%)	-0.23	0	100	100	27, 45, 71, 83	0
14	RP	149/150 (99%)	0.13	3 (2%)	65	44	29, 72, 109, 138	0
14	YP	149/150 (99%)	-0.09	1 (0%)	87	75	18, 52, 84, 115	0
15	RQ	141/141 (100%)	-0.25	0	100	100	43, 67, 88, 112	0
15	YQ	141/141 (100%)	-0.27	0	100	100	30, 48, 74, 124	0
16	RR	118/118 (100%)	-0.22	0	100	100	31, 50, 77, 93	0
16	YR	118/118 (100%)	-0.29	0	100	100	28, 43, 67, 89	0
17	RS	110/112 (98%)	0.20	2 (1%)	68	47	66, 89, 113, 133	0
17	YS	110/112 (98%)	-0.04	0	100	100	47, 62, 89, 106	0
18	RT	131/146 (89%)	-0.21	2 (1%)	73	54	37, 59, 105, 155	0
18	YT	131/146 (89%)	-0.22	0	100	100	36, 53, 98, 122	0
19	RU	116/118 (98%)	-0.18	1 (0%)	84	69	33, 57, 91, 113	0
19	YU	116/118 (98%)	-0.36	0	100	100	23, 37, 67, 104	0
20	RV	101/101 (100%)	-0.18	0	100	100	37, 74, 100, 122	0
20	YV	101/101 (100%)	-0.09	1 (0%)	82	67	21, 50, 88, 109	0
21	RW	112/113 (99%)	-0.17	0	100	100	34, 48, 81, 122	0
21	YW	112/113 (99%)	-0.28	0	100	100	25, 37, 68, 143	0
22	RX	95/96 (98%)	0.04	2 (2%)	63	43	45, 60, 87, 120	0
22	YX	95/96 (98%)	-0.25	0	100	100	28, 42, 80, 115	0
23	RY	107/110 (97%)	0.90	15 (14%)	2	1	57, 83, 131, 176	0
23	YY	107/110 (97%)	0.17	2 (1%)	66	46	38, 64, 107, 150	0
24	RZ	203/206 (98%)	0.62	18 (8%)	9	3	71, 100, 156, 194	0
24	YZ	201/206 (97%)	0.19	15 (7%)	14	5	50, 77, 135, 178	0
25	R0	77/85 (90%)	0.25	2 (2%)	56	33	50, 62, 90, 109	0
25	Y0	77/85 (90%)	-0.03	1 (1%)	77	59	31, 45, 80, 110	0
26	R1	97/98 (98%)	0.05	2 (2%)	63	43	33, 58, 89, 111	0
26	Y1	97/98 (98%)	-0.03	0	100	100	27, 47, 95, 114	0
27	R2	70/72 (97%)	0.05	1 (1%)	75	56	53, 74, 106, 130	0
27	Y2	70/72 (97%)	-0.19	0	100	100	34, 55, 82, 142	0
28	R3	59/60 (98%)	0.47	3 (5%)	28	13	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%)	-0.03	1 (1%) 70 49	28, 43, 106, 122	0
29	R4	69/71 (97%)	0.81	7 (10%) 7 2	99, 136, 177, 184	0
29	Y4	69/71 (97%)	0.51	8 (11%) 4 2	75, 124, 168, 178	0
30	R5	59/60 (98%)	-0.14	1 (1%) 70 49	29, 51, 94, 160	0
30	Y5	59/60 (98%)	-0.29	0 100 100	18, 42, 91, 141	0
31	R6	53/54 (98%)	2.13	27 (50%) 0 0	82, 102, 143, 150	0
31	Y6	53/54 (98%)	1.51	16 (30%) 0 0	75, 88, 116, 130	0
32	R7	48/49 (97%)	-0.03	1 (2%) 63 43	28, 42, 83, 120	0
32	Y7	48/49 (97%)	-0.12	0 100 100	17, 31, 69, 115	0
33	R8	64/65 (98%)	-0.12	0 100 100	39, 54, 73, 107	0
33	Y8	64/65 (98%)	-0.22	0 100 100	24, 38, 58, 71	0
34	R9	37/37 (100%)	0.84	3 (8%) 12 5	58, 77, 101, 112	0
34	Y9	37/37 (100%)	0.64	1 (2%) 54 31	49, 61, 81, 93	0
35	QA	1488/1521 (97%)	0.05	36 (2%) 59 37	42, 86, 173, 260	0
35	XA	1492/1521 (98%)	0.07	48 (3%) 47 25	32, 84, 168, 253	0
36	QB	231/256 (90%)	0.39	15 (6%) 18 8	85, 122, 153, 178	0
36	XB	231/256 (90%)	0.28	11 (4%) 30 14	80, 110, 143, 161	0
37	QC	206/239 (86%)	0.37	8 (3%) 39 20	88, 115, 144, 168	0
37	XC	206/239 (86%)	0.27	8 (3%) 39 20	80, 104, 134, 167	0
38	QD	208/209 (99%)	-0.04	0 100 100	62, 91, 125, 150	0
38	XD	208/209 (99%)	0.11	1 (0%) 91 81	68, 97, 133, 152	0
39	QE	148/162 (91%)	-0.01	0 100 100	64, 86, 114, 143	0
39	XE	148/162 (91%)	0.10	2 (1%) 75 56	62, 78, 114, 139	0
40	QF	100/101 (99%)	-0.03	2 (2%) 65 44	70, 95, 118, 132	0
40	XF	100/101 (99%)	-0.25	0 100 100	62, 81, 109, 124	0
41	QG	155/156 (99%)	0.55	15 (9%) 7 2	82, 109, 137, 157	0
41	XG	155/156 (99%)	0.45	10 (6%) 18 8	78, 100, 130, 155	0
42	QH	137/138 (99%)	0.21	2 (1%) 73 54	55, 86, 114, 123	0
42	XH	137/138 (99%)	0.10	4 (2%) 51 28	60, 86, 113, 120	0
43	QI	127/128 (99%)	0.97	21 (16%) 1 1	78, 123, 151, 175	0
43	XI	126/128 (98%)	0.44	6 (4%) 30 14	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%)	1.10	16 (16%) 1 1	90, 121, 149, 161	0
44	XJ	96/105 (91%)	0.85	10 (10%) 6 2	78, 116, 144, 146	0
45	QK	114/129 (88%)	0.37	4 (3%) 44 23	63, 86, 113, 138	0
45	XK	114/129 (88%)	0.15	2 (1%) 68 47	47, 75, 105, 132	0
46	QL	121/132 (91%)	-0.08	1 (0%) 86 72	47, 66, 90, 105	0
46	XL	121/132 (91%)	0.06	2 (1%) 70 49	48, 66, 94, 116	0
47	QM	116/126 (92%)	0.35	7 (6%) 21 10	85, 114, 138, 148	0
47	XM	114/126 (90%)	0.44	7 (6%) 21 9	84, 107, 128, 144	0
48	QN	60/61 (98%)	0.73	6 (10%) 7 2	88, 111, 129, 146	0
48	XN	60/61 (98%)	0.30	1 (1%) 70 49	73, 92, 115, 127	0
49	QO	88/89 (98%)	0.09	1 (1%) 80 64	60, 80, 109, 121	0
49	XO	88/89 (98%)	0.19	2 (2%) 60 39	48, 80, 112, 123	0
50	QP	82/88 (93%)	0.39	3 (3%) 41 21	58, 76, 104, 114	0
50	XP	82/88 (93%)	0.59	6 (7%) 15 6	71, 93, 118, 141	0
51	QQ	99/105 (94%)	0.29	2 (2%) 65 44	53, 78, 114, 138	0
51	XQ	99/105 (94%)	0.05	0 100 100	59, 78, 101, 126	0
52	QR	68/88 (77%)	0.74	9 (13%) 3 1	72, 90, 119, 139	0
52	XR	68/88 (77%)	0.31	1 (1%) 73 54	56, 83, 114, 124	0
53	QS	83/93 (89%)	1.21	20 (24%) 0 0	87, 120, 146, 161	0
53	XS	83/93 (89%)	1.11	18 (21%) 0 0	89, 118, 142, 183	0
54	QT	96/106 (90%)	0.16	1 (1%) 82 67	54, 80, 116, 120	0
54	XT	98/106 (92%)	0.47	5 (5%) 28 13	65, 88, 120, 128	0
55	QU	23/27 (85%)	2.17	14 (60%) 0 0	88, 103, 130, 145	0
55	XU	23/27 (85%)	1.38	6 (26%) 0 0	81, 102, 117, 119	0
All	All	21456/22208 (96%)	0.18	1131 (5%) 26 12	14, 73, 148, 347	0

All (1131) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
35	XA	88	A	14.3
4	YA	2141	G	11.4
24	YZ	192	ALA	10.3
3	XY	50	PRO	10.2
24	YZ	193	GLU	9.9

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Mol	Chain	Res	Type	RSRZ
4	YA	2140	C	9.3
4	YA	2116	G	9.2
24	RZ	192	ALA	9.2
4	YA	1076	C	9.0
3	QY	66	VAL	9.0
35	QA	1036	G	8.9
3	XY	84	LEU	8.6
24	RZ	200	GLY	8.5
4	YA	2139	C	8.2
4	RA	2110	G	8.1
4	RA	2146	C	8.0
4	RA	1067	A	8.0
24	RZ	202	GLU	7.9
28	R3	60	GLU	7.8
35	QA	1030(C)	C	7.5
3	QY	25	LEU	7.5
24	RZ	191	VAL	7.4
41	QG	81	GLY	7.3
4	RA	1064	C	7.3
4	YA	2154	G	7.3
4	YA	2793	G	7.3
4	RA	2147	G	7.3
4	YA	2153	G	7.3
4	YA	1083	U	7.2
35	XA	1030(C)	C	7.2
23	RY	1	MET	7.2
35	XA	90	U	7.1
4	RA	2138	C	7.1
24	RZ	195	GLU	7.1
4	YA	2804	C	7.0
29	R4	68	ARG	7.0
35	XA	80	G	7.0
4	RA	2125	G	7.0
4	RA	2169	A	7.0
3	XY	66	VAL	6.9
3	QY	55	ALA	6.8
4	RA	2141	G	6.8
3	QY	74	LYS	6.6
3	QY	76	GLY	6.6
3	QY	330	ASP	6.6
3	QY	102	GLU	6.5
3	XY	46	VAL	6.5

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Mol	Chain	Res	Type	RSRZ
3	XY	88	VAL	6.5
3	QY	77	LEU	6.5
4	RA	2162	G	6.5
35	XA	89	C	6.4
3	QY	71	ASP	6.4
23	YY	1	MET	6.3
4	RA	1062	G	6.3
4	YA	2142	C	6.3
3	XY	30	LYS	6.2
4	RA	2139	C	6.2
4	YA	1091	G	6.2
31	R6	42	TRP	6.2
4	RA	2802	G	6.2
4	RA	2154	G	6.2
3	XY	85	GLU	6.1
4	RA	2142	C	6.1
3	QY	81	SER	6.1
4	YA	1075	C	6.1
3	XY	167	GLU	6.1
4	RA	2161	C	6.0
4	RA	2793	G	6.0
4	RA	229	A	6.0
4	RA	2801(B)	A	6.0
3	QY	332	ARG	6.0
3	XY	41	LEU	6.0
3	QY	50	PRO	6.0
3	QY	72	GLN	6.0
3	QY	230	ILE	6.0
4	RA	2137	C	5.9
24	YZ	200	GLY	5.9
4	YA	2805	G	5.9
4	RA	2172	U	5.9
29	R4	69	LYS	5.9
4	RA	2896	C	5.9
31	R6	4	GLU	5.8
3	XY	53	ALA	5.8
4	RA	2124	G	5.7
4	YA	2161	C	5.7
4	YA	2160	G	5.7
3	XY	45	ASP	5.7
3	XY	47	TRP	5.7
3	XY	12	GLN	5.7

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Mol	Chain	Res	Type	RSRZ
41	QG	82	GLY	5.7
4	RA	2155	G	5.7
4	YA	2173	A	5.6
4	RA	2168	G	5.6
3	XY	231	ASP	5.6
35	QA	344	A	5.6
3	XY	69	THR	5.6
4	RA	2140	C	5.6
3	QY	231	ASP	5.5
31	R6	54	ILE	5.5
4	YA	2138	C	5.5
4	RA	1076	C	5.5
4	RA	2805	G	5.5
4	YA	2132	U	5.5
4	YA	2108	C	5.5
4	RA	1509(A)	C	5.5
4	RA	2804	C	5.5
3	QY	89	GLU	5.4
3	XY	89	GLU	5.4
4	YA	2155	G	5.4
24	RZ	199	LYS	5.4
4	YA	1067	A	5.4
24	RZ	201	LYS	5.4
29	Y4	68	ARG	5.4
4	YA	2125	G	5.4
41	QG	156	TRP	5.4
3	QY	235	ASN	5.3
3	QY	12	GLN	5.3
4	YA	2144	U	5.3
3	QY	70	LEU	5.3
24	YZ	187	ALA	5.3
3	QY	73	MET	5.3
24	RZ	193	GLU	5.3
4	RA	2118	U	5.3
4	RA	2176	A	5.3
35	QA	1030(B)	G	5.3
4	RA	2145	C	5.3
4	RA	2173	A	5.3
3	XY	67	VAL	5.2
4	RA	2144	U	5.2
43	QI	128	ARG	5.2
45	QK	13	GLN	5.2

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Mol	Chain	Res	Type	RSRZ
35	QA	1531	A	5.2
55	QU	18	TYR	5.2
4	YA	1081	U	5.2
4	YA	2169	A	5.2
3	QY	68	ASP	5.2
3	XY	73	MET	5.2
4	RA	2803	C	5.2
24	RZ	194	PRO	5.2
3	XY	38	ASN	5.1
3	XY	163	THR	5.1
44	QJ	89	ASP	5.1
4	RA	2127	G	5.1
3	QY	175	GLY	5.1
4	RA	2120	G	5.1
3	XY	101	ALA	5.1
53	QS	12	ASP	5.1
4	RA	2105	C	5.1
3	QY	75	GLN	5.1
44	QJ	26	ALA	5.0
35	XA	92	C	5.0
4	RA	2111	C	5.0
4	RA	1046	A	5.0
3	QY	88	VAL	5.0
3	QY	174	ALA	5.0
4	YA	1077	A	4.9
4	YA	2801(B)	A	4.9
4	RA	1079	C	4.9
3	XY	42	GLU	4.9
4	RA	2159	G	4.9
3	QY	216	SER	4.9
3	XY	297	GLU	4.9
3	XY	70	LEU	4.9
4	YA	2162	G	4.9
4	RA	2174	C	4.9
24	YZ	196	VAL	4.9
3	QY	44	PRO	4.9
3	XY	83	LEU	4.8
4	YA	2145	C	4.8
43	QI	127	LYS	4.8
4	YA	2143	C	4.8
3	XY	44	PRO	4.8
3	XY	62	SER	4.8

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Mol	Chain	Res	Type	RSRZ
4	YA	2152	G	4.8
3	QY	54	GLN	4.8
24	RZ	198	LYS	4.8
4	RA	2153	G	4.8
4	YA	280	C	4.8
24	YZ	191	VAL	4.8
30	R5	60	VAL	4.8
4	RA	1083	U	4.7
31	R6	50	ARG	4.7
4	YA	2130	U	4.7
35	XA	1030(A)	C	4.7
4	YA	2803	C	4.7
3	QY	91	ASP	4.7
3	QY	8	ASN	4.7
4	YA	1509(A)	C	4.7
25	Y0	8	GLY	4.7
35	XA	1001(B)	G	4.7
3	XY	91	ASP	4.7
55	QU	16	GLY	4.6
3	QY	69	THR	4.6
4	YA	2146	C	4.6
4	YA	1085	A	4.6
3	QY	229	ASP	4.6
41	QG	78	ARG	4.6
4	RA	2170	A	4.6
6	YD	276	LYS	4.6
3	XY	87	ALA	4.6
3	XY	8	ASN	4.5
3	XY	51	GLU	4.5
4	RA	2128	C	4.5
35	XA	84	U	4.5
3	XY	104	ASP	4.5
3	XY	205	SER	4.5
3	QY	38	ASN	4.5
4	RA	2116	G	4.5
3	QY	232	ILE	4.5
3	QY	202	VAL	4.5
4	RA	2131	G	4.5
35	QA	1001(A)	A	4.4
4	RA	2112	G	4.4
41	QG	80	VAL	4.4
35	QA	345	C	4.4

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Mol	Chain	Res	Type	RSRZ
3	XY	95	THR	4.4
24	YZ	197	ILE	4.4
4	RA	2894	G	4.4
4	RA	2143	C	4.4
3	QY	16	GLU	4.4
35	XA	91	C	4.4
4	YA	2167	U	4.4
4	RA	2119	A	4.4
4	RA	2807	G	4.4
4	YA	1080	C	4.3
35	QA	1532	U	4.3
3	XY	55	ALA	4.3
3	QY	14	LEU	4.3
35	QA	1028	C	4.3
29	Y4	59	PHE	4.3
3	XY	81	SER	4.3
53	XS	4	SER	4.3
29	Y4	66	SER	4.3
35	XA	1001(A)	A	4.2
4	RA	2129	C	4.2
3	QY	163	THR	4.2
4	YA	1095	A	4.2
4	YA	1064	C	4.2
3	XY	164	GLU	4.2
4	RA	2148	G	4.2
4	YA	1078	U	4.2
3	XY	7	VAL	4.2
4	RA	2794(A)	C	4.2
4	YA	2147	G	4.1
3	XY	71	ASP	4.1
35	XA	1257	U	4.1
4	RA	1095	A	4.1
3	XY	80	VAL	4.1
4	RA	1085	A	4.1
4	RA	2126	A	4.1
35	XA	1531	A	4.1
29	R4	49	PHE	4.1
4	YA	2172	U	4.1
3	QY	60	ARG	4.1
3	XY	100	VAL	4.1
3	XY	75	GLN	4.1
4	YA	1087	G	4.1

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Mol	Chain	Res	Type	RSRZ
41	QG	83	ALA	4.1
9	YG	51	ARG	4.1
3	XY	352	SER	4.1
4	YA	2174	C	4.1
4	YA	2896	C	4.1
4	RA	2792	G	4.1
3	XY	94	GLU	4.1
44	QJ	27	ALA	4.1
4	YA	2133	G	4.1
4	RA	2106	G	4.1
3	XY	110	LEU	4.1
3	QY	206	PRO	4.0
44	QJ	32	ALA	4.0
3	QY	234	ILE	4.0
4	YA	2129	C	4.0
3	XY	11	ILE	4.0
31	R6	20	ASN	4.0
35	QA	1030(D)	G	4.0
3	QY	95	THR	4.0
22	RX	1	MET	4.0
3	QY	201	LEU	4.0
4	RA	2165	G	4.0
3	QY	326	TYR	4.0
4	YA	2117	A	4.0
3	QY	93	GLU	4.0
3	XY	228	ASP	4.0
4	RA	2123	G	4.0
4	RA	1090	U	4.0
10	RH	43	VAL	4.0
3	QY	101	ALA	4.0
35	QA	1037	C	4.0
3	XY	60	ARG	4.0
44	QJ	10	GLY	4.0
4	RA	2136	C	4.0
24	YZ	195	GLU	4.0
4	YA	2165	G	4.0
41	XG	156	TRP	4.0
4	RA	2117	A	4.0
3	QY	150	ARG	3.9
4	RA	2121	G	3.9
53	XS	69	HIS	3.9
55	QU	5	ASP	3.9

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Mol	Chain	Res	Type	RSRZ
35	XA	1036	G	3.9
4	RA	2109	U	3.9
10	RH	159	GLU	3.9
36	QB	131	PRO	3.9
3	XY	86	LEU	3.9
44	XJ	38	ILE	3.9
35	XA	202	U	3.9
3	QY	228	ASP	3.9
24	YZ	199	LYS	3.9
4	YA	1082	U	3.9
3	QY	290	GLN	3.9
4	RA	652(D)	G	3.9
4	RA	2179	C	3.8
3	QY	327	VAL	3.8
4	YA	2151	G	3.8
31	Y6	42	TRP	3.8
25	R0	8	GLY	3.8
3	XY	72	GLN	3.8
4	RA	2897	U	3.8
4	YA	2107	C	3.8
3	XY	13	ASP	3.8
35	XA	1533	C	3.8
3	XY	97	ASN	3.8
3	XY	348	VAL	3.8
4	YA	2137	C	3.8
3	QY	64	GLU	3.8
3	QY	9	ASN	3.8
41	QG	85	TYR	3.7
4	RA	1075	C	3.7
3	QY	67	VAL	3.7
3	QY	205	SER	3.7
3	QY	233	GLU	3.7
3	QY	90	ALA	3.7
3	QY	268	THR	3.7
4	RA	1078	U	3.7
29	R4	65	ASP	3.7
4	YA	1090	U	3.7
4	RA	2180	U	3.7
3	XY	298	LEU	3.7
35	QA	1034	G	3.7
3	XY	40	GLU	3.7
55	QU	22	ARG	3.7

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Mol	Chain	Res	Type	RSRZ
35	XA	1532	U	3.7
3	XY	64	GLU	3.7
3	QY	56	LEU	3.7
41	QG	84	ASN	3.7
36	XB	130	ARG	3.7
23	RY	5	MET	3.7
3	XY	82	GLY	3.7
3	XY	21	LEU	3.7
4	YA	2794(A)	C	3.6
3	QY	84	LEU	3.6
3	QY	329	ASP	3.6
3	QY	119	PHE	3.6
3	XY	65	ALA	3.6
4	RA	2156	G	3.6
4	RA	2160	G	3.6
35	XA	1037	C	3.6
3	XY	296	TYR	3.6
4	YA	1079	C	3.6
3	QY	238	ASP	3.6
4	YA	2894	G	3.6
3	XY	74	LYS	3.6
3	QY	140	GLU	3.6
4	RA	2122	U	3.6
53	QS	49	ILE	3.6
4	RA	888	C	3.6
10	RH	102	ALA	3.6
4	YA	2168	G	3.6
4	RA	2132	U	3.5
10	RH	97	ARG	3.5
31	R6	43	CYS	3.5
35	QA	160	A	3.5
3	XY	96	PHE	3.5
4	RA	2115	G	3.5
3	XY	98	GLU	3.5
3	XY	140	GLU	3.5
3	QY	65	ALA	3.5
3	XY	90	ALA	3.5
4	RA	2152	G	3.5
3	QY	265	HIS	3.5
1	QV	1	C	3.5
47	QM	4	ILE	3.5
11	RI	83	ALA	3.5

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Mol	Chain	Res	Type	RSRZ
4	YA	2118	U	3.5
3	QY	143	ASP	3.5
3	XY	203	ARG	3.5
3	XY	216	SER	3.5
53	QS	66	MET	3.5
4	YA	1093	G	3.5
4	RA	1087	G	3.5
3	QY	92	ASP	3.5
3	XY	68	ASP	3.5
3	QY	39	ALA	3.5
3	QY	80	VAL	3.5
3	QY	82	GLY	3.5
35	XA	1026	G	3.5
4	YA	1065	U	3.5
4	RA	2167	U	3.5
23	RY	77	PRO	3.5
35	XA	1286	A	3.5
3	XY	28	ASP	3.4
3	XY	48	ASN	3.4
4	RA	2175	C	3.4
36	XB	227	GLY	3.4
3	XY	61	SER	3.4
4	YA	2159	G	3.4
4	YA	229	A	3.4
24	YZ	201	LYS	3.4
3	QY	21	LEU	3.4
3	XY	27	TYR	3.4
2	QX	14	A	3.4
24	RZ	197	ILE	3.4
3	QY	270	ILE	3.4
36	QB	135	GLN	3.4
3	XY	109	LYS	3.4
3	XY	26	ASP	3.4
29	Y4	65	ASP	3.4
3	XY	321	SER	3.4
55	QU	17	THR	3.4
3	QY	96	PHE	3.4
3	XY	120	SER	3.4
3	XY	345	THR	3.4
3	QY	46	VAL	3.4
36	QB	115	LEU	3.4
4	RA	2108	C	3.4

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Mol	Chain	Res	Type	RSRZ
3	QY	61	SER	3.4
3	QY	210	GLY	3.4
3	XY	230	ILE	3.3
41	XG	78	ARG	3.3
35	XA	1029	C	3.3
35	QA	1257	U	3.3
24	RZ	190	GLU	3.3
4	YA	2176	A	3.3
54	XT	99	LEU	3.3
3	QY	209	SER	3.3
46	QL	64	TYR	3.3
53	XS	49	ILE	3.3
10	RH	19	VAL	3.3
35	QA	79	G	3.3
3	QY	106	LEU	3.3
4	YA	2128	C	3.3
3	QY	103	LEU	3.3
31	Y6	49	HIS	3.3
35	QA	1006	C	3.3
36	QB	187	LEU	3.3
2	XX	23	A	3.3
35	QA	1030(E)	A	3.3
53	XS	40	ILE	3.3
3	QY	83	LEU	3.3
41	QG	37	ASN	3.3
10	RH	24	VAL	3.3
3	QY	100	VAL	3.3
48	QN	25	VAL	3.3
4	YA	2802	G	3.3
4	RA	1082	U	3.3
4	YA	277	C	3.3
44	XJ	71	LEU	3.3
52	QR	62	GLU	3.2
31	Y6	43	CYS	3.2
3	QY	164	GLU	3.2
41	XG	85	TYR	3.2
31	R6	49	HIS	3.2
27	R2	1	MET	3.2
48	QN	38	GLY	3.2
4	RA	2107	C	3.2
3	QY	11	ILE	3.2
35	XA	93	G	3.2

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Mol	Chain	Res	Type	RSRZ
35	QA	1026	G	3.2
34	R9	12	ASP	3.2
4	YA	2131	G	3.2
4	YA	2156	G	3.2
9	YG	49	ASP	3.2
4	RA	2171	A	3.2
31	Y6	20	ASN	3.2
1	QV	53	G	3.2
4	RA	1065	U	3.2
9	RG	2	PRO	3.2
4	YA	1088	A	3.2
24	YZ	198	LYS	3.2
4	YA	1058	G	3.2
10	RH	101	ARG	3.2
3	XY	9	ASN	3.2
53	QS	35	SER	3.2
3	XY	119	PHE	3.2
4	RA	645	C	3.2
52	QR	58	LEU	3.2
3	XY	308	GLN	3.2
1	XV	1	C	3.2
3	XY	57	GLY	3.2
53	XS	71	LEU	3.2
4	YA	278	A	3.2
3	XY	232	ILE	3.1
4	RA	1080	C	3.1
3	XY	17	ARG	3.1
4	RA	2133	G	3.1
3	QY	7	VAL	3.1
44	QJ	34	VAL	3.1
3	XY	325	SER	3.1
41	XG	77	SER	3.1
3	QY	105	ALA	3.1
3	XY	54	GLN	3.1
3	XY	342	THR	3.1
47	QM	116	THR	3.1
28	R3	59	VAL	3.1
31	Y6	35	GLU	3.1
4	YA	2164	C	3.1
24	YZ	194	PRO	3.1
35	XA	1028	C	3.1
31	Y6	36	LEU	3.1

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Mol	Chain	Res	Type	RSRZ
3	XY	276	ASN	3.1
35	XA	1030(D)	G	3.1
52	QR	57	GLY	3.1
4	YA	1057	A	3.1
3	XY	79	ASP	3.1
4	RA	2808	U	3.1
29	Y4	67	TYR	3.1
3	XY	238	ASP	3.1
35	XA	79	G	3.1
44	XJ	98	ILE	3.1
3	XY	56	LEU	3.1
4	RA	2164	C	3.1
3	XY	39	ALA	3.0
29	Y4	54	GLY	3.0
3	QY	331	SER	3.0
3	QY	87	ALA	3.0
3	QY	97	ASN	3.0
4	RA	2134	A	3.0
23	RY	107	ASP	3.0
36	XB	121	LEU	3.0
41	QG	4	ARG	3.0
4	YA	2115	G	3.0
4	YA	2792	G	3.0
4	YA	276	A	3.0
4	YA	652(W)	C	3.0
31	R6	12	GLU	3.0
37	XC	206	GLU	3.0
3	XY	34	LEU	3.0
3	XY	103	LEU	3.0
4	YA	2122	U	3.0
4	YA	2807	G	3.0
4	RA	2157	G	3.0
43	QI	6	GLY	3.0
3	XY	113	LEU	3.0
3	QY	78	GLU	3.0
29	R4	67	TYR	3.0
43	QI	7	THR	3.0
26	R1	2	SER	3.0
53	XS	38	SER	3.0
3	XY	6	PRO	3.0
4	YA	2163	C	3.0
35	QA	1005	A	3.0

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Mol	Chain	Res	Type	RSRZ
3	XY	268	THR	3.0
3	QY	149	GLU	3.0
43	XI	8	GLY	3.0
31	R6	9	LEU	3.0
46	XL	61	THR	3.0
3	QY	269	GLY	3.0
4	RA	1081	U	3.0
3	QY	13	ASP	3.0
3	XY	106	LEU	3.0
4	RA	1057	A	3.0
31	R6	41	PRO	3.0
35	XA	1003	G	2.9
48	QN	3	ARG	2.9
22	RX	92	LEU	2.9
35	XA	204	U	2.9
3	XY	10	ARG	2.9
35	QA	1007	C	2.9
35	QA	1027	C	2.9
50	QP	19	ILE	2.9
52	QR	43	PHE	2.9
35	QA	1001(B)	G	2.9
11	RI	86	THR	2.9
2	QX	23	A	2.9
3	XY	274	CYS	2.9
3	XY	227	ASP	2.9
3	QY	146	SER	2.9
3	XY	63	LEU	2.9
3	XY	132	ILE	2.9
52	QR	56	THR	2.9
35	XA	1035	A	2.9
4	YA	2897	U	2.9
4	RA	2895	U	2.9
10	RH	103	LEU	2.9
31	R6	5	VAL	2.9
55	QU	12	LYS	2.9
4	YA	652(D)	G	2.9
3	QY	120	SER	2.9
4	YA	1046	A	2.9
31	R6	17	LYS	2.9
3	XY	108	GLU	2.9
23	RY	12	THR	2.9
37	XC	193	TYR	2.9

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Mol	Chain	Res	Type	RSRZ
3	XY	107	GLU	2.9
35	QA	1000	U	2.9
3	XY	180	THR	2.9
23	RY	2	ARG	2.9
31	R6	53	LYS	2.9
3	QY	85	GLU	2.9
4	YA	652(U)	C	2.9
3	XY	31	LYS	2.9
35	XA	1456	G	2.9
44	XJ	6	ILE	2.9
43	QI	33	PHE	2.9
18	RT	37	GLY	2.9
3	XY	166	ILE	2.9
4	RA	2181	G	2.9
10	RH	116	GLU	2.9
23	RY	55	TYR	2.9
43	QI	36	TYR	2.9
3	QY	86	LEU	2.9
3	XY	105	ALA	2.8
35	QA	90	U	2.8
35	XA	1034	G	2.8
53	QS	63	THR	2.8
3	XY	77	LEU	2.8
37	QC	153	VAL	2.8
35	XA	1030(B)	G	2.8
41	QG	86	GLN	2.8
3	XY	330	ASP	2.8
53	QS	41	VAL	2.8
31	Y6	16	CYS	2.8
4	YA	275	G	2.8
24	YZ	186	GLU	2.8
28	Y3	2	PRO	2.8
11	RI	96	ASP	2.8
2	QX	22	C	2.8
4	YA	2135	A	2.8
4	RA	6	A	2.8
4	RA	2130	U	2.8
37	QC	160	ALA	2.8
12	RN	8	GLN	2.8
3	XY	144	TRP	2.8
10	RH	89	ILE	2.8
3	XY	102	GLU	2.8

