



Full wwPDB X-ray Structure Validation Report ⓘ

Aug 4, 2026 – 04:09 AM EDT

PDB ID : 5CZP / pdb_00005czp
Title : 70S termination complex containing E. coli RF2
Authors : Hoffer, E.D.; Dunham, C.M.
Deposited on : 2015-07-31
Resolution : 3.30 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

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

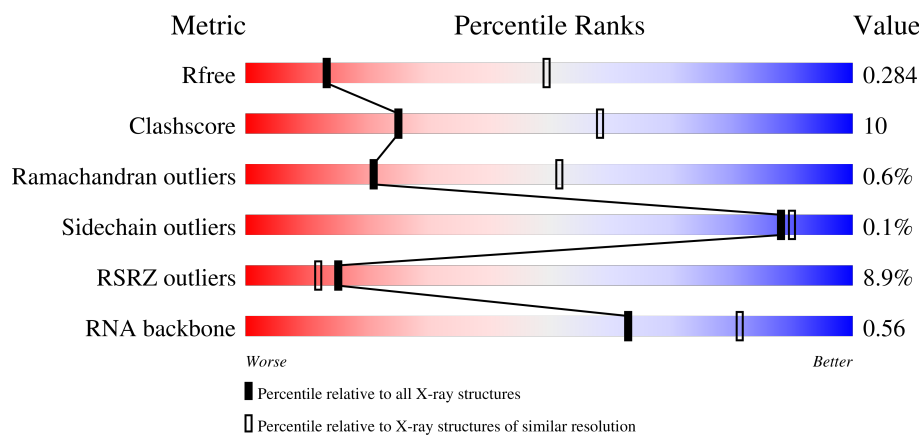
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.30 Å.

Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	1169 (3.32-3.28)
Clashscore	190562	1209 (3.32-3.28)
Ramachandran outliers	187476	1188 (3.32-3.28)
Sidechain outliers	187428	1187 (3.32-3.28)
RSRZ outliers	180081	1169 (3.32-3.28)
RNA backbone	3983	1048 (3.60-3.00)

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

Mol	Chain	Length	Quality of chain
1	RA	2915	5% 61% 32% 6%
1	YA	2915	7% 62% 31% 5%
2	RB	122	2% 78% 19%
2	YB	122	2% 65% 31%

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

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

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

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

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Mol	Chain	Length	Quality of chain
53	QV	77	
53	XV	77	
54	QY	380	
54	XY	380	
55	QX	25	
55	XX	25	

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	1611	-	-	-	X
56	MG	QA	1629	-	-	-	X
56	MG	QA	1630	-	-	-	X
56	MG	QA	1661	-	-	-	X
56	MG	QA	1669	-	-	-	X
56	MG	QA	1672	-	-	-	X
56	MG	QA	1687	-	-	-	X
56	MG	QA	1692	-	-	-	X
56	MG	QA	1705	-	-	-	X
56	MG	QA	1710	-	-	-	X
56	MG	QA	1719	-	-	-	X
56	MG	QA	1722	-	-	-	X
56	MG	QA	1724	-	-	-	X
56	MG	QA	1727	-	-	-	X
56	MG	QA	1731	-	-	-	X
56	MG	QA	1740	-	-	-	X
56	MG	QA	1747	-	-	-	X
56	MG	QA	1751	-	-	-	X
56	MG	QA	1763	-	-	-	X
56	MG	QA	1764	-	-	-	X
56	MG	QA	1780	-	-	-	X
56	MG	QA	1791	-	-	-	X
56	MG	QA	1810	-	-	-	X
56	MG	QA	1818	-	-	-	X
56	MG	QA	1826	-	-	-	X
56	MG	QA	1833	-	-	-	X
56	MG	QA	1835	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	QA	1842	-	-	-	X
56	MG	QA	1849	-	-	-	X
56	MG	QA	1852	-	-	-	X
56	MG	QA	1856	-	-	-	X
56	MG	QA	1859	-	-	-	X
56	MG	QA	1868	-	-	-	X
56	MG	QA	1870	-	-	-	X
56	MG	QM	201	-	-	-	X
56	MG	QN	103	-	-	-	X
56	MG	QT	201	-	-	-	X
56	MG	R3	101	-	-	-	X
56	MG	R3	102	-	-	-	X
56	MG	R5	101	-	-	-	X
56	MG	R5	102	-	-	-	X
56	MG	R9	101	-	-	-	X
56	MG	RA	3019	-	-	-	X
56	MG	RA	3024	-	-	-	X
56	MG	RA	3027	-	-	-	X
56	MG	RA	3029	-	-	-	X
56	MG	RA	3050	-	-	-	X
56	MG	RA	3051	-	-	-	X
56	MG	RA	3055	-	-	-	X
56	MG	RA	3058	-	-	-	X
56	MG	RA	3072	-	-	-	X
56	MG	RA	3076	-	-	-	X
56	MG	RA	3079	-	-	-	X
56	MG	RA	3103	-	-	-	X
56	MG	RA	3106	-	-	-	X
56	MG	RA	3111	-	-	-	X
56	MG	RA	3113	-	-	-	X
56	MG	RA	3114	-	-	-	X
56	MG	RA	3119	-	-	-	X
56	MG	RA	3121	-	-	-	X
56	MG	RA	3137	-	-	-	X
56	MG	RA	3140	-	-	-	X
56	MG	RA	3141	-	-	-	X
56	MG	RA	3159	-	-	-	X
56	MG	RA	3172	-	-	-	X
56	MG	RA	3179	-	-	-	X
56	MG	RA	3189	-	-	-	X
56	MG	RA	3194	-	-	-	X
56	MG	RA	3207	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	RA	3213	-	-	-	X
56	MG	RA	3216	-	-	-	X
56	MG	RA	3219	-	-	-	X
56	MG	RA	3225	-	-	-	X
56	MG	RA	3226	-	-	-	X
56	MG	RA	3227	-	-	-	X
56	MG	RA	3229	-	-	-	X
56	MG	RA	3233	-	-	-	X
56	MG	RA	3237	-	-	-	X
56	MG	RA	3238	-	-	-	X
56	MG	RA	3242	-	-	-	X
56	MG	RA	3244	-	-	-	X
56	MG	RA	3251	-	-	-	X
56	MG	RA	3255	-	-	-	X
56	MG	RA	3257	-	-	-	X
56	MG	RA	3285	-	-	-	X
56	MG	RA	3300	-	-	-	X
56	MG	RA	3307	-	-	-	X
56	MG	RA	3320	-	-	-	X
56	MG	RA	3324	-	-	-	X
56	MG	RA	3333	-	-	-	X
56	MG	RA	3338	-	-	-	X
56	MG	RA	3341	-	-	-	X
56	MG	RA	3356	-	-	-	X
56	MG	RA	3361	-	-	-	X
56	MG	RA	3369	-	-	-	X
56	MG	RA	3375	-	-	-	X
56	MG	RA	3380	-	-	-	X
56	MG	RA	3384	-	-	-	X
56	MG	RA	3385	-	-	-	X
56	MG	RA	3386	-	-	-	X
56	MG	RA	3391	-	-	-	X
56	MG	RA	3392	-	-	-	X
56	MG	RA	3394	-	-	-	X
56	MG	RA	3399	-	-	-	X
56	MG	RA	3401	-	-	-	X
56	MG	RA	3408	-	-	-	X
56	MG	RA	3419	-	-	-	X
56	MG	RA	3420	-	-	-	X
56	MG	RA	3443	-	-	-	X
56	MG	RA	3444	-	-	-	X
56	MG	RA	3445	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	RA	3451	-	-	-	X
56	MG	RA	3461	-	-	-	X
56	MG	RA	3462	-	-	-	X
56	MG	RA	3467	-	-	-	X
56	MG	RA	3476	-	-	-	X
56	MG	RA	3481	-	-	-	X
56	MG	RA	3484	-	-	-	X
56	MG	RA	3485	-	-	-	X
56	MG	RA	3486	-	-	-	X
56	MG	RA	3487	-	-	-	X
56	MG	RA	3490	-	-	-	X
56	MG	RA	3495	-	-	-	X
56	MG	RA	3497	-	-	-	X
56	MG	RA	3501	-	-	-	X
56	MG	RA	3513	-	-	-	X
56	MG	RA	3518	-	-	-	X
56	MG	RA	3528	-	-	-	X
56	MG	RA	3555	-	-	-	X
56	MG	RA	3556	-	-	-	X
56	MG	RA	3561	-	-	-	X
56	MG	RA	3574	-	-	-	X
56	MG	RA	3599	-	-	-	X
56	MG	RA	3602	-	-	-	X
56	MG	RA	3603	-	-	-	X
56	MG	RA	3604	-	-	-	X
56	MG	RA	3615	-	-	-	X
56	MG	RA	3619	-	-	-	X
56	MG	RA	3630	-	-	-	X
56	MG	RA	3631	-	-	-	X
56	MG	RA	3632	-	-	-	X
56	MG	RA	3634	-	-	-	X
56	MG	RA	3637	-	-	-	X
56	MG	RA	3640	-	-	-	X
56	MG	RA	3647	-	-	-	X
56	MG	RA	3648	-	-	-	X
56	MG	RA	3690	-	-	-	X
56	MG	RA	3691	-	-	-	X
56	MG	RA	3711	-	-	-	X
56	MG	RA	3718	-	-	-	X
56	MG	RA	3729	-	-	-	X
56	MG	RA	3745	-	-	-	X
56	MG	RA	3751	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	RA	3754	-	-	-	X
56	MG	RA	3755	-	-	-	X
56	MG	RA	3778	-	-	-	X
56	MG	RA	3779	-	-	-	X
56	MG	RA	3782	-	-	-	X
56	MG	RA	3783	-	-	-	X
56	MG	RA	3797	-	-	-	X
56	MG	RA	3803	-	-	-	X
56	MG	RA	3808	-	-	-	X
56	MG	RA	3830	-	-	-	X
56	MG	RA	3847	-	-	-	X
56	MG	RA	3849	-	-	-	X
56	MG	RA	3854	-	-	-	X
56	MG	RA	3856	-	-	-	X
56	MG	RA	3859	-	-	-	X
56	MG	RA	3861	-	-	-	X
56	MG	RA	3875	-	-	-	X
56	MG	RA	3877	-	-	-	X
56	MG	RA	3879	-	-	-	X
56	MG	RA	3885	-	-	-	X
56	MG	RA	3886	-	-	-	X
56	MG	RA	3888	-	-	-	X
56	MG	RA	3890	-	-	-	X
56	MG	RA	3900	-	-	-	X
56	MG	RA	3918	-	-	-	X
56	MG	RA	3919	-	-	-	X
56	MG	RA	3920	-	-	-	X
56	MG	RA	3921	-	-	-	X
56	MG	RA	3929	-	-	-	X
56	MG	RA	3940	-	-	-	X
56	MG	RA	3955	-	-	-	X
56	MG	RA	3968	-	-	-	X
56	MG	RA	3969	-	-	-	X
56	MG	RA	3971	-	-	-	X
56	MG	RA	3974	-	-	-	X
56	MG	RA	3975	-	-	-	X
56	MG	RA	3997	-	-	-	X
56	MG	RA	4019	-	-	-	X
56	MG	RA	4022	-	-	-	X
56	MG	RA	4025	-	-	-	X
56	MG	RA	4031	-	-	-	X
56	MG	RA	4037	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	RA	4054	-	-	-	X
56	MG	RA	4058	-	-	-	X
56	MG	RA	4060	-	-	-	X
56	MG	RA	4061	-	-	-	X
56	MG	RA	4062	-	-	-	X
56	MG	RA	4063	-	-	-	X
56	MG	RB	213	-	-	-	X
56	MG	RB	220	-	-	-	X
56	MG	RD	312	-	-	-	X
56	MG	RE	303	-	-	-	X
56	MG	RE	304	-	-	-	X
56	MG	RF	301	-	-	-	X
56	MG	RF	307	-	-	-	X
56	MG	RF	308	-	-	-	X
56	MG	RP	201	-	-	-	X
56	MG	RQ	203	-	-	-	X
56	MG	RQ	204	-	-	-	X
56	MG	RR	201	-	-	-	X
56	MG	RR	202	-	-	-	X
56	MG	RW	202	-	-	-	X
56	MG	XA	1601	-	-	-	X
56	MG	XA	1610	-	-	-	X
56	MG	XA	1619	-	-	-	X
56	MG	XA	1654	-	-	-	X
56	MG	XA	1693	-	-	-	X
56	MG	XA	1695	-	-	-	X
56	MG	XA	1696	-	-	-	X
56	MG	XA	1726	-	-	-	X
56	MG	XA	1740	-	-	-	X
56	MG	XA	1756	-	-	-	X
56	MG	XA	1765	-	-	-	X
56	MG	XA	1766	-	-	-	X
56	MG	XA	1767	-	-	-	X
56	MG	XA	1768	-	-	-	X
56	MG	XA	1769	-	-	-	X
56	MG	XA	1773	-	-	-	X
56	MG	XA	1774	-	-	-	X
56	MG	XA	1775	-	-	-	X
56	MG	XA	1779	-	-	-	X
56	MG	XA	1780	-	-	-	X
56	MG	XA	1781	-	-	-	X
56	MG	XA	1782	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	XA	1786	-	-	-	X
56	MG	XA	1790	-	-	-	X
56	MG	XF	203	-	-	-	X
56	MG	YA	3019	-	-	-	X
56	MG	YA	3022	-	-	-	X
56	MG	YA	3033	-	-	-	X
56	MG	YA	3066	-	-	-	X
56	MG	YA	3070	-	-	-	X
56	MG	YA	3074	-	-	-	X
56	MG	YA	3075	-	-	-	X
56	MG	YA	3078	-	-	-	X
56	MG	YA	3084	-	-	-	X
56	MG	YA	3112	-	-	-	X
56	MG	YA	3143	-	-	-	X
56	MG	YA	3155	-	-	-	X
56	MG	YA	3162	-	-	-	X
56	MG	YA	3166	-	-	-	X
56	MG	YA	3168	-	-	-	X
56	MG	YA	3169	-	-	-	X
56	MG	YA	3185	-	-	-	X
56	MG	YA	3186	-	-	-	X
56	MG	YA	3197	-	-	-	X
56	MG	YA	3204	-	-	-	X
56	MG	YA	3205	-	-	-	X
56	MG	YA	3227	-	-	-	X
56	MG	YA	3233	-	-	-	X
56	MG	YA	3239	-	-	-	X
56	MG	YA	3254	-	-	-	X
56	MG	YA	3259	-	-	-	X
56	MG	YA	3278	-	-	-	X
56	MG	YA	3279	-	-	-	X
56	MG	YA	3284	-	-	-	X
56	MG	YA	3289	-	-	-	X
56	MG	YA	3308	-	-	-	X
56	MG	YA	3310	-	-	-	X
56	MG	YA	3312	-	-	-	X
56	MG	YA	3320	-	-	-	X
56	MG	YA	3321	-	-	-	X
56	MG	YA	3323	-	-	-	X
56	MG	YA	3324	-	-	-	X
56	MG	YA	3328	-	-	-	X
56	MG	YA	3331	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	YA	3335	-	-	-	X
56	MG	YA	3336	-	-	-	X
56	MG	YA	3343	-	-	-	X
56	MG	YA	3348	-	-	-	X
56	MG	YA	3350	-	-	-	X
56	MG	YA	3355	-	-	-	X
56	MG	YA	3365	-	-	-	X
56	MG	YA	3371	-	-	-	X
56	MG	YA	3372	-	-	-	X
56	MG	YA	3374	-	-	-	X
56	MG	YA	3378	-	-	-	X
56	MG	YA	3382	-	-	-	X
56	MG	YA	3387	-	-	-	X
56	MG	YA	3398	-	-	-	X
56	MG	YA	3399	-	-	-	X
56	MG	YA	3401	-	-	-	X
56	MG	YA	3409	-	-	-	X
56	MG	YA	3412	-	-	-	X
56	MG	YA	3414	-	-	-	X
56	MG	YA	3418	-	-	-	X
56	MG	YA	3419	-	-	-	X
56	MG	YA	3427	-	-	-	X
56	MG	YA	3431	-	-	-	X
56	MG	YA	3440	-	-	-	X
56	MG	YA	3450	-	-	-	X
56	MG	YA	3451	-	-	-	X
56	MG	YA	3456	-	-	-	X
56	MG	YA	3457	-	-	-	X
56	MG	YA	3464	-	-	-	X
56	MG	YA	3465	-	-	-	X
56	MG	YA	3468	-	-	-	X
56	MG	YA	3472	-	-	-	X
56	MG	YA	3481	-	-	-	X
56	MG	YA	3496	-	-	-	X
56	MG	YA	3509	-	-	-	X
56	MG	YA	3510	-	-	-	X
56	MG	YA	3515	-	-	-	X
56	MG	YA	3516	-	-	-	X
56	MG	YA	3526	-	-	-	X
56	MG	YA	3531	-	-	-	X
56	MG	YA	3548	-	-	-	X
56	MG	YA	3549	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	YA	3556	-	-	-	X
56	MG	YA	3558	-	-	-	X
56	MG	YA	3559	-	-	-	X
56	MG	YA	3570	-	-	-	X
56	MG	YA	3573	-	-	-	X
56	MG	YA	3582	-	-	-	X
56	MG	YA	3588	-	-	-	X
56	MG	YA	3599	-	-	-	X
56	MG	YA	3600	-	-	-	X
56	MG	YA	3602	-	-	-	X
56	MG	YA	3618	-	-	-	X
56	MG	YA	3620	-	-	-	X
56	MG	YA	3636	-	-	-	X
56	MG	YA	3637	-	-	-	X
56	MG	YA	3638	-	-	-	X
56	MG	YA	3639	-	-	-	X
56	MG	YA	3649	-	-	-	X
56	MG	YA	3658	-	-	-	X
56	MG	YA	3668	-	-	-	X
56	MG	YA	3672	-	-	-	X
56	MG	YA	3676	-	-	-	X
56	MG	YA	3677	-	-	-	X
56	MG	YA	3681	-	-	-	X
56	MG	YA	3685	-	-	-	X
56	MG	YA	3694	-	-	-	X
56	MG	YA	3695	-	-	-	X
56	MG	YA	3698	-	-	-	X
56	MG	YA	3701	-	-	-	X
56	MG	YA	3708	-	-	-	X
56	MG	YA	3710	-	-	-	X
56	MG	YA	3728	-	-	-	X
56	MG	YA	3737	-	-	-	X
56	MG	YA	3741	-	-	-	X
56	MG	YA	3752	-	-	-	X
56	MG	YE	302	-	-	-	X
56	MG	YE	303	-	-	-	X
56	MG	YE	306	-	-	-	X
56	MG	YF	301	-	-	-	X
56	MG	YW	201	-	-	-	X

2 Entry composition

There are 58 unique types of molecules in this entry. The entry contains 296497 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, the AltConf column contains the number of residues with at least one atom in alternate conformation and the Trace column contains the number of residues modelled with at most 2 atoms.