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Mol	Chain	Res	Type	RSRZ
4	YA	2124	G	2.8
11	RI	14	ASP	2.8
44	QJ	23	ILE	2.8
3	QY	147	MET	2.8
35	QA	1035	A	2.8
3	XY	201	LEU	2.8
41	QG	77	SER	2.8
24	YZ	188	ALA	2.8
3	QY	20	VAL	2.8
47	XM	115	LYS	2.8
53	QS	45	VAL	2.8
4	YA	272(K)	U	2.7
4	YA	1074	G	2.7
3	QY	63	LEU	2.7
44	XJ	34	VAL	2.7
11	RI	20	ASP	2.7
11	RI	138	ILE	2.7
42	QH	107	LEU	2.7
53	QS	15	LEU	2.7
4	YA	2112	G	2.7
4	YA	2157	G	2.7
3	XY	304	ASN	2.7
10	RH	47	GLU	2.7
11	RI	41	GLU	2.7
52	QR	28	GLU	2.7
10	RH	99	VAL	2.7
10	RH	115	VAL	2.7
24	RZ	196	VAL	2.7
31	Y6	54	ILE	2.7
29	Y4	69	LYS	2.7
43	XI	19	LEU	2.7
41	QG	154	TYR	2.7
31	R6	7	ILE	2.7
44	QJ	5	ARG	2.7
29	Y4	49	PHE	2.7
35	XA	1024	G	2.7
10	RH	56	SER	2.7
35	XA	1043	C	2.7
3	QY	214	HIS	2.7
3	QY	344	ASN	2.7
53	QS	65	ASN	2.7
3	XY	37	VAL	2.7

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Mol	Chain	Res	Type	RSRZ
32	R7	48	LYS	2.7
34	R9	13	LYS	2.7
36	XB	165	VAL	2.7
35	XA	1004	A	2.7
4	RA	11	G	2.7
53	QS	20	LEU	2.7
3	XY	52	ARG	2.7
4	YA	2171	A	2.7
36	XB	127	ILE	2.7
4	YA	652(E)	C	2.7
35	QA	1031	G	2.7
3	XY	214	HIS	2.7
17	RS	58	LEU	2.7
24	YZ	190	GLU	2.7
3	QY	165	ILE	2.7
31	R6	11	LEU	2.6
53	QS	16	LEU	2.6
3	XY	78	GLU	2.6
3	XY	202	VAL	2.6
31	Y6	48	VAL	2.6
3	QY	99	ALA	2.6
4	YA	888	C	2.6
41	XG	154	TYR	2.6
3	QY	79	ASP	2.6
11	RI	61	ARG	2.6
55	QU	13	ILE	2.6
53	XS	47	HIS	2.6
3	XY	35	GLU	2.6
31	R6	35	GLU	2.6
55	XU	2	GLY	2.6
3	XY	29	ALA	2.6
35	QA	346	G	2.6
3	QY	300	MET	2.6
3	XY	25	LEU	2.6
44	QJ	20	ALA	2.6
4	YA	2121	G	2.6
4	RA	652(V)	G	2.6
11	RI	16	GLY	2.6
31	Y6	17	LYS	2.6
4	YA	279	C	2.6
4	RA	2178	C	2.6
3	QY	37	VAL	2.6

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Mol	Chain	Res	Type	RSRZ
10	RH	111	HIS	2.6
10	RH	113	VAL	2.6
3	QY	166	ILE	2.6
3	QY	334	LYS	2.6
3	XY	326	TYR	2.6
23	RY	50	ARG	2.6
3	QY	48	ASN	2.6
4	RA	2163	C	2.6
31	R6	40	CYS	2.6
3	QY	45	ASP	2.6
4	YA	1063	G	2.6
12	RN	9	VAL	2.6
4	RA	2892	A	2.6
41	QG	6	ARG	2.6
55	XU	22	ARG	2.6
4	YA	2109	U	2.6
3	XY	141	ALA	2.6
3	QY	208	ASP	2.6
3	QY	239	LEU	2.6
3	QY	272	THR	2.6
10	RH	33	LEU	2.6
3	QY	217	PHE	2.6
4	YA	2150	U	2.6
43	QI	5	TYR	2.6
31	Y6	41	PRO	2.6
31	R6	16	CYS	2.6
53	XS	27	GLU	2.5
31	R6	18	ARG	2.5
3	QY	176	ILE	2.5
36	QB	214	ILE	2.5
4	YA	652(V)	G	2.5
3	QY	333	ILE	2.5
29	R4	59	PHE	2.5
9	YG	47	LYS	2.5
3	QY	341	GLU	2.5
31	R6	52	VAL	2.5
4	RA	2100	G	2.5
11	RI	1	MET	2.5
3	QY	62	SER	2.5
44	QJ	35	SER	2.5
3	XY	265	HIS	2.5
43	QI	4	TYR	2.5

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Mol	Chain	Res	Type	RSRZ
4	RA	1536	C	2.5
4	RA	2135	A	2.5
3	XY	225	GLU	2.5
4	YA	2166	G	2.5
46	XL	64	TYR	2.5
47	QM	117	VAL	2.5
53	XS	56	GLN	2.5
11	RI	4	ILE	2.5
3	QY	286	GLN	2.5
53	QS	4	SER	2.5
4	RA	2893	G	2.5
31	Y6	50	ARG	2.5
23	RY	78	ALA	2.5
37	QC	159	GLY	2.5
42	XH	53	VAL	2.5
53	XS	60	VAL	2.5
4	YA	1536	C	2.5
3	QY	10	ARG	2.5
34	R9	37	GLY	2.5
35	XA	1042	G	2.5
3	QY	236	PRO	2.5
9	RG	75	LYS	2.5
41	XG	20	ASP	2.5
4	RA	652(U)	C	2.5
3	QY	98	GLU	2.5
35	QA	1286	A	2.5
3	XY	150	ARG	2.5
3	QY	23	GLY	2.5
28	R3	2	PRO	2.5
3	QY	325	SER	2.5
4	YA	2149	G	2.5
55	XU	24	ARG	2.5
4	RA	1104	C	2.4
3	XY	20	VAL	2.4
47	XM	32	GLU	2.4
4	YA	2127	G	2.4
36	XB	228	GLY	2.4
52	QR	22	VAL	2.4
35	XA	1027	C	2.4
37	XC	190	ARG	2.4
43	QI	66	ARG	2.4
44	XJ	69	ASN	2.4

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Mol	Chain	Res	Type	RSRZ
4	RA	2166	G	2.4
48	QN	7	ILE	2.4
4	YA	2170	A	2.4
3	QY	353	LEU	2.4
14	YP	118	GLY	2.4
37	XC	101	LEU	2.4
40	QF	90	VAL	2.4
55	QU	2	GLY	2.4
55	QU	24	ARG	2.4
31	Y6	13	CYS	2.4
31	R6	10	LEU	2.4
4	RA	1070	A	2.4
31	R6	44	ARG	2.4
35	XA	1032	G	2.4
47	XM	94	ARG	2.4
47	XM	95	GLY	2.4
4	YA	1026	U	2.4
4	RA	1077	A	2.4
4	RA	1103	A	2.4
35	QA	1042	G	2.4
44	QJ	38	ILE	2.4
49	XO	88	ARG	2.4
4	YA	2808	U	2.4
55	QU	14	TRP	2.4
4	RA	10	G	2.4
4	RA	1044	G	2.4
4	RA	1089	G	2.4
10	RH	30	LYS	2.4
35	QA	791	G	2.4
43	QI	76	ALA	2.4
3	QY	41	LEU	2.4
3	XY	295	LEU	2.4
36	QB	55	PHE	2.4
3	QY	59	GLU	2.4
3	QY	317	ILE	2.4
11	RI	88	ILE	2.4
50	XP	19	ILE	2.4
43	QI	19	LEU	2.4
36	XB	128	GLU	2.4
4	YA	653	A	2.4
43	QI	75	ASP	2.4
4	YA	1072	C	2.4

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Mol	Chain	Res	Type	RSRZ
4	RA	652(W)	C	2.4
34	Y9	29	ASN	2.4
2	XX	14	A	2.3
48	QN	35	ARG	2.3
41	XG	86	GLN	2.3
47	QM	65	LYS	2.3
53	QS	6	LYS	2.3
4	YA	2123	G	2.3
24	RZ	2	GLU	2.3
55	QU	10	ARG	2.3
3	QY	199	HIS	2.3
4	YA	2106	G	2.3
3	XY	16	GLU	2.3
9	RG	49	ASP	2.3
36	XB	63	MET	2.3
3	QY	141	ALA	2.3
4	RA	653	A	2.3
55	XU	23	PRO	2.3
31	R6	29	ASN	2.3
4	RA	2177	C	2.3
47	QM	78	ILE	2.3
10	RH	112	PRO	2.3
25	R0	9	SER	2.3
4	YA	2126	A	2.3
37	QC	81	GLY	2.3
3	XY	346	GLN	2.3
3	QY	131	ASP	2.3
36	XB	133	LYS	2.3
43	QI	50	LEU	2.3
45	QK	90	GLY	2.3
35	XA	789	U	2.3
43	XI	102	LEU	2.3
3	XY	112	GLN	2.3
4	RA	1066	U	2.3
14	RP	138	LEU	2.3
35	XA	1030(E)	A	2.3
36	XB	122	PHE	2.3
42	XH	60	ARG	2.3
45	QK	126	ARG	2.3
49	QO	86	GLY	2.3
3	QY	218	SER	2.3
1	QV	47	U	2.3

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Mol	Chain	Res	Type	RSRZ
1	XV	47	U	2.3
3	XY	327	VAL	2.3
23	RY	35	TYR	2.3
31	Y6	18	ARG	2.3
37	XC	100	ALA	2.3
48	XN	2	ALA	2.3
35	XA	1031	G	2.3
43	QI	67	GLY	2.3
55	QU	21	TYR	2.3
3	QY	215	THR	2.3
3	QY	227	ASP	2.3
3	QY	304	ASN	2.3
44	XJ	36	GLY	2.3
4	RA	1055	G	2.3
53	QS	30	LEU	2.3
3	QY	294	LYS	2.3
3	XY	99	ALA	2.3
3	XY	250	GLY	2.3
36	QB	48	MET	2.3
37	XC	196	LEU	2.3
43	XI	50	LEU	2.3
9	RG	29	TRP	2.2
48	QN	2	ALA	2.3
54	QT	40	ALA	2.3
4	YA	11	G	2.2
4	RA	1058	G	2.2
3	QY	110	LEU	2.2
36	QB	133	LYS	2.2
41	XG	127	ALA	2.2
54	XT	45	GLN	2.2
31	Y6	15	GLU	2.2
53	QS	47	HIS	2.2
53	QS	82	GLY	2.2
36	QB	132	LYS	2.2
3	QY	237	ALA	2.2
41	XG	83	ALA	2.2
43	QI	3	GLN	2.2
31	R6	14	THR	2.2
3	XY	49	GLU	2.2
49	XO	83	GLU	2.2
17	RS	83	LYS	2.2
26	R1	23	LYS	2.2

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Mol	Chain	Res	Type	RSRZ
37	QC	196	LEU	2.2
11	YI	79	ILE	2.2
43	QI	37	PHE	2.2
52	QR	86	VAL	2.2
3	XY	309	ALA	2.2
24	RZ	7	ALA	2.2
3	QY	113	LEU	2.2
35	QA	78	G	2.2
44	QJ	29	ARG	2.2
50	XP	36	ILE	2.2
54	XT	55	ILE	2.2
42	QH	123	GLU	2.2
53	QS	64	GLU	2.2
50	QP	48	TRP	2.2
2	XX	22	C	2.2
4	YA	1102	C	2.2
23	RY	62	GLU	2.2
43	QI	88	TYR	2.2
37	QC	191	THR	2.2
44	QJ	85	LEU	2.2
3	QY	207	PHE	2.2
36	QB	122	PHE	2.2
3	XY	301	GLN	2.2
36	QB	232	PRO	2.2
47	QM	97	PRO	2.2
35	XA	78	G	2.2
35	QA	159	G	2.2
47	QM	92	HIS	2.2
4	YA	9	U	2.2
4	YA	2114	A	2.2
23	RY	76	CYS	2.2
19	RU	116	ALA	2.2
3	QY	142	GLN	2.2
53	XS	30	LEU	2.2
3	XY	289	LYS	2.2
3	QY	168	GLU	2.2
3	XY	340	VAL	2.2
8	YF	27	GLU	2.2
4	RA	2151	G	2.2
37	XC	159	GLY	2.2
3	QY	34	LEU	2.2
3	XY	293	ALA	2.2

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Mol	Chain	Res	Type	RSRZ
47	XM	107	ALA	2.2
55	XU	18	TYR	2.2
3	XY	206	PRO	2.2
29	R4	52	THR	2.2
43	XI	7	THR	2.2
44	QJ	72	VAL	2.2
3	QY	52	ARG	2.2
35	XA	1038	C	2.2
53	QS	80	TYR	2.2
54	XT	7	LYS	2.2
9	RG	80	PHE	2.2
3	QY	128	CYS	2.2
14	RP	119	GLU	2.2
35	QA	1447	A	2.2
39	XE	81	GLU	2.2
3	QY	264	THR	2.2
55	QU	6	ARG	2.2
43	QI	106	ALA	2.1
3	XY	136	SER	2.1
3	XY	158	SER	2.1
3	QY	6	PRO	2.1
8	RF	208	GLY	2.1
3	XY	255	ASN	2.1
35	XA	1044	A	2.1
52	XR	31	LEU	2.1
23	YY	60	PHE	2.1
3	QY	42	GLU	2.1
3	XY	267	PRO	2.1
12	YN	140	VAL	2.1
35	XA	999	C	2.1
50	QP	54	GLU	2.1
53	XS	42	PRO	2.1
3	XY	251	GLY	2.1
37	QC	155	GLY	2.1
3	QY	219	SER	2.1
10	RH	29	PRO	2.1
53	XS	44	MET	2.1
44	QJ	71	LEU	2.1
45	XK	117	ASN	2.1
53	XS	39	THR	2.1
3	QY	35	GLU	2.1
3	QY	170	GLU	2.1

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Mol	Chain	Res	Type	RSRZ
12	RN	140	VAL	2.1
23	RY	45	VAL	2.1
23	RY	75	ILE	2.1
35	XA	1002	G	2.1
35	QA	998	G	2.1
35	XA	1040	U	2.1
10	RH	175	LYS	2.1
41	QG	79	ARG	2.1
4	YA	1070	A	2.1
52	QR	29	PHE	2.1
4	YA	1089	G	2.1
4	RA	352	G	2.1
4	RA	1099	G	2.1
10	RH	96	ALA	2.1
11	RI	39	ALA	2.1
3	XY	341	GLU	2.1
24	RZ	131	ARG	2.1
45	QK	98	LEU	2.1
9	YG	80	PHE	2.1
10	RH	169	VAL	2.1
11	YI	81	VAL	2.1
1	XV	52	G	2.1
3	QY	33	ARG	2.1
3	QY	185	GLY	2.1
3	XY	171	GLY	2.1
3	XY	215	THR	2.1
44	XJ	7	LYS	2.1
55	QU	9	ARG	2.1
3	QY	51	GLU	2.1
3	XY	331	SER	2.1
53	QS	43	GLU	2.1
3	QY	242	ASP	2.1
42	XH	52	ASP	2.1
51	QQ	10	VAL	2.1
51	QQ	11	VAL	2.1
3	QY	318	GLY	2.1
36	QB	143	GLU	2.1
43	XI	4	TYR	2.1
10	RH	13	LYS	2.1
43	QI	55	ALA	2.1
50	XP	53	VAL	2.1
3	XY	197	GLY	2.1

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Mol	Chain	Res	Type	RSRZ
44	XJ	8	LEU	2.1
20	YV	1	MET	2.1
3	QY	15	THR	2.1
18	RT	38	ASN	2.1
11	YI	117	GLU	2.1
41	XG	57	GLU	2.1
35	XA	1023	G	2.1
47	XM	89	GLY	2.1
47	XM	86	CYS	2.1
3	QY	343	ARG	2.1
31	R6	23	THR	2.1
35	QA	1025	U	2.1
3	XY	76	GLY	2.1
4	YA	1103	A	2.1
24	RZ	133	ILE	2.1
4	RA	1072	C	2.1
10	RH	41	MET	2.1
4	YA	2148	G	2.0
4	RA	2149	G	2.0
12	RN	10	GLU	2.0
31	R6	21	TYR	2.0
23	RY	43	ASN	2.0
31	Y6	32	ASN	2.0
3	QY	295	LEU	2.0
53	XS	62	ILE	2.0
3	QY	109	LYS	2.0
3	QY	203	ARG	2.0
4	RA	887	A	2.0
24	RZ	4	ARG	2.0
42	XH	25	ASP	2.0
45	XK	126	ARG	2.0
4	YA	2136	C	2.0
14	RP	94	GLU	2.0
11	YI	88	ILE	2.0
44	QJ	78	ASN	2.0
53	XS	16	LEU	2.0
4	YA	363(A)	G	2.0
35	XA	1000	U	2.0
10	RH	95	ARG	2.0
53	XS	74	PHE	2.0
3	QY	352	SER	2.0
3	XY	281	HIS	2.0

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Mol	Chain	Res	Type	RSRZ
10	RH	46	GLU	2.0
31	R6	15	GLU	2.0
53	QS	38	SER	2.0
36	QB	123	ALA	2.0
37	QC	207	VAL	2.0
44	XJ	72	VAL	2.0
50	XP	21	VAL	2.0
9	RG	3	LEU	2.0
35	QA	204	U	2.0
50	XP	1	MET	2.0
3	XY	18	SER	2.0
4	YA	281	G	2.0
4	YA	652(F)	G	2.0
40	QF	95	GLU	2.0
3	XY	123	TYR	2.0
3	QY	183	ILE	2.0
3	XY	294	LYS	2.0
37	XC	66	VAL	2.0
43	QI	26	VAL	2.0
36	XB	222	ILE	2.0
36	QB	21	ARG	2.0
36	QB	163	PHE	2.0
54	XT	6	PRO	2.0
11	RI	10	GLU	2.0
38	XD	163	GLU	2.0
4	RA	614(B)	U	2.0
11	RI	109	ILE	2.0
39	XE	93	PRO	2.0
4	RA	1088	A	2.0
11	YI	85	GLU	2.0
53	XS	66	MET	2.0
55	XU	17	THR	2.0
43	QI	9	ARG	2.0
50	XP	55	ARG	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	YA	1915	21/22	0.91	0.18	52,76,85,87	0
4	5MU	RA	1915	21/22	0.91	0.13	92,100,114,117	0
46	0TD	XL	92	10/11	0.92	0.20	58,67,84,87	0
35	PSU	XA	516	20/21	0.92	0.19	75,86,95,95	0
4	PSU	YA	1917	20/21	0.93	0.18	51,62,88,91	0
35	PSU	QA	516	20/21	0.93	0.14	71,77,87,88	0
35	M2G	QA	966	25/26	0.93	0.21	71,80,92,93	0
35	4OC	QA	1402	22/23	0.93	0.23	55,67,72,74	0
46	0TD	QL	92	10/11	0.93	0.19	59,72,74,78	0
35	4OC	XA	1402	22/23	0.93	0.23	45,57,67,81	0
4	PSU	RA	1917	20/21	0.93	0.18	53,73,89,103	0
35	5MC	QA	967	21/22	0.94	0.22	71,84,95,99	0
35	2MG	QA	1207	24/25	0.94	0.13	101,124,131,134	0
35	5MC	XA	967	21/22	0.94	0.21	62,75,84,92	0
35	2MG	XA	1207	24/25	0.94	0.17	85,98,106,107	0
35	7MG	QA	527	24/25	0.94	0.21	51,70,76,76	0
35	M2G	XA	966	25/26	0.94	0.19	56,75,94,105	0
4	4OC	RA	1920	21/23	0.95	0.20	55,62,85,94	0
35	MA6	QA	1518	24/25	0.96	0.19	48,58,67,72	0
35	MA6	QA	1519	24/25	0.96	0.25	41,56,68,79	0
35	7MG	XA	527	24/25	0.96	0.20	54,63,74,79	0
4	PSU	RA	1911	20/21	0.96	0.16	55,66,73,74	0
35	5MC	QA	1400	21/22	0.96	0.21	66,75,85,88	0
35	5MC	XA	1400	21/22	0.96	0.18	50,65,74,85	0
35	5MC	QA	1404	21/22	0.96	0.20	55,62,67,73	0
4	4OC	YA	1920	21/23	0.97	0.16	40,47,55,60	0
4	PSU	YA	2605	20/21	0.97	0.22	10,25,42,59	0
4	PSU	YA	1911	20/21	0.97	0.18	45,57,62,63	0
35	5MC	XA	1404	21/22	0.97	0.19	34,45,58,63	0
35	UR3	QA	1498	21/22	0.97	0.18	44,57,69,72	0
35	5MC	XA	1407	21/22	0.97	0.21	46,49,58,59	0
4	5MU	RA	1939	21/22	0.97	0.19	23,37,44,52	0
4	5MC	RA	1942	21/22	0.97	0.20	41,50,62,64	0
4	PSU	RA	2605	20/21	0.97	0.18	19,36,47,48	0
4	2MU	YA	2552	21/23	0.98	0.18	19,28,42,46	0
4	5MU	YA	1939	21/22	0.98	0.18	15,27,36,48	0
4	5MC	YA	1942	21/22	0.98	0.16	25,38,47,50	0
4	5MC	YA	1962	21/22	0.98	0.16	25,33,47,55	0
4	OMG	YA	2251	24/25	0.98	0.20	13,25,35,41	0
35	UR3	XA	1498	21/22	0.98	0.16	34,43,57,66	0
35	MA6	XA	1518	24/25	0.98	0.20	31,41,46,52	0
35	MA6	XA	1519	24/25	0.98	0.19	28,45,53,54	0
35	5MC	QA	1407	21/22	0.98	0.16	44,51,62,68	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	0.16	39,46,52,62	0
4	OMG	RA	2251	24/25	0.98	0.19	31,38,50,55	0
4	2MU	RA	2552	21/23	0.98	0.17	19,33,40,48	0
4	2MA	YA	2503	23/24	0.98	0.18	8,22,36,38	0
4	2MA	RA	2503	23/24	0.99	0.17	16,24,31,37	0

6.3 Carbohydrates (i)

There are no monosaccharides 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	QA	1647	1/1	-0.54	0.50	134,134,134,134	0
56	MG	QA	1601	1/1	-0.53	0.51	129,129,129,129	0
56	MG	XA	1671	1/1	-0.50	1.23	108,108,108,108	0
56	MG	RA	3727	1/1	-0.47	0.55	108,108,108,108	0
56	MG	RA	3115	1/1	-0.42	1.57	92,92,92,92	0
56	MG	QA	1798	1/1	-0.41	1.41	119,119,119,119	0
56	MG	QA	1799	1/1	-0.39	0.83	83,83,83,83	0
56	MG	RA	3282	1/1	-0.38	2.55	109,109,109,109	0
56	MG	RA	3577	1/1	-0.31	1.19	94,94,94,94	0
56	MG	XF	203	1/1	-0.29	1.43	109,109,109,109	0
56	MG	XA	1673	1/1	-0.25	1.69	103,103,103,103	0
56	MG	YA	3247	1/1	-0.25	0.91	106,106,106,106	0
56	MG	YA	3534	1/1	-0.23	0.55	124,124,124,124	0
56	MG	RA	3828	1/1	-0.22	1.88	94,94,94,94	0
56	MG	QA	1826	1/1	-0.21	0.49	74,74,74,74	0
56	MG	YA	3037	1/1	-0.21	0.91	88,88,88,88	0
56	MG	RA	3549	1/1	-0.18	1.04	78,78,78,78	0
56	MG	QA	1839	1/1	-0.16	0.48	93,93,93,93	0
56	MG	RA	3100	1/1	-0.15	1.10	93,93,93,93	0
56	MG	XA	1781	1/1	-0.14	0.82	110,110,110,110	0
56	MG	QA	1612	1/1	-0.14	0.94	97,97,97,97	0
56	MG	YA	3347	1/1	-0.13	0.26	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	QA	1762	1/1	-0.12	1.14	93,93,93,93	0
56	MG	QA	1686	1/1	-0.12	1.00	103,103,103,103	0
56	MG	YA	3267	1/1	-0.11	1.07	100,100,100,100	0
56	MG	YA	3427	1/1	-0.10	1.13	75,75,75,75	0
56	MG	RA	3746	1/1	-0.10	0.68	112,112,112,112	0
56	MG	RA	3800	1/1	-0.10	0.47	102,102,102,102	0
56	MG	QA	1727	1/1	-0.10	0.74	100,100,100,100	0
56	MG	QA	1691	1/1	-0.08	0.46	104,104,104,104	0
56	MG	YA	3057	1/1	-0.06	0.74	99,99,99,99	0
56	MG	QA	1789	1/1	-0.05	0.38	99,99,99,99	0
56	MG	RA	3644	1/1	-0.05	1.04	84,84,84,84	0
56	MG	QA	1856	1/1	-0.05	1.34	89,89,89,89	0
56	MG	XA	1669	1/1	-0.04	0.96	103,103,103,103	0
56	MG	QA	1681	1/1	-0.04	1.02	85,85,85,85	0
56	MG	QA	1720	1/1	-0.04	0.96	97,97,97,97	0
56	MG	RA	3935	1/1	-0.04	0.53	91,91,91,91	0
56	MG	RA	3825	1/1	-0.03	1.08	98,98,98,98	0
56	MG	QY	401	1/1	-0.02	0.41	111,111,111,111	0
56	MG	YA	3396	1/1	-0.01	0.89	94,94,94,94	0
56	MG	QA	1829	1/1	-0.01	0.95	94,94,94,94	0
56	MG	QA	1754	1/1	0.00	0.78	108,108,108,108	0
56	MG	YA	3086	1/1	0.01	0.93	95,95,95,95	0
56	MG	RA	3782	1/1	0.01	0.59	94,94,94,94	0
56	MG	QA	1735	1/1	0.02	0.69	107,107,107,107	0
56	MG	QA	1760	1/1	0.04	0.99	77,77,77,77	0
56	MG	RA	3994	1/1	0.04	0.90	88,88,88,88	0
56	MG	YA	3166	1/1	0.06	1.13	132,132,132,132	0
56	MG	QA	1757	1/1	0.06	1.01	86,86,86,86	0
56	MG	QA	1769	1/1	0.06	0.56	95,95,95,95	0
56	MG	QA	1871	1/1	0.07	2.54	100,100,100,100	0
56	MG	RA	3005	1/1	0.07	1.07	99,99,99,99	0
56	MG	YA	3246	1/1	0.07	0.51	118,118,118,118	0
56	MG	XA	1651	1/1	0.07	0.56	90,90,90,90	0
56	MG	QA	1693	1/1	0.08	0.40	88,88,88,88	0
56	MG	XA	1654	1/1	0.08	0.95	89,89,89,89	0
56	MG	YN	201	1/1	0.09	0.84	87,87,87,87	0
56	MG	RA	3942	1/1	0.09	0.90	104,104,104,104	0
56	MG	XA	1692	1/1	0.09	0.81	75,75,75,75	0
56	MG	RV	201	1/1	0.09	0.65	110,110,110,110	0
56	MG	XA	1711	1/1	0.10	0.62	92,92,92,92	0
56	MG	XA	1773	1/1	0.12	0.99	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	QA	1867	1/1	0.12	1.16	99,99,99,99	0
56	MG	YA	3185	1/1	0.12	0.88	105,105,105,105	0
56	MG	RT	203	1/1	0.12	0.48	88,88,88,88	0
56	MG	XA	1728	1/1	0.12	0.96	101,101,101,101	0
57	ZN	Y4	101	1/1	0.12	0.46	305,305,305,305	0
56	MG	RA	3787	1/1	0.13	1.15	105,105,105,105	0
56	MG	YA	3637	1/1	0.13	1.17	101,101,101,101	0
56	MG	YA	3465	1/1	0.13	0.82	82,82,82,82	0
56	MG	RA	3062	1/1	0.13	0.20	82,82,82,82	0
56	MG	YA	3417	1/1	0.13	0.69	106,106,106,106	0
56	MG	RA	3590	1/1	0.14	0.90	104,104,104,104	0
56	MG	QU	101	1/1	0.14	0.50	81,81,81,81	0
56	MG	RA	3261	1/1	0.14	0.49	82,82,82,82	0
56	MG	QA	1860	1/1	0.14	0.63	100,100,100,100	0
56	MG	RA	3752	1/1	0.14	0.57	102,102,102,102	0
56	MG	RA	3998	1/1	0.14	0.88	87,87,87,87	0
56	MG	RB	226	1/1	0.14	0.71	99,99,99,99	0
56	MG	RA	3429	1/1	0.14	0.21	89,89,89,89	0
56	MG	YA	3415	1/1	0.14	1.04	84,84,84,84	0
56	MG	QA	1791	1/1	0.14	0.85	96,96,96,96	0
56	MG	XA	1718	1/1	0.15	1.31	73,73,73,73	0
56	MG	YA	3056	1/1	0.15	1.13	81,81,81,81	0
56	MG	RA	3322	1/1	0.15	0.89	90,90,90,90	0
56	MG	XA	1634	1/1	0.16	0.48	75,75,75,75	0
56	MG	QY	403	1/1	0.16	0.84	81,81,81,81	0
56	MG	QA	1763	1/1	0.17	1.05	100,100,100,100	0
56	MG	XA	1783	1/1	0.17	1.28	99,99,99,99	0
56	MG	YA	3193	1/1	0.17	0.69	101,101,101,101	0
56	MG	YA	3449	1/1	0.18	0.82	81,81,81,81	0
56	MG	RA	3437	1/1	0.18	0.65	77,77,77,77	0
56	MG	RB	211	1/1	0.19	0.37	95,95,95,95	0
56	MG	QA	1745	1/1	0.19	0.85	98,98,98,98	0
56	MG	XA	1647	1/1	0.19	0.34	92,92,92,92	0
56	MG	RA	3058	1/1	0.19	1.05	88,88,88,88	0
56	MG	RA	3681	1/1	0.19	0.66	119,119,119,119	0
56	MG	YA	3253	1/1	0.20	0.62	98,98,98,98	0
56	MG	RA	4015	1/1	0.20	0.93	89,89,89,89	0
56	MG	YA	3164	1/1	0.20	0.90	87,87,87,87	0
56	MG	YA	3311	1/1	0.20	1.35	94,94,94,94	0
56	MG	RA	3481	1/1	0.20	0.21	81,81,81,81	0
56	MG	RA	3961	1/1	0.20	1.06	114,114,114,114	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YB	209	1/1	0.20	1.03	102,102,102,102	0
56	MG	YA	3148	1/1	0.21	0.82	92,92,92,92	0
56	MG	YA	3174	1/1	0.21	0.95	95,95,95,95	0
56	MG	QA	1858	1/1	0.21	0.93	115,115,115,115	0
56	MG	QA	1668	1/1	0.21	0.65	102,102,102,102	0
56	MG	YA	3737	1/1	0.21	1.33	107,107,107,107	0
56	MG	QA	1725	1/1	0.21	0.64	90,90,90,90	0
56	MG	QA	1677	1/1	0.22	0.93	94,94,94,94	0
56	MG	QA	1830	1/1	0.22	0.25	85,85,85,85	0
56	MG	RA	3490	1/1	0.23	0.51	86,86,86,86	0
56	MG	XA	1719	1/1	0.23	0.97	95,95,95,95	0
56	MG	RG	201	1/1	0.23	0.52	121,121,121,121	0
56	MG	YA	3722	1/1	0.24	0.51	89,89,89,89	0
56	MG	RA	3733	1/1	0.25	0.97	96,96,96,96	0
56	MG	RA	3198	1/1	0.25	1.25	84,84,84,84	0
56	MG	RA	3279	1/1	0.25	0.58	103,103,103,103	0
56	MG	RA	3525	1/1	0.25	0.89	65,65,65,65	0
56	MG	QA	1878	1/1	0.26	1.22	108,108,108,108	0
56	MG	RA	3669	1/1	0.26	0.63	81,81,81,81	0
56	MG	YA	3565	1/1	0.26	0.82	85,85,85,85	0
56	MG	RA	3603	1/1	0.26	0.49	101,101,101,101	0
56	MG	XA	1668	1/1	0.27	0.71	87,87,87,87	0
56	MG	YB	218	1/1	0.27	0.41	80,80,80,80	0
56	MG	YA	3531	1/1	0.27	0.34	66,66,66,66	0
56	MG	QA	1748	1/1	0.27	0.55	92,92,92,92	0
56	MG	XA	1649	1/1	0.28	0.36	92,92,92,92	0
56	MG	YA	3308	1/1	0.28	0.28	64,64,64,64	0
56	MG	RE	304	1/1	0.28	0.73	75,75,75,75	0
56	MG	YA	3165	1/1	0.28	0.52	73,73,73,73	0
56	MG	RA	3809	1/1	0.28	0.68	76,76,76,76	0
56	MG	RA	3370	1/1	0.28	1.04	88,88,88,88	0
56	MG	QE	202	1/1	0.28	0.55	91,91,91,91	0
56	MG	RA	3688	1/1	0.29	0.33	90,90,90,90	0
56	MG	QA	1819	1/1	0.29	0.58	65,65,65,65	0
56	MG	RB	208	1/1	0.29	0.31	90,90,90,90	0
56	MG	RA	3367	1/1	0.29	0.65	74,74,74,74	0
56	MG	RA	3090	1/1	0.29	0.42	93,93,93,93	0
56	MG	RA	3662	1/1	0.29	0.95	89,89,89,89	0
56	MG	QA	1764	1/1	0.29	0.35	101,101,101,101	0
56	MG	RA	3950	1/1	0.29	0.81	87,87,87,87	0
56	MG	RA	3786	1/1	0.29	0.66	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3421	1/1	0.29	1.22	75,75,75,75	0
56	MG	QA	1835	1/1	0.30	0.74	89,89,89,89	0
56	MG	QM	201	1/1	0.30	0.64	85,85,85,85	0
56	MG	QA	1736	1/1	0.30	0.83	86,86,86,86	0
56	MG	RA	3197	1/1	0.30	1.25	85,85,85,85	0
56	MG	XA	1652	1/1	0.30	0.51	78,78,78,78	0
56	MG	YA	3069	1/1	0.30	0.81	78,78,78,78	0
56	MG	RA	3824	1/1	0.30	1.41	76,76,76,76	0
56	MG	QD	301	1/1	0.30	1.59	90,90,90,90	0
56	MG	YA	3107	1/1	0.31	0.71	80,80,80,80	0
56	MG	QA	1652	1/1	0.31	0.63	83,83,83,83	0
56	MG	YA	3535	1/1	0.31	0.99	75,75,75,75	0
56	MG	QA	1814	1/1	0.31	0.53	97,97,97,97	0
56	MG	QA	1674	1/1	0.31	0.39	85,85,85,85	0
56	MG	QA	1664	1/1	0.32	0.94	92,92,92,92	0
56	MG	XA	1675	1/1	0.32	0.77	82,82,82,82	0
56	MG	QG	203	1/1	0.32	1.45	100,100,100,100	0
56	MG	QA	1788	1/1	0.32	0.67	81,81,81,81	0
56	MG	QA	1715	1/1	0.32	0.45	77,77,77,77	0
56	MG	YA	3003	1/1	0.33	0.97	106,106,106,106	0
56	MG	RA	3011	1/1	0.33	0.61	84,84,84,84	0
56	MG	YA	3302	1/1	0.33	0.82	72,72,72,72	0
56	MG	RV	204	1/1	0.33	0.48	70,70,70,70	0
56	MG	QA	1768	1/1	0.33	0.29	91,91,91,91	0
56	MG	YA	3462	1/1	0.34	0.78	75,75,75,75	0
56	MG	RA	3636	1/1	0.34	1.26	91,91,91,91	0
56	MG	XA	1682	1/1	0.34	0.74	86,86,86,86	0
56	MG	RA	3039	1/1	0.34	0.57	76,76,76,76	0
56	MG	YT	202	1/1	0.34	0.84	84,84,84,84	0
56	MG	QA	1753	1/1	0.34	0.49	71,71,71,71	0
56	MG	YE	301	1/1	0.34	0.48	95,95,95,95	0
56	MG	RA	3193	1/1	0.35	0.60	94,94,94,94	0
56	MG	RA	3747	1/1	0.35	0.59	96,96,96,96	0
56	MG	QA	1842	1/1	0.35	0.39	84,84,84,84	0
56	MG	RA	3754	1/1	0.35	0.81	92,92,92,92	0
56	MG	RA	4054	1/1	0.35	1.00	97,97,97,97	0
56	MG	RA	3740	1/1	0.35	1.03	76,76,76,76	0
56	MG	RA	3954	1/1	0.35	0.70	77,77,77,77	0
56	MG	QA	1787	1/1	0.36	0.75	76,76,76,76	0
56	MG	RA	3271	1/1	0.36	0.45	93,93,93,93	0
56	MG	RA	3277	1/1	0.36	0.69	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	XA	1637	1/1	0.36	0.69	89,89,89,89	0
56	MG	YF	302	1/1	0.36	0.54	85,85,85,85	0
56	MG	YA	3370	1/1	0.36	0.31	67,67,67,67	0
56	MG	YA	3726	1/1	0.36	0.85	81,81,81,81	0
56	MG	YA	3262	1/1	0.36	0.65	88,88,88,88	0
56	MG	RA	3511	1/1	0.37	1.20	62,62,62,62	0
56	MG	YA	3437	1/1	0.37	0.87	85,85,85,85	0
56	MG	YA	3478	1/1	0.37	0.49	67,67,67,67	0
56	MG	YA	3528	1/1	0.37	0.63	104,104,104,104	0
56	MG	QA	1641	1/1	0.37	0.68	105,105,105,105	0
56	MG	XA	1703	1/1	0.37	0.71	60,60,60,60	0
56	MG	XA	1704	1/1	0.37	0.32	83,83,83,83	0
56	MG	XA	1660	1/1	0.37	0.38	99,99,99,99	0
56	MG	RA	3103	1/1	0.37	0.49	104,104,104,104	0
56	MG	YA	3233	1/1	0.38	0.48	95,95,95,95	0
56	MG	RA	3203	1/1	0.38	0.75	97,97,97,97	0
56	MG	RA	3977	1/1	0.38	0.96	62,62,62,62	0
56	MG	RA	3949	1/1	0.38	0.67	80,80,80,80	0
56	MG	RA	3239	1/1	0.38	0.80	112,112,112,112	0
56	MG	R1	102	1/1	0.38	0.98	71,71,71,71	0
56	MG	RD	313	1/1	0.38	0.78	82,82,82,82	0
56	MG	RA	3790	1/1	0.39	0.48	82,82,82,82	0
56	MG	YA	3578	1/1	0.39	0.94	95,95,95,95	0
56	MG	YA	3094	1/1	0.39	0.40	68,68,68,68	0
56	MG	RA	3672	1/1	0.39	0.70	75,75,75,75	0
56	MG	RA	3985	1/1	0.39	0.67	81,81,81,81	0
56	MG	RA	3512	1/1	0.39	0.90	80,80,80,80	0
56	MG	RA	3620	1/1	0.39	0.59	90,90,90,90	0
56	MG	RA	3699	1/1	0.39	1.15	98,98,98,98	0
56	MG	YA	3099	1/1	0.39	0.63	106,106,106,106	0
56	MG	QA	1813	1/1	0.39	0.81	83,83,83,83	0
56	MG	XA	1608	1/1	0.40	0.49	76,76,76,76	0
56	MG	RA	3086	1/1	0.40	0.76	124,124,124,124	0
56	MG	QA	1866	1/1	0.40	1.86	89,89,89,89	0
56	MG	XA	1604	1/1	0.41	0.70	99,99,99,99	0
56	MG	YA	3545	1/1	0.41	0.45	99,99,99,99	0
56	MG	QA	1611	1/1	0.41	0.80	89,89,89,89	0
56	MG	RA	3544	1/1	0.41	0.80	78,78,78,78	0
56	MG	XA	1693	1/1	0.41	0.53	81,81,81,81	0
56	MG	RA	3439	1/1	0.41	0.71	89,89,89,89	0
56	MG	RH	202	1/1	0.41	0.48	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3316	1/1	0.41	0.61	84,84,84,84	0
56	MG	YB	206	1/1	0.41	0.61	99,99,99,99	0
56	MG	RA	3849	1/1	0.41	0.67	52,52,52,52	0
56	MG	RZ	301	1/1	0.41	0.34	66,66,66,66	0
56	MG	RA	3882	1/1	0.41	0.75	77,77,77,77	0
56	MG	RA	3694	1/1	0.41	0.52	107,107,107,107	0
56	MG	QN	103	1/1	0.42	0.99	80,80,80,80	0
56	MG	RA	4035	1/1	0.42	0.39	116,116,116,116	0
56	MG	YA	3177	1/1	0.42	0.20	71,71,71,71	0
56	MG	RA	3422	1/1	0.42	0.73	84,84,84,84	0
56	MG	RA	3302	1/1	0.42	0.53	92,92,92,92	0
56	MG	XA	1618	1/1	0.42	0.78	72,72,72,72	0
56	MG	QA	1657	1/1	0.42	0.59	98,98,98,98	0
56	MG	R4	102	1/1	0.42	0.36	88,88,88,88	0
56	MG	RA	3547	1/1	0.42	0.37	74,74,74,74	0
56	MG	RB	229	1/1	0.43	0.50	108,108,108,108	0
56	MG	QA	1873	1/1	0.43	0.63	70,70,70,70	0
56	MG	RA	3798	1/1	0.43	1.30	99,99,99,99	0
56	MG	YA	3501	1/1	0.43	0.67	115,115,115,115	0
56	MG	QA	1756	1/1	0.43	0.57	114,114,114,114	0
56	MG	YA	3344	1/1	0.43	0.28	80,80,80,80	0
56	MG	QA	1738	1/1	0.44	0.60	98,98,98,98	0
56	MG	YA	3214	1/1	0.44	0.73	111,111,111,111	0
56	MG	QA	1680	1/1	0.44	0.38	64,64,64,64	0
56	MG	QA	1642	1/1	0.44	0.65	83,83,83,83	0
56	MG	RA	3179	1/1	0.44	0.93	77,77,77,77	0
56	MG	RA	3399	1/1	0.44	0.73	117,117,117,117	0
56	MG	XA	1661	1/1	0.45	0.34	87,87,87,87	0
56	MG	RA	3142	1/1	0.45	0.43	76,76,76,76	0
56	MG	RE	302	1/1	0.45	0.33	109,109,109,109	0
56	MG	XH	201	1/1	0.45	0.61	78,78,78,78	0
56	MG	RF	310	1/1	0.45	0.70	88,88,88,88	0
56	MG	RA	3556	1/1	0.45	0.71	75,75,75,75	0
56	MG	RA	3840	1/1	0.45	0.55	83,83,83,83	0
56	MG	YA	3658	1/1	0.45	0.29	77,77,77,77	0
56	MG	YA	3241	1/1	0.45	0.50	85,85,85,85	0
56	MG	QA	1685	1/1	0.45	0.43	91,91,91,91	0
56	MG	RA	3105	1/1	0.45	0.55	71,71,71,71	0
56	MG	RA	3948	1/1	0.45	0.61	89,89,89,89	0
56	MG	RA	3537	1/1	0.45	0.60	93,93,93,93	0
56	MG	RA	3538	1/1	0.45	0.34	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	YA	3524	1/1	0.46	0.39	96,96,96,96	0
56	MG	RA	3617	1/1	0.46	0.57	83,83,83,83	0
56	MG	YA	3369	1/1	0.46	0.17	63,63,63,63	0
56	MG	YA	3108	1/1	0.46	0.50	98,98,98,98	0
56	MG	QY	402	1/1	0.46	0.56	111,111,111,111	0
56	MG	QA	1698	1/1	0.46	0.40	100,100,100,100	0
56	MG	R0	104	1/1	0.46	0.45	90,90,90,90	0
56	MG	YA	3461	1/1	0.46	0.93	81,81,81,81	0
56	MG	QD	304	1/1	0.46	0.27	111,111,111,111	0
56	MG	RA	3425	1/1	0.46	0.49	94,94,94,94	0
56	MG	RA	3589	1/1	0.47	0.64	100,100,100,100	0
56	MG	RA	4047	1/1	0.47	0.64	117,117,117,117	0
56	MG	XA	1727	1/1	0.47	0.44	84,84,84,84	0
56	MG	QA	1837	1/1	0.47	0.44	69,69,69,69	0
56	MG	QA	1805	1/1	0.47	0.23	76,76,76,76	0
56	MG	YA	3450	1/1	0.47	0.73	79,79,79,79	0
56	MG	RA	3858	1/1	0.47	0.71	80,80,80,80	0
56	MG	RA	3625	1/1	0.47	0.70	91,91,91,91	0
56	MG	RA	3751	1/1	0.47	0.33	51,51,51,51	0
56	MG	RA	3940	1/1	0.47	0.69	83,83,83,83	0
56	MG	RA	3634	1/1	0.47	0.63	81,81,81,81	0
56	MG	QA	1848	1/1	0.47	0.59	68,68,68,68	0
56	MG	YA	3232	1/1	0.47	0.35	104,104,104,104	0
56	MG	RA	3237	1/1	0.47	0.51	100,100,100,100	0
56	MG	QA	1602	1/1	0.47	0.16	95,95,95,95	0
56	MG	YA	3603	1/1	0.47	0.53	100,100,100,100	0
56	MG	RA	3796	1/1	0.47	1.00	67,67,67,67	0
56	MG	QA	1682	1/1	0.47	0.38	93,93,93,93	0
56	MG	QO	101	1/1	0.47	0.61	79,79,79,79	0
56	MG	YA	3523	1/1	0.47	0.29	56,56,56,56	0
56	MG	RA	3817	1/1	0.47	0.80	76,76,76,76	0
56	MG	RA	3497	1/1	0.48	0.34	82,82,82,82	0
56	MG	XA	1648	1/1	0.48	0.54	74,74,74,74	0
56	MG	XA	1709	1/1	0.48	0.17	72,72,72,72	0
56	MG	RA	3524	1/1	0.48	0.66	71,71,71,71	0
56	MG	RA	3375	1/1	0.48	0.70	73,73,73,73	0
56	MG	XA	1672	1/1	0.48	0.58	91,91,91,91	0
56	MG	YA	3459	1/1	0.48	0.38	85,85,85,85	0
56	MG	YA	3511	1/1	0.48	0.61	60,60,60,60	0
56	MG	QA	1630	1/1	0.48	0.64	81,81,81,81	0
56	MG	RA	3875	1/1	0.48	0.62	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3312	1/1	0.48	1.05	124,124,124,124	0
56	MG	XA	1725	1/1	0.48	0.71	87,87,87,87	0
56	MG	RA	3457	1/1	0.48	1.14	81,81,81,81	0
56	MG	QA	1861	1/1	0.48	0.95	75,75,75,75	0
56	MG	RA	3351	1/1	0.48	0.67	70,70,70,70	0
56	MG	XA	1723	1/1	0.49	0.28	75,75,75,75	0
56	MG	QA	1728	1/1	0.49	0.31	64,64,64,64	0
56	MG	QA	1823	1/1	0.49	0.63	70,70,70,70	0
56	MG	RA	3285	1/1	0.49	0.65	85,85,85,85	0
56	MG	RA	3126	1/1	0.49	1.11	79,79,79,79	0
56	MG	R0	103	1/1	0.49	1.36	81,81,81,81	0
56	MG	QA	1645	1/1	0.49	0.36	75,75,75,75	0
56	MG	YA	3131	1/1	0.49	0.34	88,88,88,88	0
56	MG	YA	3110	1/1	0.49	0.48	63,63,63,63	0
56	MG	RA	3276	1/1	0.49	0.66	91,91,91,91	0
56	MG	RA	3951	1/1	0.50	0.53	87,87,87,87	0
56	MG	RA	3823	1/1	0.50	0.53	97,97,97,97	0
56	MG	RA	3112	1/1	0.50	0.52	117,117,117,117	0
56	MG	YA	3273	1/1	0.50	0.88	72,72,72,72	0
56	MG	YA	3409	1/1	0.50	0.27	120,120,120,120	0
56	MG	XA	1674	1/1	0.50	0.32	73,73,73,73	0
56	MG	QA	1812	1/1	0.51	1.00	68,68,68,68	0
56	MG	RH	201	1/1	0.51	0.53	88,88,88,88	0
56	MG	RA	3807	1/1	0.51	0.59	70,70,70,70	0
56	MG	YA	3628	1/1	0.51	0.48	105,105,105,105	0
56	MG	RA	3810	1/1	0.51	0.63	75,75,75,75	0
56	MG	RA	3812	1/1	0.51	0.65	106,106,106,106	0
56	MG	QA	1733	1/1	0.51	0.81	60,60,60,60	0
56	MG	RD	310	1/1	0.51	0.40	94,94,94,94	0
56	MG	YA	3466	1/1	0.51	0.56	80,80,80,80	0
56	MG	RA	3580	1/1	0.51	0.66	112,112,112,112	0
56	MG	R3	101	1/1	0.51	0.99	95,95,95,95	0
56	MG	YA	3092	1/1	0.51	0.25	113,113,113,113	0
56	MG	RA	3065	1/1	0.51	0.58	89,89,89,89	0
56	MG	XA	1785	1/1	0.52	0.44	81,81,81,81	0
56	MG	QA	1783	1/1	0.52	0.22	77,77,77,77	0
56	MG	XA	1624	1/1	0.52	0.64	76,76,76,76	0
56	MG	RA	3249	1/1	0.52	0.71	94,94,94,94	0
56	MG	YA	3150	1/1	0.52	0.79	84,84,84,84	0
56	MG	XJ	201	1/1	0.52	0.15	97,97,97,97	0
56	MG	XA	1603	1/1	0.52	0.83	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	QA	1831	1/1	0.52	0.40	93,93,93,93	0
56	MG	XA	1639	1/1	0.52	0.52	98,98,98,98	0
56	MG	YB	201	1/1	0.52	0.52	89,89,89,89	0
56	MG	RA	3283	1/1	0.52	0.61	101,101,101,101	0
56	MG	YA	3236	1/1	0.52	0.34	106,106,106,106	0
56	MG	QA	1697	1/1	0.52	0.31	76,76,76,76	0
56	MG	YA	3467	1/1	0.52	0.97	82,82,82,82	0
56	MG	RA	3871	1/1	0.53	0.49	77,77,77,77	0
56	MG	YA	3676	1/1	0.53	0.89	73,73,73,73	0
56	MG	RA	3963	1/1	0.53	1.90	110,110,110,110	0
56	MG	RA	3311	1/1	0.53	0.41	100,100,100,100	0
56	MG	XA	1621	1/1	0.53	0.63	68,68,68,68	0
56	MG	YT	203	1/1	0.53	0.35	78,78,78,78	0
56	MG	Y1	101	1/1	0.53	1.04	104,104,104,104	0
56	MG	QA	1832	1/1	0.53	0.65	92,92,92,92	0
56	MG	RA	3035	1/1	0.53	0.51	97,97,97,97	0
56	MG	RA	3768	1/1	0.53	0.90	76,76,76,76	0
56	MG	XA	1702	1/1	0.53	0.40	61,61,61,61	0
56	MG	XA	1753	1/1	0.54	0.64	99,99,99,99	0
56	MG	RA	3491	1/1	0.54	0.86	81,81,81,81	0
56	MG	YA	3191	1/1	0.54	0.14	76,76,76,76	0
56	MG	YB	205	1/1	0.54	0.67	89,89,89,89	0
56	MG	XA	1643	1/1	0.54	0.15	80,80,80,80	0
56	MG	RB	215	1/1	0.54	0.32	91,91,91,91	0
56	MG	XA	1662	1/1	0.54	0.24	80,80,80,80	0
56	MG	RA	3976	1/1	0.54	0.72	81,81,81,81	0
56	MG	XE	201	1/1	0.54	0.49	79,79,79,79	0
56	MG	QA	1620	1/1	0.54	0.28	75,75,75,75	0
56	MG	YA	3403	1/1	0.54	0.41	59,59,59,59	0
56	MG	RA	3195	1/1	0.54	0.55	115,115,115,115	0
56	MG	QA	1636	1/1	0.54	0.31	66,66,66,66	0
57	ZN	RY	201	1/1	0.54	0.22	210,210,210,210	0
56	MG	YA	3464	1/1	0.55	0.74	73,73,73,73	0
56	MG	RA	3523	1/1	0.55	0.97	64,64,64,64	0
56	MG	YA	3488	1/1	0.55	0.35	105,105,105,105	0
56	MG	RA	4004	1/1	0.55	0.39	93,93,93,93	0
56	MG	QA	1675	1/1	0.55	1.03	94,94,94,94	0
56	MG	YA	3176	1/1	0.55	0.45	102,102,102,102	0
56	MG	QH	201	1/1	0.55	0.46	76,76,76,76	0
56	MG	YA	3211	1/1	0.55	0.55	89,89,89,89	0
56	MG	RB	203	1/1	0.55	0.49	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	3546	1/1	0.55	0.43	111,111,111,111	0
56	MG	YA	3167	1/1	0.55	0.91	88,88,88,88	0
56	MG	RA	3851	1/1	0.56	0.15	91,91,91,91	0
56	MG	RA	3519	1/1	0.56	0.46	82,82,82,82	0
56	MG	YA	3443	1/1	0.56	0.81	81,81,81,81	0
56	MG	YA	3738	1/1	0.56	0.56	68,68,68,68	0
56	MG	YA	3270	1/1	0.56	0.45	83,83,83,83	0
56	MG	RA	3309	1/1	0.56	0.56	63,63,63,63	0
56	MG	RA	3432	1/1	0.56	0.44	58,58,58,58	0
56	MG	RA	3839	1/1	0.56	0.64	72,72,72,72	0
56	MG	YW	202	1/1	0.56	0.25	55,55,55,55	0
56	MG	XA	1666	1/1	0.56	0.81	63,63,63,63	0
56	MG	RA	3272	1/1	0.57	0.35	83,83,83,83	0
56	MG	RA	3982	1/1	0.57	0.55	83,83,83,83	0
56	MG	RA	3983	1/1	0.57	0.66	84,84,84,84	0
56	MG	RF	302	1/1	0.57	0.77	73,73,73,73	0
56	MG	XA	1664	1/1	0.57	0.32	67,67,67,67	0
56	MG	QA	1792	1/1	0.57	0.61	69,69,69,69	0
56	MG	QA	1794	1/1	0.57	0.48	79,79,79,79	0
56	MG	YA	3667	1/1	0.57	0.67	90,90,90,90	0
56	MG	RN	202	1/1	0.57	1.09	98,98,98,98	0
56	MG	RA	3517	1/1	0.57	0.42	107,107,107,107	0
56	MG	QA	1774	1/1	0.57	0.43	77,77,77,77	0