- Molecule 1 is a RNA chain called 23S rRNA.

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

- Molecule 54 is a protein called Peptide chain release factor 2.

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

There are 32 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
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
QY	298	VAL	LEU	conflict	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

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Chain	Residue	Modelled	Actual	Comment	Reference
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
XY	298	VAL	LEU	conflict	UNP P07012

- Molecule 55 is a RNA chain called mRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	XX	6	Total 129	C 58	N 24	O 41	P 6	0	0	0
55	QX	6	Total 129	C 58	N 24	O 41	P 6	0	0	0

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

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	YA	756	Total	Mg	0	0
			756	756		
56	YB	19	Total	Mg	0	0
			19	19		
56	YD	9	Total	Mg	0	0
			9	9		
56	YE	7	Total	Mg	0	0
			7	7		
56	YF	3	Total	Mg	0	0
			3	3		
56	YG	3	Total	Mg	0	0
			3	3		
56	YI	1	Total	Mg	0	0
			1	1		
56	YN	1	Total	Mg	0	0
			1	1		
56	YO	2	Total	Mg	0	0
			2	2		
56	YP	1	Total	Mg	0	0
			1	1		
56	YQ	2	Total	Mg	0	0
			2	2		
56	YR	1	Total	Mg	0	0
			1	1		
56	YT	3	Total	Mg	0	0
			3	3		

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	YV	1	Total 1	Mg 1	0	0
56	YW	2	Total 2	Mg 2	0	0
56	YX	1	Total 1	Mg 1	0	0
56	Y0	1	Total 1	Mg 1	0	0
56	Y1	2	Total 2	Mg 2	0	0
56	Y5	1	Total 1	Mg 1	0	0
56	Y6	1	Total 1	Mg 1	0	0
56	Y7	1	Total 1	Mg 1	0	0
56	Y8	2	Total 2	Mg 2	0	0
56	XA	193	Total 193	Mg 193	0	0
56	XE	2	Total 2	Mg 2	0	0
56	XF	3	Total 3	Mg 3	0	0
56	XH	1	Total 1	Mg 1	0	0
56	XJ	1	Total 1	Mg 1	0	0
56	XK	1	Total 1	Mg 1	0	0
56	XL	1	Total 1	Mg 1	0	0
56	XT	1	Total 1	Mg 1	0	0
56	QA	280	Total 280	Mg 280	0	0
56	QB	1	Total 1	Mg 1	0	0
56	QD	4	Total 4	Mg 4	0	0
56	QE	2	Total 2	Mg 2	0	0

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Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	QF	1	Total 1	Mg 1	0	0
56	QG	3	Total 3	Mg 3	0	0
56	QH	2	Total 2	Mg 2	0	0
56	QI	1	Total 1	Mg 1	0	0
56	QL	2	Total 2	Mg 2	0	0
56	QM	1	Total 1	Mg 1	0	0
56	QN	2	Total 2	Mg 2	0	0
56	QO	1	Total 1	Mg 1	0	0
56	QQ	2	Total 2	Mg 2	0	0
56	QR	1	Total 1	Mg 1	0	0
56	QT	1	Total 1	Mg 1	0	0
56	RA	1069	Total 1069	Mg 1069	0	0
56	RB	28	Total 28	Mg 28	0	0
56	RD	14	Total 14	Mg 14	0	0
56	RE	7	Total 7	Mg 7	0	0
56	RF	11	Total 11	Mg 11	0	0
56	RG	4	Total 4	Mg 4	0	0
56	RH	2	Total 2	Mg 2	0	0
56	RN	3	Total 3	Mg 3	0	0
56	RO	1	Total 1	Mg 1	0	0
56	RP	2	Total 2	Mg 2	0	0

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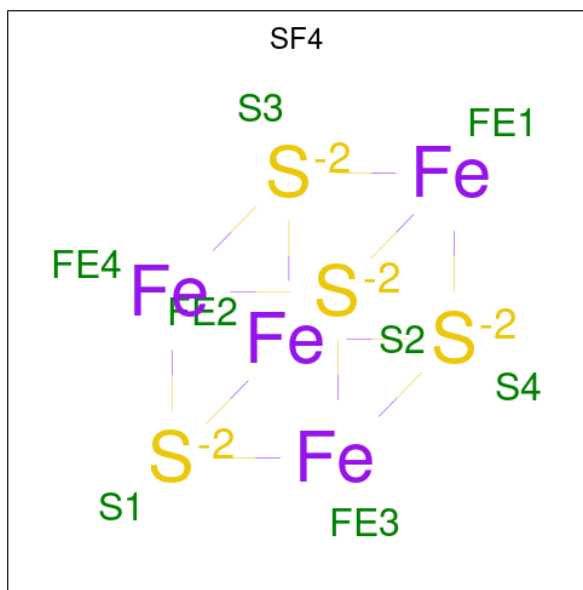
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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
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56	RR	4	Total 4 Mg 4	0	0
56	RT	3	Total 3 Mg 3	0	0
56	RU	3	Total 3 Mg 3	0	0
56	RV	4	Total 4 Mg 4	0	0
56	RW	2	Total 2 Mg 2	0	0
56	RX	1	Total 1 Mg 1	0	0
56	RZ	1	Total 1 Mg 1	0	0
56	R0	4	Total 4 Mg 4	0	0
56	R1	4	Total 4 Mg 4	0	0
56	R3	2	Total 2 Mg 2	0	0
56	R4	1	Total 1 Mg 1	0	0
56	R5	4	Total 4 Mg 4	0	0
56	R7	2	Total 2 Mg 2	0	0
56	R8	1	Total 1 Mg 1	0	0
56	R9	2	Total 2 Mg 2	0	0
56	QV	4	Total 4 Mg 4	0	0
56	QY	2	Total 2 Mg 2	0	0
56	XV	3	Total 3 Mg 3	0	0
56	XY	1	Total 1 Mg 1	0	0

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

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

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

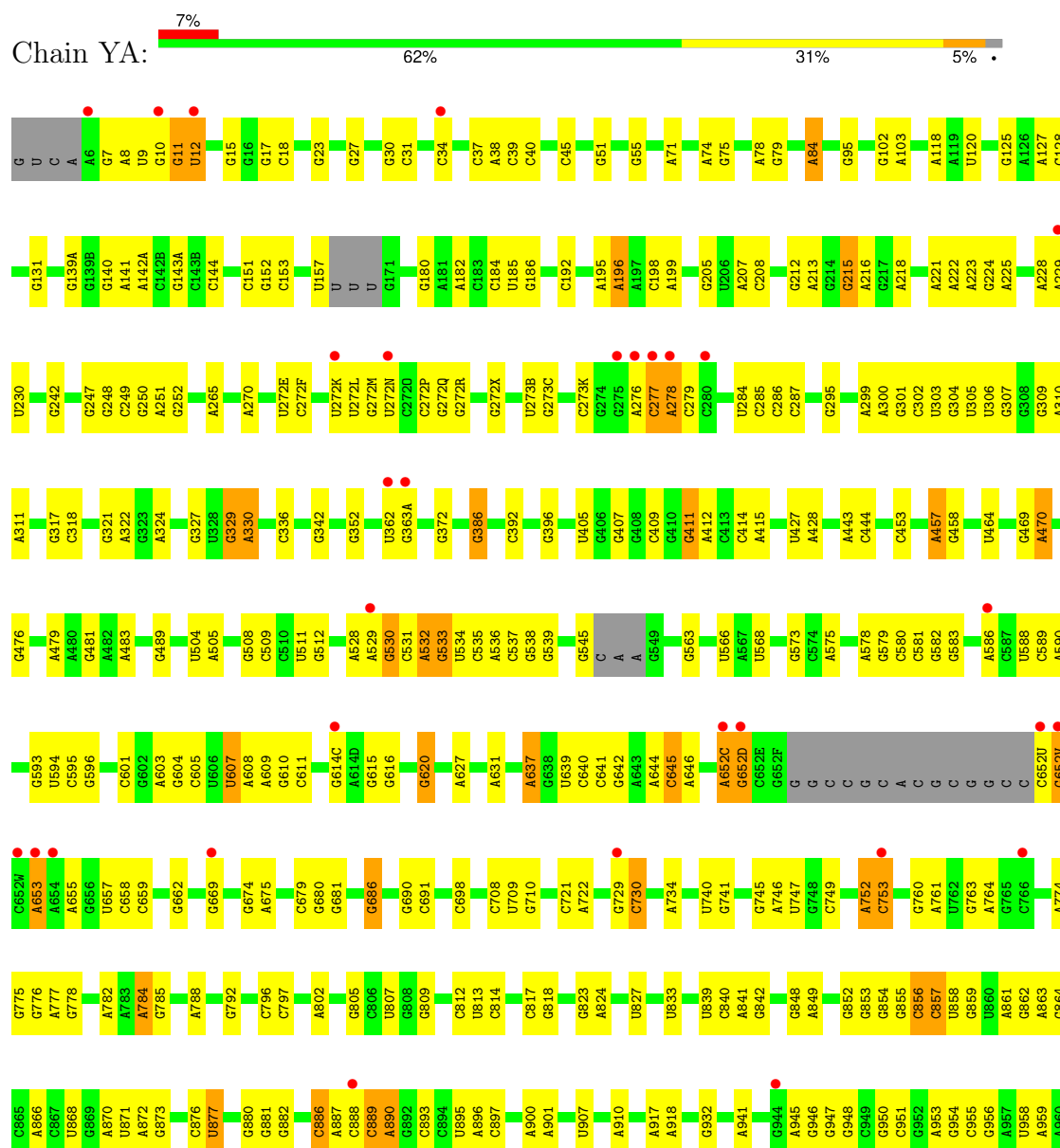


Mol	Chain	Residues	Atoms			ZeroOcc	AltConf
58	XD	1	Total 8	Fe 4	S 4	0	0
58	QD	1	Total 8	Fe 4	S 4	0	0