56	MG	YA	3544	1/1	0.57	0.54	81,81,81,81	0
56	MG	RA	3217	1/1	0.57	0.35	88,88,88,88	0
56	MG	RA	3036	1/1	0.57	0.43	69,69,69,69	0
56	MG	YB	211	1/1	0.57	0.36	70,70,70,70	0
56	MG	YA	3529	1/1	0.57	0.79	73,73,73,73	0
56	MG	RA	3542	1/1	0.57	0.55	76,76,76,76	0
56	MG	YA	3662	1/1	0.57	0.82	91,91,91,91	0
56	MG	R9	101	1/1	0.57	0.39	92,92,92,92	0
56	MG	RA	3463	1/1	0.57	0.51	78,78,78,78	0
56	MG	RA	3162	1/1	0.57	1.08	72,72,72,72	0
56	MG	RB	222	1/1	0.58	0.45	94,94,94,94	0
56	MG	RB	225	1/1	0.58	0.46	76,76,76,76	0
56	MG	YA	3085	1/1	0.58	0.28	86,86,86,86	0
56	MG	RA	3867	1/1	0.58	0.15	63,63,63,63	0
56	MG	QA	1780	1/1	0.58	0.24	92,92,92,92	0
56	MG	RA	3364	1/1	0.58	0.39	96,96,96,96	0
56	MG	QA	1793	1/1	0.58	1.27	82,82,82,82	0
56	MG	RA	3967	1/1	0.58	0.60	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	YE	303	1/1	0.58	0.43	103,103,103,103	0
56	MG	YA	3147	1/1	0.58	0.38	84,84,84,84	0
56	MG	QA	1653	1/1	0.58	0.45	85,85,85,85	0
56	MG	QV	101	1/1	0.58	0.66	118,118,118,118	0
56	MG	RA	3031	1/1	0.58	0.40	75,75,75,75	0
56	MG	RA	3068	1/1	0.59	0.51	79,79,79,79	0
56	MG	RA	3078	1/1	0.59	0.88	70,70,70,70	0
56	MG	YA	3451	1/1	0.59	0.39	64,64,64,64	0
56	MG	YA	3695	1/1	0.59	0.99	76,76,76,76	0
56	MG	RA	3742	1/1	0.59	0.60	81,81,81,81	0
56	MG	YA	3456	1/1	0.59	0.70	68,68,68,68	0
56	MG	YA	3103	1/1	0.59	0.26	63,63,63,63	0
56	MG	QA	1865	1/1	0.59	0.82	75,75,75,75	0
56	MG	QA	1766	1/1	0.59	0.40	71,71,71,71	0
56	MG	RA	3953	1/1	0.59	0.32	86,86,86,86	0
56	MG	QL	203	1/1	0.59	0.21	60,60,60,60	0
56	MG	RA	3958	1/1	0.59	0.53	104,104,104,104	0
56	MG	RA	3252	1/1	0.59	0.63	91,91,91,91	0
56	MG	YA	3184	1/1	0.59	0.43	80,80,80,80	0
56	MG	RA	3134	1/1	0.59	0.56	83,83,83,83	0
56	MG	RA	3675	1/1	0.59	0.35	75,75,75,75	0
56	MG	QA	1847	1/1	0.59	1.11	64,64,64,64	0
56	MG	YA	3061	1/1	0.59	0.60	57,57,57,57	0
56	MG	RA	3066	1/1	0.59	0.58	56,56,56,56	0
56	MG	QA	1661	1/1	0.60	0.63	81,81,81,81	0
56	MG	QA	1749	1/1	0.60	0.98	56,56,56,56	0
56	MG	YA	3379	1/1	0.60	0.35	70,70,70,70	0
56	MG	RA	3916	1/1	0.60	0.74	72,72,72,72	0
56	MG	QA	1836	1/1	0.60	0.41	89,89,89,89	0
56	MG	YA	3431	1/1	0.60	0.62	57,57,57,57	0
56	MG	RA	4008	1/1	0.60	0.34	86,86,86,86	0
56	MG	RA	3654	1/1	0.60	0.44	87,87,87,87	0
56	MG	RA	3818	1/1	0.60	0.68	67,67,67,67	0
56	MG	RA	3564	1/1	0.60	0.60	101,101,101,101	0
56	MG	RA	3051	1/1	0.60	0.62	83,83,83,83	0
56	MG	QA	1712	1/1	0.60	0.56	87,87,87,87	0
56	MG	RA	3583	1/1	0.60	0.62	72,72,72,72	0
56	MG	XA	1609	1/1	0.60	1.37	88,88,88,88	0
56	MG	RA	3683	1/1	0.60	0.50	96,96,96,96	0
56	MG	RA	3847	1/1	0.60	0.44	102,102,102,102	0
56	MG	RB	224	1/1	0.60	0.70	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	YP	201	1/1	0.60	0.57	79,79,79,79	0
56	MG	YA	3718	1/1	0.60	0.37	60,60,60,60	0
56	MG	QA	1785	1/1	0.60	0.52	84,84,84,84	0
56	MG	RA	3722	1/1	0.60	0.38	82,82,82,82	0
56	MG	YA	3119	1/1	0.61	0.57	78,78,78,78	0
56	MG	YA	3203	1/1	0.61	0.53	84,84,84,84	0
56	MG	RA	3057	1/1	0.61	0.54	93,93,93,93	0
56	MG	QA	1862	1/1	0.61	0.52	101,101,101,101	0
56	MG	RA	3061	1/1	0.61	0.22	84,84,84,84	0
56	MG	YA	3446	1/1	0.61	0.66	71,71,71,71	0
56	MG	RA	3202	1/1	0.61	0.59	92,92,92,92	0
56	MG	RA	3691	1/1	0.61	0.47	64,64,64,64	0
56	MG	YA	3419	1/1	0.61	0.49	66,66,66,66	0
56	MG	RA	3695	1/1	0.61	0.37	52,52,52,52	0
56	MG	QA	1854	1/1	0.61	0.36	67,67,67,67	0
56	MG	RB	210	1/1	0.61	0.98	109,109,109,109	0
56	MG	RA	3704	1/1	0.61	0.58	91,91,91,91	0
56	MG	RA	3224	1/1	0.61	0.58	96,96,96,96	0
56	MG	RB	217	1/1	0.61	0.84	94,94,94,94	0
56	MG	RA	3968	1/1	0.61	0.80	66,66,66,66	0
56	MG	RA	3974	1/1	0.61	1.43	70,70,70,70	0
56	MG	QA	1811	1/1	0.61	0.35	83,83,83,83	0
56	MG	RA	3296	1/1	0.61	0.45	102,102,102,102	0
56	MG	RA	3645	1/1	0.61	0.50	84,84,84,84	0
56	MG	YA	3641	1/1	0.61	0.92	86,86,86,86	0
56	MG	RA	3559	1/1	0.62	0.34	97,97,97,97	0
56	MG	YA	3727	1/1	0.62	0.51	59,59,59,59	0
56	MG	RA	4002	1/1	0.62	0.30	83,83,83,83	0
56	MG	RA	3518	1/1	0.62	0.64	82,82,82,82	0
56	MG	Y0	101	1/1	0.62	0.90	65,65,65,65	0
56	MG	RA	3205	1/1	0.62	0.44	76,76,76,76	0
56	MG	RA	3339	1/1	0.62	0.48	68,68,68,68	0
56	MG	RA	4042	1/1	0.62	0.36	80,80,80,80	0
56	MG	RA	3448	1/1	0.62	0.72	71,71,71,71	0
56	MG	RA	3599	1/1	0.62	0.28	66,66,66,66	0
56	MG	RR	3204	1/1	0.62	0.51	83,83,83,83	0
56	MG	QA	1734	1/1	0.62	0.68	85,85,85,85	0
56	MG	QA	1637	1/1	0.62	0.80	93,93,93,93	0
56	MG	QA	1718	1/1	0.62	0.79	82,82,82,82	0
56	MG	QA	1796	1/1	0.62	0.44	73,73,73,73	0
56	MG	YA	3473	1/1	0.62	0.55	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	QA	1743	1/1	0.62	0.35	71,71,71,71	0
56	MG	RA	3725	1/1	0.62	0.51	80,80,80,80	0
56	MG	YA	3060	1/1	0.62	0.42	62,62,62,62	0
56	MG	YG	201	1/1	0.62	1.60	116,116,116,116	0
56	MG	R7	102	1/1	0.62	0.54	72,72,72,72	0
56	MG	RA	3921	1/1	0.62	2.40	88,88,88,88	0
56	MG	RB	228	1/1	0.62	0.53	93,93,93,93	0
56	MG	RA	3649	1/1	0.62	0.38	85,85,85,85	0
56	MG	YB	207	1/1	0.63	0.48	110,110,110,110	0
56	MG	YA	3510	1/1	0.63	0.64	80,80,80,80	0
56	MG	RA	3724	1/1	0.63	0.27	67,67,67,67	0
56	MG	RA	4046	1/1	0.63	0.59	86,86,86,86	0
56	MG	RA	3028	1/1	0.63	0.17	69,69,69,69	0
56	MG	XA	1722	1/1	0.63	0.20	67,67,67,67	0
56	MG	YA	3584	1/1	0.63	0.54	56,56,56,56	0
56	MG	YA	3336	1/1	0.63	0.43	71,71,71,71	0
56	MG	XA	1626	1/1	0.63	0.84	77,77,77,77	0
56	MG	RF	301	1/1	0.63	0.54	101,101,101,101	0
56	MG	RA	3891	1/1	0.63	0.57	59,59,59,59	0
56	MG	YA	3059	1/1	0.63	0.65	79,79,79,79	0
56	MG	YA	3448	1/1	0.63	0.33	81,81,81,81	0
56	MG	RA	3461	1/1	0.63	0.81	76,76,76,76	0
56	MG	RB	223	1/1	0.63	1.00	102,102,102,102	0
56	MG	YA	3497	1/1	0.64	0.44	63,63,63,63	0
56	MG	RA	3553	1/1	0.64	0.88	87,87,87,87	0
56	MG	XA	1697	1/1	0.64	0.85	70,70,70,70	0
56	MG	QA	1747	1/1	0.64	0.49	72,72,72,72	0
56	MG	RD	312	1/1	0.64	0.48	76,76,76,76	0
56	MG	RA	3136	1/1	0.64	0.40	84,84,84,84	0
56	MG	RA	3258	1/1	0.64	0.64	96,96,96,96	0
56	MG	RA	3361	1/1	0.64	0.36	76,76,76,76	0
56	MG	QN	102	1/1	0.64	0.39	68,68,68,68	0
56	MG	RA	3366	1/1	0.64	0.38	72,72,72,72	0
56	MG	RA	3924	1/1	0.64	0.48	65,65,65,65	0
56	MG	YA	3222	1/1	0.64	0.55	71,71,71,71	0
56	MG	RA	3171	1/1	0.64	0.54	89,89,89,89	0
56	MG	QA	1696	1/1	0.64	0.36	73,73,73,73	0
56	MG	RN	201	1/1	0.64	0.79	85,85,85,85	0
56	MG	QT	201	1/1	0.64	0.51	65,65,65,65	0
56	MG	YA	3502	1/1	0.64	0.46	79,79,79,79	0
56	MG	RT	201	1/1	0.64	0.95	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	4052	1/1	0.64	0.69	90,90,90,90	0
56	MG	QA	1821	1/1	0.64	0.91	90,90,90,90	0
56	MG	RA	4058	1/1	0.64	0.52	120,120,120,120	0
56	MG	RA	3630	1/1	0.64	0.64	90,90,90,90	0
56	MG	YA	3406	1/1	0.64	0.45	80,80,80,80	0
56	MG	QA	1824	1/1	0.64	1.31	127,127,127,127	0
56	MG	RA	3637	1/1	0.64	0.65	66,66,66,66	0
56	MG	RA	3834	1/1	0.64	0.43	80,80,80,80	0
56	MG	RA	3962	1/1	0.64	0.86	62,62,62,62	0
56	MG	QA	1853	1/1	0.64	0.62	107,107,107,107	0
56	MG	YA	3208	1/1	0.64	1.18	60,60,60,60	0
56	MG	YA	3414	1/1	0.64	0.71	83,83,83,83	0
56	MG	XA	1616	1/1	0.64	1.62	115,115,115,115	0
56	MG	QA	1732	1/1	0.65	0.42	96,96,96,96	0
56	MG	RA	3801	1/1	0.65	0.20	74,74,74,74	0
56	MG	RA	3969	1/1	0.65	0.46	98,98,98,98	0
56	MG	XA	1716	1/1	0.65	0.32	57,57,57,57	0
56	MG	RA	3646	1/1	0.65	0.69	92,92,92,92	0
56	MG	QA	1660	1/1	0.65	0.19	77,77,77,77	0
56	MG	YA	3111	1/1	0.65	0.60	58,58,58,58	0
56	MG	XA	1623	1/1	0.65	0.80	73,73,73,73	0
56	MG	QA	1666	1/1	0.65	0.23	74,74,74,74	0
56	MG	YA	3418	1/1	0.65	0.81	56,56,56,56	0
56	MG	YA	3504	1/1	0.65	0.28	74,74,74,74	0
56	MG	RA	3256	1/1	0.65	0.40	103,103,103,103	0
56	MG	QA	1801	1/1	0.65	0.32	78,78,78,78	0
56	MG	YA	3083	1/1	0.65	0.43	99,99,99,99	0
56	MG	RA	3781	1/1	0.65	0.42	60,60,60,60	0
56	MG	RA	3459	1/1	0.65	0.54	78,78,78,78	0
56	MG	YA	3100	1/1	0.65	0.29	87,87,87,87	0
56	MG	XT	201	1/1	0.65	0.30	65,65,65,65	0
56	MG	YA	3490	1/1	0.65	0.57	104,104,104,104	0
56	MG	YA	3330	1/1	0.65	0.54	62,62,62,62	0
56	MG	XA	1645	1/1	0.65	0.52	93,93,93,93	0
56	MG	QA	1817	1/1	0.66	0.38	64,64,64,64	0
56	MG	RA	3314	1/1	0.66	0.66	58,58,58,58	0
56	MG	QA	1609	1/1	0.66	0.59	106,106,106,106	0
56	MG	RA	3446	1/1	0.66	1.21	63,63,63,63	0
56	MG	RA	3263	1/1	0.66	0.23	67,67,67,67	0
56	MG	YA	3171	1/1	0.66	0.38	104,104,104,104	0
56	MG	RR	3203	1/1	0.66	0.30	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	YA	3206	1/1	0.66	0.46	100,100,100,100	0
56	MG	RA	3048	1/1	0.66	0.35	78,78,78,78	0
56	MG	YA	3228	1/1	0.66	0.33	75,75,75,75	0
56	MG	QA	1843	1/1	0.66	0.30	89,89,89,89	0
56	MG	YA	3053	1/1	0.66	0.54	77,77,77,77	0
56	MG	RB	227	1/1	0.66	0.51	74,74,74,74	0
56	MG	RA	3956	1/1	0.66	0.35	77,77,77,77	0
56	MG	QA	1869	1/1	0.66	0.18	61,61,61,61	0
56	MG	YA	3655	1/1	0.66	0.86	86,86,86,86	0
56	MG	QA	1850	1/1	0.66	0.65	51,51,51,51	0
56	MG	YA	3432	1/1	0.66	0.47	84,84,84,84	0
56	MG	YA	3340	1/1	0.66	0.25	59,59,59,59	0
56	MG	YA	3201	1/1	0.66	0.34	87,87,87,87	0
56	MG	RA	3431	1/1	0.66	0.40	88,88,88,88	0
56	MG	RA	4059	1/1	0.66	0.60	101,101,101,101	0
56	MG	YA	3439	1/1	0.67	0.56	80,80,80,80	0
56	MG	QE	201	1/1	0.67	0.17	84,84,84,84	0
56	MG	RA	3986	1/1	0.67	0.57	79,79,79,79	0
56	MG	XA	1680	1/1	0.67	0.18	77,77,77,77	0
56	MG	XA	1721	1/1	0.67	0.65	86,86,86,86	0
56	MG	RA	3788	1/1	0.67	0.10	75,75,75,75	0
56	MG	QA	1840	1/1	0.67	0.55	89,89,89,89	0
56	MG	RA	3791	1/1	0.67	0.32	64,64,64,64	0
56	MG	RA	3667	1/1	0.67	0.20	60,60,60,60	0
56	MG	YA	3547	1/1	0.67	0.41	80,80,80,80	0
56	MG	RA	3357	1/1	0.67	0.16	61,61,61,61	0
56	MG	R0	102	1/1	0.67	0.21	84,84,84,84	0
56	MG	YA	3400	1/1	0.67	0.62	74,74,74,74	0
56	MG	RA	3631	1/1	0.67	0.41	125,125,125,125	0
56	MG	RA	3488	1/1	0.67	0.33	57,57,57,57	0
56	MG	RA	3684	1/1	0.67	0.52	71,71,71,71	0
56	MG	RA	3686	1/1	0.67	0.38	62,62,62,62	0
56	MG	YA	3714	1/1	0.67	0.37	80,80,80,80	0
56	MG	YA	3026	1/1	0.67	0.24	93,93,93,93	0
56	MG	RA	3541	1/1	0.67	0.93	74,74,74,74	0
56	MG	RA	3776	1/1	0.67	0.38	73,73,73,73	0
56	MG	RA	3530	1/1	0.68	0.43	75,75,75,75	0
56	MG	QA	1784	1/1	0.68	0.49	64,64,64,64	0
56	MG	QA	1737	1/1	0.68	0.95	72,72,72,72	0
56	MG	RA	3166	1/1	0.68	1.07	68,68,68,68	0
56	MG	QA	1816	1/1	0.68	0.82	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3466	1/1	0.68	0.49	56,56,56,56	0
56	MG	XA	1655	1/1	0.68	0.58	84,84,84,84	0
56	MG	RQ	203	1/1	0.68	0.68	82,82,82,82	0
56	MG	QA	1683	1/1	0.68	0.27	112,112,112,112	0
56	MG	RA	3890	1/1	0.68	0.85	57,57,57,57	0
56	MG	XA	1715	1/1	0.68	0.66	55,55,55,55	0
56	MG	RA	3104	1/1	0.68	0.47	57,57,57,57	0
56	MG	RA	3427	1/1	0.68	0.67	78,78,78,78	0
56	MG	QA	1857	1/1	0.68	0.74	71,71,71,71	0
56	MG	RW	202	1/1	0.68	0.41	89,89,89,89	0
56	MG	RA	3926	1/1	0.68	0.54	83,83,83,83	0
56	MG	QA	1804	1/1	0.68	0.40	71,71,71,71	0
56	MG	RA	3573	1/1	0.68	1.06	91,91,91,91	0
56	MG	RA	3327	1/1	0.68	0.64	62,62,62,62	0
56	MG	R1	101	1/1	0.68	0.64	82,82,82,82	0
56	MG	QD	303	1/1	0.68	0.47	79,79,79,79	0
56	MG	QA	1721	1/1	0.68	0.59	75,75,75,75	0
56	MG	RA	3521	1/1	0.68	0.42	81,81,81,81	0
56	MG	RA	3441	1/1	0.68	0.74	61,61,61,61	0
56	MG	RA	3591	1/1	0.68	0.57	77,77,77,77	0
56	MG	YA	3314	1/1	0.68	0.48	55,55,55,55	0
56	MG	QA	1662	1/1	0.68	0.52	82,82,82,82	0
56	MG	YA	3468	1/1	0.69	0.99	58,58,58,58	0
56	MG	RA	3291	1/1	0.69	0.74	86,86,86,86	0
56	MG	RA	3360	1/1	0.69	0.98	66,66,66,66	0
56	MG	RA	3682	1/1	0.69	0.39	81,81,81,81	0
56	MG	XA	1789	1/1	0.69	0.40	58,58,58,58	0
56	MG	YA	3248	1/1	0.69	0.41	105,105,105,105	0
56	MG	RA	3365	1/1	0.69	0.60	61,61,61,61	0
56	MG	RA	3822	1/1	0.69	0.44	37,37,37,37	0
56	MG	XA	1619	1/1	0.69	0.12	74,74,74,74	0
56	MG	RA	3212	1/1	0.69	0.60	95,95,95,95	0
56	MG	RA	3639	1/1	0.69	1.13	65,65,65,65	0
56	MG	RA	3991	1/1	0.69	0.61	73,73,73,73	0
56	MG	QA	1708	1/1	0.69	0.17	77,77,77,77	0
56	MG	QA	1759	1/1	0.69	0.15	78,78,78,78	0
56	MG	RA	3703	1/1	0.69	0.77	71,71,71,71	0
56	MG	RA	4003	1/1	0.69	0.35	51,51,51,51	0
56	MG	QI	201	1/1	0.69	0.55	106,106,106,106	0
56	MG	RA	3846	1/1	0.69	0.72	80,80,80,80	0
56	MG	RA	3402	1/1	0.69	0.84	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	RA	4018	1/1	0.69	0.67	70,70,70,70	0
56	MG	YA	3117	1/1	0.69	0.17	42,42,42,42	0
56	MG	XA	1610	1/1	0.69	0.39	79,79,79,79	0
56	MG	QA	1644	1/1	0.69	0.51	108,108,108,108	0
56	MG	RA	3340	1/1	0.69	0.52	52,52,52,52	0
56	MG	RA	3868	1/1	0.69	0.46	48,48,48,48	0
56	MG	RA	3710	1/1	0.70	0.89	70,70,70,70	0
56	MG	RA	3596	1/1	0.70	0.42	83,83,83,83	0
56	MG	RB	221	1/1	0.70	0.24	64,64,64,64	0
56	MG	RA	3131	1/1	0.70	0.09	67,67,67,67	0
56	MG	YA	3234	1/1	0.70	0.54	76,76,76,76	0
56	MG	YA	3422	1/1	0.70	0.78	122,122,122,122	0
56	MG	RA	3081	1/1	0.70	0.52	91,91,91,91	0
56	MG	YA	3039	1/1	0.70	0.60	73,73,73,73	0
56	MG	RA	3558	1/1	0.70	0.58	82,82,82,82	0
56	MG	XA	1620	1/1	0.70	0.25	63,63,63,63	0
56	MG	YA	3359	1/1	0.70	0.15	72,72,72,72	0
56	MG	RA	3635	1/1	0.70	0.28	112,112,112,112	0
56	MG	QA	1650	1/1	0.70	0.14	72,72,72,72	0
56	MG	YA	3479	1/1	0.70	0.57	50,50,50,50	0
56	MG	RA	3912	1/1	0.70	0.64	76,76,76,76	0
56	MG	RA	3358	1/1	0.70	0.48	99,99,99,99	0
56	MG	RA	3772	1/1	0.70	0.43	57,57,57,57	0
56	MG	YA	3577	1/1	0.70	0.71	53,53,53,53	0
56	MG	QA	1731	1/1	0.70	0.50	71,71,71,71	0
56	MG	YA	3505	1/1	0.70	1.01	88,88,88,88	0
56	MG	YA	3018	1/1	0.70	0.47	75,75,75,75	0
56	MG	RA	3652	1/1	0.70	0.66	88,88,88,88	0
56	MG	RA	3122	1/1	0.71	0.67	92,92,92,92	0
56	MG	YA	3260	1/1	0.71	0.44	71,71,71,71	0
56	MG	QA	1704	1/1	0.71	0.75	74,74,74,74	0
56	MG	RA	3132	1/1	0.71	0.25	63,63,63,63	0
56	MG	RA	3933	1/1	0.71	0.90	76,76,76,76	0
56	MG	QA	1822	1/1	0.71	0.57	65,65,65,65	0
56	MG	YA	3475	1/1	0.71	0.55	84,84,84,84	0
56	MG	RA	3729	1/1	0.71	0.41	59,59,59,59	0
56	MG	RA	4031	1/1	0.71	0.41	102,102,102,102	0
56	MG	XF	202	1/1	0.71	0.45	73,73,73,73	0
56	MG	YG	203	1/1	0.71	0.14	54,54,54,54	0
56	MG	RA	3472	1/1	0.71	0.28	51,51,51,51	0
56	MG	YA	3155	1/1	0.71	0.82	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	RO	201	1/1	0.71	0.54	93,93,93,93	0
56	MG	QA	1739	1/1	0.71	0.12	87,87,87,87	0
56	MG	RA	3177	1/1	0.71	0.68	72,72,72,72	0
56	MG	YA	3070	1/1	0.71	0.43	62,62,62,62	0
56	MG	YA	3173	1/1	0.71	0.42	85,85,85,85	0
56	MG	RA	4065	1/1	0.71	0.59	86,86,86,86	0
56	MG	RA	3845	1/1	0.71	0.58	94,94,94,94	0
56	MG	QA	1746	1/1	0.71	0.24	65,65,65,65	0
56	MG	YA	3557	1/1	0.71	0.76	67,67,67,67	0
56	MG	QA	1776	1/1	0.71	0.38	80,80,80,80	0
56	MG	RA	3288	1/1	0.71	0.32	95,95,95,95	0
56	MG	RA	3200	1/1	0.71	0.41	99,99,99,99	0
56	MG	RA	3973	1/1	0.71	0.59	84,84,84,84	0
56	MG	YA	3745	1/1	0.71	0.65	67,67,67,67	0
56	MG	RA	3600	1/1	0.71	0.46	87,87,87,87	0
56	MG	QA	1782	1/1	0.71	0.28	69,69,69,69	0
56	MG	QA	1608	1/1	0.71	0.71	110,110,110,110	0
56	MG	QA	1669	1/1	0.71	1.12	71,71,71,71	0
56	MG	YA	3255	1/1	0.71	0.33	88,88,88,88	0
56	MG	QA	1755	1/1	0.71	0.40	69,69,69,69	0
56	MG	RA	3227	1/1	0.71	0.54	93,93,93,93	0
56	MG	RA	3456	1/1	0.72	0.22	58,58,58,58	0
56	MG	RA	3076	1/1	0.72	0.68	83,83,83,83	0
56	MG	QA	1879	1/1	0.72	0.46	78,78,78,78	0
56	MG	XA	1698	1/1	0.72	0.42	66,66,66,66	0
56	MG	QA	1676	1/1	0.72	0.58	88,88,88,88	0
56	MG	RE	305	1/1	0.72	0.32	33,33,33,33	0
56	MG	YA	3500	1/1	0.72	1.02	53,53,53,53	0
56	MG	RA	3187	1/1	0.72	0.52	106,106,106,106	0
56	MG	RA	3741	1/1	0.72	0.22	61,61,61,61	0
56	MG	RF	311	1/1	0.72	0.67	74,74,74,74	0
56	MG	RA	3099	1/1	0.72	0.31	102,102,102,102	0
56	MG	YA	3186	1/1	0.72	0.44	39,39,39,39	0
56	MG	RA	3102	1/1	0.72	0.83	107,107,107,107	0
56	MG	YA	3198	1/1	0.72	0.65	80,80,80,80	0
56	MG	RA	3836	1/1	0.72	0.41	91,91,91,91	0
56	MG	RA	3199	1/1	0.72	0.26	68,68,68,68	0
56	MG	XA	1708	1/1	0.72	0.39	78,78,78,78	0
56	MG	RA	3759	1/1	0.72	0.29	67,67,67,67	0
56	MG	QA	1624	1/1	0.72	0.57	73,73,73,73	0
56	MG	YA	3715	1/1	0.72	0.76	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RB	206	1/1	0.72	0.18	74,74,74,74	0
56	MG	YA	3445	1/1	0.72	0.71	72,72,72,72	0
56	MG	RA	3207	1/1	0.72	0.80	69,69,69,69	0
56	MG	YA	3027	1/1	0.72	0.53	45,45,45,45	0
56	MG	XL	201	1/1	0.72	0.30	85,85,85,85	0
56	MG	QA	1845	1/1	0.72	0.80	77,77,77,77	0
56	MG	XA	1769	1/1	0.72	0.77	64,64,64,64	0
56	MG	RA	3872	1/1	0.72	0.69	78,78,78,78	0
56	MG	YD	301	1/1	0.72	0.72	60,60,60,60	0
56	MG	RA	3532	1/1	0.72	0.13	52,52,52,52	0
56	MG	RA	3067	1/1	0.72	0.40	83,83,83,83	0
56	MG	RA	3245	1/1	0.72	0.41	81,81,81,81	0
56	MG	RA	3987	1/1	0.72	0.72	80,80,80,80	0
56	MG	XA	1605	1/1	0.72	0.50	72,72,72,72	0
57	ZN	YY	201	1/1	0.72	0.18	221,221,221,221	0
56	MG	RA	3251	1/1	0.72	0.49	69,69,69,69	0
56	MG	RD	307	1/1	0.72	0.37	83,83,83,83	0
56	MG	RA	3023	1/1	0.73	0.36	73,73,73,73	0
56	MG	RA	4055	1/1	0.73	0.71	86,86,86,86	0
56	MG	RA	3152	1/1	0.73	0.44	106,106,106,106	0
56	MG	QA	1770	1/1	0.73	0.25	73,73,73,73	0
56	MG	YA	3624	1/1	0.73	0.44	71,71,71,71	0
56	MG	RA	3878	1/1	0.73	0.76	81,81,81,81	0
56	MG	RA	3208	1/1	0.73	0.36	70,70,70,70	0
56	MG	RA	3545	1/1	0.73	0.54	70,70,70,70	0
56	MG	RB	209	1/1	0.73	0.37	92,92,92,92	0
56	MG	RP	202	1/1	0.73	0.21	78,78,78,78	0
56	MG	YA	3052	1/1	0.73	0.32	45,45,45,45	0
56	MG	RA	3903	1/1	0.73	0.29	57,57,57,57	0
56	MG	RA	3275	1/1	0.73	0.45	72,72,72,72	0
56	MG	RA	3331	1/1	0.73	0.79	73,73,73,73	0
56	MG	RA	3755	1/1	0.73	0.60	71,71,71,71	0
56	MG	YA	3312	1/1	0.73	0.44	73,73,73,73	0
56	MG	YA	3269	1/1	0.73	0.57	78,78,78,78	0
56	MG	RA	3040	1/1	0.73	0.50	76,76,76,76	0
56	MG	YA	3493	1/1	0.73	0.34	74,74,74,74	0
56	MG	RA	3638	1/1	0.73	0.38	85,85,85,85	0
56	MG	YA	3065	1/1	0.73	0.76	88,88,88,88	0
56	MG	RA	3003	1/1	0.73	0.42	73,73,73,73	0
56	MG	RA	3842	1/1	0.73	0.41	72,72,72,72	0
56	MG	YA	3507	1/1	0.73	0.25	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3250	1/1	0.73	0.46	69,69,69,69	0
56	MG	XA	1788	1/1	0.73	0.71	62,62,62,62	0
56	MG	RA	3138	1/1	0.73	0.44	53,53,53,53	0
56	MG	RA	3303	1/1	0.73	0.77	79,79,79,79	0
56	MG	RA	3797	1/1	0.73	0.48	84,84,84,84	0
56	MG	RA	3862	1/1	0.73	0.44	79,79,79,79	0
56	MG	RA	3535	1/1	0.73	0.27	57,57,57,57	0
57	ZN	R4	101	1/1	0.73	0.36	269,269,269,269	0
56	MG	QA	1772	1/1	0.74	1.04	79,79,79,79	0
56	MG	YB	204	1/1	0.74	0.42	99,99,99,99	0
56	MG	XA	1700	1/1	0.74	0.44	43,43,43,43	0
56	MG	RA	3663	1/1	0.74	0.51	77,77,77,77	0
56	MG	QA	1851	1/1	0.74	0.42	94,94,94,94	0
56	MG	RA	3515	1/1	0.74	0.58	67,67,67,67	0
56	MG	RA	3426	1/1	0.74	0.49	88,88,88,88	0
56	MG	YA	3080	1/1	0.74	0.38	80,80,80,80	0
56	MG	RA	3259	1/1	0.74	0.28	87,87,87,87	0
56	MG	YA	3265	1/1	0.74	0.45	64,64,64,64	0
56	MG	RA	3595	1/1	0.74	0.41	84,84,84,84	0
56	MG	YA	3694	1/1	0.74	0.49	80,80,80,80	0
56	MG	RA	3436	1/1	0.74	0.98	56,56,56,56	0
56	MG	RA	3863	1/1	0.74	1.34	87,87,87,87	0
56	MG	RA	3264	1/1	0.74	1.24	63,63,63,63	0
56	MG	XA	1705	1/1	0.74	0.27	67,67,67,67	0
56	MG	RA	3607	1/1	0.74	0.35	98,98,98,98	0
56	MG	YA	3237	1/1	0.74	0.68	69,69,69,69	0
56	MG	RA	3150	1/1	0.74	0.17	74,74,74,74	0
56	MG	QA	1726	1/1	0.74	0.25	81,81,81,81	0
56	MG	RA	3452	1/1	0.74	0.29	78,78,78,78	0
56	MG	RA	3540	1/1	0.74	0.27	73,73,73,73	0
56	MG	YA	3491	1/1	0.74	0.70	53,53,53,53	0
56	MG	RA	3896	1/1	0.74	0.81	59,59,59,59	0
56	MG	YA	3550	1/1	0.74	0.87	76,76,76,76	0
56	MG	RA	3993	1/1	0.74	0.49	86,86,86,86	0
56	MG	RA	3225	1/1	0.74	0.43	109,109,109,109	0
56	MG	RA	3362	1/1	0.74	0.33	93,93,93,93	0
56	MG	QA	1864	1/1	0.74	0.63	90,90,90,90	0
56	MG	RA	3229	1/1	0.74	0.47	82,82,82,82	0
56	MG	YA	3747	1/1	0.74	0.46	108,108,108,108	0
56	MG	QA	1699	1/1	0.74	0.57	65,65,65,65	0
56	MG	YA	3251	1/1	0.74	0.37	100,100,100,100	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	QA	1771	1/1	0.74	0.16	57,57,57,57	0
56	MG	YT	201	1/1	0.75	0.43	57,57,57,57	0
56	MG	XA	1740	1/1	0.75	0.31	65,65,65,65	0
56	MG	XA	1748	1/1	0.75	0.49	60,60,60,60	0
56	MG	RA	3567	1/1	0.75	0.27	81,81,81,81	0
56	MG	XA	1713	1/1	0.75	0.26	49,49,49,49	0
56	MG	RA	3317	1/1	0.75	0.34	73,73,73,73	0
56	MG	YA	3095	1/1	0.75	0.17	68,68,68,68	0
56	MG	QA	1758	1/1	0.75	0.51	76,76,76,76	0
56	MG	RA	3909	1/1	0.75	0.80	73,73,73,73	0
56	MG	XA	1770	1/1	0.75	0.36	104,104,104,104	0
56	MG	XA	1632	1/1	0.75	0.88	59,59,59,59	0
56	MG	QR	101	1/1	0.75	0.20	71,71,71,71	0
56	MG	QA	1607	1/1	0.75	0.24	71,71,71,71	0
56	MG	YA	3599	1/1	0.75	0.44	70,70,70,70	0
56	MG	QA	1820	1/1	0.75	0.18	79,79,79,79	0
56	MG	QA	1741	1/1	0.75	0.59	45,45,45,45	0
56	MG	RA	3454	1/1	0.75	0.32	51,51,51,51	0
56	MG	RA	3144	1/1	0.75	0.77	84,84,84,84	0
56	MG	RA	3611	1/1	0.75	0.30	80,80,80,80	0
56	MG	RA	3077	1/1	0.75	0.27	70,70,70,70	0
56	MG	YA	3481	1/1	0.75	0.52	77,77,77,77	0
56	MG	RA	3228	1/1	0.75	0.53	101,101,101,101	0
56	MG	RA	3016	1/1	0.75	0.83	77,77,77,77	0
56	MG	YA	3551	1/1	0.75	0.54	60,60,60,60	0
56	MG	YA	3355	1/1	0.75	0.12	75,75,75,75	0
56	MG	RA	3372	1/1	0.75	0.62	61,61,61,61	0
56	MG	RA	3960	1/1	0.75	0.70	89,89,89,89	0
56	MG	YA	3455	1/1	0.75	0.56	79,79,79,79	0
56	MG	YA	3134	1/1	0.75	0.49	89,89,89,89	0
56	MG	YA	3075	1/1	0.75	0.41	43,43,43,43	0
56	MG	YA	3707	1/1	0.76	0.64	95,95,95,95	0
56	MG	RA	3586	1/1	0.76	0.53	73,73,73,73	0
56	MG	YO	201	1/1	0.76	0.38	78,78,78,78	0
56	MG	RA	3499	1/1	0.76	0.51	77,77,77,77	0
56	MG	RA	3641	1/1	0.76	0.53	65,65,65,65	0
56	MG	RA	3510	1/1	0.76	0.21	38,38,38,38	0
56	MG	RA	3701	1/1	0.76	0.53	64,64,64,64	0
56	MG	RR	3205	1/1	0.76	0.44	60,60,60,60	0
56	MG	YA	3646	1/1	0.76	0.38	69,69,69,69	0
56	MG	RA	3173	1/1	0.76	0.35	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	3706	1/1	0.76	0.45	58,58,58,58	0
56	MG	Y8	101	1/1	0.76	0.92	70,70,70,70	0
56	MG	RA	3336	1/1	0.76	0.31	66,66,66,66	0
56	MG	QA	1625	1/1	0.76	0.33	61,61,61,61	0
56	MG	RA	3289	1/1	0.76	0.78	83,83,83,83	0
56	MG	YA	3635	1/1	0.76	0.55	80,80,80,80	0
56	MG	QA	1632	1/1	0.76	0.81	70,70,70,70	0
56	MG	RA	3006	1/1	0.76	0.12	33,33,33,33	0
56	MG	YA	3519	1/1	0.76	0.47	79,79,79,79	0
56	MG	RA	3628	1/1	0.76	0.58	65,65,65,65	0
56	MG	YA	3115	1/1	0.76	0.30	52,52,52,52	0
56	MG	QA	1797	1/1	0.76	0.40	95,95,95,95	0
56	MG	RF	312	1/1	0.76	0.48	62,62,62,62	0
56	MG	QA	1751	1/1	0.76	0.31	83,83,83,83	0
56	MG	RG	204	1/1	0.76	0.20	67,67,67,67	0
56	MG	RA	3995	1/1	0.76	0.38	111,111,111,111	0
56	MG	QA	1640	1/1	0.76	0.70	75,75,75,75	0
56	MG	RA	3226	1/1	0.77	0.95	104,104,104,104	0
56	MG	XA	1790	1/1	0.77	0.24	98,98,98,98	0
56	MG	RA	3730	1/1	0.77	0.22	51,51,51,51	0
56	MG	YD	305	1/1	0.77	0.42	82,82,82,82	0
56	MG	RA	4011	1/1	0.77	0.58	83,83,83,83	0
56	MG	RA	3571	1/1	0.77	0.48	94,94,94,94	0
56	MG	RF	304	1/1	0.77	0.17	63,63,63,63	0
56	MG	YD	307	1/1	0.77	0.71	64,64,64,64	0
56	MG	XX	101	1/1	0.77	0.77	122,122,122,122	0
56	MG	RA	3829	1/1	0.77	1.13	65,65,65,65	0
56	MG	RA	3514	1/1	0.77	0.25	87,87,87,87	0
56	MG	RG	203	1/1	0.77	0.34	79,79,79,79	0
56	MG	RA	3075	1/1	0.77	0.33	56,56,56,56	0
56	MG	XF	204	1/1	0.77	0.68	101,101,101,101	0
56	MG	QA	1807	1/1	0.77	0.33	65,65,65,65	0
56	MG	YA	3139	1/1	0.77	0.50	66,66,66,66	0
56	MG	YA	3129	1/1	0.77	0.36	31,31,31,31	0
56	MG	RN	203	1/1	0.77	0.35	86,86,86,86	0
56	MG	RA	3085	1/1	0.77	0.45	76,76,76,76	0
56	MG	YA	3517	1/1	0.77	0.43	92,92,92,92	0
56	MG	YA	3178	1/1	0.77	0.90	62,62,62,62	0
56	MG	YA	3179	1/1	0.77	0.46	69,69,69,69	0
56	MG	YA	3220	1/1	0.77	0.32	87,87,87,87	0
56	MG	RA	3861	1/1	0.77	0.25	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	3087	1/1	0.77	0.24	64,64,64,64	0
56	MG	YA	3561	1/1	0.77	0.39	45,45,45,45	0
56	MG	YA	3426	1/1	0.77	0.56	50,50,50,50	0
56	MG	YA	3723	1/1	0.77	0.39	67,67,67,67	0
56	MG	RB	216	1/1	0.77	0.31	59,59,59,59	0
56	MG	XA	1686	1/1	0.77	0.28	68,68,68,68	0
56	MG	RA	3042	1/1	0.77	0.32	80,80,80,80	0
56	MG	QH	202	1/1	0.77	0.66	77,77,77,77	0
56	MG	RA	3124	1/1	0.77	0.21	46,46,46,46	0
56	MG	XA	1786	1/1	0.77	0.24	72,72,72,72	0
56	MG	QL	201	1/1	0.77	0.32	66,66,66,66	0
56	MG	YA	3566	1/1	0.77	0.21	60,60,60,60	0
56	MG	RA	3892	1/1	0.77	0.53	55,55,55,55	0
56	MG	RA	3719	1/1	0.77	0.41	55,55,55,55	0
56	MG	R8	101	1/1	0.77	0.75	75,75,75,75	0
56	MG	RA	3368	1/1	0.77	1.39	76,76,76,76	0
56	MG	QA	1700	1/1	0.77	0.47	66,66,66,66	0
56	MG	RD	308	1/1	0.77	0.57	80,80,80,80	0
56	MG	RA	3910	1/1	0.77	0.91	66,66,66,66	0
56	MG	YA	3226	1/1	0.77	0.48	75,75,75,75	0
56	MG	RE	301	1/1	0.78	0.40	81,81,81,81	0
56	MG	XA	1607	1/1	0.78	0.41	47,47,47,47	0
56	MG	RA	3489	1/1	0.78	0.91	50,50,50,50	0
56	MG	XA	1784	1/1	0.78	0.83	72,72,72,72	0
56	MG	QA	1603	1/1	0.78	0.41	105,105,105,105	0
56	MG	QA	1646	1/1	0.78	0.60	46,46,46,46	0
56	MG	RA	4019	1/1	0.78	0.68	87,87,87,87	0
56	MG	YA	3508	1/1	0.78	0.39	102,102,102,102	0
56	MG	YA	3485	1/1	0.78	0.57	77,77,77,77	0
56	MG	RA	3735	1/1	0.78	0.65	66,66,66,66	0
56	MG	RA	3736	1/1	0.78	0.40	74,74,74,74	0
56	MG	QA	1761	1/1	0.78	0.65	72,72,72,72	0
56	MG	RA	3236	1/1	0.78	0.67	69,69,69,69	0
56	MG	RA	4053	1/1	0.78	0.81	74,74,74,74	0
56	MG	RA	3574	1/1	0.78	0.37	62,62,62,62	0
56	MG	RA	3653	1/1	0.78	0.25	75,75,75,75	0
56	MG	YA	3582	1/1	0.78	0.49	101,101,101,101	0
56	MG	RA	3843	1/1	0.78	0.30	72,72,72,72	0
56	MG	RA	3659	1/1	0.78	0.61	62,62,62,62	0
56	MG	YA	3698	1/1	0.78	0.50	77,77,77,77	0
56	MG	YA	3364	1/1	0.78	0.45	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	QA	1615	1/1	0.78	0.26	107,107,107,107	0
56	MG	RA	3013	1/1	0.78	0.56	71,71,71,71	0
56	MG	QA	1876	1/1	0.78	0.25	84,84,84,84	0
56	MG	RA	3181	1/1	0.78	0.28	90,90,90,90	0
56	MG	RA	3774	1/1	0.78	0.51	59,59,59,59	0
56	MG	XA	1735	1/1	0.78	0.78	53,53,53,53	0
56	MG	YA	3477	1/1	0.78	0.55	70,70,70,70	0
56	MG	RA	3527	1/1	0.78	0.82	67,67,67,67	0
56	MG	YA	3051	1/1	0.78	0.44	64,64,64,64	0
56	MG	QA	1628	1/1	0.78	0.29	49,49,49,49	0
56	MG	XA	1688	1/1	0.78	0.28	56,56,56,56	0
56	MG	RA	3608	1/1	0.78	0.72	104,104,104,104	0
56	MG	XA	1665	1/1	0.78	0.30	73,73,73,73	0
56	MG	QA	1775	1/1	0.78	0.48	72,72,72,72	0
56	MG	QA	1713	1/1	0.78	0.42	79,79,79,79	0
56	MG	R3	102	1/1	0.78	1.15	80,80,80,80	0
56	MG	QA	1672	1/1	0.78	0.52	45,45,45,45	0
56	MG	YA	3161	1/1	0.78	0.55	76,76,76,76	0
56	MG	XA	1622	1/1	0.78	0.24	42,42,42,42	0
56	MG	RD	309	1/1	0.78	0.30	78,78,78,78	0
56	MG	XR	101	1/1	0.78	0.43	89,89,89,89	0
56	MG	RD	311	1/1	0.78	0.49	70,70,70,70	0
56	MG	RA	3211	1/1	0.78	0.52	88,88,88,88	0
56	MG	YA	3170	1/1	0.78	0.62	56,56,56,56	0
56	MG	RA	3642	1/1	0.79	0.25	70,70,70,70	0
56	MG	QA	1648	1/1	0.79	0.21	67,67,67,67	0
56	MG	YA	3088	1/1	0.79	0.34	42,42,42,42	0
56	MG	XA	1689	1/1	0.79	0.25	64,64,64,64	0
56	MG	YA	3169	1/1	0.79	0.59	91,91,91,91	0
56	MG	YA	3522	1/1	0.79	0.51	65,65,65,65	0
56	MG	RA	3330	1/1	0.79	0.20	41,41,41,41	0
56	MG	RA	3520	1/1	0.79	0.27	34,34,34,34	0
56	MG	XA	1714	1/1	0.79	0.21	58,58,58,58	0
56	MG	XA	1741	1/1	0.79	0.26	67,67,67,67	0
56	MG	RA	3206	1/1	0.79	0.57	97,97,97,97	0
56	MG	RA	3665	1/1	0.79	0.38	77,77,77,77	0
56	MG	YA	3375	1/1	0.79	0.44	55,55,55,55	0
56	MG	QA	1795	1/1	0.79	0.36	61,61,61,61	0
56	MG	RA	3528	1/1	0.79	0.36	76,76,76,76	0
56	MG	QG	202	1/1	0.79	0.29	92,92,92,92	0
56	MG	RA	4066	1/1	0.79	0.71	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	3762	1/1	0.79	0.27	76,76,76,76	0
56	MG	YA	3183	1/1	0.79	0.38	47,47,47,47	0
56	MG	RA	3533	1/1	0.79	0.28	49,49,49,49	0
56	MG	QA	1687	1/1	0.79	0.31	97,97,97,97	0
56	MG	QA	1690	1/1	0.79	0.29	72,72,72,72	0
56	MG	RA	3164	1/1	0.79	0.47	87,87,87,87	0
56	MG	QA	1665	1/1	0.79	0.55	102,102,102,102	0
56	MG	RA	3784	1/1	0.79	0.31	94,94,94,94	0
56	MG	YA	3729	1/1	0.79	0.55	61,61,61,61	0
56	MG	RA	3693	1/1	0.79	0.40	67,67,67,67	0
56	MG	YA	3307	1/1	0.79	0.35	73,73,73,73	0
56	MG	RA	3626	1/1	0.79	0.43	68,68,68,68	0
56	MG	QA	1778	1/1	0.79	0.88	61,61,61,61	0
56	MG	RA	3880	1/1	0.79	0.52	54,54,54,54	0
56	MG	YB	208	1/1	0.79	0.31	81,81,81,81	0
56	MG	RA	3988	1/1	0.79	0.68	75,75,75,75	0
56	MG	RA	3293	1/1	0.79	0.21	128,128,128,128	0
56	MG	RA	3992	1/1	0.79	0.17	74,74,74,74	0
56	MG	RD	304	1/1	0.79	2.03	86,86,86,86	0
56	MG	QA	1670	1/1	0.79	0.52	81,81,81,81	0
56	MG	RA	3111	1/1	0.79	0.23	106,106,106,106	0
56	MG	RA	3190	1/1	0.79	0.33	62,62,62,62	0
56	MG	RA	3805	1/1	0.79	0.31	98,98,98,98	0
56	MG	RA	3246	1/1	0.79	0.82	69,69,69,69	0
56	MG	RA	3406	1/1	0.79	0.29	60,60,60,60	0
56	MG	YA	3512	1/1	0.79	0.52	62,62,62,62	0
56	MG	XA	1650	1/1	0.79	0.64	84,84,84,84	0
56	MG	XA	1730	1/1	0.80	0.19	47,47,47,47	0
56	MG	RA	3661	1/1	0.80	0.34	89,89,89,89	0
56	MG	RA	4014	1/1	0.80	0.54	83,83,83,83	0
56	MG	YA	3159	1/1	0.80	0.40	91,91,91,91	0
56	MG	RA	3064	1/1	0.80	0.19	54,54,54,54	0
56	MG	RA	3602	1/1	0.80	0.96	80,80,80,80	0
56	MG	RA	3826	1/1	0.80	0.30	62,62,62,62	0
56	MG	RA	3827	1/1	0.80	0.35	57,57,57,57	0
56	MG	RA	4041	1/1	0.80	1.07	77,77,77,77	0
56	MG	QA	1605	1/1	0.80	0.28	67,67,67,67	0
56	MG	RA	3604	1/1	0.80	0.26	91,91,91,91	0
56	MG	RA	3670	1/1	0.80	0.21	80,80,80,80	0
56	MG	YA	3001	1/1	0.80	0.34	90,90,90,90	0
56	MG	QA	1808	1/1	0.80	0.50	54,54,54,54	0
56	MG	RA	3008	1/1	0.80	0.17	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	RA	3955	1/1	0.80	0.29	74,74,74,74	0
56	MG	RA	3009	1/1	0.80	0.32	53,53,53,53	0
56	MG	RA	3957	1/1	0.80	0.32	66,66,66,66	0
56	MG	RA	3505	1/1	0.80	0.28	64,64,64,64	0
56	MG	YA	3368	1/1	0.80	0.47	62,62,62,62	0
56	MG	QF	201	1/1	0.80	0.28	59,59,59,59	0
56	MG	RA	3771	1/1	0.80	0.34	45,45,45,45	0
56	MG	RA	3687	1/1	0.80	0.30	57,57,57,57	0
56	MG	QG	201	1/1	0.80	0.83	91,91,91,91	0
56	MG	YA	3383	1/1	0.80	0.46	70,70,70,70	0
56	MG	RA	3557	1/1	0.80	0.44	63,63,63,63	0
56	MG	XA	1751	1/1	0.80	0.44	59,59,59,59	0
56	MG	QA	1863	1/1	0.80	0.28	80,80,80,80	0
56	MG	RA	3034	1/1	0.80	0.81	100,100,100,100	0
56	MG	XA	1656	1/1	0.80	0.39	80,80,80,80	0
56	MG	RA	3702	1/1	0.80	1.05	67,67,67,67	0
56	MG	RA	3789	1/1	0.80	0.32	95,95,95,95	0
56	MG	YA	3205	1/1	0.80	0.31	58,58,58,58	0
56	MG	YA	3700	1/1	0.80	0.39	71,71,71,71	0
56	MG	YA	3474	1/1	0.80	0.39	72,72,72,72	0
56	MG	XA	1663	1/1	0.80	0.43	107,107,107,107	0
56	MG	YD	310	1/1	0.80	0.43	64,64,64,64	0
56	MG	RA	3721	1/1	0.80	0.59	73,73,73,73	0
56	MG	RD	301	1/1	0.80	0.57	76,76,76,76	0
56	MG	RA	3290	1/1	0.80	0.37	74,74,74,74	0
56	MG	QA	1656	1/1	0.80	0.21	58,58,58,58	0
56	MG	RA	3240	1/1	0.80	0.44	92,92,92,92	0
56	MG	RA	3531	1/1	0.80	0.25	34,34,34,34	0
56	MG	YA	3633	1/1	0.80	0.72	47,47,47,47	0
56	MG	YE	302	1/1	0.80	0.54	79,79,79,79	0
56	MG	RA	3731	1/1	0.80	0.39	83,83,83,83	0
56	MG	RA	3231	1/1	0.81	0.57	97,97,97,97	0
56	MG	RA	3806	1/1	0.81	0.27	78,78,78,78	0
56	MG	RA	3410	1/1	0.81	0.12	76,76,76,76	0
56	MG	QA	1689	1/1	0.81	0.51	80,80,80,80	0
56	MG	RA	3650	1/1	0.81	0.44	69,69,69,69	0
56	MG	RA	4012	1/1	0.81	0.78	89,89,89,89	0
56	MG	YD	302	1/1	0.81	0.38	71,71,71,71	0
56	MG	RA	3922	1/1	0.81	0.47	70,70,70,70	0
56	MG	QA	1802	1/1	0.81	0.67	79,79,79,79	0
56	MG	RA	3732	1/1	0.81	0.15	54,54,54,54	0
56	MG	RA	3819	1/1	0.81	0.23	33,33,33,33	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	0.81	0.17	62,62,62,62	0
56	MG	RA	3088	1/1	0.81	1.59	89,89,89,89	0
56	MG	YA	3428	1/1	0.81	0.36	44,44,44,44	0
56	MG	YA	3025	1/1	0.81	0.08	55,55,55,55	0
56	MG	QA	1695	1/1	0.81	0.49	48,48,48,48	0
56	MG	RA	3433	1/1	0.81	0.42	66,66,66,66	0
56	MG	YA	3249	1/1	0.81	0.57	72,72,72,72	0
56	MG	XA	1787	1/1	0.81	1.44	84,84,84,84	0
56	MG	RA	3598	1/1	0.81	0.38	94,94,94,94	0
56	MG	YA	3089	1/1	0.81	0.39	80,80,80,80	0
56	MG	YA	3552	1/1	0.81	0.74	52,52,52,52	0
56	MG	YA	3553	1/1	0.81	0.50	58,58,58,58	0
56	MG	YE	305	1/1	0.81	0.45	57,57,57,57	0
56	MG	RA	3841	1/1	0.81	0.47	64,64,64,64	0
56	MG	RA	3756	1/1	0.81	0.49	83,83,83,83	0
56	MG	YA	3555	1/1	0.81	0.66	77,77,77,77	0
56	MG	YA	3304	1/1	0.81	0.64	56,56,56,56	0
56	MG	RA	3764	1/1	0.81	0.52	60,60,60,60	0
56	MG	XA	1695	1/1	0.81	0.67	52,52,52,52	0
56	MG	RA	3270	1/1	0.81	0.33	103,103,103,103	0
56	MG	YA	3215	1/1	0.81	0.20	54,54,54,54	0
56	MG	YA	3154	1/1	0.81	0.60	86,86,86,86	0
56	MG	YA	3188	1/1	0.81	0.39	94,94,94,94	0
56	MG	YA	3239	1/1	0.81	0.38	94,94,94,94	0
56	MG	QA	1724	1/1	0.81	0.24	76,76,76,76	0
56	MG	YA	3029	1/1	0.81	0.56	57,57,57,57	0
56	MG	YA	3315	1/1	0.81	0.85	62,62,62,62	0
56	MG	RA	3221	1/1	0.81	0.55	63,63,63,63	0
56	MG	YA	3532	1/1	0.81	0.98	60,60,60,60	0
56	MG	YA	3324	1/1	0.81	0.52	39,39,39,39	0
56	MG	R7	101	1/1	0.81	0.44	66,66,66,66	0
56	MG	YA	3227	1/1	0.81	0.52	64,64,64,64	0
56	MG	RA	3161	1/1	0.81	0.35	72,72,72,72	0
56	MG	RA	3708	1/1	0.81	0.34	54,54,54,54	0
56	MG	RA	3397	1/1	0.81	0.46	65,65,65,65	0
56	MG	RA	3563	1/1	0.81	0.64	66,66,66,66	0
56	MG	YA	3623	1/1	0.81	0.37	54,54,54,54	0
56	MG	YA	3017	1/1	0.81	0.58	60,60,60,60	0
56	MG	YA	3078	1/1	0.82	0.37	60,60,60,60	0
56	MG	RA	3055	1/1	0.82	0.52	85,85,85,85	0
56	MG	RA	3215	1/1	0.82	0.38	98,98,98,98	0
56	MG	YA	3740	1/1	0.82	0.40	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3737	1/1	0.82	0.29	77,77,77,77	0
56	MG	RA	3959	1/1	0.82	0.28	43,43,43,43	0
56	MG	XA	1754	1/1	0.82	0.62	86,86,86,86	0
56	MG	RA	3332	1/1	0.82	0.35	53,53,53,53	0
56	MG	XA	1760	1/1	0.82	0.30	71,71,71,71	0
56	MG	RA	4056	1/1	0.82	0.76	70,70,70,70	0
56	MG	YA	3492	1/1	0.82	0.61	63,63,63,63	0
56	MG	RA	3107	1/1	0.82	0.52	109,109,109,109	0
56	MG	YI	201	1/1	0.82	0.34	110,110,110,110	0
56	MG	RA	3883	1/1	0.82	0.34	93,93,93,93	0
56	MG	RB	202	1/1	0.82	0.15	55,55,55,55	0
56	MG	RA	3690	1/1	0.82	0.98	74,74,74,74	0
56	MG	RA	3278	1/1	0.82	0.68	83,83,83,83	0
56	MG	YA	3190	1/1	0.82	0.12	78,78,78,78	0
56	MG	RA	3186	1/1	0.82	0.35	77,77,77,77	0
56	MG	RA	3758	1/1	0.82	0.17	49,49,49,49	0
56	MG	XA	1630	1/1	0.82	0.34	62,62,62,62	0
56	MG	YA	3263	1/1	0.82	0.58	81,81,81,81	0
56	MG	RA	3643	1/1	0.82	0.81	71,71,71,71	0
56	MG	RA	3455	1/1	0.82	0.43	48,48,48,48	0
56	MG	RU	202	1/1	0.82	0.31	78,78,78,78	0
56	MG	RA	3917	1/1	0.82	0.61	67,67,67,67	0
56	MG	RV	203	1/1	0.82	0.36	55,55,55,55	0
56	MG	YA	3172	1/1	0.82	0.28	69,69,69,69	0
56	MG	YR	201	1/1	0.82	0.36	66,66,66,66	0
56	MG	RA	3923	1/1	0.82	0.31	79,79,79,79	0
56	MG	R0	101	1/1	0.82	0.40	94,94,94,94	0
56	MG	RA	3129	1/1	0.82	0.27	45,45,45,45	0
56	MG	RA	3243	1/1	0.82	0.31	73,73,73,73	0
56	MG	YA	3693	1/1	0.82	0.32	60,60,60,60	0
56	MG	QA	1604	1/1	0.82	0.22	75,75,75,75	0
56	MG	RA	3299	1/1	0.82	0.37	96,96,96,96	0
56	MG	RA	3937	1/1	0.82	0.19	38,38,38,38	0
56	MG	YA	3530	1/1	0.82	0.72	59,59,59,59	0
56	MG	RA	3080	1/1	0.82	0.59	81,81,81,81	0
56	MG	R5	101	1/1	0.82	1.13	105,105,105,105	0
56	MG	RA	3943	1/1	0.82	0.35	86,86,86,86	0
56	MG	RA	4013	1/1	0.82	0.45	76,76,76,76	0
56	MG	YA	3229	1/1	0.82	0.35	71,71,71,71	0
56	MG	YA	3101	1/1	0.82	0.37	70,70,70,70	0
56	MG	YA	3012	1/1	0.82	0.28	56,56,56,56	0
56	MG	QA	1852	1/1	0.82	0.40	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	RA	4025	1/1	0.82	0.28	32,32,32,32	0
56	MG	QA	1673	1/1	0.82	0.46	52,52,52,52	0
56	MG	YA	3405	1/1	0.83	0.44	86,86,86,86	0
56	MG	RA	3174	1/1	0.83	0.28	62,62,62,62	0
56	MG	XA	1712	1/1	0.83	0.33	61,61,61,61	0
56	MG	RA	3178	1/1	0.83	0.58	79,79,79,79	0
56	MG	QA	1752	1/1	0.83	0.26	77,77,77,77	0
56	MG	RA	3404	1/1	0.83	0.25	81,81,81,81	0
56	MG	RA	3300	1/1	0.83	1.17	68,68,68,68	0
56	MG	RA	4005	1/1	0.83	0.30	58,58,58,58	0
56	MG	YA	3721	1/1	0.83	0.60	65,65,65,65	0
56	MG	RA	4010	1/1	0.83	0.32	76,76,76,76	0
56	MG	RA	3811	1/1	0.83	0.26	55,55,55,55	0
56	MG	RE	306	1/1	0.83	0.30	59,59,59,59	0
56	MG	RA	3412	1/1	0.83	0.52	71,71,71,71	0
56	MG	RA	3816	1/1	0.83	0.55	102,102,102,102	0
56	MG	RA	3734	1/1	0.83	0.61	70,70,70,70	0
56	MG	RA	3585	1/1	0.83	0.56	59,59,59,59	0
56	MG	RA	4017	1/1	0.83	0.59	90,90,90,90	0
56	MG	RA	3182	1/1	0.83	0.52	85,85,85,85	0
56	MG	RA	3588	1/1	0.83	0.54	63,63,63,63	0
56	MG	RA	3183	1/1	0.83	0.38	81,81,81,81	0
56	MG	RA	3936	1/1	0.83	1.11	74,74,74,74	0
56	MG	YA	3470	1/1	0.83	0.34	59,59,59,59	0
56	MG	RA	4038	1/1	0.83	0.61	66,66,66,66	0
56	MG	RA	3938	1/1	0.83	0.59	100,100,100,100	0
56	MG	YQ	202	1/1	0.83	0.39	59,59,59,59	0
56	MG	YA	3250	1/1	0.83	0.32	45,45,45,45	0
56	MG	YA	3050	1/1	0.83	0.19	85,85,85,85	0
56	MG	RP	201	1/1	0.83	0.73	72,72,72,72	0
56	MG	RA	3748	1/1	0.83	0.22	61,61,61,61	0
56	MG	YA	3664	1/1	0.83	0.46	42,42,42,42	0
56	MG	RA	3832	1/1	0.83	0.35	74,74,74,74	0
56	MG	RA	3319	1/1	0.83	0.76	54,54,54,54	0
56	MG	RA	3434	1/1	0.83	0.35	61,61,61,61	0
56	MG	YA	3597	1/1	0.83	0.81	74,74,74,74	0
56	MG	XA	1658	1/1	0.83	0.30	79,79,79,79	0
56	MG	RA	3757	1/1	0.83	0.38	70,70,70,70	0
56	MG	RA	3438	1/1	0.83	0.18	71,71,71,71	0
56	MG	YA	3120	1/1	0.83	0.56	72,72,72,72	0
56	MG	QA	1658	1/1	0.83	0.15	94,94,94,94	0
56	MG	RA	3763	1/1	0.83	0.49	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	RA	3201	1/1	0.83	0.34	70,70,70,70	0
56	MG	YA	3090	1/1	0.83	0.90	54,54,54,54	0
56	MG	XA	1629	1/1	0.83	0.18	51,51,51,51	0
56	MG	QA	1623	1/1	0.83	0.51	74,74,74,74	0
56	MG	YA	3303	1/1	0.83	0.41	85,85,85,85	0
56	MG	YA	3242	1/1	0.83	0.30	88,88,88,88	0
56	MG	RA	3780	1/1	0.83	0.97	74,74,74,74	0
56	MG	RB	218	1/1	0.83	0.29	79,79,79,79	0
56	MG	QA	1875	1/1	0.83	0.43	75,75,75,75	0
56	MG	YA	3015	1/1	0.83	0.41	23,23,23,23	0
56	MG	YA	3506	1/1	0.83	0.37	53,53,53,53	0
56	MG	YA	3024	1/1	0.83	0.86	59,59,59,59	0
56	MG	YA	3235	1/1	0.83	0.25	91,91,91,91	0
56	MG	XA	1749	1/1	0.83	0.44	82,82,82,82	0
56	MG	RA	3707	1/1	0.83	0.40	69,69,69,69	0
56	MG	RA	3019	1/1	0.83	0.27	113,113,113,113	0
56	MG	QA	1809	1/1	0.83	0.28	67,67,67,67	0
56	MG	YA	3071	1/1	0.83	0.43	77,77,77,77	0
56	MG	YA	3717	1/1	0.83	0.42	45,45,45,45	0
56	MG	QA	1688	1/1	0.84	0.76	62,62,62,62	0
56	MG	YA	3687	1/1	0.84	0.22	75,75,75,75	0
56	MG	YA	3043	1/1	0.84	0.82	62,62,62,62	0
56	MG	RA	3254	1/1	0.84	0.28	92,92,92,92	0
56	MG	YA	3416	1/1	0.84	0.83	39,39,39,39	0
56	MG	YA	3225	1/1	0.84	0.32	74,74,74,74	0
56	MG	RA	3835	1/1	0.84	0.78	56,56,56,56	0
56	MG	RA	3175	1/1	0.84	0.52	70,70,70,70	0
56	MG	YF	301	1/1	0.84	0.21	54,54,54,54	0
56	MG	RA	3074	1/1	0.84	0.28	52,52,52,52	0
56	MG	YA	3197	1/1	0.84	0.34	77,77,77,77	0
56	MG	QL	202	1/1	0.84	0.11	68,68,68,68	0
56	MG	XA	1615	1/1	0.84	0.21	63,63,63,63	0
56	MG	QA	1849	1/1	0.84	0.73	81,81,81,81	0
56	MG	RA	3743	1/1	0.84	0.32	35,35,35,35	0
56	MG	XA	1696	1/1	0.84	0.14	67,67,67,67	0
56	MG	YA	3516	1/1	0.84	0.66	78,78,78,78	0
56	MG	YB	203	1/1	0.84	0.14	72,72,72,72	0
56	MG	YA	3567	1/1	0.84	0.23	42,42,42,42	0
56	MG	YA	3570	1/1	0.84	0.57	59,59,59,59	0
56	MG	RA	3648	1/1	0.84	0.49	82,82,82,82	0
56	MG	RA	3196	1/1	0.84	0.96	104,104,104,104	0
56	MG	QA	1711	1/1	0.84	0.28	63,63,63,63	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3091	1/1	0.84	1.47	104,104,104,104	0