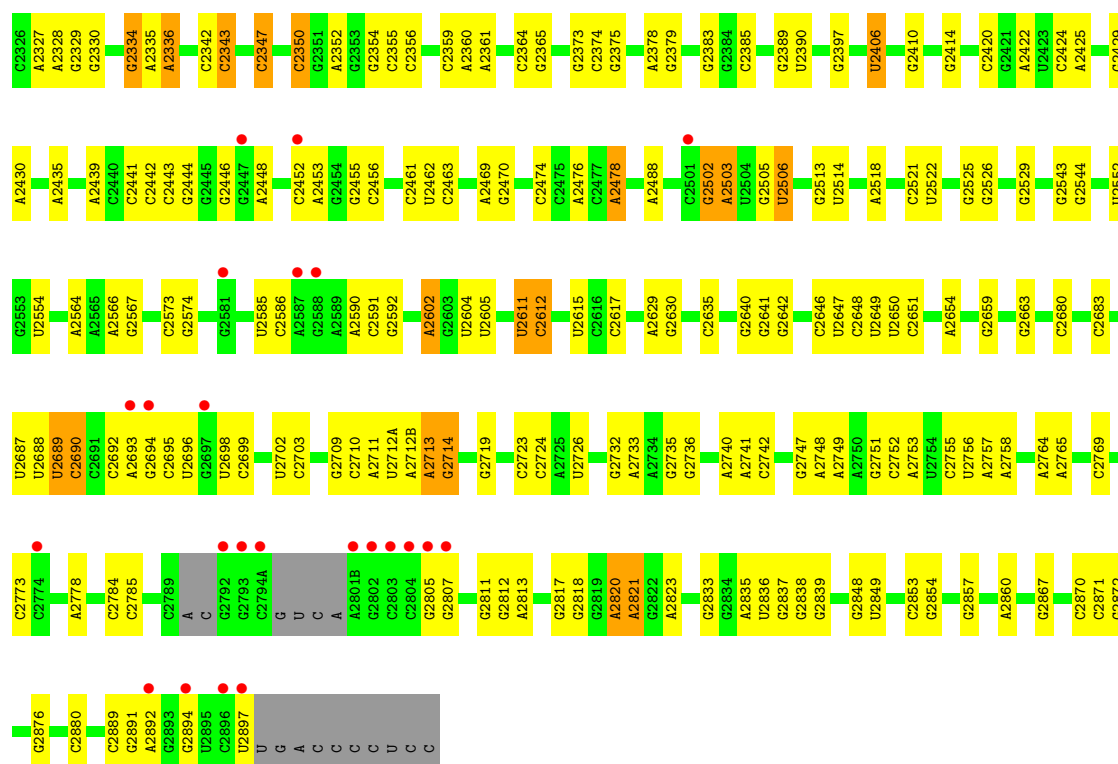
3 Residue-property plots

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

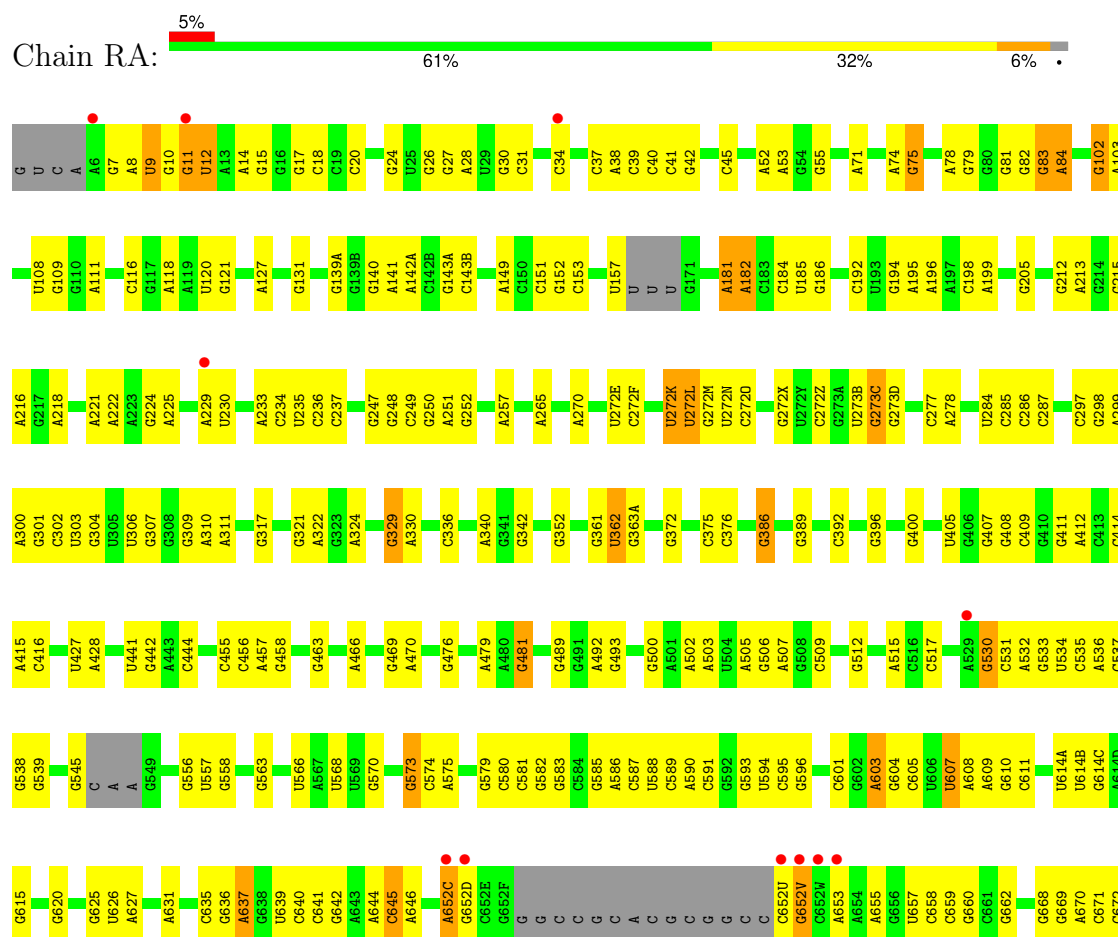
• Molecule 1: 23S rRNA

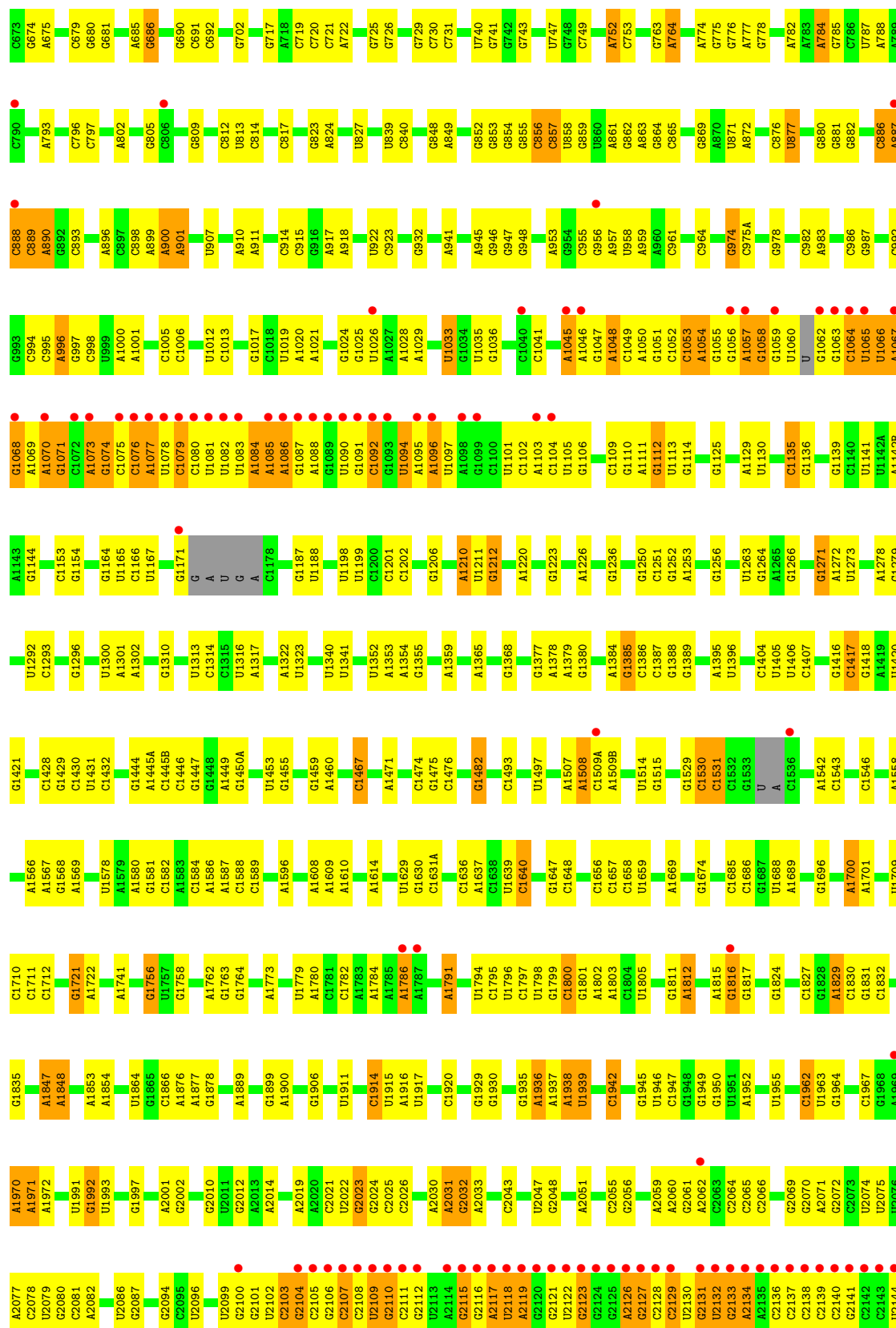


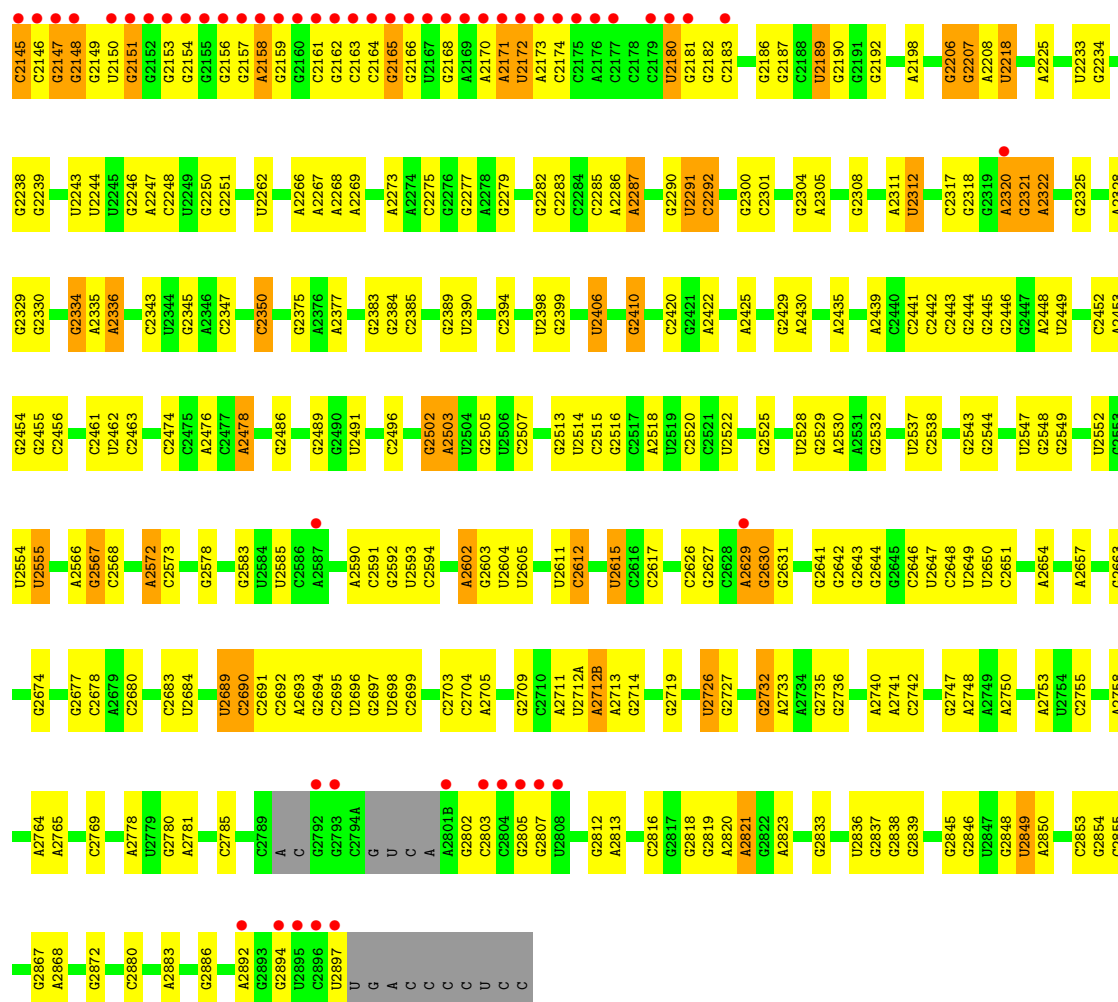
G2238	C2145	G2072	G1962	G1835	G1721	G1604	G1482	G1385	G1264	C1335	A1057	C961
G2239	C2146	C2073	U1963	G1842	A1722	C1607	C1493	C1386	A1265	G1135	G1058	C964
G2148	G2147	U2074	C1967	G1843	U1739	C1607	C1493	G1387	G1266	G1136	G1059	C965
U2243	G2149	U2075	C1968	G1844	G1740	A1609	U1497	G1388	G1271	U1141	U	G974
U2244	G2150	A2076	A1969	A1847	G1747B	A1610	A1507	U1396	A1272	U1142A	G1062	G975A
U2245	G2151	C2078	A1970	A1848	G1750	A1614	A1508	U1397	A1273	A1142B	G1063	G976
G2246	G2152	U2079	A1971	A1853	G1756	A1614	A1509B	C1398	A1274	G1164	U1065	G977
A2247	G2153	U2086	A1972	A1854	G1757	G1622	U1514	C1404	A1275	C1166	U1066	G978
C2248	G2154	G2087	G1983	A1859	U1758	G1629	G1515	U1405	A1278	U1167	A1067	G978
G2251	G2155	U2096	U1991	A1885	G1759	G1630	U1518	U1406	G1279	G1171	A1068	A983
C2261	G2157	U2099	G1992	A1886	A1762	U1639	G1519	U1407	C1289	G	A1070	G987
U2262	G2160	G2100	U1993	A1876	G1763	C1640	U1518	C1408	C1295	A	G1071	A988
A2266	G2162	U2102	G1997	A1877	G1764	G1645	G1525	C1409	G1296	U	C1072	G989
A2267	G2163	C2103	C1998	G1878	A1773	C1646	G1526	G1410	C1297	G	G1073	G994
A2268	G2164	G2104	G1999	G1883	U1779	G1647	G1529	C1411	U1300	A	C1074	C995
A2269	G2165	G2105	G2012	A1884	A1780	G1648	G1530	G1412	A1301	C1178	C1075	C996
G2270	G2166	C2106	G2013	A1885	G1783	C1649	C1531	G1413	A1308	A1182	U1076	A996
G2271	G2167	A2014	A2014	C1886	A1786	G1650	C1532	U1414	A1309	G1183	U1078	G997
A2273	G2168	G2108	G2018	G1889	G1787	G1651	G1533	G1415	G1309	G1184	C1079	A1000
A2274	A2169	U2109	A2019	A1900	A1788	C1656	U	G1416	C1314	G1187	U1081	A1001
A2275	A2170	G2110	A2019	G1906	A1789	C1657	A	U1420	G1315	G	U1082	C1005
G2279	A2171	C2111	A2020	G1906	C1789	C1658	C1536	G1421	C1316	C1196	U1083	C1006
C2283	A2172	U2113	C2021	U1911	G1790	G1667	G1539	A1427	A1317	G1197	U1084	U1012
G2286	C2173	A2114	G2023	A1912	A1791	G1668	U1540	C1428	A1318	U1198	A1086	C1013
A2287	C2174	G2115	G2024	C1913	G1792	A1665	G1541	G1429	A1322	G1201	G1087	U1019
A2288	C2175	G2116	C2025	C1914	C1793	G1666	G1542	C1430	A1323	G1206	A1089	A1020
G2289	U2180	A2117	C2026	U1915	U1794	A1667	C1543	U1431	A1336	A1210	U1090	A1021
G2290	G2181	U2118	A2031	A1916	U1796	A1668	C1543	C1432	G1337	U1211	C1092	G1022
G2291	G2182	A2119	G2032	U1917	U1797	A1669	C1546	G1441	U1340	G1212	G1093	U1023
G2292	G2183	G2121	A2033	A1918	U1798	G1674	C1557	G1442	U1341	A1220	U1094	G1024
C2293	G2186	U2122	U2034	C1920	G1799	G1676	A1558	G1443	U1352	A1227	A1095	G1025
C2294	G2187	G2123	G2035	G1921	C1800	U1678	G1559	G1444	U1353	G1231	A1096	U1026
G2303	U2189	G2124	C2043	G1929	C1801	C1683	G1560	A1445A	A1352	G1232	U1097	A1027
G2304	G2190	G2125	G2043	G1930	A1802	C1684	U1579	C1445B	A1353	G1236	A1098	A1028
A2305	G2191	C2127	U2047	G1936	A1803	C1685	A1566	A1449	A1354	C1230	G1099	A1029
G2308	G2192	G2128	G2048	A1937	C1804	C1686	A1569	G1450A	G1355	G1231	U1101	U1033
G2309	G2193	C2129	C2055	U1938	U1805	G1687	U1578	U1453	U1357	G1232	C1102	C1041
G2310	G2194	G2130	G2056	U1939	A1812	U1688	U1579	G1455	G1358	G1236	A1103	A1045
U2312	A2198	U2132	G2059	C1942	A1815	U1693	A1580	G1459	A1359	G1248	G1109	A1046
C2313	G2206	G2133	A2060	U1946	G1816	G1696	U1580	C1467	G1364	U1249	G1110	A1047
C2314	G2207	A2134	G2061	U1947	G1823	A1700	C1584	A1471	A1365	G1250	A1111	A1048
G2315	A2208	C2136	A2062	C1947	U1709	A1701	A1586	G1475	G1368	C1251	G1112	C1049
C2316	U2218	G2137	C2063	G1948	C1827	C1710	A1587	A1477	U1372	G1252	U1113	A1050
G2318	G2318	C2138	C2064	G1949	U1709	C1711	C1588	G1476	A1253	A1254	G1114	G1051
G2319	G2224	C2139	C2065	G1950	A1828	C1712	C1589	A1477	A1379	U1255	G1125	C1052
A2320	A2225	C2140	C2066	U1951	G1830	G1711	G1593	G1478	G1380	G1256	A1129	A1054
G2321	C2226	G2141	G2069	A1952	U1833	C1712	G1594	G1479	A1384	U1263	U1130	G1056
A2322	U2233	C2143	G2070	U1955	U1834	G1720	G1595					
G2325	G2234	U2144	A2071				A1596					



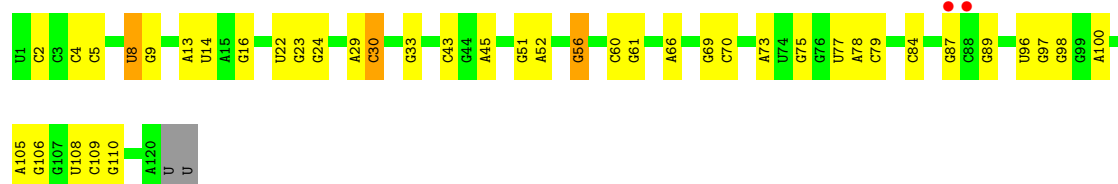
• Molecule 1: 23S rRNA



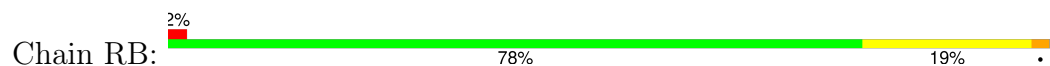




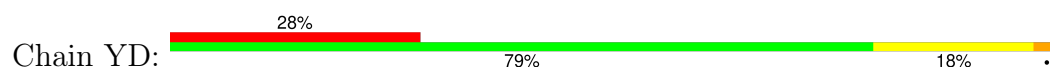
• Molecule 2: 5S rRNA

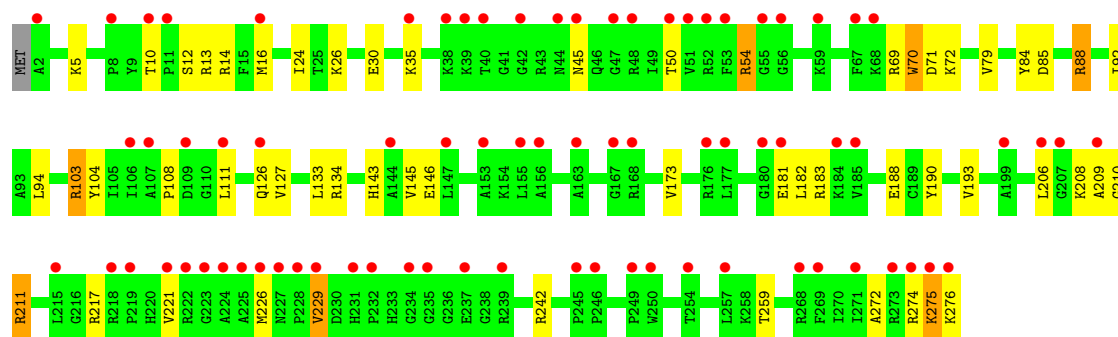


• Molecule 2: 5S rRNA

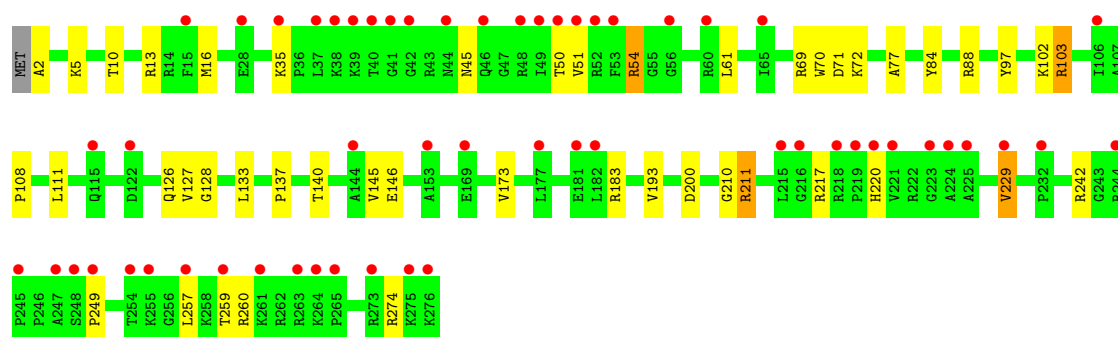
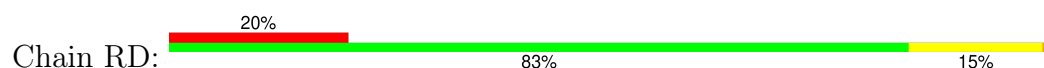


• Molecule 3: 50S ribosomal protein L2

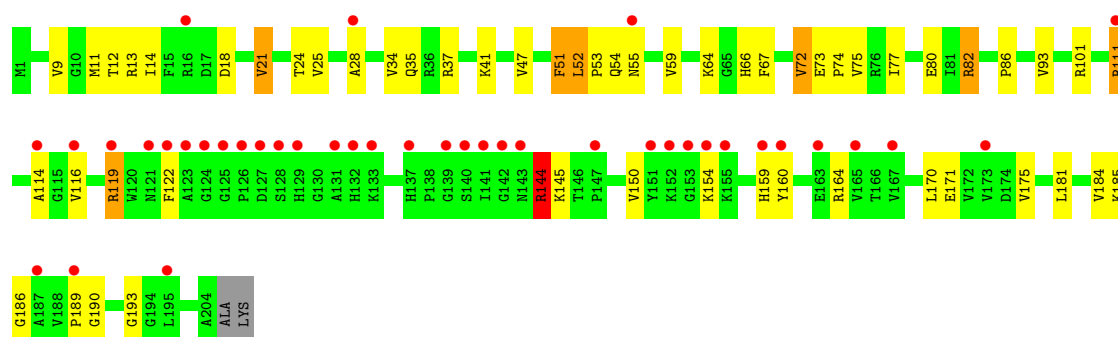
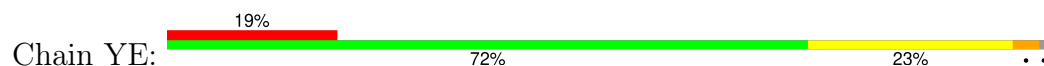




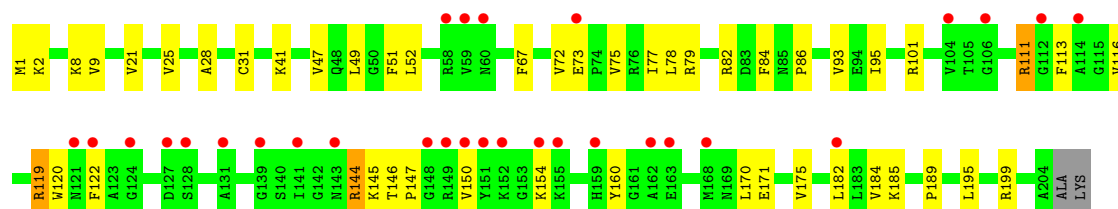
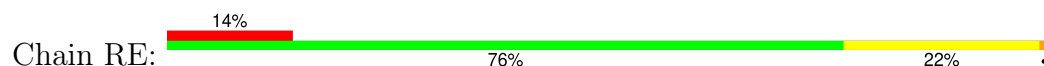
• Molecule 3: 50S ribosomal protein L2