56	MG	YA	3442	1/1	0.84	0.50	53,53,53,53	0
56	MG	YA	3649	1/1	0.84	0.38	60,60,60,60	0
56	MG	RA	3656	1/1	0.84	0.60	44,44,44,44	0
56	MG	RA	4006	1/1	0.84	0.79	81,81,81,81	0
56	MG	YA	3292	1/1	0.84	0.77	81,81,81,81	0
56	MG	XA	1764	1/1	0.84	0.56	52,52,52,52	0
56	MG	QA	1610	1/1	0.84	0.34	105,105,105,105	0
56	MG	XA	1706	1/1	0.84	0.26	67,67,67,67	0
56	MG	YA	3719	1/1	0.84	0.43	79,79,79,79	0
56	MG	QA	1815	1/1	0.84	0.36	65,65,65,65	0
56	MG	RA	3775	1/1	0.84	0.44	56,56,56,56	0
56	MG	XA	1772	1/1	0.84	0.42	51,51,51,51	0
56	MG	RA	3114	1/1	0.84	0.32	91,91,91,91	0
56	MG	RA	3449	1/1	0.84	0.24	45,45,45,45	0
56	MG	RA	4021	1/1	0.84	0.29	56,56,56,56	0
56	MG	XA	1625	1/1	0.84	0.76	74,74,74,74	0
56	MG	RA	3116	1/1	0.84	0.71	104,104,104,104	0
56	MG	XA	1779	1/1	0.84	0.86	60,60,60,60	0
56	MG	XA	1710	1/1	0.84	0.37	66,66,66,66	0
56	MG	RA	3578	1/1	0.84	0.53	60,60,60,60	0
56	MG	RA	3685	1/1	0.84	0.47	97,97,97,97	0
56	MG	RA	3222	1/1	0.84	0.11	72,72,72,72	0
56	MG	YA	3293	1/1	0.84	1.25	70,70,70,70	0
56	MG	RA	3795	1/1	0.84	0.54	75,75,75,75	0
56	MG	QA	1874	1/1	0.84	0.39	74,74,74,74	0
56	MG	YB	215	1/1	0.84	0.23	92,92,92,92	0
56	MG	YA	3158	1/1	0.84	0.71	49,49,49,49	0
56	MG	RA	3329	1/1	0.84	0.29	86,86,86,86	0
56	MG	QA	1678	1/1	0.84	0.24	80,80,80,80	0
56	MG	YA	3180	1/1	0.84	0.45	43,43,43,43	0
56	MG	RA	4063	1/1	0.84	1.40	68,68,68,68	0
56	MG	RA	3592	1/1	0.84	0.60	56,56,56,56	0
56	MG	QA	1635	1/1	0.84	0.18	58,58,58,58	0
56	MG	YA	3146	1/1	0.84	0.13	60,60,60,60	0
56	MG	RA	3337	1/1	0.84	0.49	81,81,81,81	0
56	MG	RA	3053	1/1	0.84	0.43	89,89,89,89	0
56	MG	YA	3130	1/1	0.84	0.62	65,65,65,65	0
56	MG	RA	3346	1/1	0.84	0.87	72,72,72,72	0
56	MG	Y5	101	1/1	0.84	0.32	63,63,63,63	0
56	MG	RA	3157	1/1	0.84	0.23	72,72,72,72	0
56	MG	YA	3679	1/1	0.84	0.48	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3730	1/1	0.84	0.48	87,87,87,87	0
56	MG	RA	3247	1/1	0.84	0.61	88,88,88,88	0
56	MG	RA	3163	1/1	0.84	0.94	93,93,93,93	0
56	MG	RA	3618	1/1	0.84	0.35	48,48,48,48	0
56	MG	YA	3259	1/1	0.85	0.36	66,66,66,66	0
56	MG	RA	3154	1/1	0.85	0.12	88,88,88,88	0
56	MG	XA	1731	1/1	0.85	0.27	65,65,65,65	0
56	MG	RA	3158	1/1	0.85	0.36	67,67,67,67	0
56	MG	RA	3159	1/1	0.85	0.41	107,107,107,107	0
56	MG	RA	3234	1/1	0.85	0.37	64,64,64,64	0
56	MG	YA	3020	1/1	0.85	0.27	80,80,80,80	0
56	MG	YA	3716	1/1	0.85	0.42	65,65,65,65	0
56	MG	QA	1639	1/1	0.85	0.20	79,79,79,79	0
56	MG	YA	3209	1/1	0.85	0.45	48,48,48,48	0
56	MG	YA	3084	1/1	0.85	0.39	66,66,66,66	0
56	MG	YA	3243	1/1	0.85	0.34	67,67,67,67	0
56	MG	YA	3469	1/1	0.85	0.35	88,88,88,88	0
56	MG	RA	3671	1/1	0.85	0.31	71,71,71,71	0
56	MG	RA	3767	1/1	0.85	0.38	37,37,37,37	0
56	MG	QA	1684	1/1	0.85	0.52	97,97,97,97	0
56	MG	YB	213	1/1	0.85	0.41	57,57,57,57	0
56	MG	RA	3176	1/1	0.85	0.71	96,96,96,96	0
56	MG	YA	3447	1/1	0.85	0.63	68,68,68,68	0
56	MG	YB	217	1/1	0.85	0.34	77,77,77,77	0
56	MG	XA	1762	1/1	0.85	0.27	48,48,48,48	0
56	MG	RA	3018	1/1	0.85	0.30	89,89,89,89	0
56	MG	YA	3266	1/1	0.85	0.82	70,70,70,70	0
56	MG	QA	1651	1/1	0.85	0.65	89,89,89,89	0
56	MG	RA	3024	1/1	0.85	0.41	74,74,74,74	0
56	MG	RF	308	1/1	0.85	0.51	74,74,74,74	0
56	MG	YA	3725	1/1	0.85	0.41	68,68,68,68	0
56	MG	RA	3029	1/1	0.85	0.74	66,66,66,66	0
56	MG	RA	3692	1/1	0.85	0.72	87,87,87,87	0
56	MG	RA	3268	1/1	0.85	0.41	95,95,95,95	0
56	MG	QA	1744	1/1	0.85	0.69	65,65,65,65	0
56	MG	RA	3109	1/1	0.85	0.55	66,66,66,66	0
56	MG	RA	3696	1/1	0.85	1.18	74,74,74,74	0
56	MG	RA	3919	1/1	0.85	0.60	47,47,47,47	0
56	MG	YA	3058	1/1	0.85	0.21	75,75,75,75	0
56	MG	YA	3230	1/1	0.85	0.61	57,57,57,57	0
56	MG	RA	4026	1/1	0.85	0.47	71,71,71,71	0
56	MG	YA	3476	1/1	0.85	0.57	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3377	1/1	0.85	0.49	42,42,42,42	0
56	MG	RA	3392	1/1	0.85	0.28	28,28,28,28	0
56	MG	RA	4040	1/1	0.85	0.53	69,69,69,69	0
56	MG	RA	3927	1/1	0.85	0.42	81,81,81,81	0
56	MG	RA	3802	1/1	0.85	1.15	89,89,89,89	0
56	MG	RA	3522	1/1	0.85	0.31	55,55,55,55	0
56	MG	XA	1601	1/1	0.85	0.25	75,75,75,75	0
56	MG	RA	4049	1/1	0.85	0.44	92,92,92,92	0
56	MG	YA	3187	1/1	0.85	0.25	40,40,40,40	0
56	MG	RA	3401	1/1	0.85	0.18	44,44,44,44	0
56	MG	RA	3713	1/1	0.85	0.47	47,47,47,47	0
56	MG	YA	3219	1/1	0.85	0.47	60,60,60,60	0
56	MG	RA	3281	1/1	0.85	1.19	85,85,85,85	0
56	MG	QA	1614	1/1	0.85	0.20	48,48,48,48	0
56	MG	YA	3128	1/1	0.85	0.21	26,26,26,26	0
56	MG	RA	4060	1/1	0.85	0.58	82,82,82,82	0
56	MG	RA	3632	1/1	0.85	0.52	55,55,55,55	0
56	MG	QA	1705	1/1	0.85	0.28	37,37,37,37	0
56	MG	RA	3130	1/1	0.85	0.07	69,69,69,69	0
56	MG	YA	3221	1/1	0.85	0.35	77,77,77,77	0
56	MG	QA	1709	1/1	0.85	0.49	53,53,53,53	0
56	MG	QA	1621	1/1	0.85	0.39	71,71,71,71	0
56	MG	YA	3140	1/1	0.85	0.62	65,65,65,65	0
56	MG	YE	307	1/1	0.85	0.24	64,64,64,64	0
56	MG	RA	3297	1/1	0.85	0.15	39,39,39,39	0
56	MG	RA	3140	1/1	0.85	0.81	93,93,93,93	0
56	MG	RB	212	1/1	0.85	0.17	74,74,74,74	0
56	MG	YA	3034	1/1	0.85	0.30	68,68,68,68	0
56	MG	YA	3463	1/1	0.85	0.24	47,47,47,47	0
56	MG	RA	3146	1/1	0.85	0.23	37,37,37,37	0
56	MG	YA	3710	1/1	0.85	0.62	61,61,61,61	0
56	MG	RA	3552	1/1	0.85	0.16	97,97,97,97	0
56	MG	XA	1724	1/1	0.86	0.39	65,65,65,65	0
56	MG	RA	3001	1/1	0.86	0.34	68,68,68,68	0
56	MG	YA	3105	1/1	0.86	0.39	37,37,37,37	0
56	MG	RA	3997	1/1	0.86	0.28	98,98,98,98	0
56	MG	RA	3627	1/1	0.86	0.66	76,76,76,76	0
56	MG	YA	3200	1/1	0.86	0.39	70,70,70,70	0
56	MG	RA	3629	1/1	0.86	0.46	60,60,60,60	0
56	MG	RA	3898	1/1	0.86	0.33	48,48,48,48	0
56	MG	QA	1767	1/1	0.86	0.23	90,90,90,90	0
56	MG	QA	1633	1/1	0.86	0.19	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3713	1/1	0.86	0.74	67,67,67,67	0
56	MG	XE	202	1/1	0.86	0.08	67,67,67,67	0
56	MG	RA	3913	1/1	0.86	0.45	43,43,43,43	0
56	MG	RA	3716	1/1	0.86	0.23	52,52,52,52	0
56	MG	YA	3638	1/1	0.86	0.34	65,65,65,65	0
56	MG	YA	3454	1/1	0.86	1.16	52,52,52,52	0
56	MG	YA	3040	1/1	0.86	0.20	66,66,66,66	0
56	MG	YA	3153	1/1	0.86	0.20	37,37,37,37	0
56	MG	YA	3032	1/1	0.86	0.28	80,80,80,80	0
56	MG	RA	3450	1/1	0.86	1.29	53,53,53,53	0
56	MG	RA	3925	1/1	0.86	0.31	83,83,83,83	0
56	MG	RA	3253	1/1	0.86	0.31	66,66,66,66	0
56	MG	YA	3223	1/1	0.86	0.49	91,91,91,91	0
56	MG	QA	1779	1/1	0.86	0.22	80,80,80,80	0
56	MG	RG	202	1/1	0.86	0.08	85,85,85,85	0
56	MG	RA	4034	1/1	0.86	0.74	73,73,73,73	0
56	MG	QA	1825	1/1	0.86	0.40	74,74,74,74	0
56	MG	YA	3295	1/1	0.86	0.32	44,44,44,44	0
56	MG	RA	3033	1/1	0.86	0.27	91,91,91,91	0
56	MG	YA	3301	1/1	0.86	0.23	42,42,42,42	0
56	MG	QB	301	1/1	0.86	0.13	91,91,91,91	0
56	MG	RA	3265	1/1	0.86	0.10	111,111,111,111	0
56	MG	YA	3028	1/1	0.86	0.33	51,51,51,51	0
56	MG	RA	4048	1/1	0.86	0.58	81,81,81,81	0
56	MG	XA	1707	1/1	0.86	0.55	58,58,58,58	0
56	MG	RA	3363	1/1	0.86	0.54	50,50,50,50	0
56	MG	XA	1758	1/1	0.86	0.56	60,60,60,60	0
56	MG	XA	1627	1/1	0.86	0.50	62,62,62,62	0
56	MG	YA	3674	1/1	0.86	0.65	74,74,74,74	0
56	MG	RA	3582	1/1	0.86	0.83	72,72,72,72	0
56	MG	RA	3749	1/1	0.86	0.31	63,63,63,63	0
56	MG	QA	1606	1/1	0.86	0.48	93,93,93,93	0
56	MG	RA	3498	1/1	0.86	0.49	58,58,58,58	0
56	MG	YA	3168	1/1	0.86	0.38	88,88,88,88	0
56	MG	RA	3054	1/1	0.86	0.35	78,78,78,78	0
56	MG	YA	3098	1/1	0.86	0.14	49,49,49,49	0
56	MG	RA	3373	1/1	0.86	0.55	44,44,44,44	0
56	MG	YA	3210	1/1	0.86	0.31	65,65,65,65	0
56	MG	YA	3692	1/1	0.86	0.33	39,39,39,39	0
56	MG	QA	1702	1/1	0.86	0.36	64,64,64,64	0
56	MG	YA	3732	1/1	0.86	1.09	73,73,73,73	0
56	MG	XA	1777	1/1	0.86	0.63	98,98,98,98	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3264	1/1	0.86	0.57	88,88,88,88	0
56	MG	RA	3853	1/1	0.86	1.17	64,64,64,64	0
56	MG	XA	1677	1/1	0.86	0.28	71,71,71,71	0
56	MG	YA	3627	1/1	0.86	0.46	38,38,38,38	0
56	MG	YA	3104	1/1	0.86	0.55	85,85,85,85	0
56	MG	YA	3632	1/1	0.86	0.35	62,62,62,62	0
56	MG	YA	3160	1/1	0.86	0.48	67,67,67,67	0
56	MG	QQ	201	1/1	0.86	0.21	71,71,71,71	0
56	MG	RA	3777	1/1	0.86	0.45	93,93,93,93	0
56	MG	RA	3609	1/1	0.86	0.27	71,71,71,71	0
56	MG	YA	3748	1/1	0.86	0.49	95,95,95,95	0
56	MG	QA	1626	1/1	0.86	0.10	78,78,78,78	0
56	MG	RA	3233	1/1	0.86	0.30	72,72,72,72	0
56	MG	RA	3561	1/1	0.87	0.36	42,42,42,42	0
56	MG	YA	3272	1/1	0.87	0.42	39,39,39,39	0
56	MG	RA	3844	1/1	0.87	0.43	113,113,113,113	0
56	MG	XA	1768	1/1	0.87	0.24	45,45,45,45	0
56	MG	RA	3657	1/1	0.87	0.59	65,65,65,65	0
56	MG	RA	3980	1/1	0.87	0.35	49,49,49,49	0
56	MG	RA	3120	1/1	0.87	0.26	63,63,63,63	0
56	MG	RA	3260	1/1	0.87	1.03	71,71,71,71	0
56	MG	RA	3121	1/1	0.87	0.53	83,83,83,83	0
56	MG	YA	3106	1/1	0.87	0.10	30,30,30,30	0
56	MG	QA	1810	1/1	0.87	0.43	69,69,69,69	0
56	MG	RA	3859	1/1	0.87	0.75	72,72,72,72	0
56	MG	YA	3281	1/1	0.87	0.96	60,60,60,60	0
56	MG	RA	3486	1/1	0.87	0.41	78,78,78,78	0
56	MG	RA	3266	1/1	0.87	0.41	74,74,74,74	0
56	MG	YA	3365	1/1	0.87	0.44	48,48,48,48	0
56	MG	YA	3036	1/1	0.87	0.34	55,55,55,55	0
56	MG	RA	3996	1/1	0.87	0.90	73,73,73,73	0
56	MG	RA	3766	1/1	0.87	0.56	29,29,29,29	0
56	MG	RA	3674	1/1	0.87	0.61	77,77,77,77	0
56	MG	YA	3081	1/1	0.87	0.50	71,71,71,71	0
56	MG	YA	3323	1/1	0.87	0.35	37,37,37,37	0
56	MG	RA	3274	1/1	0.87	0.34	101,101,101,101	0
56	MG	RA	3133	1/1	0.87	0.30	79,79,79,79	0
56	MG	YA	3526	1/1	0.87	0.45	43,43,43,43	0
56	MG	XA	1681	1/1	0.87	0.31	106,106,106,106	0
56	MG	RF	305	1/1	0.87	0.88	69,69,69,69	0
56	MG	YA	3755	1/1	0.87	0.62	80,80,80,80	0
56	MG	RA	3374	1/1	0.87	0.75	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3139	1/1	0.87	0.29	72,72,72,72	0
56	MG	RA	3689	1/1	0.87	0.86	70,70,70,70	0
56	MG	YA	3181	1/1	0.87	0.30	66,66,66,66	0
56	MG	RA	3907	1/1	0.87	0.59	78,78,78,78	0
56	MG	XA	1687	1/1	0.87	0.70	101,101,101,101	0
56	MG	YA	3046	1/1	0.87	0.41	75,75,75,75	0
56	MG	YA	3254	1/1	0.87	0.35	67,67,67,67	0
56	MG	RA	3149	1/1	0.87	0.28	39,39,39,39	0
56	MG	RA	3605	1/1	0.87	0.33	70,70,70,70	0
56	MG	YA	3424	1/1	0.87	0.18	27,27,27,27	0
56	MG	QA	1870	1/1	0.87	0.65	47,47,47,47	0
56	MG	XA	1653	1/1	0.87	0.33	79,79,79,79	0
56	MG	RA	3610	1/1	0.87	0.25	67,67,67,67	0
56	MG	RA	3156	1/1	0.87	0.28	117,117,117,117	0
56	MG	QA	1872	1/1	0.87	0.23	85,85,85,85	0
56	MG	RR	3202	1/1	0.87	0.38	69,69,69,69	0
56	MG	YA	3453	1/1	0.87	0.25	35,35,35,35	0
56	MG	QA	1629	1/1	0.87	0.32	51,51,51,51	0
56	MG	RA	3803	1/1	0.87	0.14	64,64,64,64	0
56	MG	YA	3661	1/1	0.87	0.63	63,63,63,63	0
56	MG	RT	202	1/1	0.87	0.31	65,65,65,65	0
56	MG	YA	3127	1/1	0.87	0.30	50,50,50,50	0
56	MG	RA	3428	1/1	0.87	0.31	60,60,60,60	0
56	MG	RA	3715	1/1	0.87	0.43	76,76,76,76	0
56	MG	XA	1657	1/1	0.87	0.45	65,65,65,65	0
56	MG	YA	3397	1/1	0.87	0.66	68,68,68,68	0
56	MG	RW	201	1/1	0.87	0.31	64,64,64,64	0
56	MG	YA	3586	1/1	0.87	0.85	48,48,48,48	0
56	MG	RA	3095	1/1	0.87	0.57	88,88,88,88	0
56	MG	RA	3723	1/1	0.87	0.24	68,68,68,68	0
56	MG	RA	3539	1/1	0.87	0.56	39,39,39,39	0
56	MG	YA	3257	1/1	0.87	0.21	84,84,84,84	0
56	MG	YA	3055	1/1	0.87	0.33	45,45,45,45	0
56	MG	RA	3030	1/1	0.87	0.72	113,113,113,113	0
56	MG	QA	1723	1/1	0.87	0.20	50,50,50,50	0
56	MG	RA	3032	1/1	0.87	0.15	49,49,49,49	0
56	MG	RA	3248	1/1	0.87	0.33	56,56,56,56	0
56	MG	RA	3328	1/1	0.87	0.23	34,34,34,34	0
56	MG	RA	3447	1/1	0.87	0.31	57,57,57,57	0
56	MG	RA	3550	1/1	0.87	0.37	70,70,70,70	0
56	MG	YA	3546	1/1	0.87	0.56	47,47,47,47	0
56	MG	YA	3351	1/1	0.87	0.53	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3554	1/1	0.87	0.54	55,55,55,55	0
56	MG	YV	201	1/1	0.87	0.29	44,44,44,44	0
56	MG	QA	1803	1/1	0.87	0.54	49,49,49,49	0
56	MG	YW	201	1/1	0.87	0.64	75,75,75,75	0
56	MG	YA	3688	1/1	0.87	0.59	62,62,62,62	0
56	MG	YA	3192	1/1	0.88	0.21	71,71,71,71	0
56	MG	RA	3038	1/1	0.88	0.20	63,63,63,63	0
56	MG	RA	3371	1/1	0.88	0.59	75,75,75,75	0
56	MG	XA	1775	1/1	0.88	0.86	72,72,72,72	0
56	MG	YA	3372	1/1	0.88	0.30	49,49,49,49	0
56	MG	YA	3182	1/1	0.88	0.26	68,68,68,68	0
56	MG	YA	3377	1/1	0.88	0.86	52,52,52,52	0
56	MG	YA	3378	1/1	0.88	0.27	53,53,53,53	0
56	MG	RA	3869	1/1	0.88	1.08	77,77,77,77	0
56	MG	RA	3383	1/1	0.88	0.56	40,40,40,40	0
56	MG	XA	1636	1/1	0.88	0.08	60,60,60,60	0
56	MG	RA	3396	1/1	0.88	0.50	58,58,58,58	0
56	MG	YA	3194	1/1	0.88	0.31	70,70,70,70	0
56	MG	XA	1720	1/1	0.88	1.10	63,63,63,63	0
56	MG	YA	3433	1/1	0.88	0.30	19,19,19,19	0
56	MG	YA	3196	1/1	0.88	0.37	109,109,109,109	0
56	MG	RA	3884	1/1	0.88	0.34	71,71,71,71	0
56	MG	XA	1644	1/1	0.88	0.36	61,61,61,61	0
56	MG	RA	3405	1/1	0.88	0.58	32,32,32,32	0
56	MG	RA	3697	1/1	0.88	0.35	55,55,55,55	0
56	MG	XA	1683	1/1	0.88	0.84	69,69,69,69	0
56	MG	YA	3393	1/1	0.88	0.22	66,66,66,66	0
56	MG	YA	3114	1/1	0.88	0.29	90,90,90,90	0
56	MG	XF	201	1/1	0.88	0.22	39,39,39,39	0
56	MG	YA	3653	1/1	0.88	0.57	55,55,55,55	0
56	MG	RA	3705	1/1	0.88	0.58	50,50,50,50	0
56	MG	XA	1729	1/1	0.88	0.25	58,58,58,58	0
56	MG	YA	3252	1/1	0.88	0.53	70,70,70,70	0
56	MG	RA	3799	1/1	0.88	0.46	54,54,54,54	0
56	MG	RA	3534	1/1	0.88	0.26	44,44,44,44	0
56	MG	YA	3217	1/1	0.88	0.22	75,75,75,75	0
56	MG	RA	3536	1/1	0.88	0.40	64,64,64,64	0
56	MG	RA	4022	1/1	0.88	0.39	73,73,73,73	0
56	MG	RA	4024	1/1	0.88	0.51	59,59,59,59	0
56	MG	QA	1694	1/1	0.88	0.36	97,97,97,97	0
56	MG	QA	1750	1/1	0.88	0.35	67,67,67,67	0
56	MG	RA	4029	1/1	0.88	0.71	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3718	1/1	0.88	0.15	62,62,62,62	0
56	MG	YA	3659	1/1	0.88	0.45	29,29,29,29	0
56	MG	QA	1855	1/1	0.88	0.32	56,56,56,56	0
56	MG	YA	3031	1/1	0.88	0.43	46,46,46,46	0
56	MG	RA	3084	1/1	0.88	0.46	79,79,79,79	0
56	MG	RQ	202	1/1	0.88	0.38	51,51,51,51	0
56	MG	YA	3116	1/1	0.88	0.23	58,58,58,58	0
56	MG	RQ	204	1/1	0.88	0.37	72,72,72,72	0
56	MG	RA	3814	1/1	0.88	0.78	63,63,63,63	0
56	MG	XA	1747	1/1	0.88	0.52	59,59,59,59	0
56	MG	RA	3169	1/1	0.88	0.18	82,82,82,82	0
56	MG	RA	3440	1/1	0.88	0.50	57,57,57,57	0
56	MG	RA	3170	1/1	0.88	0.24	66,66,66,66	0
56	MG	RA	3087	1/1	0.88	0.60	99,99,99,99	0
56	MG	YA	3520	1/1	0.88	0.62	68,68,68,68	0
56	MG	QA	1806	1/1	0.88	0.18	73,73,73,73	0
56	MG	YA	3256	1/1	0.88	0.39	43,43,43,43	0
56	MG	QA	1701	1/1	0.88	0.83	50,50,50,50	0
56	MG	XA	1750	1/1	0.88	0.32	87,87,87,87	0
56	MG	QA	1654	1/1	0.88	0.38	64,64,64,64	0
56	MG	YA	3035	1/1	0.88	0.28	73,73,73,73	0
56	MG	RA	4061	1/1	0.88	0.46	96,96,96,96	0
56	MG	YA	3093	1/1	0.88	0.24	18,18,18,18	0
56	MG	RA	4064	1/1	0.88	1.05	64,64,64,64	0
56	MG	RA	3350	1/1	0.88	0.12	65,65,65,65	0
56	MG	YA	3525	1/1	0.88	0.56	86,86,86,86	0
56	MG	YA	3204	1/1	0.88	0.15	42,42,42,42	0
56	MG	RA	3570	1/1	0.88	0.13	35,35,35,35	0
56	MG	R1	103	1/1	0.88	0.32	55,55,55,55	0
56	MG	RA	3027	1/1	0.88	0.50	103,103,103,103	0
56	MG	RB	207	1/1	0.88	0.16	82,82,82,82	0
56	MG	YA	3261	1/1	0.88	0.25	55,55,55,55	0
56	MG	YA	3588	1/1	0.88	0.22	76,76,76,76	0
56	MG	R5	104	1/1	0.88	0.58	67,67,67,67	0
56	MG	RA	3477	1/1	0.88	0.41	46,46,46,46	0
56	MG	YA	3133	1/1	0.88	0.52	91,91,91,91	0
56	MG	YA	3163	1/1	0.88	0.20	52,52,52,52	0
56	MG	YA	3367	1/1	0.88	0.17	56,56,56,56	0
56	MG	RA	3972	1/1	0.88	0.44	81,81,81,81	0
56	MG	YA	3102	1/1	0.88	0.55	60,60,60,60	0
56	MG	YA	3309	1/1	0.88	0.40	37,37,37,37	0
56	MG	QA	1619	1/1	0.88	0.25	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	3462	1/1	0.89	0.47	52,52,52,52	0
56	MG	XA	1778	1/1	0.89	0.73	60,60,60,60	0
56	MG	YA	3708	1/1	0.89	0.67	37,37,37,37	0
56	MG	RA	3804	1/1	0.89	0.56	78,78,78,78	0
56	MG	YA	3594	1/1	0.89	0.34	35,35,35,35	0
56	MG	RA	3021	1/1	0.89	0.73	101,101,101,101	0
56	MG	YA	3657	1/1	0.89	0.64	34,34,34,34	0
56	MG	RA	3647	1/1	0.89	0.31	88,88,88,88	0
56	MG	RA	3218	1/1	0.89	0.51	65,65,65,65	0
56	MG	RA	3280	1/1	0.89	0.23	78,78,78,78	0
56	MG	RA	3219	1/1	0.89	0.20	66,66,66,66	0
56	MG	RA	3651	1/1	0.89	0.22	41,41,41,41	0
56	MG	YA	3238	1/1	0.89	0.31	91,91,91,91	0
56	MG	RA	3931	1/1	0.89	0.27	73,73,73,73	0
56	MG	YA	3757	1/1	0.89	0.49	70,70,70,70	0
56	MG	RF	307	1/1	0.89	0.32	65,65,65,65	0
56	MG	YA	3064	1/1	0.89	0.44	55,55,55,55	0
56	MG	RA	3160	1/1	0.89	0.95	83,83,83,83	0
56	MG	YG	202	1/1	0.89	0.19	78,78,78,78	0
56	MG	YB	202	1/1	0.89	0.17	56,56,56,56	0
56	MG	YA	3118	1/1	0.89	0.39	91,91,91,91	0
56	MG	QA	1844	1/1	0.89	0.17	80,80,80,80	0
56	MG	RA	3101	1/1	0.89	0.35	68,68,68,68	0
56	MG	RA	3232	1/1	0.89	0.78	57,57,57,57	0
56	MG	RA	3167	1/1	0.89	0.13	69,69,69,69	0
56	MG	XA	1732	1/1	0.89	0.70	44,44,44,44	0
56	MG	XA	1734	1/1	0.89	0.17	78,78,78,78	0
56	MG	YA	3423	1/1	0.89	0.66	59,59,59,59	0
56	MG	RA	3593	1/1	0.89	0.59	66,66,66,66	0
56	MG	QV	102	1/1	0.89	0.41	45,45,45,45	0
56	MG	RA	3421	1/1	0.89	0.33	42,42,42,42	0
56	MG	RA	3679	1/1	0.89	0.91	54,54,54,54	0
56	MG	YA	3509	1/1	0.89	0.28	71,71,71,71	0
56	MG	YA	3373	1/1	0.89	0.39	41,41,41,41	0
56	MG	YA	3629	1/1	0.89	0.39	44,44,44,44	0
56	MG	RR	3201	1/1	0.89	0.57	62,62,62,62	0
56	MG	YA	3072	1/1	0.89	0.40	99,99,99,99	0
56	MG	RA	3760	1/1	0.89	0.16	74,74,74,74	0
56	MG	YA	3123	1/1	0.89	0.13	86,86,86,86	0
56	MG	YA	3429	1/1	0.89	0.31	67,67,67,67	0
56	MG	XA	1628	1/1	0.89	0.25	56,56,56,56	0
56	MG	YA	3541	1/1	0.89	0.43	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	YA	3074	1/1	0.89	0.31	63,63,63,63	0
56	MG	RU	201	1/1	0.89	0.42	70,70,70,70	0
56	MG	YA	3068	1/1	0.89	0.35	65,65,65,65	0
56	MG	YA	3645	1/1	0.89	0.66	67,67,67,67	0
56	MG	RA	3059	1/1	0.89	0.14	76,76,76,76	0
56	MG	RA	3612	1/1	0.89	0.81	64,64,64,64	0
56	MG	XA	1763	1/1	0.89	0.60	49,49,49,49	0
56	MG	YA	3733	1/1	0.89	0.22	62,62,62,62	0
56	MG	YA	3735	1/1	0.89	0.61	71,71,71,71	0
56	MG	Y7	101	1/1	0.89	0.57	75,75,75,75	0
56	MG	RA	3444	1/1	0.89	1.03	83,83,83,83	0
56	MG	RB	213	1/1	0.89	0.63	58,58,58,58	0
56	MG	RA	3700	1/1	0.89	0.24	53,53,53,53	0
56	MG	YA	3258	1/1	0.89	0.40	68,68,68,68	0
56	MG	QA	1742	1/1	0.89	0.78	58,58,58,58	0
56	MG	YA	3389	1/1	0.89	0.31	50,50,50,50	0
56	MG	RA	3069	1/1	0.89	0.31	55,55,55,55	0
56	MG	RA	3354	1/1	0.89	0.18	61,61,61,61	0
56	MG	QA	1655	1/1	0.89	0.40	64,64,64,64	0
56	MG	YA	3062	1/1	0.89	0.24	57,57,57,57	0
56	MG	RA	3794	1/1	0.89	0.75	86,86,86,86	0
56	MG	RA	3269	1/1	0.89	0.28	74,74,74,74	0
56	MG	RA	3709	1/1	0.89	0.20	75,75,75,75	0
56	MG	RA	4001	1/1	0.89	0.35	58,58,58,58	0
56	MG	XA	1646	1/1	0.89	0.58	63,63,63,63	0
56	MG	YA	3742	1/1	0.89	0.41	36,36,36,36	0
56	MG	RD	303	1/1	0.89	0.28	41,41,41,41	0
56	MG	RA	3015	1/1	0.89	0.30	72,72,72,72	0
56	MG	RA	3273	1/1	0.89	0.58	76,76,76,76	0
56	MG	RA	3244	1/1	0.90	0.08	71,71,71,71	0
56	MG	YA	3585	1/1	0.90	0.44	75,75,75,75	0
56	MG	YA	3350	1/1	0.90	0.26	23,23,23,23	0
56	MG	YA	3749	1/1	0.90	0.30	54,54,54,54	0
56	MG	RA	3037	1/1	0.90	0.38	88,88,88,88	0
56	MG	XA	1684	1/1	0.90	0.51	40,40,40,40	0
56	MG	YA	3097	1/1	0.90	0.55	37,37,37,37	0
56	MG	YA	3498	1/1	0.90	0.44	64,64,64,64	0
56	MG	QA	1846	1/1	0.90	0.60	47,47,47,47	0
56	MG	YA	3759	1/1	0.90	0.58	64,64,64,64	0
56	MG	YA	3548	1/1	0.90	0.59	32,32,32,32	0
56	MG	YA	3499	1/1	0.90	0.47	38,38,38,38	0
56	MG	RA	4016	1/1	0.90	0.35	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3633	1/1	0.90	0.38	74,74,74,74	0
56	MG	YA	3077	1/1	0.90	0.25	35,35,35,35	0
56	MG	YA	3611	1/1	0.90	0.27	31,31,31,31	0
56	MG	YA	3357	1/1	0.90	0.33	39,39,39,39	0
56	MG	YA	3671	1/1	0.90	0.48	37,37,37,37	0
56	MG	XA	1733	1/1	0.90	0.28	72,72,72,72	0
56	MG	RA	3343	1/1	0.90	0.16	68,68,68,68	0
56	MG	YA	3434	1/1	0.90	0.37	55,55,55,55	0
56	MG	RA	3551	1/1	0.90	0.31	72,72,72,72	0
56	MG	RA	3349	1/1	0.90	0.31	40,40,40,40	0
56	MG	YA	3435	1/1	0.90	0.51	36,36,36,36	0
56	MG	RA	3728	1/1	0.90	0.35	74,74,74,74	0
56	MG	RA	4037	1/1	0.90	0.47	69,69,69,69	0
56	MG	RA	3453	1/1	0.90	0.25	64,64,64,64	0
56	MG	RA	3555	1/1	0.90	1.20	68,68,68,68	0
56	MG	QQ	202	1/1	0.90	0.16	68,68,68,68	0
56	MG	QA	1765	1/1	0.90	0.19	83,83,83,83	0
56	MG	XA	1736	1/1	0.90	0.30	58,58,58,58	0
56	MG	XA	1738	1/1	0.90	0.65	58,58,58,58	0
56	MG	YA	3218	1/1	0.90	0.37	89,89,89,89	0
56	MG	YA	3683	1/1	0.90	0.58	39,39,39,39	0
56	MG	RQ	201	1/1	0.90	0.21	47,47,47,47	0
56	MG	YA	3402	1/1	0.90	0.54	32,32,32,32	0
56	MG	RA	3739	1/1	0.90	0.32	78,78,78,78	0
56	MG	YB	214	1/1	0.90	0.17	45,45,45,45	0
56	MG	YA	3376	1/1	0.90	0.17	58,58,58,58	0
56	MG	QA	1773	1/1	0.90	0.31	71,71,71,71	0
56	MG	RA	3151	1/1	0.90	0.62	59,59,59,59	0
56	MG	RA	3479	1/1	0.90	0.34	19,19,19,19	0
56	MG	RA	3575	1/1	0.90	0.42	62,62,62,62	0
56	MG	YA	3224	1/1	0.90	0.10	66,66,66,66	0
56	MG	RA	4062	1/1	0.90	0.40	78,78,78,78	0
56	MG	QA	1643	1/1	0.90	0.69	86,86,86,86	0
56	MG	RA	3155	1/1	0.90	0.47	78,78,78,78	0
56	MG	YA	3162	1/1	0.90	0.16	27,27,27,27	0
56	MG	RA	3082	1/1	0.90	0.97	62,62,62,62	0
56	MG	YA	3425	1/1	0.90	0.29	49,49,49,49	0
56	MG	RA	3284	1/1	0.90	0.35	97,97,97,97	0
56	MG	RA	3017	1/1	0.90	0.58	68,68,68,68	0
56	MG	RA	3376	1/1	0.90	0.20	52,52,52,52	0
56	MG	RX	101	1/1	0.90	0.36	51,51,51,51	0
56	MG	YA	3573	1/1	0.90	0.67	38,38,38,38	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	XA	1635	1/1	0.90	0.21	29,29,29,29	0
56	MG	XA	1759	1/1	0.90	0.32	56,56,56,56	0
56	MG	YD	303	1/1	0.90	0.74	44,44,44,44	0
56	MG	RA	3855	1/1	0.90	0.87	62,62,62,62	0
56	MG	XA	1761	1/1	0.90	0.22	38,38,38,38	0
56	MG	QA	1877	1/1	0.90	0.38	94,94,94,94	0
56	MG	YA	3275	1/1	0.90	0.53	53,53,53,53	0
56	MG	QA	1786	1/1	0.90	0.31	54,54,54,54	0
56	MG	XA	1638	1/1	0.90	0.07	118,118,118,118	0
56	MG	RA	3301	1/1	0.90	0.85	66,66,66,66	0
56	MG	YA	3536	1/1	0.90	0.25	42,42,42,42	0
56	MG	YA	3411	1/1	0.90	0.27	83,83,83,83	0
56	MG	RA	3304	1/1	0.90	0.19	39,39,39,39	0
56	MG	RA	3305	1/1	0.90	0.85	98,98,98,98	0
56	MG	RA	3779	1/1	0.90	0.24	86,86,86,86	0
56	MG	RA	3308	1/1	0.90	0.50	64,64,64,64	0
56	MG	R9	103	1/1	0.90	0.24	67,67,67,67	0
56	MG	RA	3424	1/1	0.90	0.36	80,80,80,80	0
56	MG	YA	3175	1/1	0.90	0.50	123,123,123,123	0
56	MG	RA	3529	1/1	0.90	0.26	77,77,77,77	0
56	MG	RA	3785	1/1	0.90	0.44	56,56,56,56	0
56	MG	YA	3705	1/1	0.91	0.44	32,32,32,32	0
56	MG	YA	3392	1/1	0.91	0.59	54,54,54,54	0
56	MG	RA	3837	1/1	0.91	0.24	59,59,59,59	0
56	MG	YA	3458	1/1	0.91	0.32	46,46,46,46	0
56	MG	RA	3007	1/1	0.91	0.24	61,61,61,61	0
56	MG	XA	1782	1/1	0.91	0.21	46,46,46,46	0
56	MG	YQ	201	1/1	0.91	0.27	33,33,33,33	0
56	MG	RA	3744	1/1	0.91	0.44	41,41,41,41	0
56	MG	YA	3436	1/1	0.91	0.41	51,51,51,51	0
56	MG	YA	3240	1/1	0.91	0.72	70,70,70,70	0
56	MG	XA	1726	1/1	0.91	0.23	74,74,74,74	0
56	MG	RA	3565	1/1	0.91	0.33	44,44,44,44	0
56	MG	RA	3658	1/1	0.91	0.70	95,95,95,95	0
56	MG	RA	3458	1/1	0.91	0.21	74,74,74,74	0
56	MG	RA	3660	1/1	0.91	0.24	46,46,46,46	0
56	MG	RA	3569	1/1	0.91	0.47	64,64,64,64	0
56	MG	RA	3096	1/1	0.91	0.18	48,48,48,48	0
56	MG	YA	3574	1/1	0.91	0.47	30,30,30,30	0
56	MG	RA	3572	1/1	0.91	0.39	83,83,83,83	0
56	MG	RA	3353	1/1	0.91	0.52	35,35,35,35	0
56	MG	RA	3668	1/1	0.91	0.34	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	3482	1/1	0.91	0.41	65,65,65,65	0
56	MG	QA	1692	1/1	0.91	0.39	52,52,52,52	0
56	MG	YA	3294	1/1	0.91	0.38	52,52,52,52	0
56	MG	YA	3157	1/1	0.91	0.43	44,44,44,44	0
56	MG	YA	3537	1/1	0.91	0.40	57,57,57,57	0
56	MG	RA	3185	1/1	0.91	0.46	94,94,94,94	0
56	MG	RA	4007	1/1	0.91	0.67	49,49,49,49	0
56	MG	RF	306	1/1	0.91	0.69	79,79,79,79	0
56	MG	XA	1641	1/1	0.91	0.38	61,61,61,61	0
56	MG	RA	3584	1/1	0.91	0.13	45,45,45,45	0
56	MG	YA	3538	1/1	0.91	0.40	44,44,44,44	0
56	MG	YA	3231	1/1	0.91	0.31	59,59,59,59	0
56	MG	XA	1690	1/1	0.91	0.30	53,53,53,53	0
56	MG	RA	3889	1/1	0.91	0.59	48,48,48,48	0
56	MG	XA	1691	1/1	0.91	0.47	60,60,60,60	0
56	MG	YA	3513	1/1	0.91	0.29	80,80,80,80	0
56	MG	YA	3514	1/1	0.91	0.41	62,62,62,62	0
56	MG	YA	3019	1/1	0.91	0.37	81,81,81,81	0
56	MG	RA	3117	1/1	0.91	0.27	64,64,64,64	0
56	MG	RA	3900	1/1	0.91	0.28	30,30,30,30	0
56	MG	XA	1742	1/1	0.91	0.41	52,52,52,52	0
56	MG	QA	1818	1/1	0.91	0.25	63,63,63,63	0
56	MG	XA	1744	1/1	0.91	0.64	59,59,59,59	0
56	MG	YA	3598	1/1	0.91	0.51	49,49,49,49	0
56	MG	YA	3212	1/1	0.91	0.50	62,62,62,62	0
56	MG	YA	3600	1/1	0.91	0.44	51,51,51,51	0
56	MG	YA	3030	1/1	0.91	0.27	39,39,39,39	0
56	MG	QA	1659	1/1	0.91	1.39	84,84,84,84	0
56	MG	RA	3209	1/1	0.91	1.06	100,100,100,100	0
56	MG	RA	3920	1/1	0.91	0.54	41,41,41,41	0
56	MG	YD	304	1/1	0.91	0.32	49,49,49,49	0
56	MG	YA	3609	1/1	0.91	0.28	51,51,51,51	0
56	MG	RA	3214	1/1	0.91	0.45	59,59,59,59	0
56	MG	RA	3052	1/1	0.91	0.23	85,85,85,85	0
56	MG	YA	3013	1/1	0.91	0.19	23,23,23,23	0
56	MG	YA	3613	1/1	0.91	0.70	53,53,53,53	0
56	MG	RA	3295	1/1	0.91	0.15	73,73,73,73	0
56	MG	YA	3622	1/1	0.91	0.55	49,49,49,49	0
56	MG	RA	3416	1/1	0.91	0.20	60,60,60,60	0
56	MG	RA	3621	1/1	0.91	0.38	61,61,61,61	0
56	MG	XA	1613	1/1	0.91	0.14	51,51,51,51	0
56	MG	QA	1833	1/1	0.91	0.58	51,51,51,51	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	4057	1/1	0.91	0.68	77,77,77,77	0
56	MG	RA	3223	1/1	0.91	0.64	63,63,63,63	0
56	MG	RA	3808	1/1	0.91	0.38	56,56,56,56	0
56	MG	RA	3939	1/1	0.91	0.28	58,58,58,58	0
56	MG	RA	3143	1/1	0.91	0.17	72,72,72,72	0
56	MG	QA	1834	1/1	0.91	0.38	43,43,43,43	0
56	MG	YA	3021	1/1	0.91	0.39	69,69,69,69	0
56	MG	YA	3135	1/1	0.91	1.18	89,89,89,89	0
56	MG	YE	304	1/1	0.91	0.31	51,51,51,51	0
56	MG	RA	3815	1/1	0.91	0.31	68,68,68,68	0
56	MG	QA	1838	1/1	0.91	0.28	85,85,85,85	0
56	MG	QA	1730	1/1	0.91	0.33	49,49,49,49	0
56	MG	YA	3096	1/1	0.91	0.20	26,26,26,26	0
56	MG	RA	3726	1/1	0.91	0.17	53,53,53,53	0
56	MG	QA	1618	1/1	0.91	0.23	96,96,96,96	0
56	MG	YA	3286	1/1	0.91	0.10	35,35,35,35	0
56	MG	YA	3313	1/1	0.91	0.86	46,46,46,46	0
56	MG	YA	3697	1/1	0.91	0.67	38,38,38,38	0
56	MG	YA	3527	1/1	0.91	0.39	50,50,50,50	0
56	MG	YA	3699	1/1	0.91	0.78	66,66,66,66	0
56	MG	RB	214	1/1	0.91	0.51	44,44,44,44	0
56	MG	RA	3241	1/1	0.91	0.32	108,108,108,108	0
56	MG	QA	1679	1/1	0.91	0.21	64,64,64,64	0
56	MG	YA	3008	1/1	0.91	0.21	47,47,47,47	0
56	MG	YA	3758	1/1	0.91	0.54	76,76,76,76	0
56	MG	RA	3083	1/1	0.92	0.35	80,80,80,80	0
56	MG	YA	3202	1/1	0.92	0.28	38,38,38,38	0
56	MG	RA	3012	1/1	0.92	0.19	53,53,53,53	0
56	MG	XA	1739	1/1	0.92	0.52	61,61,61,61	0
56	MG	YA	3654	1/1	0.92	0.81	54,54,54,54	0
56	MG	YA	3063	1/1	0.92	0.25	35,35,35,35	0
56	MG	RA	3089	1/1	0.92	0.07	67,67,67,67	0
56	MG	QA	1649	1/1	0.92	0.19	50,50,50,50	0
56	MG	YA	3412	1/1	0.92	0.57	72,72,72,72	0
56	MG	RA	3242	1/1	0.92	0.32	54,54,54,54	0
56	MG	RA	3966	1/1	0.92	0.74	65,65,65,65	0
56	MG	YA	3044	1/1	0.92	0.20	35,35,35,35	0
56	MG	XA	1699	1/1	0.92	0.43	44,44,44,44	0
56	MG	RA	3548	1/1	0.92	0.46	38,38,38,38	0
56	MG	QA	1703	1/1	0.92	0.29	60,60,60,60	0
56	MG	XA	1602	1/1	0.92	0.29	86,86,86,86	0
56	MG	YA	3720	1/1	0.92	0.49	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	3142	1/1	0.92	0.24	58,58,58,58	0
56	MG	RA	3445	1/1	0.92	0.29	58,58,58,58	0
56	MG	YA	3361	1/1	0.92	0.16	65,65,65,65	0
56	MG	RA	3981	1/1	0.92	0.09	69,69,69,69	0
56	MG	YA	3387	1/1	0.92	0.40	37,37,37,37	0
56	MG	YA	3495	1/1	0.92	0.57	63,63,63,63	0
56	MG	YA	3296	1/1	0.92	0.60	32,32,32,32	0
56	MG	YA	3300	1/1	0.92	0.27	40,40,40,40	0
56	MG	YA	3420	1/1	0.92	0.49	39,39,39,39	0
56	MG	YA	3620	1/1	0.92	0.27	34,34,34,34	0
56	MG	RA	3750	1/1	0.92	0.96	66,66,66,66	0
56	MG	RA	3562	1/1	0.92	0.19	59,59,59,59	0
56	MG	QA	1663	1/1	0.92	0.21	73,73,73,73	0
56	MG	RA	3188	1/1	0.92	0.77	115,115,115,115	0
56	MG	YA	3366	1/1	0.92	0.75	59,59,59,59	0
56	MG	RA	3566	1/1	0.92	0.26	57,57,57,57	0
56	MG	RA	3191	1/1	0.92	0.16	69,69,69,69	0
56	MG	RA	3865	1/1	0.92	0.50	51,51,51,51	0
56	MG	RA	4000	1/1	0.92	0.26	30,30,30,30	0
56	MG	RA	3866	1/1	0.92	0.11	76,76,76,76	0
56	MG	RA	3262	1/1	0.92	0.59	80,80,80,80	0
56	MG	RA	3192	1/1	0.92	0.73	92,92,92,92	0
56	MG	RF	309	1/1	0.92	0.15	68,68,68,68	0
56	MG	RA	3666	1/1	0.92	0.99	69,69,69,69	0
56	MG	RA	3356	1/1	0.92	0.10	23,23,23,23	0
56	MG	YA	3682	1/1	0.92	0.35	37,37,37,37	0
56	MG	RA	3874	1/1	0.92	0.41	25,25,25,25	0
56	MG	YA	3244	1/1	0.92	0.66	39,39,39,39	0
56	MG	RA	3464	1/1	0.92	0.29	71,71,71,71	0
56	MG	QA	1777	1/1	0.92	0.18	81,81,81,81	0
56	MG	RA	3881	1/1	0.92	1.26	68,68,68,68	0
56	MG	RA	3468	1/1	0.92	0.19	40,40,40,40	0
56	MG	YA	3736	1/1	0.92	0.16	39,39,39,39	0
56	MG	RA	3046	1/1	0.92	0.66	68,68,68,68	0
56	MG	RA	3886	1/1	0.92	0.61	52,52,52,52	0
56	MG	RA	3677	1/1	0.92	1.13	61,61,61,61	0
56	MG	RA	3678	1/1	0.92	0.28	31,31,31,31	0
56	MG	RA	3581	1/1	0.92	0.28	75,75,75,75	0
56	MG	RA	3680	1/1	0.92	0.56	46,46,46,46	0
56	MG	YA	3471	1/1	0.92	0.66	58,58,58,58	0
56	MG	RA	3050	1/1	0.92	0.42	88,88,88,88	0
56	MG	YA	3503	1/1	0.92	0.20	18,18,18,18	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	XA	1717	1/1	0.92	0.50	59,59,59,59	0
56	MG	YA	3689	1/1	0.92	0.46	67,67,67,67	0
56	MG	QA	1622	1/1	0.92	0.30	62,62,62,62	0
56	MG	YA	3278	1/1	0.92	0.26	38,38,38,38	0
56	MG	YA	3399	1/1	0.92	0.65	36,36,36,36	0
56	MG	YA	3279	1/1	0.92	0.15	61,61,61,61	0
56	MG	RA	3914	1/1	0.92	0.53	56,56,56,56	0
56	MG	RA	4039	1/1	0.92	1.36	73,73,73,73	0
56	MG	YA	3280	1/1	0.92	0.34	14,14,14,14	0
56	MG	RA	3500	1/1	0.92	0.52	25,25,25,25	0
56	MG	QA	1627	1/1	0.92	0.09	42,42,42,42	0
56	MG	YA	3576	1/1	0.92	0.36	37,37,37,37	0
56	MG	RA	3213	1/1	0.92	0.33	105,105,105,105	0
56	MG	YA	3751	1/1	0.92	0.28	39,39,39,39	0
56	MG	RA	3381	1/1	0.92	0.29	39,39,39,39	0
56	MG	RA	4051	1/1	0.92	0.28	63,63,63,63	0
56	MG	YA	3636	1/1	0.92	0.28	45,45,45,45	0
56	MG	RA	3388	1/1	0.92	0.56	49,49,49,49	0
56	MG	YA	3245	1/1	0.92	0.57	107,107,107,107	0
56	MG	RA	3286	1/1	0.92	0.47	118,118,118,118	0
56	MG	RA	3930	1/1	0.92	0.43	54,54,54,54	0
56	MG	YA	3121	1/1	0.92	0.74	47,47,47,47	0
56	MG	QA	1634	1/1	0.92	0.19	44,44,44,44	0
56	MG	RA	3220	1/1	0.92	0.39	75,75,75,75	0
56	MG	YA	3703	1/1	0.92	0.41	35,35,35,35	0
56	MG	YA	3639	1/1	0.92	0.69	74,74,74,74	0
56	MG	YA	3580	1/1	0.92	0.47	27,27,27,27	0
56	MG	RA	3526	1/1	0.92	0.63	51,51,51,51	0
56	MG	YA	3288	1/1	0.92	0.49	53,53,53,53	0
56	MG	RA	3619	1/1	0.92	0.50	27,27,27,27	0
56	MG	YA	3709	1/1	0.92	0.92	58,58,58,58	0
56	MG	RA	3411	1/1	0.92	0.35	31,31,31,31	0
56	MG	RA	3298	1/1	0.92	0.30	24,24,24,24	0
56	MG	YA	3408	1/1	0.92	0.37	17,17,17,17	0
56	MG	YA	3711	1/1	0.92	0.72	47,47,47,47	0
56	MG	YA	3540	1/1	0.92	0.47	27,27,27,27	0
56	MG	RA	3952	1/1	0.92	0.25	49,49,49,49	0
56	MG	YA	3650	1/1	0.92	0.65	48,48,48,48	0
57	ZN	R6	101	1/1	0.92	0.16	160,160,160,160	0
56	MG	RA	3118	1/1	0.93	0.47	76,76,76,76	0
56	MG	YA	3049	1/1	0.93	0.32	78,78,78,78	0
56	MG	RA	3184	1/1	0.93	0.56	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	RA	3414	1/1	0.93	0.36	34,34,34,34	0
56	MG	YA	3562	1/1	0.93	0.35	70,70,70,70	0
56	MG	RA	3928	1/1	0.93	0.39	59,59,59,59	0
56	MG	RA	3929	1/1	0.93	0.23	65,65,65,65	0
56	MG	YA	3007	1/1	0.93	0.25	63,63,63,63	0
56	MG	RA	3123	1/1	0.93	0.25	30,30,30,30	0
56	MG	YA	3199	1/1	0.93	0.67	102,102,102,102	0
56	MG	QA	1616	1/1	0.93	0.19	92,92,92,92	0
56	MG	RA	3128	1/1	0.93	0.37	48,48,48,48	0
56	MG	RA	3323	1/1	0.93	0.28	38,38,38,38	0
56	MG	RA	3010	1/1	0.93	0.28	50,50,50,50	0
56	MG	YA	3122	1/1	0.93	0.53	60,60,60,60	0
56	MG	XA	1617	1/1	0.93	0.30	44,44,44,44	0
56	MG	RA	3257	1/1	0.93	0.55	100,100,100,100	0
56	MG	RA	3941	1/1	0.93	0.15	69,69,69,69	0
56	MG	YA	3356	1/1	0.93	0.39	50,50,50,50	0
56	MG	RA	3071	1/1	0.93	0.62	63,63,63,63	0
56	MG	RA	3073	1/1	0.93	0.34	64,64,64,64	0
56	MG	YA	3665	1/1	0.93	0.39	31,31,31,31	0
56	MG	QA	1790	1/1	0.93	0.91	56,56,56,56	0
56	MG	YA	3189	1/1	0.93	0.28	96,96,96,96	0
56	MG	RA	4043	1/1	0.93	0.62	86,86,86,86	0
56	MG	RA	3342	1/1	0.93	0.49	60,60,60,60	0
56	MG	YA	3384	1/1	0.93	0.57	38,38,38,38	0
56	MG	YA	3082	1/1	0.93	0.25	78,78,78,78	0
56	MG	RA	3204	1/1	0.93	0.76	59,59,59,59	0
56	MG	RA	3769	1/1	0.93	0.41	46,46,46,46	0
56	MG	YA	3360	1/1	0.93	0.76	53,53,53,53	0
56	MG	YA	3678	1/1	0.93	0.58	50,50,50,50	0
56	MG	RA	3352	1/1	0.93	0.58	65,65,65,65	0
56	MG	RA	3145	1/1	0.93	0.18	43,43,43,43	0
56	MG	YA	3268	1/1	0.93	0.43	73,73,73,73	0
56	MG	RA	3148	1/1	0.93	0.34	66,66,66,66	0
56	MG	RA	3026	1/1	0.93	0.67	72,72,72,72	0
56	MG	YA	3216	1/1	0.93	0.39	25,25,25,25	0
56	MG	YA	3634	1/1	0.93	0.82	48,48,48,48	0
56	MG	YA	3126	1/1	0.93	0.18	91,91,91,91	0
56	MG	XA	1667	1/1	0.93	0.36	77,77,77,77	0
56	MG	RA	3970	1/1	0.93	0.38	31,31,31,31	0
56	MG	RA	3216	1/1	0.93	0.30	77,77,77,77	0
56	MG	QA	1716	1/1	0.93	0.14	81,81,81,81	0
56	MG	YA	3521	1/1	0.93	0.43	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3975	1/1	0.93	0.26	63,63,63,63	0
56	MG	YA	3137	1/1	0.93	0.35	40,40,40,40	0
56	MG	RB	204	1/1	0.93	0.19	71,71,71,71	0
56	MG	RV	202	1/1	0.93	0.30	55,55,55,55	0
56	MG	YA	3398	1/1	0.93	0.24	25,25,25,25	0
56	MG	RA	3093	1/1	0.93	0.12	72,72,72,72	0
56	MG	YA	3549	1/1	0.93	0.32	34,34,34,34	0
56	MG	RA	3640	1/1	0.93	0.16	48,48,48,48	0
56	MG	YA	3593	1/1	0.93	0.53	28,28,28,28	0
56	MG	XK	201	1/1	0.93	0.07	53,53,53,53	0
56	MG	RA	3717	1/1	0.93	0.48	38,38,38,38	0
56	MG	YA	3644	1/1	0.93	0.70	57,57,57,57	0
56	MG	YA	3109	1/1	0.93	0.43	35,35,35,35	0
56	MG	YA	3335	1/1	0.93	0.17	30,30,30,30	0
56	MG	XA	1678	1/1	0.93	0.62	81,81,81,81	0
56	MG	YA	3648	1/1	0.93	0.29	40,40,40,40	0
56	MG	RA	3294	1/1	0.93	0.33	61,61,61,61	0
56	MG	YA	3067	1/1	0.93	1.05	53,53,53,53	0
56	MG	YD	309	1/1	0.93	0.35	14,14,14,14	0
56	MG	RA	3492	1/1	0.93	0.43	68,68,68,68	0
56	MG	RA	3493	1/1	0.93	0.46	60,60,60,60	0
56	MG	R5	103	1/1	0.93	0.81	59,59,59,59	0
56	MG	RA	3108	1/1	0.93	0.53	69,69,69,69	0
56	MG	YA	3337	1/1	0.93	0.31	35,35,35,35	0
56	MG	RA	3576	1/1	0.93	0.43	43,43,43,43	0
56	MG	YA	3704	1/1	0.93	0.45	29,29,29,29	0
56	MG	YA	3207	1/1	0.93	0.38	70,70,70,70	0
56	MG	YA	3079	1/1	0.93	0.30	91,91,91,91	0
56	MG	XA	1771	1/1	0.93	0.57	62,62,62,62	0
56	MG	RA	3002	1/1	0.93	0.30	70,70,70,70	0
56	MG	RD	305	1/1	0.93	0.45	86,86,86,86	0
56	MG	RA	3180	1/1	0.93	0.34	75,75,75,75	0
56	MG	YA	3607	1/1	0.93	0.61	53,53,53,53	0
56	MG	YA	3672	1/1	0.94	0.72	26,26,26,26	0
56	MG	QA	1859	1/1	0.94	0.35	50,50,50,50	0
56	MG	YB	212	1/1	0.94	0.53	57,57,57,57	0
56	MG	RA	3168	1/1	0.94	0.21	71,71,71,71	0
56	MG	RB	220	1/1	0.94	0.53	47,47,47,47	0
56	MG	YA	3341	1/1	0.94	0.52	42,42,42,42	0
56	MG	RA	3326	1/1	0.94	0.20	20,20,20,20	0
56	MG	YA	3066	1/1	0.94	0.30	50,50,50,50	0
56	MG	YA	3136	1/1	0.94	0.48	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	XA	1606	1/1	0.94	0.13	95,95,95,95	0
56	MG	RA	3856	1/1	0.94	0.32	33,33,33,33	0
56	MG	XA	1776	1/1	0.94	0.59	61,61,61,61	0
56	MG	YA	3348	1/1	0.94	0.34	17,17,17,17	0
56	MG	RA	3860	1/1	0.94	0.50	25,25,25,25	0
56	MG	YA	3487	1/1	0.94	0.76	46,46,46,46	0
56	MG	RA	3984	1/1	0.94	0.40	41,41,41,41	0
56	MG	YB	219	1/1	0.94	0.43	31,31,31,31	0
56	MG	YA	3349	1/1	0.94	0.38	49,49,49,49	0
56	MG	RD	306	1/1	0.94	0.19	33,33,33,33	0
56	MG	YA	3684	1/1	0.94	0.60	39,39,39,39	0
56	MG	YA	3542	1/1	0.94	0.30	21,21,21,21	0
56	MG	RA	3341	1/1	0.94	0.53	30,30,30,30	0
56	MG	YA	3543	1/1	0.94	0.54	36,36,36,36	0
56	MG	YA	3731	1/1	0.94	0.31	32,32,32,32	0
56	MG	YA	3054	1/1	0.94	0.11	27,27,27,27	0
56	MG	YA	3691	1/1	0.94	0.30	38,38,38,38	0
56	MG	YA	3298	1/1	0.94	0.58	19,19,19,19	0
56	MG	YA	3352	1/1	0.94	0.48	11,11,11,11	0
56	MG	YA	3354	1/1	0.94	0.48	47,47,47,47	0
56	MG	RA	3113	1/1	0.94	0.59	65,65,65,65	0
56	MG	XA	1676	1/1	0.94	0.31	42,42,42,42	0
56	MG	YA	3138	1/1	0.94	0.24	61,61,61,61	0
56	MG	YA	3316	1/1	0.94	0.49	53,53,53,53	0
56	MG	RA	3676	1/1	0.94	0.43	86,86,86,86	0
56	MG	YA	3042	1/1	0.94	0.20	61,61,61,61	0
56	MG	RA	3267	1/1	0.94	0.27	47,47,47,47	0
56	MG	RA	3043	1/1	0.94	0.15	38,38,38,38	0
56	MG	RA	3044	1/1	0.94	0.36	29,29,29,29	0
56	MG	RA	3045	1/1	0.94	0.68	71,71,71,71	0
56	MG	YA	3744	1/1	0.94	0.38	33,33,33,33	0
56	MG	RA	3897	1/1	0.94	0.40	61,61,61,61	0
56	MG	YA	3124	1/1	0.94	0.59	54,54,54,54	0
56	MG	RA	3049	1/1	0.94	0.12	48,48,48,48	0
56	MG	YA	3746	1/1	0.94	0.20	35,35,35,35	0
56	MG	RA	3905	1/1	0.94	0.44	41,41,41,41	0
56	MG	YA	3326	1/1	0.94	0.49	27,27,27,27	0
56	MG	YA	3701	1/1	0.94	0.61	60,60,60,60	0
56	MG	RA	3494	1/1	0.94	0.93	55,55,55,55	0
56	MG	YA	3702	1/1	0.94	0.17	30,30,30,30	0
56	MG	RA	3594	1/1	0.94	0.21	67,67,67,67	0
56	MG	RA	4023	1/1	0.94	0.21	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	3271	1/1	0.94	0.37	70,70,70,70	0
56	MG	YA	3753	1/1	0.94	0.49	54,54,54,54	0
56	MG	YA	3394	1/1	0.94	0.48	19,19,19,19	0
56	MG	QA	1714	1/1	0.94	0.30	42,42,42,42	0
56	MG	RA	3135	1/1	0.94	0.38	77,77,77,77	0
56	MG	RA	3601	1/1	0.94	0.79	87,87,87,87	0
56	MG	YA	3756	1/1	0.94	0.61	80,80,80,80	0
56	MG	RA	3380	1/1	0.94	0.48	43,43,43,43	0
56	MG	YA	3331	1/1	0.94	0.42	9,9,9,9	0
56	MG	YA	3558	1/1	0.94	0.30	25,25,25,25	0
56	MG	RA	3606	1/1	0.94	0.78	53,53,53,53	0
56	MG	RA	3385	1/1	0.94	0.54	27,27,27,27	0
56	MG	RA	3387	1/1	0.94	0.67	50,50,50,50	0
56	MG	RA	3063	1/1	0.94	0.31	41,41,41,41	0
56	MG	RA	4045	1/1	0.94	0.73	71,71,71,71	0
56	MG	RA	3287	1/1	0.94	0.16	83,83,83,83	0
56	MG	YA	3290	1/1	0.94	0.45	47,47,47,47	0
56	MG	RU	203	1/1	0.94	0.75	64,64,64,64	0
56	MG	RA	3932	1/1	0.94	0.68	61,61,61,61	0
56	MG	YA	3760	1/1	0.94	0.50	85,85,85,85	0
56	MG	YA	3291	1/1	0.94	0.49	24,24,24,24	0
56	MG	YA	3617	1/1	0.94	0.30	17,17,17,17	0
56	MG	RA	3712	1/1	0.94	0.65	53,53,53,53	0
56	MG	YA	3563	1/1	0.94	0.78	76,76,76,76	0
56	MG	RA	3403	1/1	0.94	0.37	25,25,25,25	0
56	MG	YA	3621	1/1	0.94	0.35	49,49,49,49	0
56	MG	XA	1757	1/1	0.94	0.28	30,30,30,30	0
56	MG	RA	3072	1/1	0.94	0.95	93,93,93,93	0
56	MG	RA	3408	1/1	0.94	0.33	24,24,24,24	0
56	MG	QA	1667	1/1	0.94	0.23	67,67,67,67	0
56	MG	QA	1729	1/1	0.94	0.40	50,50,50,50	0
56	MG	RA	3153	1/1	0.94	0.12	35,35,35,35	0
56	MG	XA	1701	1/1	0.94	0.46	51,51,51,51	0
56	MG	YA	3023	1/1	0.94	0.14	16,16,16,16	0
56	MG	RA	3420	1/1	0.94	0.16	19,19,19,19	0
56	MG	YA	3452	1/1	0.94	0.21	46,46,46,46	0
56	MG	RB	201	1/1	0.94	0.19	72,72,72,72	0
56	MG	QA	1671	1/1	0.94	0.17	64,64,64,64	0
56	MG	YA	3666	1/1	0.94	0.48	36,36,36,36	0
56	MG	QA	1617	1/1	0.94	0.37	61,61,61,61	0
56	MG	YA	3002	1/1	0.94	0.23	64,64,64,64	0
56	MG	YA	3625	1/1	0.94	0.32	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	RA	3310	1/1	0.94	0.63	96,96,96,96	0
56	MG	RA	3235	1/1	0.94	0.31	70,70,70,70	0
56	MG	YB	210	1/1	0.94	0.42	57,57,57,57	0
56	MG	RA	3313	1/1	0.94	0.42	21,21,21,21	0
56	MG	Y8	102	1/1	0.94	0.51	41,41,41,41	0
56	MG	RA	3964	1/1	0.94	0.11	44,44,44,44	0
56	MG	RA	3738	1/1	0.94	0.42	53,53,53,53	0