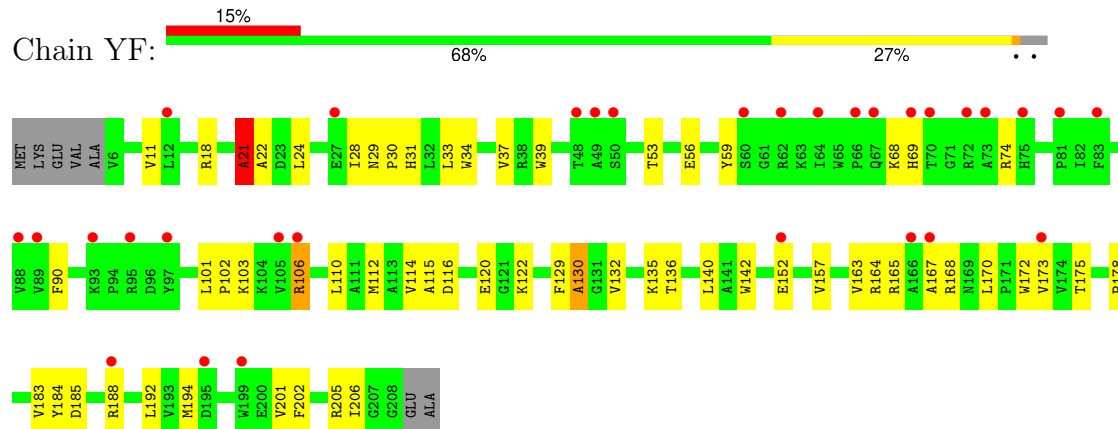
• Molecule 4: 50S ribosomal protein L3



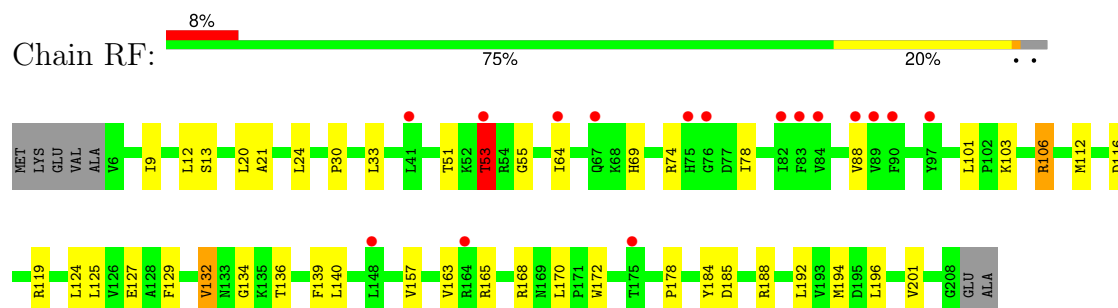
• Molecule 4: 50S ribosomal protein L3



- Molecule 5: 50S ribosomal protein L4



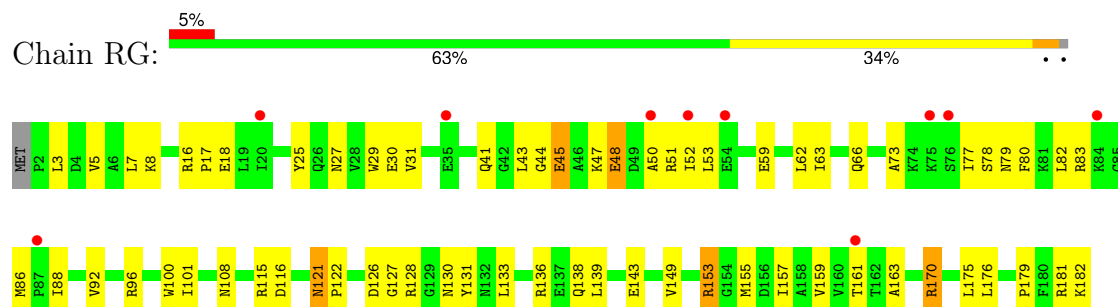
- Molecule 5: 50S ribosomal protein L4



- Molecule 6: 50S ribosomal protein L5

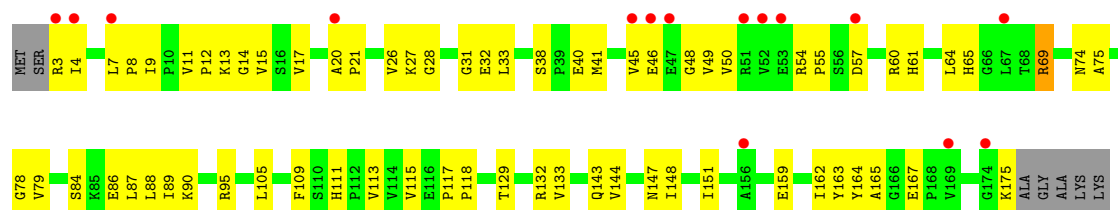


- Molecule 6: 50S ribosomal protein L5



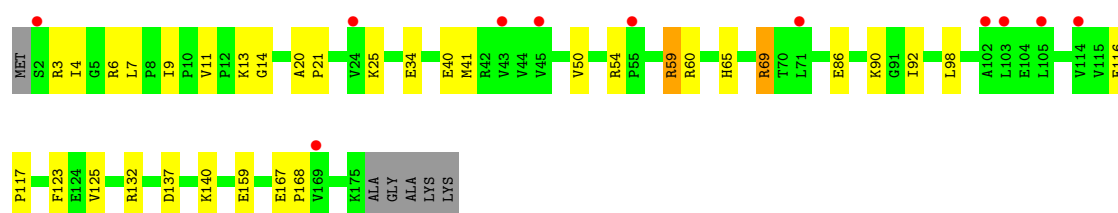
- Molecule 7: 50S ribosomal protein L6

Chain YH:  8% 58% 37%



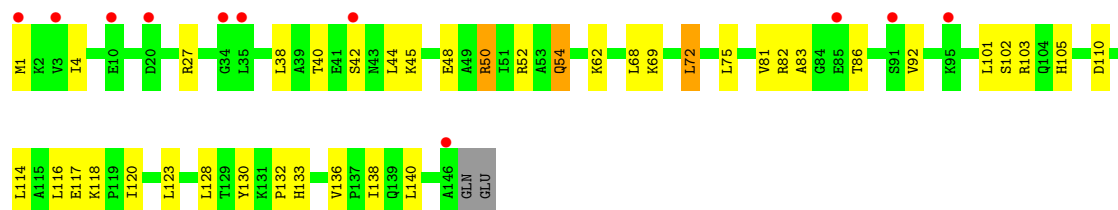
- Molecule 7: 50S ribosomal protein L6

Chain RH:  6% 78% 18%



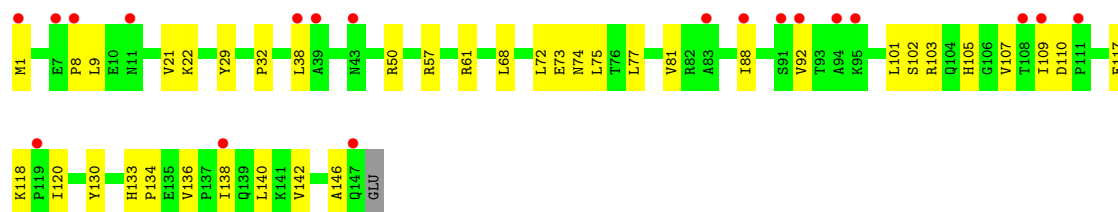
- Molecule 8: 50S ribosomal protein L9

Chain YI:  7% 72% 25%



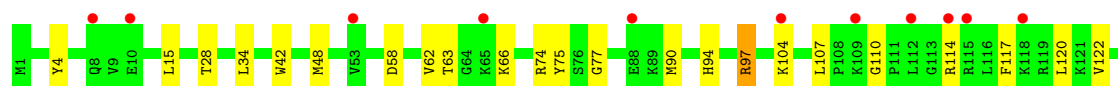
- Molecule 8: 50S ribosomal protein L9

Chain RI:  13% 74% 26%



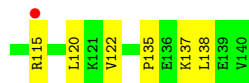
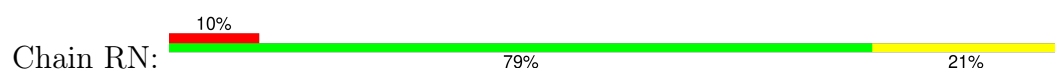
- Molecule 9: 50S ribosomal protein L13

Chain YN:  9% 80% 19%

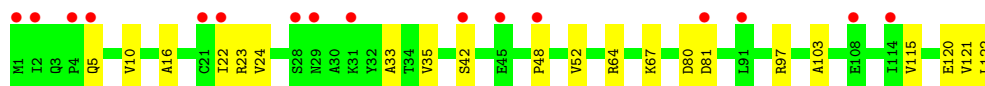
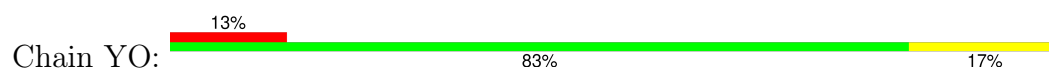




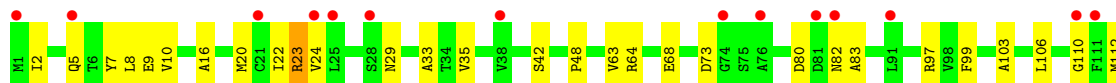
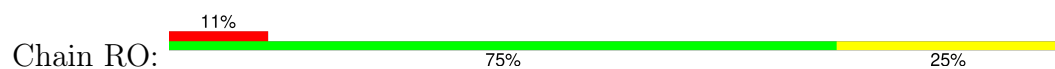
- Molecule 9: 50S ribosomal protein L13



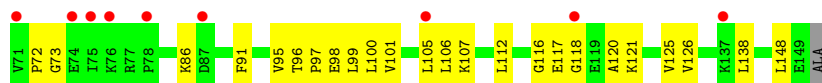
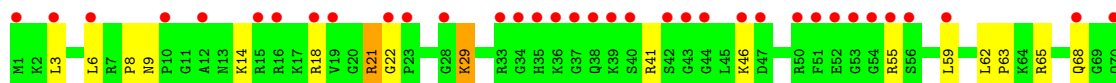
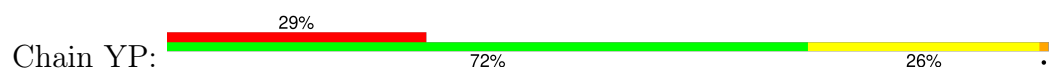
- Molecule 10: 50S ribosomal protein L14



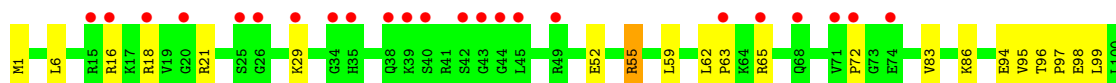
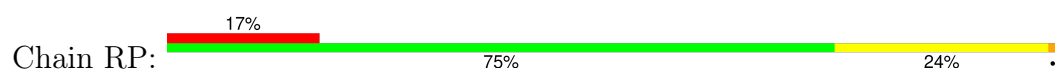
- Molecule 10: 50S ribosomal protein L14



- Molecule 11: 50S ribosomal protein L15

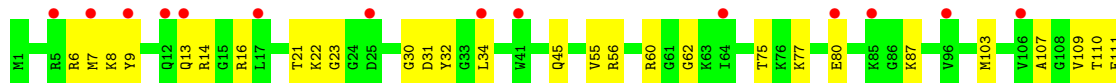
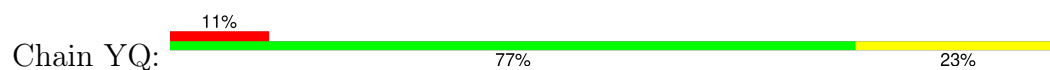


- Molecule 11: 50S ribosomal protein L15

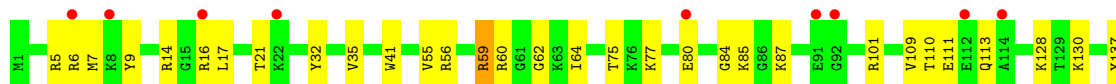
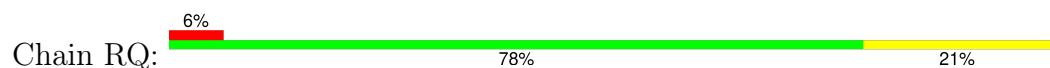




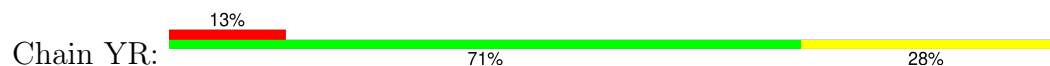
- Molecule 12: 50S ribosomal protein L16



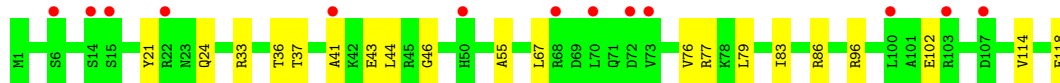
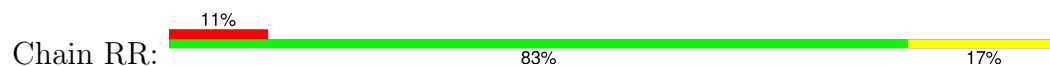
- Molecule 12: 50S ribosomal protein L16



- Molecule 13: 50S ribosomal protein L17



- Molecule 13: 50S ribosomal protein L17

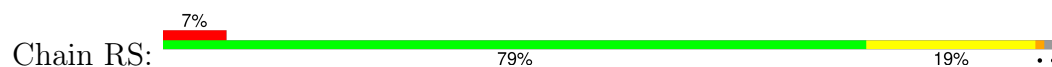


- Molecule 14: 50S ribosomal protein L18

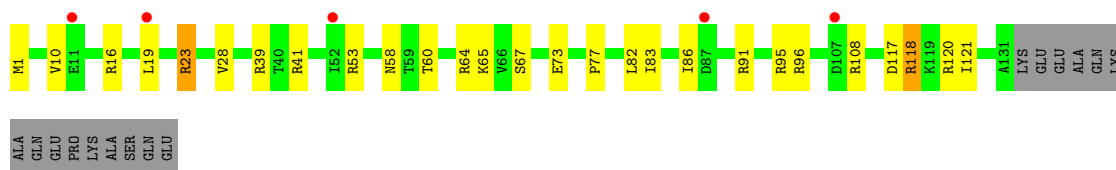
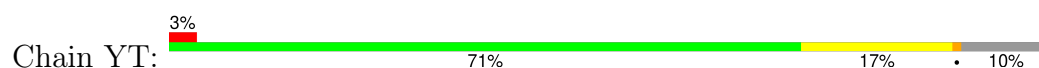




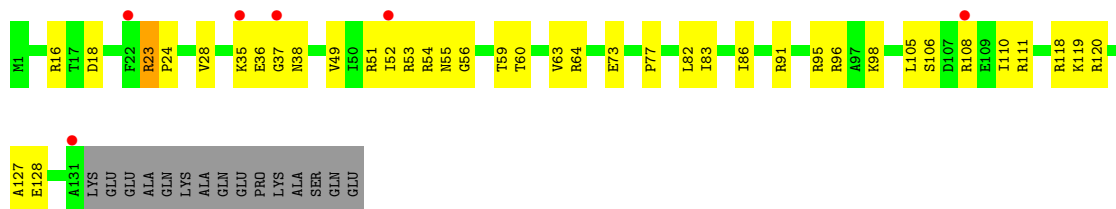
- Molecule 14: 50S ribosomal protein L18



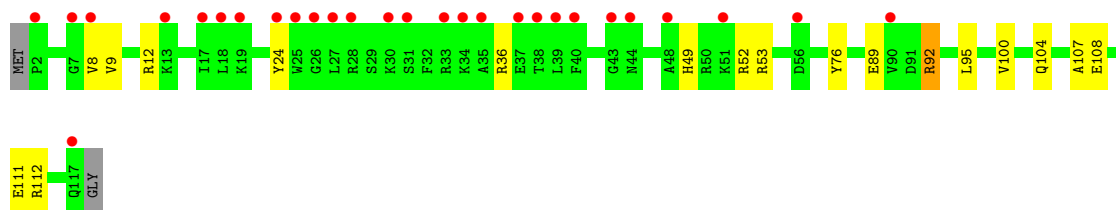
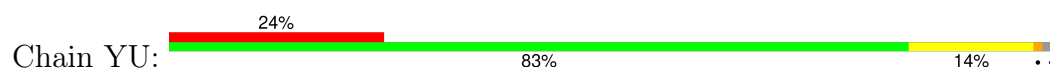
- Molecule 15: 50S ribosomal protein L19



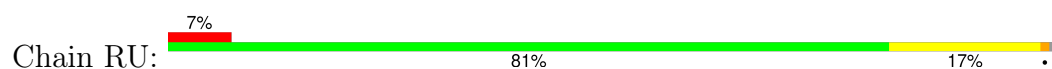
- Molecule 15: 50S ribosomal protein L19



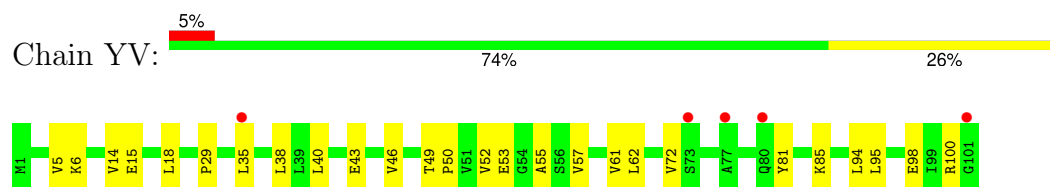
- Molecule 16: 50S ribosomal protein L20



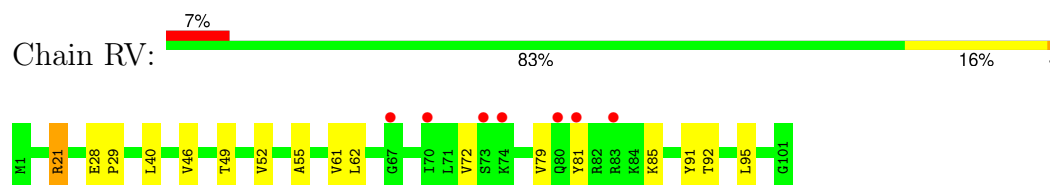
- Molecule 16: 50S ribosomal protein L20



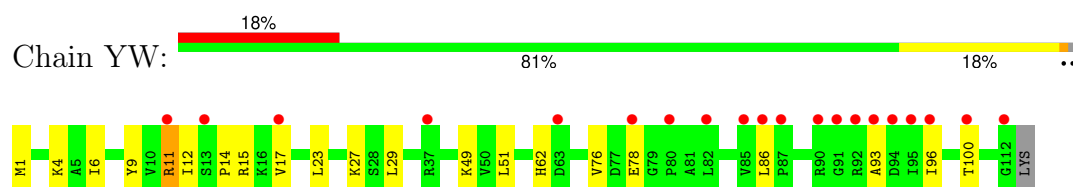
• Molecule 17: 50S ribosomal protein L21



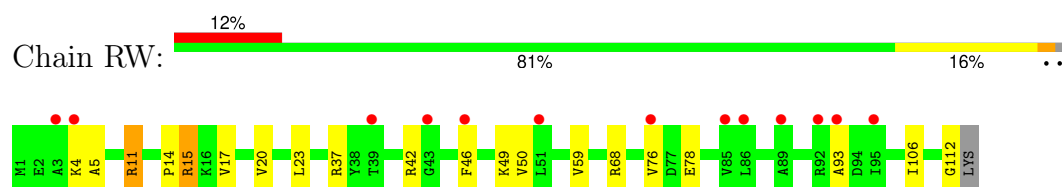
• Molecule 17: 50S ribosomal protein L21



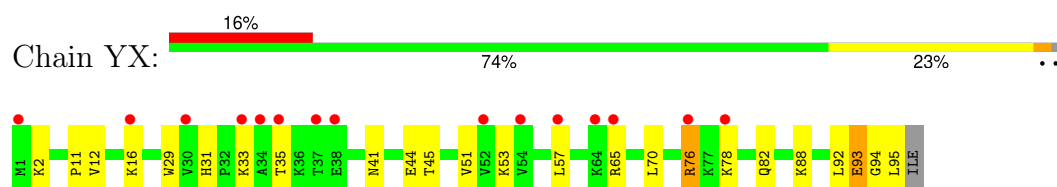
• Molecule 18: 50S ribosomal protein L22



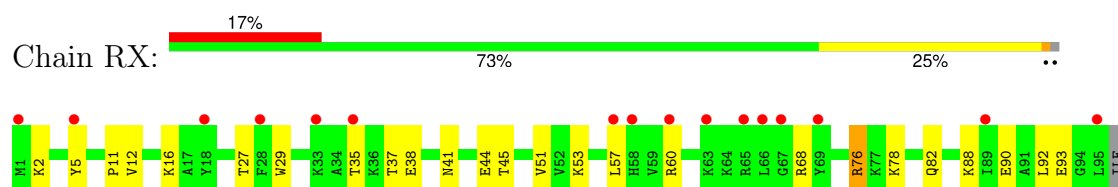
• Molecule 18: 50S ribosomal protein L22



• Molecule 19: 50S ribosomal protein L23

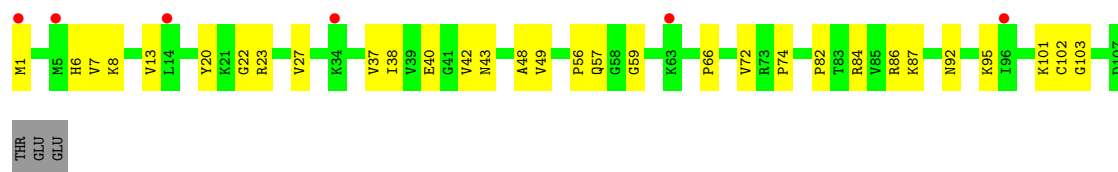


• Molecule 19: 50S ribosomal protein L23

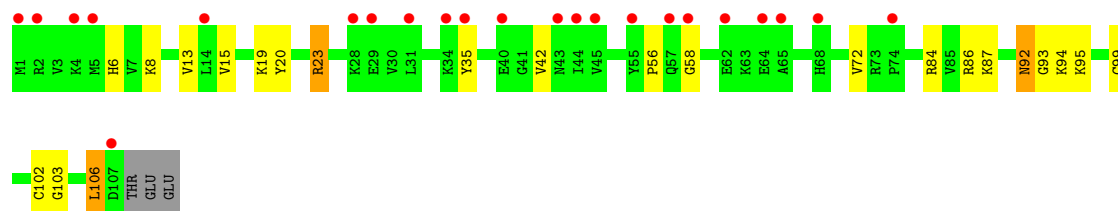
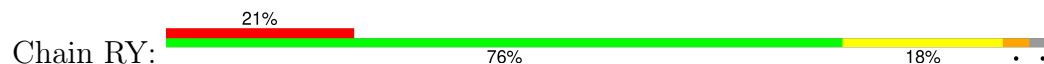


• Molecule 20: 50S ribosomal protein L24

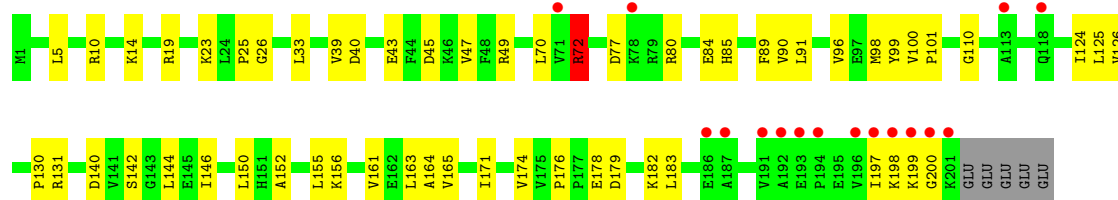




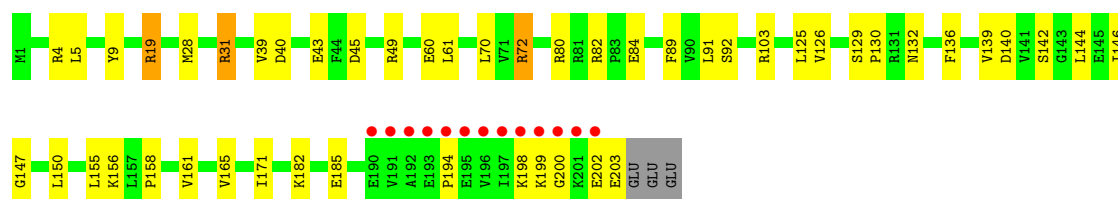
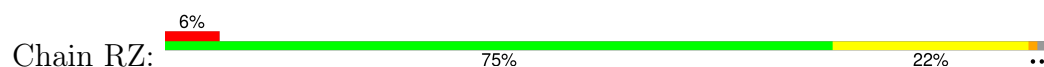
- Molecule 20: 50S ribosomal protein L24



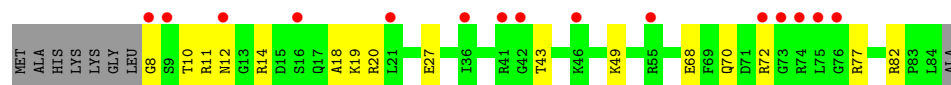
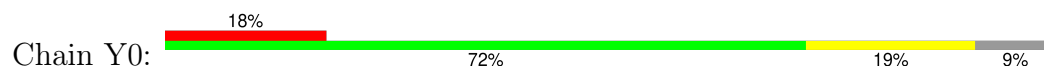
- Molecule 21: 50S ribosomal protein L25



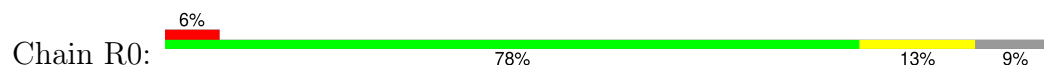
- Molecule 21: 50S ribosomal protein L25



- Molecule 22: 50S ribosomal protein L27

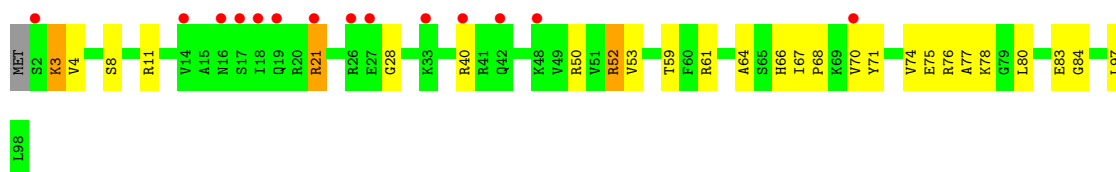
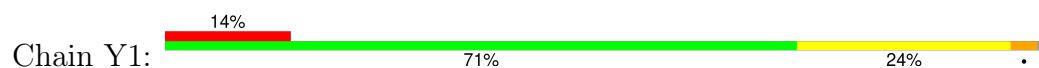


- Molecule 22: 50S ribosomal protein L27

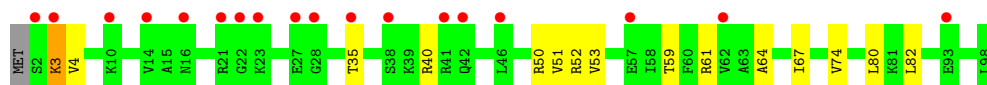
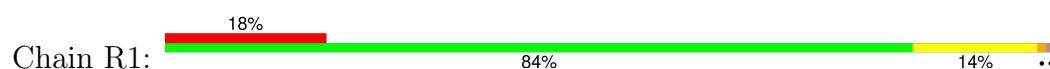




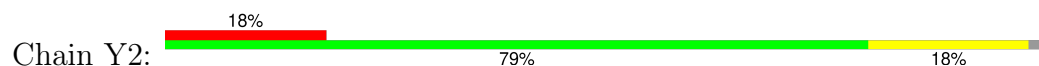
- Molecule 23: 50S ribosomal protein L28



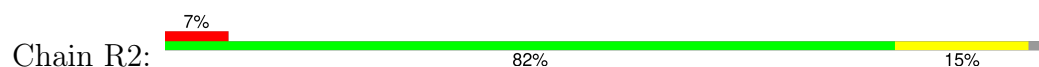
- Molecule 23: 50S ribosomal protein L28



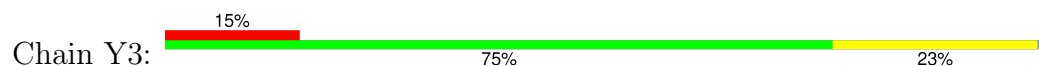
- Molecule 24: 50S ribosomal protein L29



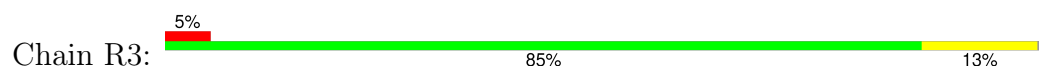
- Molecule 24: 50S ribosomal protein L29



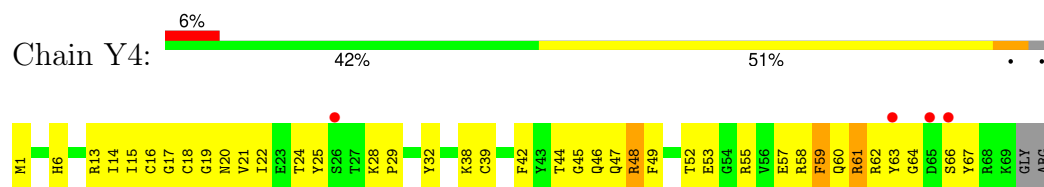
- Molecule 25: 50S ribosomal protein L30



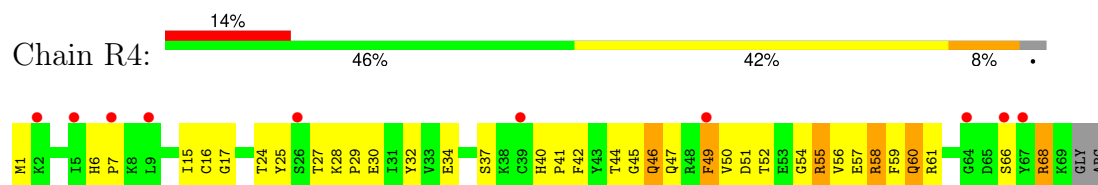
- Molecule 25: 50S ribosomal protein L30



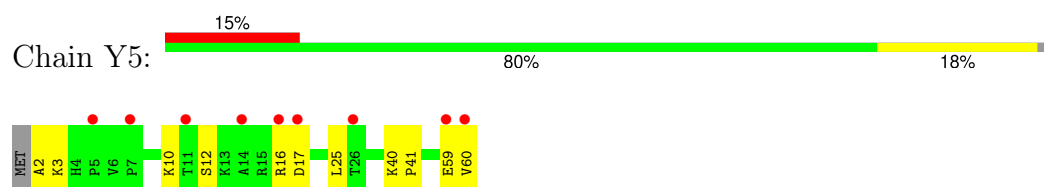
• Molecule 26: 50S ribosomal protein L31



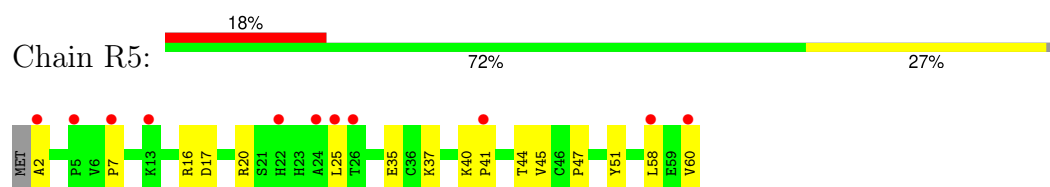
• Molecule 26: 50S ribosomal protein L31



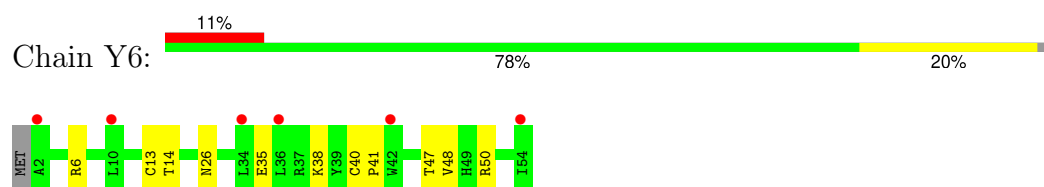
• Molecule 27: 50S ribosomal protein L32



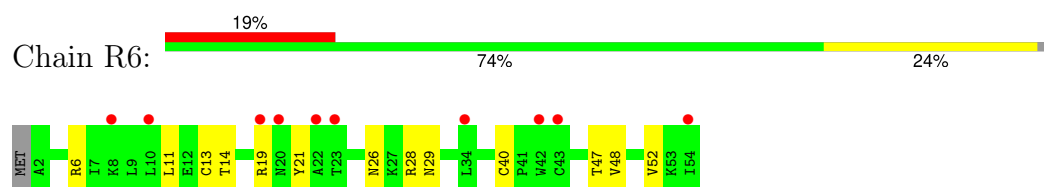
• Molecule 27: 50S ribosomal protein L32



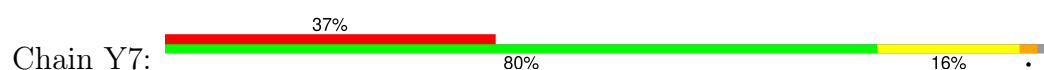
• Molecule 28: 50S ribosomal protein L33

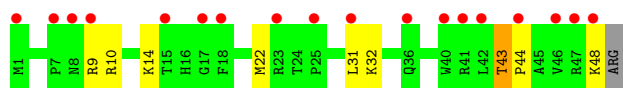


• Molecule 28: 50S ribosomal protein L33

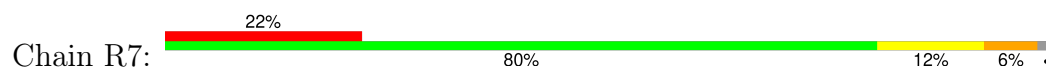


• Molecule 29: 50S ribosomal protein L34

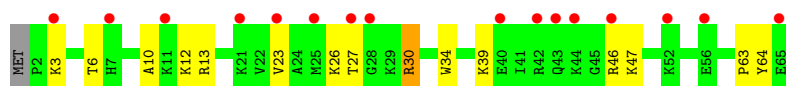
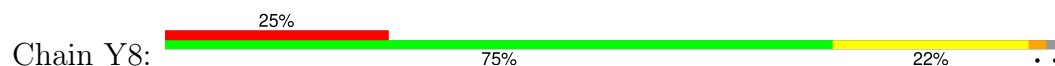




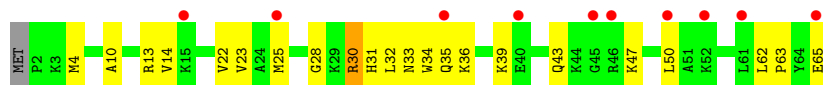
- Molecule 29: 50S ribosomal protein L34



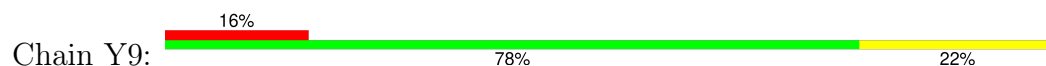
- Molecule 30: 50S ribosomal protein L35



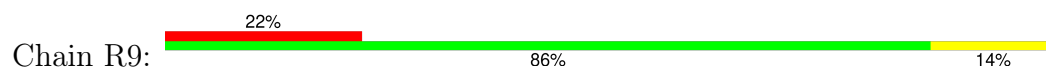
- Molecule 30: 50S ribosomal protein L35



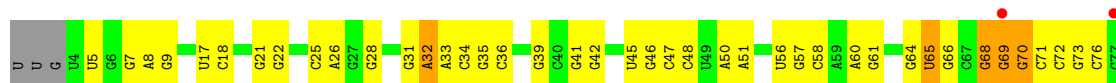
- Molecule 31: 50S ribosomal protein L36