56	MG	YA	3345	1/1	0.95	0.45	39,39,39,39	0
56	MG	YA	3149	1/1	0.95	0.41	56,56,56,56	0
56	MG	RD	302	1/1	0.95	0.67	53,53,53,53	0
56	MG	YA	3690	1/1	0.95	0.33	31,31,31,31	0
56	MG	RA	3899	1/1	0.95	0.34	66,66,66,66	0
56	MG	RA	3451	1/1	0.95	0.47	27,27,27,27	0
56	MG	RA	3902	1/1	0.95	0.27	49,49,49,49	0
56	MG	RA	3110	1/1	0.95	0.22	70,70,70,70	0
56	MG	YA	3005	1/1	0.95	0.34	63,63,63,63	0
56	MG	YA	3583	1/1	0.95	0.52	29,29,29,29	0
56	MG	RA	3714	1/1	0.95	0.40	36,36,36,36	0
56	MG	YA	3091	1/1	0.95	0.14	36,36,36,36	0
56	MG	YA	3047	1/1	0.95	0.11	44,44,44,44	0
56	MG	YA	3643	1/1	0.95	0.65	36,36,36,36	0
56	MG	RA	3238	1/1	0.95	0.38	106,106,106,106	0
56	MG	RA	3056	1/1	0.95	0.57	70,70,70,70	0
56	MG	RA	3460	1/1	0.95	0.89	51,51,51,51	0
56	MG	RA	3918	1/1	0.95	0.55	71,71,71,71	0
56	MG	YA	3010	1/1	0.95	0.25	41,41,41,41	0
56	MG	YA	3156	1/1	0.95	0.39	40,40,40,40	0
56	MG	RA	3119	1/1	0.95	0.46	74,74,74,74	0
56	MG	RF	303	1/1	0.95	0.50	80,80,80,80	0
56	MG	RA	3379	1/1	0.95	0.48	44,44,44,44	0
56	MG	YA	3591	1/1	0.95	0.46	42,42,42,42	0
56	MG	RA	3813	1/1	0.95	0.37	23,23,23,23	0
56	MG	YA	3386	1/1	0.95	0.57	23,23,23,23	0
56	MG	RA	3470	1/1	0.95	0.41	34,34,34,34	0
56	MG	YA	3041	1/1	0.95	0.07	35,35,35,35	0
56	MG	RA	3475	1/1	0.95	0.59	46,46,46,46	0
56	MG	YA	3388	1/1	0.95	0.28	33,33,33,33	0
56	MG	RA	3386	1/1	0.95	0.41	26,26,26,26	0
56	MG	RA	3480	1/1	0.95	0.49	42,42,42,42	0
56	MG	RA	4033	1/1	0.95	0.28	17,17,17,17	0
56	MG	RA	3307	1/1	0.95	0.45	76,76,76,76	0
56	MG	QA	1707	1/1	0.95	0.32	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3317	1/1	0.95	0.20	24,24,24,24	0
56	MG	RA	3395	1/1	0.95	0.10	22,22,22,22	0
56	MG	YA	3484	1/1	0.95	0.35	21,21,21,21	0
56	MG	YA	3076	1/1	0.95	0.31	4,4,4,4	0
56	MG	YA	3752	1/1	0.95	0.12	52,52,52,52	0
56	MG	XA	1765	1/1	0.95	0.59	49,49,49,49	0
56	MG	YA	3706	1/1	0.95	0.29	79,79,79,79	0
56	MG	QA	1868	1/1	0.95	0.71	58,58,58,58	0
56	MG	RA	3664	1/1	0.95	0.25	48,48,48,48	0
56	MG	YF	303	1/1	0.95	0.25	85,85,85,85	0
56	MG	YA	3011	1/1	0.95	0.23	40,40,40,40	0
56	MG	XA	1670	1/1	0.95	0.32	80,80,80,80	0
56	MG	RA	3407	1/1	0.95	0.52	34,34,34,34	0
56	MG	RA	3507	1/1	0.95	0.19	109,109,109,109	0
56	MG	RA	3509	1/1	0.95	1.08	69,69,69,69	0
56	MG	RA	3137	1/1	0.95	0.82	97,97,97,97	0
56	MG	RA	3753	1/1	0.95	0.53	48,48,48,48	0
56	MG	RA	3409	1/1	0.95	0.33	33,33,33,33	0
56	MG	YA	3274	1/1	0.95	0.42	48,48,48,48	0
56	MG	YA	3608	1/1	0.95	0.67	44,44,44,44	0
56	MG	YA	3660	1/1	0.95	0.26	34,34,34,34	0
56	MG	YA	3033	1/1	0.95	0.12	13,13,13,13	0
56	MG	RA	3854	1/1	0.95	0.28	47,47,47,47	0
56	MG	RA	3415	1/1	0.95	0.56	42,42,42,42	0
56	MG	YA	3457	1/1	0.95	0.13	33,33,33,33	0
56	MG	RA	3597	1/1	0.95	0.26	19,19,19,19	0
56	MG	YA	3144	1/1	0.95	0.37	57,57,57,57	0
56	MG	YA	3332	1/1	0.95	0.33	28,28,28,28	0
56	MG	XA	1780	1/1	0.95	0.66	40,40,40,40	0
56	MG	YA	3460	1/1	0.95	0.23	28,28,28,28	0
56	MG	XA	1679	1/1	0.95	0.42	52,52,52,52	0
56	MG	YA	3333	1/1	0.95	0.67	26,26,26,26	0
56	MG	YA	3430	1/1	0.95	0.21	20,20,20,20	0
56	MG	YA	3038	1/1	0.95	0.28	48,48,48,48	0
56	MG	YA	3132	1/1	0.95	0.58	86,86,86,86	0
56	MG	YA	3568	1/1	0.95	0.26	19,19,19,19	0
56	MG	RA	3347	1/1	0.95	0.49	23,23,23,23	0
56	MG	XA	1685	1/1	0.95	0.29	65,65,65,65	0
56	MG	RA	3978	1/1	0.95	0.56	55,55,55,55	0
56	MG	RA	3778	1/1	0.95	0.72	41,41,41,41	0
56	MG	YA	3569	1/1	0.95	0.41	32,32,32,32	0
56	MG	YA	3045	1/1	0.95	0.48	27,27,27,27	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3097	1/1	0.95	0.48	93,93,93,93	0
56	MG	RA	3616	1/1	0.95	0.37	33,33,33,33	0
56	MG	RA	3098	1/1	0.95	0.20	12,12,12,12	0
56	MG	XA	1642	1/1	0.95	0.25	55,55,55,55	0
56	MG	RA	3041	1/1	0.95	0.05	44,44,44,44	0
56	MG	YA	3339	1/1	0.95	0.52	15,15,15,15	0
56	MG	RA	3989	1/1	0.95	0.34	39,39,39,39	0
56	MG	YA	3305	1/1	0.95	0.14	19,19,19,19	0
56	MG	YA	3283	1/1	0.95	0.27	36,36,36,36	0
56	MG	YA	3728	1/1	0.95	0.25	8,8,8,8	0
56	MG	YA	3285	1/1	0.95	0.57	25,25,25,25	0
56	MG	RA	3895	1/1	0.95	0.73	54,54,54,54	0
56	MG	YA	3342	1/1	0.96	0.31	20,20,20,20	0
56	MG	RA	3673	1/1	0.96	0.44	45,45,45,45	0
56	MG	YA	3343	1/1	0.96	0.41	21,21,21,21	0
56	MG	RA	3587	1/1	0.96	0.89	53,53,53,53	0
56	MG	RA	3864	1/1	0.96	0.81	76,76,76,76	0
56	MG	RA	3004	1/1	0.96	0.10	29,29,29,29	0
56	MG	RA	3189	1/1	0.96	0.25	39,39,39,39	0
56	MG	RA	3979	1/1	0.96	0.20	37,37,37,37	0
56	MG	XA	1756	1/1	0.96	0.31	27,27,27,27	0
56	MG	RA	3325	1/1	0.96	0.33	42,42,42,42	0
56	MG	YA	3486	1/1	0.96	0.57	30,30,30,30	0
56	MG	YA	3647	1/1	0.96	0.52	27,27,27,27	0
56	MG	YA	3321	1/1	0.96	0.45	29,29,29,29	0
56	MG	RA	3194	1/1	0.96	0.27	67,67,67,67	0
56	MG	RA	3773	1/1	0.96	0.24	25,25,25,25	0
56	MG	RA	3876	1/1	0.96	0.72	54,54,54,54	0
56	MG	YA	3438	1/1	0.96	0.34	45,45,45,45	0
56	MG	YA	3289	1/1	0.96	0.25	38,38,38,38	0
56	MG	YA	3696	1/1	0.96	0.40	17,17,17,17	0
56	MG	RA	3417	1/1	0.96	0.12	42,42,42,42	0
56	MG	RA	3419	1/1	0.96	0.47	17,17,17,17	0
56	MG	RA	3334	1/1	0.96	0.38	46,46,46,46	0
56	MG	RA	3335	1/1	0.96	0.30	46,46,46,46	0
56	MG	RA	3887	1/1	0.96	0.38	53,53,53,53	0
56	MG	YA	3616	1/1	0.96	0.66	53,53,53,53	0
56	MG	YA	3276	1/1	0.96	0.64	67,67,67,67	0
56	MG	RA	3999	1/1	0.96	0.24	21,21,21,21	0
56	MG	RA	3338	1/1	0.96	0.69	38,38,38,38	0
56	MG	RA	3014	1/1	0.96	0.23	38,38,38,38	0
56	MG	RA	3894	1/1	0.96	0.50	23,23,23,23	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YB	216	1/1	0.96	0.42	45,45,45,45	0
56	MG	XA	1767	1/1	0.96	0.46	37,37,37,37	0
56	MG	YA	3619	1/1	0.96	0.21	38,38,38,38	0
56	MG	RA	3698	1/1	0.96	0.14	73,73,73,73	0
56	MG	YA	3325	1/1	0.96	0.34	20,20,20,20	0
56	MG	RA	3345	1/1	0.96	0.48	20,20,20,20	0
56	MG	RA	3793	1/1	0.96	0.42	38,38,38,38	0
56	MG	RA	3141	1/1	0.96	0.59	93,93,93,93	0
56	MG	RA	3614	1/1	0.96	0.44	32,32,32,32	0
56	MG	YA	3444	1/1	0.96	0.44	27,27,27,27	0
56	MG	RA	3348	1/1	0.96	0.40	34,34,34,34	0
56	MG	YA	3277	1/1	0.96	0.50	17,17,17,17	0
56	MG	RA	3911	1/1	0.96	0.33	46,46,46,46	0
56	MG	YA	3006	1/1	0.96	0.14	18,18,18,18	0
56	MG	YA	3579	1/1	0.96	0.61	36,36,36,36	0
56	MG	XA	1774	1/1	0.96	0.39	59,59,59,59	0
56	MG	RA	4020	1/1	0.96	0.88	88,88,88,88	0
56	MG	QA	1717	1/1	0.96	0.56	29,29,29,29	0
56	MG	YA	3213	1/1	0.96	0.31	67,67,67,67	0
56	MG	RA	3711	1/1	0.96	0.59	80,80,80,80	0
56	MG	QA	1719	1/1	0.96	0.51	32,32,32,32	0
56	MG	YA	3141	1/1	0.96	0.21	23,23,23,23	0
56	MG	YA	3353	1/1	0.96	0.31	14,14,14,14	0
56	MG	QA	1722	1/1	0.96	0.75	61,61,61,61	0
56	MG	RA	4030	1/1	0.96	0.85	71,71,71,71	0
56	MG	RA	3543	1/1	0.96	0.31	26,26,26,26	0
56	MG	YA	3125	1/1	0.96	0.37	58,58,58,58	0
56	MG	RA	3092	1/1	0.96	0.64	79,79,79,79	0
56	MG	YA	3630	1/1	0.96	0.53	32,32,32,32	0
56	MG	YA	3004	1/1	0.96	0.14	43,43,43,43	0
56	MG	YA	3195	1/1	0.96	0.27	33,33,33,33	0
56	MG	YA	3712	1/1	0.96	0.56	51,51,51,51	0
56	MG	YA	3381	1/1	0.96	0.38	11,11,11,11	0
56	MG	YA	3299	1/1	0.96	0.55	10,10,10,10	0
56	MG	RA	3369	1/1	0.96	0.62	47,47,47,47	0
56	MG	QA	1781	1/1	0.96	0.43	54,54,54,54	0
56	MG	XA	1612	1/1	0.96	0.09	41,41,41,41	0
56	MG	YE	306	1/1	0.96	0.42	13,13,13,13	0
56	MG	XA	1614	1/1	0.96	0.25	60,60,60,60	0
56	MG	YA	3677	1/1	0.96	0.78	42,42,42,42	0
56	MG	YA	3145	1/1	0.96	0.52	59,59,59,59	0
56	MG	RA	3106	1/1	0.96	0.26	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	RA	3560	1/1	0.96	0.64	23,23,23,23	0
56	MG	QA	1841	1/1	0.96	0.35	28,28,28,28	0
56	MG	RA	3830	1/1	0.96	0.19	66,66,66,66	0
56	MG	RA	3047	1/1	0.96	0.11	12,12,12,12	0
56	MG	RA	3944	1/1	0.96	0.20	22,22,22,22	0
56	MG	RA	3946	1/1	0.96	0.17	18,18,18,18	0
56	MG	RA	3172	1/1	0.96	0.50	80,80,80,80	0
56	MG	RA	3471	1/1	0.96	0.42	42,42,42,42	0
56	MG	XA	1659	1/1	0.96	0.14	75,75,75,75	0
56	MG	YA	3559	1/1	0.96	0.42	54,54,54,54	0
56	MG	RA	3476	1/1	0.96	0.46	30,30,30,30	0
56	MG	QA	1638	1/1	0.96	0.17	41,41,41,41	0
56	MG	XA	1743	1/1	0.96	0.79	44,44,44,44	0
56	MG	YA	3681	1/1	0.96	0.79	38,38,38,38	0
56	MG	RA	3745	1/1	0.96	0.31	21,21,21,21	0
56	MG	XA	1745	1/1	0.96	0.49	44,44,44,44	0
56	MG	RA	3482	1/1	0.96	0.52	21,21,21,21	0
56	MG	RA	3483	1/1	0.96	0.47	21,21,21,21	0
56	MG	RA	3485	1/1	0.96	0.78	65,65,65,65	0
56	MG	XA	1746	1/1	0.96	0.47	35,35,35,35	0
56	MG	RA	3487	1/1	0.96	0.20	17,17,17,17	0
56	MG	RA	3852	1/1	0.96	0.38	47,47,47,47	0
56	MG	YA	3287	1/1	0.96	0.44	35,35,35,35	0
56	MG	RA	3965	1/1	0.96	0.13	45,45,45,45	0
56	MG	YA	3413	1/1	0.96	0.41	36,36,36,36	0
56	MG	YA	3640	1/1	0.96	0.59	40,40,40,40	0
57	ZN	QN	101	1/1	0.96	0.13	105,105,105,105	0
56	MG	YA	3073	1/1	0.96	0.55	67,67,67,67	0
56	MG	YA	3564	1/1	0.96	0.13	42,42,42,42	0
56	MG	RA	3060	1/1	0.96	0.16	21,21,21,21	0
56	MG	RA	3971	1/1	0.97	0.40	19,19,19,19	0
56	MG	YA	3754	1/1	0.97	0.32	26,26,26,26	0
56	MG	QA	1613	1/1	0.97	0.09	97,97,97,97	0
56	MG	RA	3870	1/1	0.97	0.45	24,24,24,24	0
56	MG	XA	1766	1/1	0.97	0.75	52,52,52,52	0
56	MG	YA	3322	1/1	0.97	0.31	9,9,9,9	0
56	MG	QA	1827	1/1	0.97	0.19	52,52,52,52	0
56	MG	QA	1828	1/1	0.97	0.26	41,41,41,41	0
56	MG	YA	3390	1/1	0.97	0.58	33,33,33,33	0
56	MG	YA	3554	1/1	0.97	0.23	44,44,44,44	0
56	MG	RA	3879	1/1	0.97	0.37	29,29,29,29	0
56	MG	RA	3783	1/1	0.97	0.44	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3675	1/1	0.97	0.32	29,29,29,29	0
56	MG	RA	3359	1/1	0.97	0.34	32,32,32,32	0
56	MG	RA	3443	1/1	0.97	0.59	20,20,20,20	0
56	MG	RA	3165	1/1	0.97	0.48	99,99,99,99	0
56	MG	RA	3885	1/1	0.97	0.51	66,66,66,66	0
56	MG	YA	3587	1/1	0.97	0.30	31,31,31,31	0
56	MG	YA	3282	1/1	0.97	0.37	10,10,10,10	0
56	MG	RA	3990	1/1	0.97	0.34	109,109,109,109	0
56	MG	RA	3888	1/1	0.97	0.49	24,24,24,24	0
56	MG	YA	3556	1/1	0.97	0.33	41,41,41,41	0
56	MG	RA	3292	1/1	0.97	0.10	83,83,83,83	0
56	MG	YA	3310	1/1	0.97	0.52	38,38,38,38	0
56	MG	YA	3374	1/1	0.97	0.58	34,34,34,34	0
56	MG	YA	3596	1/1	0.97	0.43	39,39,39,39	0
56	MG	YA	3112	1/1	0.97	0.23	9,9,9,9	0
56	MG	YA	3533	1/1	0.97	0.25	48,48,48,48	0
56	MG	YA	3685	1/1	0.97	0.48	19,19,19,19	0
56	MG	YA	3724	1/1	0.97	0.62	51,51,51,51	0
56	MG	YA	3642	1/1	0.97	0.73	58,58,58,58	0
56	MG	YA	3483	1/1	0.97	0.36	26,26,26,26	0
56	MG	RE	303	1/1	0.97	0.35	15,15,15,15	0
56	MG	QA	1631	1/1	0.97	0.09	34,34,34,34	0
56	MG	YX	101	1/1	0.97	0.32	31,31,31,31	0
56	MG	YA	3284	1/1	0.97	0.24	8,8,8,8	0
56	MG	RA	3906	1/1	0.97	0.31	20,20,20,20	0
56	MG	YA	3601	1/1	0.97	0.63	29,29,29,29	0
56	MG	RA	3908	1/1	0.97	0.42	22,22,22,22	0
56	MG	RA	4009	1/1	0.97	0.60	70,70,70,70	0
56	MG	RA	3306	1/1	0.97	0.97	66,66,66,66	0
56	MG	RA	3720	1/1	0.97	0.45	33,33,33,33	0
56	MG	YA	3328	1/1	0.97	0.35	15,15,15,15	0
56	MG	QA	1740	1/1	0.97	0.35	55,55,55,55	0
56	MG	XA	1737	1/1	0.97	0.46	47,47,47,47	0
56	MG	YA	3440	1/1	0.97	0.27	29,29,29,29	0
56	MG	RA	3915	1/1	0.97	0.31	41,41,41,41	0
56	MG	RA	3469	1/1	0.97	0.68	40,40,40,40	0
56	MG	YA	3329	1/1	0.97	0.35	19,19,19,19	0
56	MG	YA	3539	1/1	0.97	0.32	18,18,18,18	0
56	MG	XA	1694	1/1	0.97	0.36	30,30,30,30	0
56	MG	RA	3389	1/1	0.97	0.39	23,23,23,23	0
56	MG	YA	3151	1/1	0.97	0.14	8,8,8,8	0
56	MG	RA	3315	1/1	0.97	0.32	29,29,29,29	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3478	1/1	0.97	0.39	34,34,34,34	0
56	MG	RA	3821	1/1	0.97	0.49	29,29,29,29	0
56	MG	QA	1800	1/1	0.97	0.22	41,41,41,41	0
56	MG	RA	4027	1/1	0.97	0.38	39,39,39,39	0
56	MG	RA	4028	1/1	0.97	0.30	78,78,78,78	0
56	MG	YA	3734	1/1	0.97	0.50	41,41,41,41	0
56	MG	RA	3398	1/1	0.97	0.47	20,20,20,20	0
56	MG	RA	3568	1/1	0.97	0.36	27,27,27,27	0
56	MG	RA	4032	1/1	0.97	0.45	76,76,76,76	0
56	MG	RA	3655	1/1	0.97	0.30	25,25,25,25	0
56	MG	YA	3401	1/1	0.97	0.53	19,19,19,19	0
56	MG	RA	3255	1/1	0.97	0.57	100,100,100,100	0
56	MG	RA	4036	1/1	0.97	0.76	85,85,85,85	0
56	MG	RA	3070	1/1	0.97	0.59	78,78,78,78	0
56	MG	RA	3324	1/1	0.97	0.38	14,14,14,14	0
56	MG	YA	3152	1/1	0.97	0.26	50,50,50,50	0
56	MG	YA	3572	1/1	0.97	0.26	28,28,28,28	0
56	MG	YA	3382	1/1	0.97	0.26	29,29,29,29	0
56	MG	YA	3739	1/1	0.97	0.47	79,79,79,79	0
56	MG	YA	3022	1/1	0.97	0.38	62,62,62,62	0
56	MG	RA	4044	1/1	0.97	0.52	95,95,95,95	0
56	MG	RA	3838	1/1	0.97	0.55	17,17,17,17	0
56	MG	YA	3741	1/1	0.97	0.30	57,57,57,57	0
56	MG	YA	3009	1/1	0.97	0.14	37,37,37,37	0
56	MG	XA	1611	1/1	0.97	0.46	73,73,73,73	0
56	MG	RA	3079	1/1	0.97	0.38	64,64,64,64	0
56	MG	RA	4050	1/1	0.97	0.47	59,59,59,59	0
56	MG	RA	3413	1/1	0.97	0.41	34,34,34,34	0
56	MG	YA	3743	1/1	0.97	0.42	43,43,43,43	0
56	MG	RA	3947	1/1	0.97	0.21	20,20,20,20	0
56	MG	XA	1755	1/1	0.97	0.61	43,43,43,43	0
56	MG	RA	3502	1/1	0.97	0.31	20,20,20,20	0
56	MG	RA	3504	1/1	0.97	0.37	38,38,38,38	0
56	MG	RA	3848	1/1	0.97	0.72	50,50,50,50	0
56	MG	YA	3496	1/1	0.97	0.45	18,18,18,18	0
56	MG	RA	3850	1/1	0.97	0.31	43,43,43,43	0
56	MG	RA	3506	1/1	0.97	0.23	26,26,26,26	0
56	MG	QA	1706	1/1	0.97	0.48	35,35,35,35	0
56	MG	RA	3418	1/1	0.97	0.71	36,36,36,36	0
56	MG	RA	3025	1/1	0.97	0.14	23,23,23,23	0
56	MG	YA	3407	1/1	0.97	0.49	18,18,18,18	0
56	MG	YA	3334	1/1	0.97	0.53	14,14,14,14	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3857	1/1	0.97	0.35	35,35,35,35	0
56	MG	YA	3297	1/1	0.97	0.51	19,19,19,19	0
56	MG	YA	3581	1/1	0.97	0.59	24,24,24,24	0
56	MG	RA	3516	1/1	0.97	0.45	13,13,13,13	0
56	MG	RA	3344	1/1	0.97	0.39	51,51,51,51	0
56	MG	YA	3410	1/1	0.97	0.33	31,31,31,31	0
56	MG	RA	3770	1/1	0.97	0.37	22,22,22,22	0
57	ZN	Y9	101	1/1	0.97	0.10	107,107,107,107	0
56	MG	YA	3048	1/1	0.97	0.30	57,57,57,57	0
56	MG	YA	3668	1/1	0.97	0.43	28,28,28,28	0
56	MG	YA	3670	1/1	0.97	0.36	12,12,12,12	0
56	MG	RA	3430	1/1	0.97	0.27	9,9,9,9	0
56	MG	XA	1752	1/1	0.98	0.19	51,51,51,51	0
56	MG	YA	3652	1/1	0.98	0.49	24,24,24,24	0
56	MG	YA	3489	1/1	0.98	0.38	15,15,15,15	0
56	MG	RA	3765	1/1	0.98	0.61	40,40,40,40	0
56	MG	RA	3613	1/1	0.98	0.42	35,35,35,35	0
56	MG	YA	3592	1/1	0.98	0.42	28,28,28,28	0
56	MG	RA	3615	1/1	0.98	0.61	34,34,34,34	0
56	MG	YA	3571	1/1	0.98	0.50	23,23,23,23	0
56	MG	RA	3474	1/1	0.98	0.28	45,45,45,45	0
56	MG	YA	3626	1/1	0.98	0.30	25,25,25,25	0
56	MG	YA	3391	1/1	0.98	0.47	18,18,18,18	0
56	MG	RA	3210	1/1	0.98	0.33	67,67,67,67	0
56	MG	YA	3595	1/1	0.98	0.53	12,12,12,12	0
56	MG	RA	3623	1/1	0.98	0.55	34,34,34,34	0
56	MG	RA	3624	1/1	0.98	0.24	38,38,38,38	0
56	MG	QA	1710	1/1	0.98	0.31	28,28,28,28	0
56	MG	RA	3355	1/1	0.98	0.59	24,24,24,24	0
56	MG	YA	3014	1/1	0.98	0.26	39,39,39,39	0
56	MG	RA	3125	1/1	0.98	0.20	36,36,36,36	0
56	MG	YA	3327	1/1	0.98	0.50	7,7,7,7	0
56	MG	RA	3484	1/1	0.98	0.48	30,30,30,30	0
56	MG	RA	3127	1/1	0.98	0.43	52,52,52,52	0
56	MG	YA	3631	1/1	0.98	0.14	55,55,55,55	0
56	MG	YA	3663	1/1	0.98	0.75	38,38,38,38	0
56	MG	YA	3575	1/1	0.98	0.54	30,30,30,30	0
56	MG	YA	3404	1/1	0.98	0.55	13,13,13,13	0
56	MG	YA	3494	1/1	0.98	0.21	36,36,36,36	0
56	MG	YA	3480	1/1	0.98	0.42	17,17,17,17	0
56	MG	YA	3560	1/1	0.98	0.24	6,6,6,6	0
56	MG	YA	3669	1/1	0.98	0.39	15,15,15,15	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RA	3792	1/1	0.98	0.43	35,35,35,35	0
56	MG	RA	3873	1/1	0.98	0.48	31,31,31,31	0
56	MG	YA	3604	1/1	0.98	0.43	11,11,11,11	0
56	MG	RA	3495	1/1	0.98	0.51	43,43,43,43	0
56	MG	RA	3496	1/1	0.98	0.45	16,16,16,16	0
56	MG	RA	3877	1/1	0.98	0.39	23,23,23,23	0
56	MG	RA	3318	1/1	0.98	0.33	19,19,19,19	0
56	MG	RA	3094	1/1	0.98	0.84	71,71,71,71	0
56	MG	RA	3320	1/1	0.98	0.38	14,14,14,14	0
56	MG	RA	3321	1/1	0.98	0.28	19,19,19,19	0
56	MG	RA	3501	1/1	0.98	0.68	22,22,22,22	0
56	MG	YA	3606	1/1	0.98	0.66	25,25,25,25	0
56	MG	RA	3503	1/1	0.98	0.28	21,21,21,21	0
56	MG	YA	3338	1/1	0.98	0.44	16,16,16,16	0
56	MG	RA	3435	1/1	0.98	0.61	23,23,23,23	0
56	MG	YA	3318	1/1	0.98	0.43	26,26,26,26	0
56	MG	RA	3230	1/1	0.98	0.52	81,81,81,81	0
56	MG	RA	3508	1/1	0.98	0.50	42,42,42,42	0
56	MG	RA	3579	1/1	0.98	0.32	24,24,24,24	0
56	MG	YA	3346	1/1	0.98	0.55	16,16,16,16	0
56	MG	RA	3378	1/1	0.98	0.43	25,25,25,25	0
56	MG	RA	3893	1/1	0.98	0.66	34,34,34,34	0
56	MG	YA	3320	1/1	0.98	0.37	26,26,26,26	0
56	MG	YA	3472	1/1	0.98	0.45	23,23,23,23	0
56	MG	RA	3513	1/1	0.98	0.12	14,14,14,14	0
56	MG	YA	3380	1/1	0.98	0.39	7,7,7,7	0
56	MG	RA	3382	1/1	0.98	0.33	20,20,20,20	0
56	MG	YA	3518	1/1	0.98	0.37	16,16,16,16	0
56	MG	RB	205	1/1	0.98	0.21	47,47,47,47	0
56	MG	RA	3384	1/1	0.98	0.63	21,21,21,21	0
56	MG	RA	3901	1/1	0.98	0.40	16,16,16,16	0
56	MG	RA	3022	1/1	0.98	0.70	76,76,76,76	0
56	MG	RA	3147	1/1	0.98	0.21	39,39,39,39	0
56	MG	RA	3904	1/1	0.98	0.30	24,24,24,24	0
56	MG	RA	3820	1/1	0.98	0.26	28,28,28,28	0
56	MG	RA	3333	1/1	0.98	0.38	24,24,24,24	0
56	MG	YA	3680	1/1	0.98	0.77	50,50,50,50	0
56	MG	YA	3618	1/1	0.98	0.34	24,24,24,24	0
56	MG	RA	3390	1/1	0.98	0.32	27,27,27,27	0
56	MG	RA	3391	1/1	0.98	0.49	17,17,17,17	0
56	MG	YA	3143	1/1	0.98	0.11	56,56,56,56	0
56	MG	RA	3393	1/1	0.98	0.48	14,14,14,14	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	RB	219	1/1	0.98	0.14	57,57,57,57	0
56	MG	RA	3394	1/1	0.98	0.47	31,31,31,31	0
56	MG	XA	1633	1/1	0.98	0.34	51,51,51,51	0
56	MG	YA	3441	1/1	0.98	0.46	34,34,34,34	0
56	MG	RA	3831	1/1	0.98	0.32	65,65,65,65	0
56	MG	YD	306	1/1	0.98	0.41	53,53,53,53	0
56	MG	RA	3833	1/1	0.98	0.42	29,29,29,29	0
56	MG	YA	3589	1/1	0.98	0.45	31,31,31,31	0
56	MG	YD	308	1/1	0.98	0.27	71,71,71,71	0
56	MG	RA	3400	1/1	0.98	0.48	21,21,21,21	0
57	ZN	Y5	102	1/1	0.98	0.05	119,119,119,119	0
57	ZN	Y6	101	1/1	0.98	0.18	169,169,169,169	0
56	MG	YA	3590	1/1	0.98	0.73	41,41,41,41	0
57	ZN	XN	101	1/1	0.98	0.10	94,94,94,94	0
56	MG	YA	3651	1/1	0.98	0.59	15,15,15,15	0
56	MG	RA	3465	1/1	0.98	0.39	27,27,27,27	0
56	MG	XA	1640	1/1	0.98	0.15	66,66,66,66	0
56	MG	RA	3467	1/1	0.98	0.40	21,21,21,21	0
56	MG	RA	3761	1/1	0.99	0.47	22,22,22,22	0
56	MG	YA	3358	1/1	0.99	0.63	18,18,18,18	0
56	MG	YA	3614	1/1	0.99	0.45	26,26,26,26	0
56	MG	YA	3686	1/1	0.99	0.37	15,15,15,15	0
56	MG	YA	3615	1/1	0.99	0.54	11,11,11,11	0
56	MG	RA	3473	1/1	0.99	0.39	26,26,26,26	0
56	MG	RA	3423	1/1	0.99	0.42	21,21,21,21	0
56	MG	XA	1631	1/1	0.99	0.40	60,60,60,60	0
56	MG	YA	3306	1/1	0.99	0.18	9,9,9,9	0
56	MG	YA	3319	1/1	0.99	0.46	20,20,20,20	0
56	MG	YA	3750	1/1	0.99	0.44	22,22,22,22	0
56	MG	YA	3016	1/1	0.99	0.17	29,29,29,29	0
56	MG	YA	3602	1/1	0.99	0.43	16,16,16,16	0
56	MG	YA	3385	1/1	0.99	0.36	23,23,23,23	0
56	MG	YA	3673	1/1	0.99	0.24	13,13,13,13	0
56	MG	YA	3515	1/1	0.99	0.42	12,12,12,12	0
56	MG	RA	3945	1/1	0.99	0.49	25,25,25,25	0
56	MG	YA	3656	1/1	0.99	0.31	34,34,34,34	0
56	MG	YA	3605	1/1	0.99	0.33	19,19,19,19	0
56	MG	RA	3020	1/1	0.99	0.45	89,89,89,89	0
56	MG	YA	3395	1/1	0.99	0.43	17,17,17,17	0
56	MG	YA	3362	1/1	0.99	0.52	18,18,18,18	0
56	MG	YA	3363	1/1	0.99	0.60	11,11,11,11	0
56	MG	YA	3371	1/1	0.99	0.46	14,14,14,14	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	YA	3610	1/1	0.99	0.43	20,20,20,20	0
56	MG	RA	3622	1/1	0.99	0.35	20,20,20,20	0
56	MG	YA	3113	1/1	0.99	0.21	104,104,104,104	0
56	MG	RA	3442	1/1	0.99	0.62	18,18,18,18	0
57	ZN	R5	102	1/1	0.99	0.03	119,119,119,119	0
56	MG	YA	3612	1/1	0.99	0.24	23,23,23,23	0
57	ZN	R9	102	1/1	0.99	0.05	92,92,92,92	0
58	SF4	XD	301	8/8	0.99	0.14	58,74,100,102	0
58	SF4	QD	302	8/8	0.99	0.15	51,57,76,106	0

6.5 Other polymers (i)

There are no such residues in this entry.