- Molecule 31: 50S ribosomal protein L36



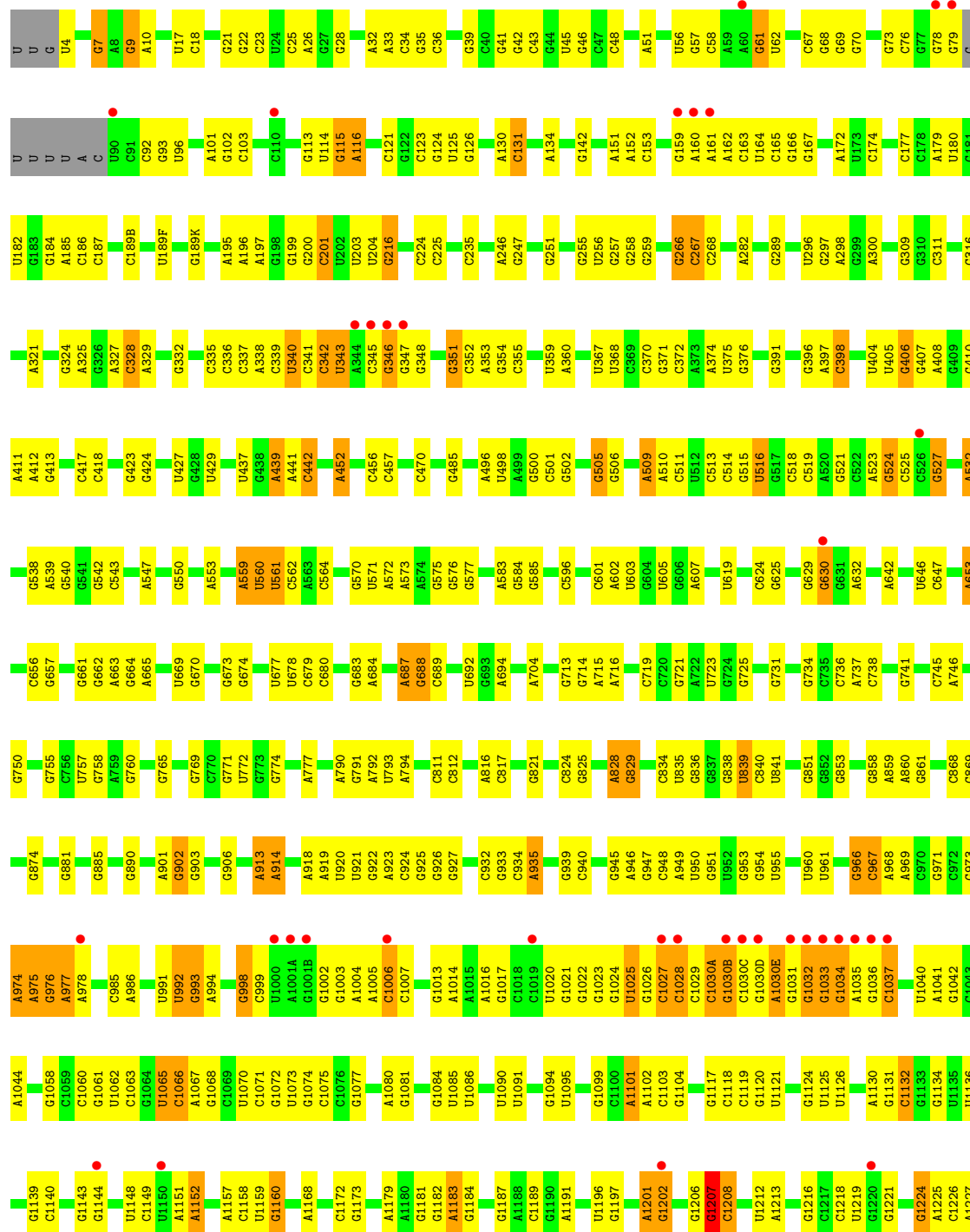
- Molecule 32: 16S rRNA

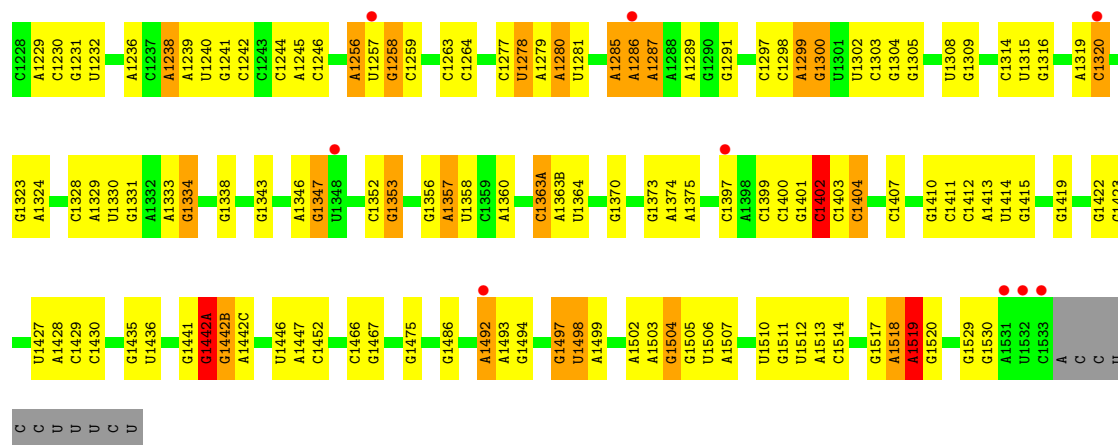




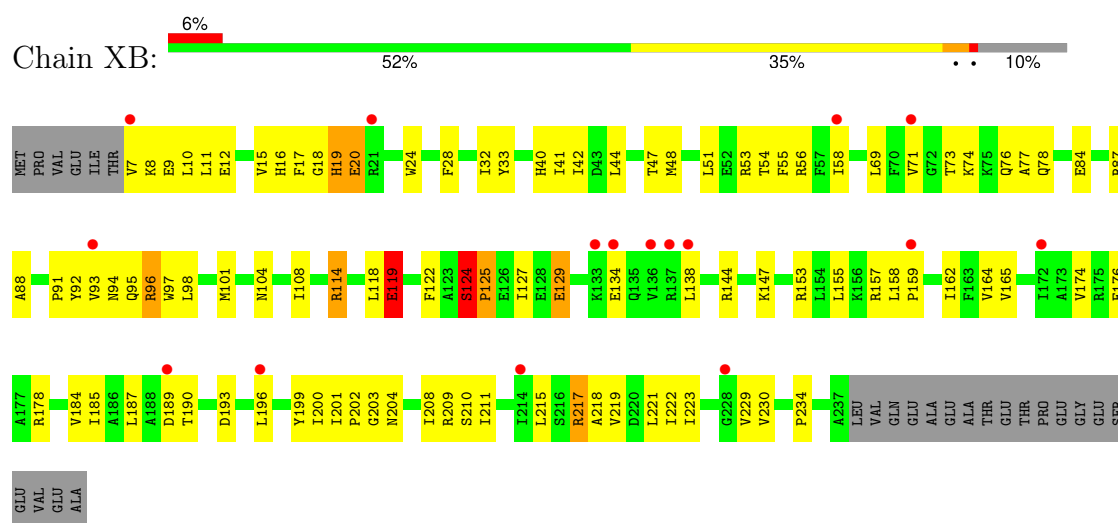


• Molecule 32: 16S rRNA

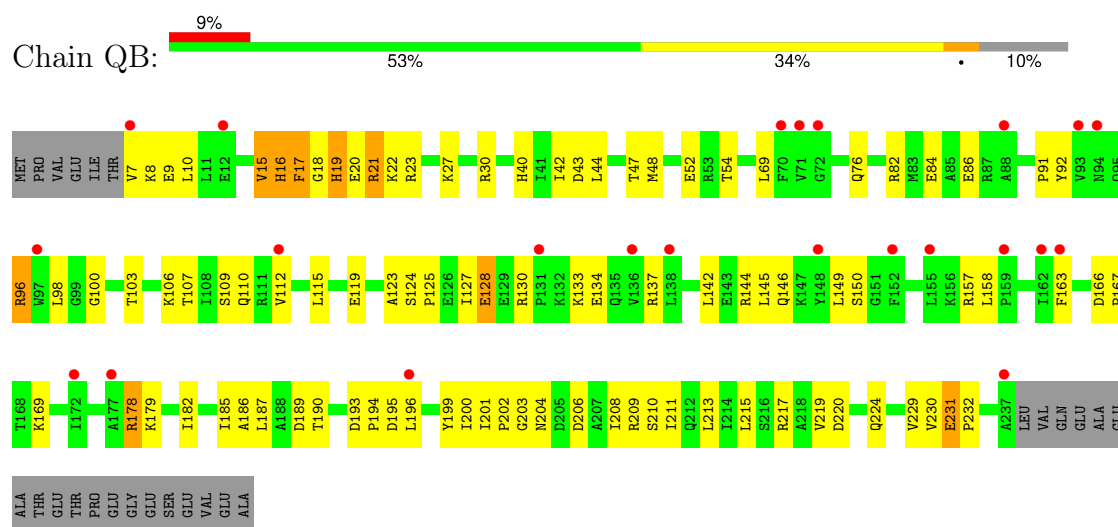




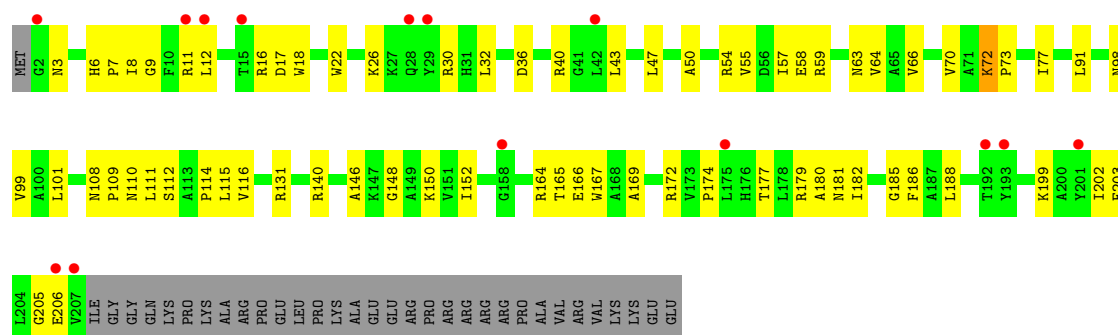
• Molecule 33: 30S ribosomal protein S2



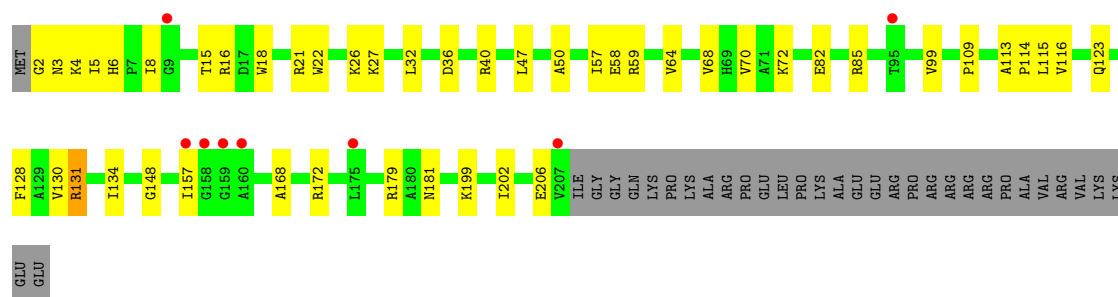
• Molecule 33: 30S ribosomal protein S2



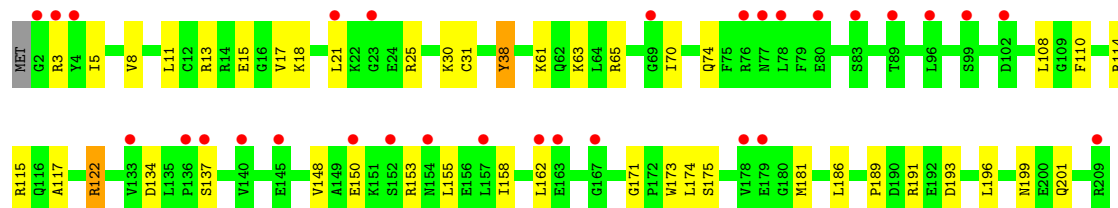
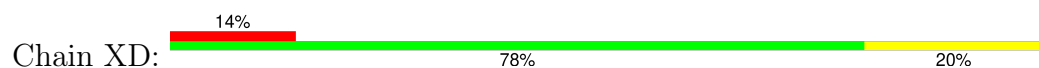
• Molecule 34: 30S ribosomal protein S3



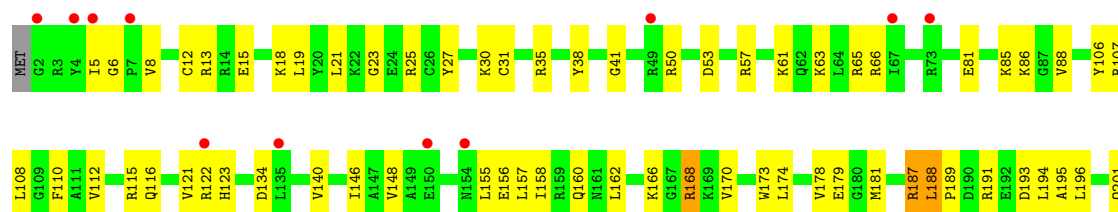
• Molecule 34: 30S ribosomal protein S3



• Molecule 35: 30S ribosomal protein S4



• Molecule 35: 30S ribosomal protein S4

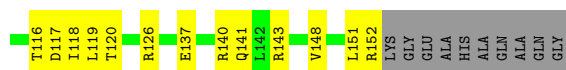




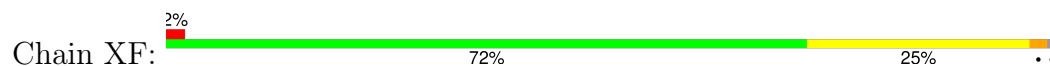
- Molecule 36: 30S ribosomal protein S5



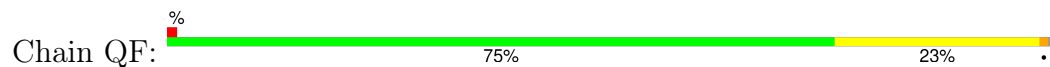
- Molecule 36: 30S ribosomal protein S5



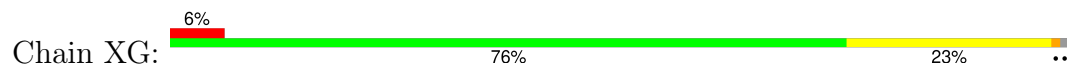
- Molecule 37: 30S ribosomal protein S6



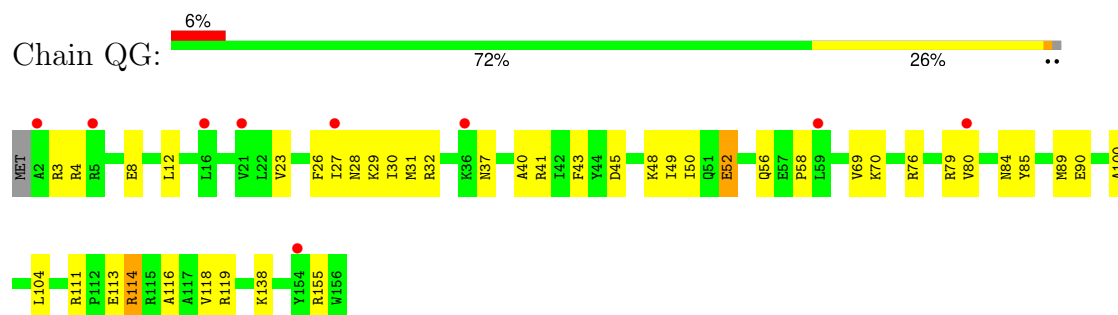
- Molecule 37: 30S ribosomal protein S6



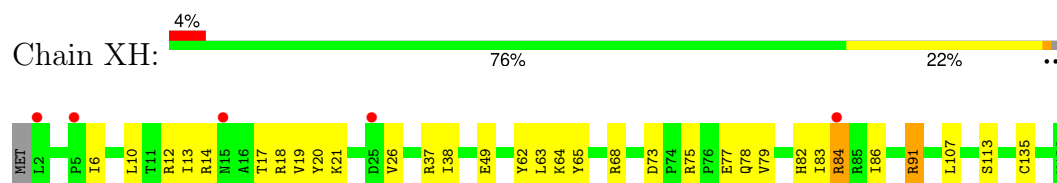
- Molecule 38: 30S ribosomal protein S7



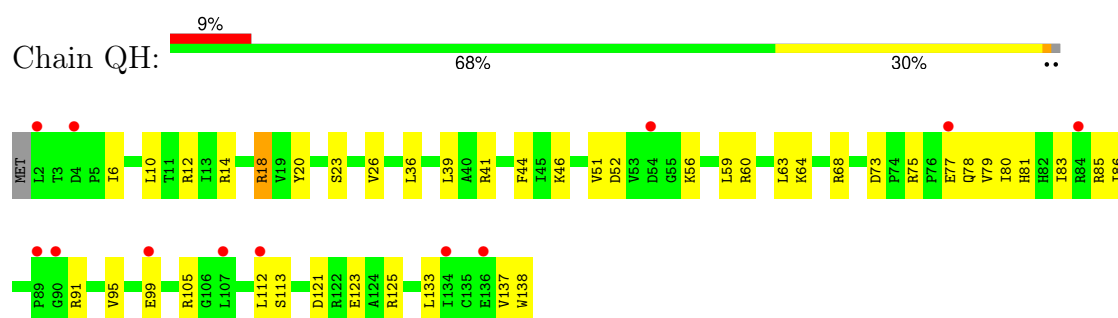
- Molecule 38: 30S ribosomal protein S7



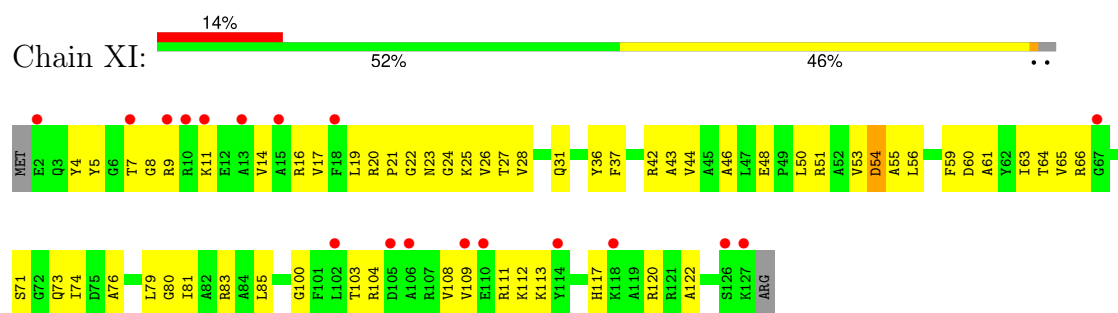
- Molecule 39: 30S ribosomal protein S8



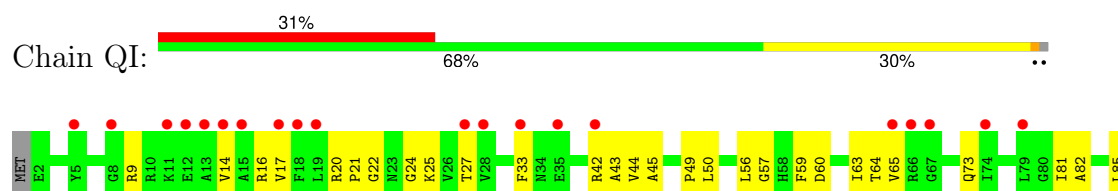
- Molecule 39: 30S ribosomal protein S8



- Molecule 40: 30S ribosomal protein S9

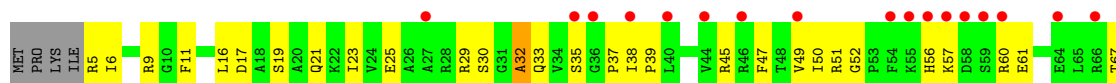


- Molecule 40: 30S ribosomal protein S9

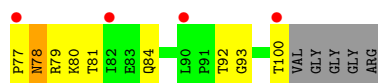
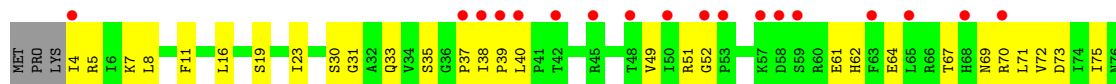




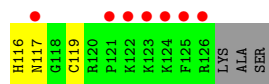
- Molecule 41: 30S ribosomal protein S10



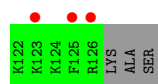
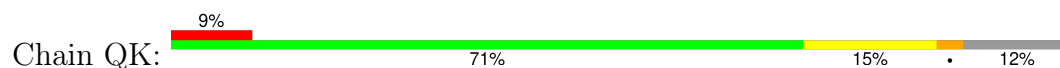
- Molecule 41: 30S ribosomal protein S10



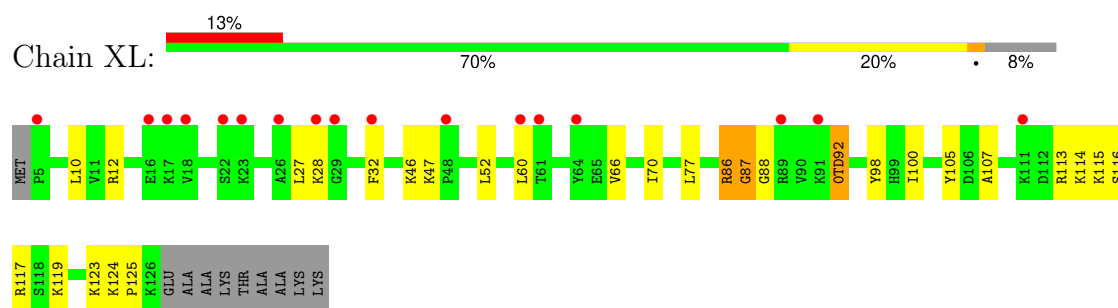
- Molecule 42: 30S ribosomal protein S11



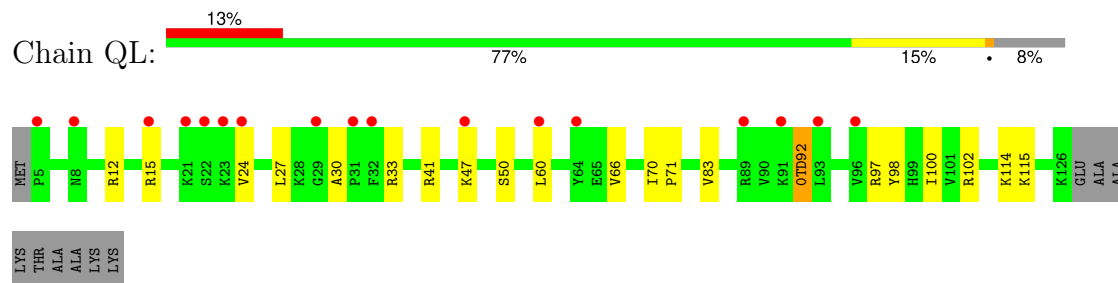
- Molecule 42: 30S ribosomal protein S11



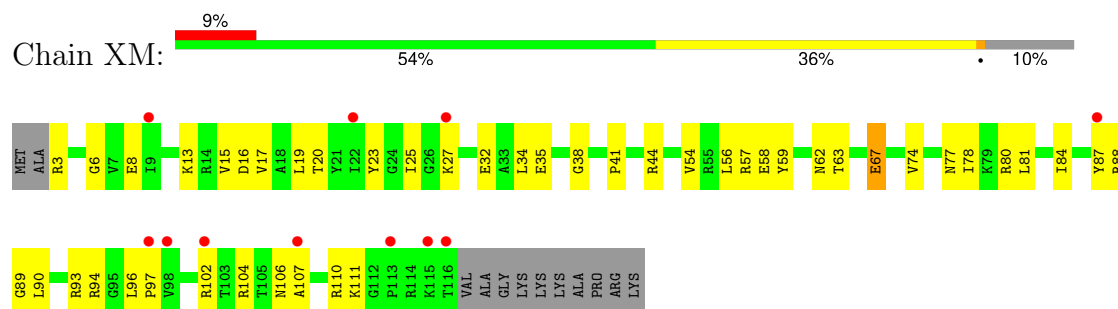
- Molecule 43: 30S ribosomal protein S12



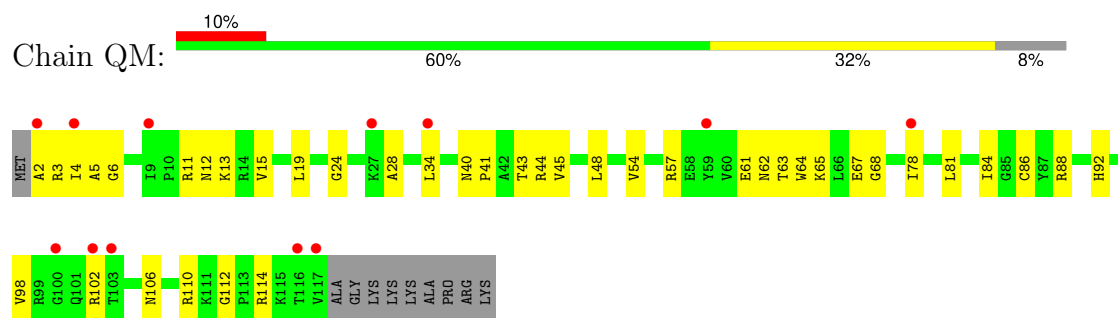
- Molecule 43: 30S ribosomal protein S12



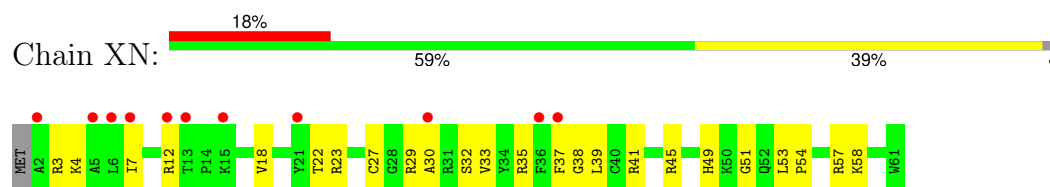
- Molecule 44: 30S ribosomal protein S13



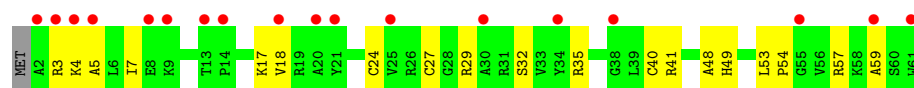
- Molecule 44: 30S ribosomal protein S13



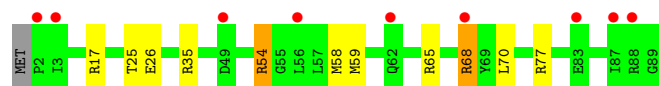
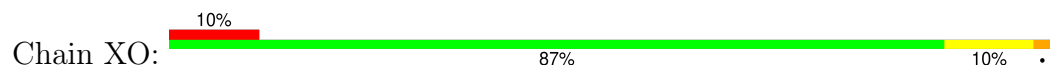
- Molecule 45: 30S ribosomal protein S14 type Z



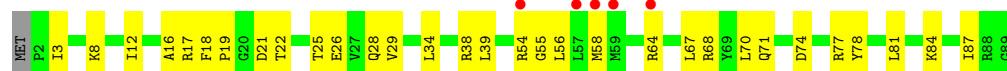
- Molecule 45: 30S ribosomal protein S14 type Z



- Molecule 46: 30S ribosomal protein S15



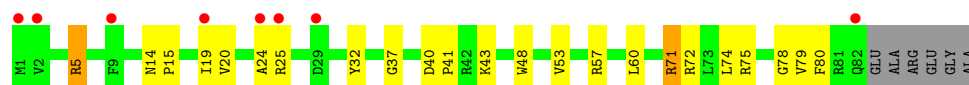
- Molecule 46: 30S ribosomal protein S15



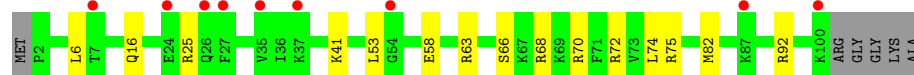
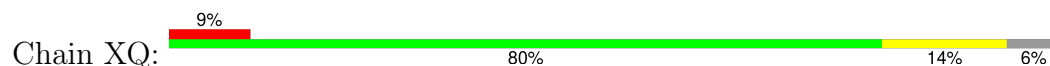
- Molecule 47: 30S ribosomal protein S16



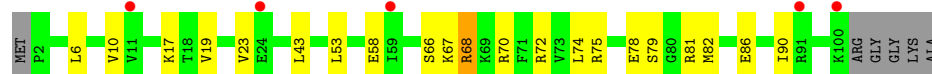
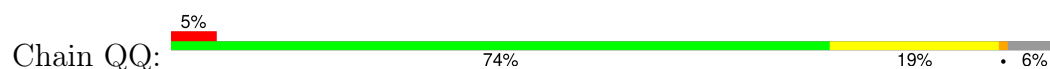
- Molecule 47: 30S ribosomal protein S16



- Molecule 48: 30S ribosomal protein S17



- Molecule 48: 30S ribosomal protein S17



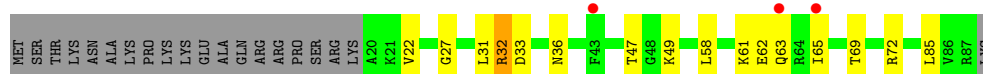
- Molecule 49: 30S ribosomal protein S18

Chain XR: 



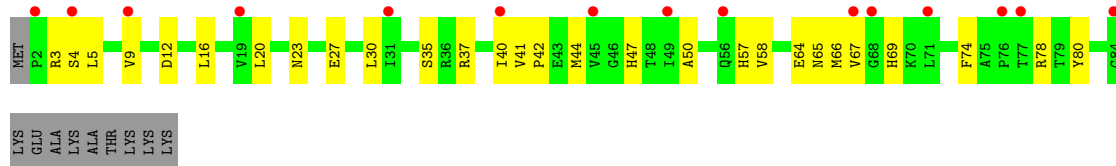
- Molecule 49: 30S ribosomal protein S18

Chain QR: 



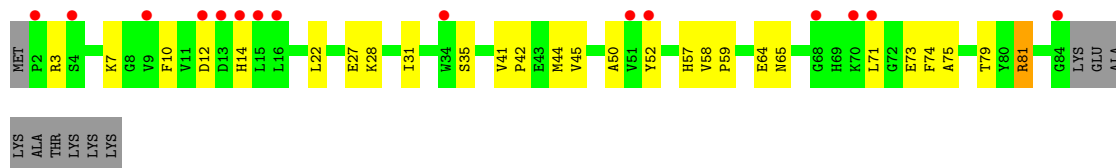
- Molecule 50: 30S ribosomal protein S19

Chain XS: 



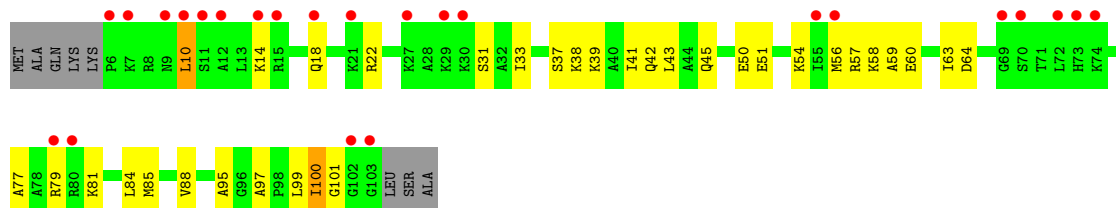
- Molecule 50: 30S ribosomal protein S19

Chain QS: 



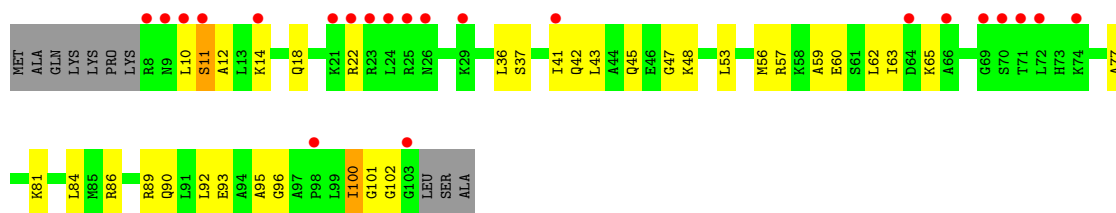
- Molecule 51: 30S ribosomal protein S20

Chain XT: 

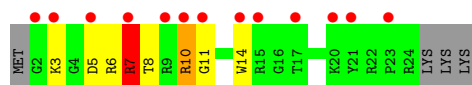


- Molecule 51: 30S ribosomal protein S20

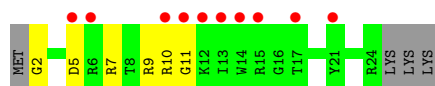
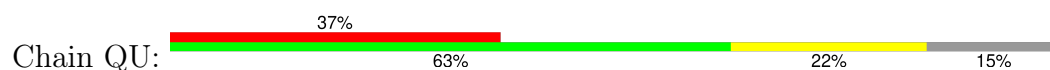
Chain QT: 



- Molecule 52: 30S ribosomal protein Thx



- Molecule 52: 30S ribosomal protein Thx



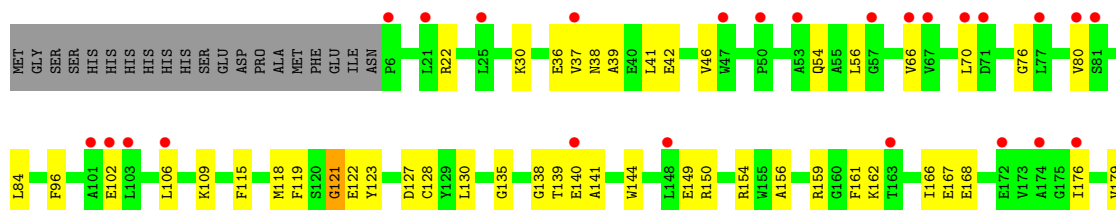
- Molecule 53: P-site tRNA fMet

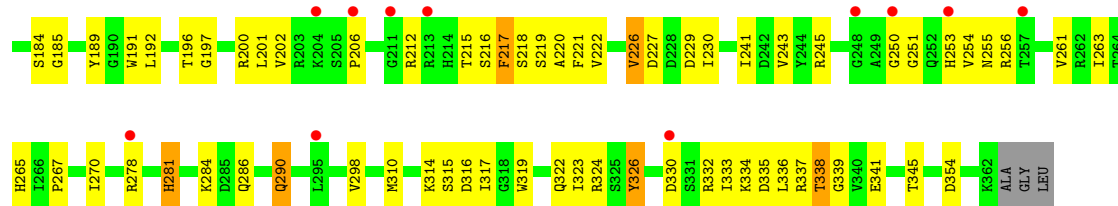


- Molecule 53: P-site tRNA fMet

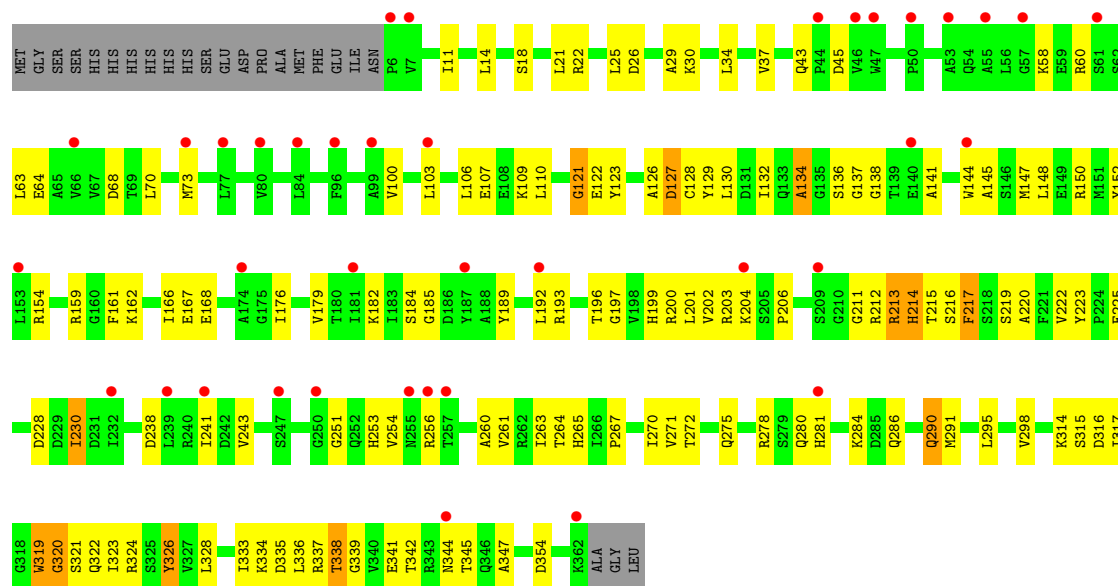


- Molecule 54: Peptide chain release factor 2





• Molecule 54: Peptide chain release factor 2



• Molecule 55: mRNA



• Molecule 55: mRNA



4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α , β , γ	210.89Å 450.12Å 620.82Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.92 – 3.30 49.92 – 3.30	Depositor EDS
% Data completeness (in resolution range)	98.9 (49.92-3.30) 98.9 (49.92-3.30)	Depositor EDS
R_{merge}	0.27	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.23 (at 3.33Å)	Xtriage
Refinement program	PHENIX 1.10.1_2155	Depositor
R, R_{free}	0.267 , 0.286 0.264 , 0.284	Depositor DCC
R_{free} test set	40129 reflections (4.58%)	wwPDB-VP
Wilson B-factor (Å ²)	99.5	Xtriage
Anisotropy	0.175	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.28 , 25.8	EDS
L-test for twinning ²	$\langle L \rangle = 0.42$, $\langle L^2 \rangle = 0.24$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.91	EDS
Total number of atoms	296497	wwPDB-VP
Average B, all atoms (Å ²)	87.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.60% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z > 5$	RMSZ	$\# Z > 5$
1	RA	0.13	0/68901	0.29	0/107544
1	YA	0.14	0/68901	0.30	0/107544
2	RB	0.12	0/2876	0.26	0/4486
2	YB	0.12	0/2878	0.26	0/4490
3	RD	0.83	10/2181 (0.5%)	0.92	5/2940 (0.2%)
3	YD	0.81	13/2186 (0.6%)	0.90	4/2944 (0.1%)
4	RE	1.16	16/1592 (1.0%)	0.96	2/2149 (0.1%)
4	YE	1.46	15/1592 (0.9%)	1.02	10/2149 (0.5%)
5	RF	0.73	4/1619 (0.2%)	0.87	1/2193 (0.0%)
5	YF	0.60	2/1615 (0.1%)	0.93	2/2188 (0.1%)
6	RG	0.76	7/1451 (0.5%)	0.95	7/1961 (0.4%)
6	YG	0.77	8/1449 (0.6%)	0.94	2/1957 (0.1%)
7	RH	0.86	8/1356 (0.6%)	0.88	1/1834 (0.1%)
7	YH	0.68	5/1350 (0.4%)	0.98	5/1826 (0.3%)
8	RI	0.90	7/1109 (0.6%)	0.95	3/1512 (0.2%)
8	YI	0.67	4/1091 (0.4%)	0.90	1/1490 (0.1%)
9	RN	0.86	5/1148 (0.4%)	0.90	0/1547
9	YN	0.77	5/1144 (0.4%)	0.88	2/1543 (0.1%)
10	RO	0.74	4/943 (0.4%)	0.93	2/1269 (0.2%)
10	YO	0.69	4/943 (0.4%)	0.84	0/1269
11	RP	0.91	4/1152 (0.3%)	0.93	0/1533
11	YP	0.66	3/1152 (0.3%)	0.86	3/1533 (0.2%)
12	RQ	1.03	13/1143 (1.1%)	0.87	0/1527
12	YQ	0.89	7/1143 (0.6%)	0.88	0/1527
13	RR	1.11	8/982 (0.8%)	0.92	0/1312
13	YR	0.92	8/982 (0.8%)	0.88	0/1312
14	RS	0.79	4/887 (0.5%)	0.88	0/1180
14	YS	0.95	9/880 (1.0%)	0.91	0/1172
15	RT	0.97	12/1105 (1.1%)	0.88	0/1477
15	YT	0.92	11/1097 (1.0%)	0.87	2/1468 (0.1%)
16	RU	0.99	8/977 (0.8%)	0.85	0/1301

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
16	YU	1.05	10/977 (1.0%)	0.90	1/1301 (0.1%)
17	RV	0.70	2/786 (0.3%)	0.88	0/1053
17	YV	0.70	0/782	0.88	0/1049
18	RW	0.96	7/897 (0.8%)	0.84	0/1205
18	YW	0.76	3/897 (0.3%)	0.82	0/1205
19	RX	0.87	5/764 (0.7%)	0.91	0/1025
19	YX	0.77	4/764 (0.5%)	0.87	0/1025
20	RY	0.86	4/823 (0.5%)	0.99	2/1099 (0.2%)
20	YY	0.52	0/823	0.86	0/1100
21	RZ	0.77	8/1620 (0.5%)	0.88	0/2200
21	YZ	1.61	9/1590 (0.6%)	0.94	1/2162 (0.0%)
22	R0	0.79	2/616 (0.3%)	0.89	0/821
22	Y0	0.61	2/616 (0.3%)	0.87	2/821 (0.2%)
23	R1	0.74	0/761	0.83	0/1013
23	Y1	0.82	6/766 (0.8%)	0.84	0/1018
24	R2	0.54	0/590	0.79	0/781
24	Y2	0.45	0/594	0.78	0/785
25	R3	0.61	0/474	0.92	0/635
25	Y3	0.77	3/469 (0.6%)	0.88	0/630
26	R4	0.79	3/559 (0.5%)	1.17	7/754 (0.9%)
26	Y4	1.33	8/549 (1.5%)	1.13	5/741 (0.7%)
27	R5	0.70	0/473	0.90	0/639
27	Y5	0.67	0/469	0.80	0/635
28	R6	0.79	1/460 (0.2%)	0.83	2/613 (0.3%)
28	Y6	0.59	0/456	0.80	0/608
29	R7	0.85	2/426 (0.5%)	0.85	1/561 (0.2%)
29	Y7	0.80	2/426 (0.5%)	0.84	0/561
30	R8	0.97	4/525 (0.8%)	0.81	0/691
30	Y8	0.87	4/525 (0.8%)	0.86	0/691
31	R9	0.60	0/310	0.88	0/407
31	Y9	0.44	0/310	0.86	0/407
32	QA	0.13	1/35795 (0.0%)	0.28	1/55864 (0.0%)
32	XA	0.13	0/35890	0.29	4/56012 (0.0%)
33	QB	0.81	13/1876 (0.7%)	0.99	5/2533 (0.2%)
33	XB	1.04	23/1860 (1.2%)	0.98	5/2518 (0.2%)
34	QC	0.60	4/1582 (0.3%)	0.87	2/2137 (0.1%)
34	XC	0.67	3/1566 (0.2%)	0.94	4/2119 (0.2%)
35	QD	0.71	9/1695 (0.5%)	0.93	3/2274 (0.1%)
35	XD	0.63	6/1698 (0.4%)	0.91	4/2277 (0.2%)
36	QE	0.59	0/1149	0.89	0/1548
36	XE	0.75	5/1149 (0.4%)	0.92	6/1548 (0.4%)
37	QF	0.74	6/827 (0.7%)	0.87	0/1120
37	XF	0.98	10/829 (1.2%)	0.85	2/1123 (0.2%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
38	QG	0.76	8/1254 (0.6%)	0.81	0/1683
38	XG	1.10	16/1248 (1.3%)	0.85	0/1676
39	QH	0.78	7/1118 (0.6%)	0.82	0/1506
39	XH	0.68	5/1108 (0.5%)	0.86	0/1494
40	QI	0.87	7/1005 (0.7%)	0.91	0/1351
40	XI	0.52	0/985	0.90	1/1329 (0.1%)
41	QJ	0.64	2/732 (0.3%)	0.97	1/993 (0.1%)
41	XJ	0.48	0/723	0.94	1/984 (0.1%)
42	QK	0.88	6/849 (0.7%)	0.95	5/1150 (0.4%)
42	XK	0.75	4/848 (0.5%)	0.91	2/1149 (0.2%)
43	QL	0.70	5/937 (0.5%)	0.84	0/1260
43	XL	0.52	0/937	0.95	5/1260 (0.4%)
44	QM	0.70	4/924 (0.4%)	0.93	5/1242 (0.4%)
44	XM	0.65	3/905 (0.3%)	0.96	1/1217 (0.1%)
45	QN	0.85	4/501 (0.8%)	0.74	0/664
45	XN	1.12	8/501 (1.6%)	0.88	0/664
46	QO	0.81	4/739 (0.5%)	0.88	1/985 (0.1%)
46	XO	0.76	5/739 (0.7%)	0.85	0/985
47	QP	0.65	2/697 (0.3%)	0.91	1/939 (0.1%)
47	XP	1.05	11/693 (1.6%)	0.83	0/935
48	QQ	0.67	4/836 (0.5%)	0.82	0/1117
48	XQ	0.84	7/836 (0.8%)	0.81	0/1117
49	QR	0.77	3/560 (0.5%)	0.92	1/746 (0.1%)
49	XR	0.63	2/560 (0.4%)	0.82	0/746
50	QS	0.74	4/663 (0.6%)	1.00	2/895 (0.2%)
50	XS	0.55	0/660	0.90	1/893 (0.1%)
51	QT	0.60	0/734	0.92	1/969 (0.1%)
51	XT	0.52	0/736	0.83	1/976 (0.1%)
52	QU	1.34	7/203 (3.4%)	0.73	0/266
52	XU	1.55	7/203 (3.4%)	0.80	0/266
53	QV	0.16	0/1836	0.37	0/2859
53	XV	0.15	0/1836	0.32	0/2859
54	QY	0.41	2/2862 (0.1%)	0.63	2/3854 (0.1%)
54	XY	0.40	3/2862 (0.1%)	0.58	1/3854 (0.0%)
55	QX	0.14	0/144	0.37	0/222
55	XX	0.11	0/144	0.29	0/222
All	All	0.47	513/317956 (0.2%)	0.53	141/474813 (0.0%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
14	RS	0	1
19	RX	0	1
19	YX	0	1
33	QB	0	1
43	XL	0	1
54	XY	0	1
All	All	0	6

All (513) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
21	YZ	72	ARG	NE-CZ	-35.50	0.94	1.33
21	YZ	72	ARG	CD-NE	-27.50	1.07	1.46
21	YZ	72	ARG	CZ-NH2	-26.95	0.98	1.33
4	YE	144	ARG	NE-CZ	-26.37	1.04	1.33
21	YZ	72	ARG	CZ-NH1	-24.59	0.98	1.32
4	YE	144	ARG	CZ-NH1	-18.88	1.06	1.32
4	YE	144	ARG	CD-NE	-17.88	1.21	1.46
4	YE	144	ARG	CZ-NH2	-16.95	1.11	1.33
4	YE	111	ARG	NE-CZ	-16.12	1.15	1.33
4	RE	111	ARG	NE-CZ	-15.82	1.15	1.33
13	RR	33	ARG	NE-CZ	-13.64	1.18	1.33
4	YE	111	ARG	CD-NE	-13.13	1.27	1.46
8	RI	57	ARG	NE-CZ	-13.08	1.18	1.33
38	XG	155	ARG	NE-CZ	-12.70	1.19	1.33
4	YE	111	ARG	CZ-NH2	-12.63	1.17	1.33
11	RP	55	ARG	NE-CZ	-12.33	1.19	1.33
16	YU	92	ARG	NE-CZ	-12.30	1.19	1.33
20	RY	23	ARG	NE-CZ	-12.16	1.19	1.33
9	YN	137	LYS	CD-CE	-12.10	1.16	1.52
4	RE	111	ARG	CZ-NH2	-11.95	1.18	1.33
33	XB	119	GLU	CD-OE1	-11.89	1.02	1.25
4	RE	111	ARG	CD-NE	-11.68	1.29	1.46
40	QI	104	ARG	NE-CZ	-11.65	1.20	1.33
26	Y4	48	ARG	NE-CZ	-11.36	1.20	1.33
21	YZ	131	ARG	NE-CZ	-11.24	1.20	1.33
33	XB	217	ARG	NE-CZ	-11.16	1.20	1.33
16	YU	92	ARG	CD-NE	-11.16	1.30	1.46
13	RR	96	ARG	NE-CZ	-11.13	1.20	1.33
12	YQ	60	ARG	NE-CZ	-11.10	1.20	1.33
33	XB	157	ARG	NE-CZ	-11.09	1.20	1.33
16	YU	92	ARG	CZ-NH2	-11.04	1.19	1.33
11	RP	55	ARG	CD-NE	-10.98	1.30	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
4	RE	111	ARG	CZ-NH1	-10.97	1.17	1.32
48	XQ	72	ARG	NE-CZ	-10.81	1.21	1.33
4	RE	82	ARG	NE-CZ	-10.79	1.21	1.33
16	RU	36	ARG	NE-CZ	-10.78	1.21	1.33
13	YR	96	ARG	NE-CZ	-10.66	1.21	1.33
15	YT	23	ARG	NE-CZ	-10.65	1.21	1.33
45	XN	12	ARG	NE-CZ	-10.62	1.21	1.33
4	YE	82	ARG	NE-CZ	-10.58	1.21	1.33
30	R8	30	ARG	NE-CZ	-10.52	1.21	1.33
16	YU	36	ARG	NE-CZ	-10.45	1.21	1.33
46	QO	38	ARG	NE-CZ	-10.39	1.21	1.33
4	YE	111	ARG	CZ-NH1	-10.39	1.18	1.32
14	RS	20	ARG	NE-CZ	-10.38	1.21	1.33
37	XF	46	ARG	NE-CZ	-10.34	1.21	1.33
26	Y4	61	ARG	NE-CZ	-10.29	1.21	1.33
47	XP	25	ARG	NE-CZ	-10.13	1.22	1.33
54	XY	214	HIS	CE1-NE2	10.07	1.42	1.32
19	YX	76	ARG	NE-CZ	-10.04	1.22	1.33
11	RP	55	ARG	CZ-NH2	-10.03	1.20	1.33
7	RH	59	ARG	NE-CZ	-9.99	1.22	1.33
47	XP	8	ARG	NE-CZ	-9.96	1.22	1.33
9	YN	137	LYS	CE-NZ	-9.89	1.19	1.49
39	QH	18	ARG	NE-CZ	-9.86	1.22	1.33
8	RI	57	ARG	CZ-NH2	-9.86	1.20	1.33
13	RR	33	ARG	CZ-NH1	-9.74	1.19	1.32
21	RZ	72	ARG	NE-CZ	-9.72	1.22	1.33
38	XG	114	ARG	NE-CZ	-9.72	1.22	1.33
21	RZ	31	ARG	NE-CZ	-9.71	1.22	1.33
30	Y8	30	ARG	NE-CZ	-9.69	1.22	1.33
42	QK	96	ARG	NE-CZ	-9.69	1.22	1.33
48	QQ	72	ARG	NE-CZ	-9.66	1.22	1.33
26	Y4	61	ARG	CZ-NH2	-9.64	1.21	1.33
26	Y4	61	ARG	CD-NE	-9.60	1.32	1.46
14	YS	67	ARG	NE-CZ	-9.60	1.22	1.33
37	XF	46	ARG	CZ-NH2	-9.59	1.21	1.33
38	XG	155	ARG	CZ-NH2	-9.59	1.21	1.33
13	YR	33	ARG	NE-CZ	-9.58	1.22	1.33
7	RH	69	ARG	NE-CZ	-9.58	1.22	1.33
38	XG	10	ARG	NE-CZ	-9.57	1.22	1.33
52	XU	10	ARG	NE-CZ	-9.53	1.22	1.33
12	RQ	6	ARG	NE-CZ	-9.52	1.22	1.33
8	RI	57	ARG	CD-NE	-9.46	1.33	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	QD	187	ARG	NE-CZ	-9.40	1.22	1.33
19	RX	76	ARG	NE-CZ	-9.39	1.22	1.33
38	XG	155	ARG	CD-NE	-9.37	1.33	1.46
13	RR	33	ARG	CZ-NH2	-9.24	1.21	1.33
40	QI	104	ARG	CZ-NH1	-9.21	1.19	1.32
8	RI	57	ARG	CZ-NH1	-9.20	1.19	1.32
6	RG	170	ARG	NE-CZ	-9.19	1.23	1.33
44	QM	110	ARG	NE-CZ	-9.13	1.23	1.33
13	RR	33	ARG	CD-NE	-9.11	1.33	1.46
21	YZ	131	ARG	CZ-NH1	-9.11	1.20	1.32
38	XG	155	ARG	CZ-NH1	-9.07	1.20	1.32
43	QL	41	ARG	NE-CZ	-9.06	1.23	1.33
15	RT	118	ARG	NE-CZ	-9.04	1.23	1.33
37	XF	46	ARG	CD-NE	-9.03	1.33	1.46
7	RH	59	ARG	CZ-NH2	-9.00	1.21	1.33
33	XB	119	GLU	CD-OE2	-8.95	1.08	1.25
42	XK	96	ARG	NE-CZ	-8.93	1.23	1.33
4	YE	82	ARG	CZ-NH2	-8.91	1.21	1.33
6	RG	153	ARG	NE-CZ	-8.87	1.23	1.33
4	RE	144	ARG	NE-CZ	-8.87	1.23	1.33
11	RP	55	ARG	CZ-NH1	-8.87	1.20	1.32
39	QH	18	ARG	CD-NE	-8.82	1.33	1.46
41	QJ	84	GLN	CD-OE1	-8.81	1.06	1.23
42	QK	96	ARG	CZ-NH2	-8.81	1.22	1.33
4	RE	119	ARG	NE-CZ	-8.79	1.23	1.33
33	XB	144	ARG	NE-CZ	-8.78	1.23	1.33
33	QB	96	ARG	NE-CZ	-8.74	1.23	1.33
6	YG	136	ARG	NE-CZ	-8.73	1.23	1.33
45	QN	3	ARG	NE-CZ	-8.72	1.23	1.33
42	QK	96	ARG	CD-NE	-8.71	1.34	1.46
7	RH	59	ARG	CD-NE	-8.70	1.34	1.46
39	QH	18	ARG	CZ-NH2	-8.69	1.22	1.33
12	RQ	56	ARG	NE-CZ	-8.67	1.23	1.33
38	XG	78	ARG	NE-CZ	-8.64	1.23	1.33
33	XB	96	ARG	NE-CZ	-8.59	1.23	1.33
7	RH	69	ARG	CD-NE	-8.57	1.34	1.46
20	RY	23	ARG	CD-NE	-8.48	1.34	1.46
20	RY	23	ARG	CZ-NH2	-8.45	1.22	1.33
6	RG	170	ARG	CD-NE	-8.44	1.34	1.46
6	RG	170	ARG	CZ-NH2	-8.42	1.22	1.33
4	YE	82	ARG	CD-NE	-8.40	1.34	1.46
15	RT	96	ARG	NE-CZ	-8.39	1.23	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
54	QY	281	HIS	CE1-NE2	8.39	1.41	1.32
45	XN	12	ARG	CZ-NH1	-8.37	1.21	1.32
7	RH	69	ARG	CZ-NH2	-8.36	1.22	1.33
14	YS	67	ARG	CZ-NH2	-8.35	1.22	1.33
12	RQ	56	ARG	CZ-NH2	-8.35	1.22	1.33
13	YR	96	ARG	CZ-NH1	-8.34	1.21	1.32
13	RR	96	ARG	CZ-NH1	-8.32	1.21	1.32
42	QK	54	ARG	NE-CZ	-8.31	1.24	1.33
52	QU	7	ARG	NE-CZ	-8.30	1.24	1.33
45	QN	3	ARG	CD-NE	-8.30	1.34	1.46
8	YI	50	ARG	NE-CZ	-8.30	1.24	1.33
50	QS	81	ARG	NE-CZ	-8.29	1.24	1.33
15	YT	23	ARG	CZ-NH1	-8.29	1.21	1.32
12	RQ	6	ARG	CZ-NH1	-8.28	1.21	1.32
43	QL	41	ARG	CZ-NH2	-8.27	1.22	1.33
52	XU	10	ARG	CD-NE	-8.25	1.34	1.46
52	XU	10	ARG	CZ-NH2	-8.25	1.22	1.33
45	XN	57	ARG	NE-CZ	-8.23	1.24	1.33
14	YS	67	ARG	CD-NE	-8.22	1.34	1.46
38	QG	41	ARG	NE-CZ	-8.16	1.24	1.33
3	YD	88	ARG	NE-CZ	-8.12	1.24	1.33
41	QJ	84	GLN	CD-NE2	-8.09	1.16	1.33
4	YE	119	ARG	NE-CZ	-8.07	1.24	1.33
14	YS	20	ARG	NE-CZ	-8.05	1.24	1.33
42	XK	96	ARG	CD-NE	-8.05	1.34	1.46
18	RW	11	ARG	CZ-NH2	-8.04	1.23	1.33
26	Y4	48	ARG	CZ-NH1	-8.04	1.21	1.32
10	YO	23	ARG	NE-CZ	-8.02	1.24	1.33
15	YT	96	ARG	NE-CZ	-8.02	1.24	1.33
42	XK	96	ARG	CZ-NH2	-8.01	1.23	1.33
38	XG	10	ARG	CZ-NH2	-7.96	1.23	1.33
16	YU	92	ARG	CZ-NH1	-7.96	1.21	1.32
18	RW	11	ARG	CD-NE	-7.96	1.35	1.46
20	RY	23	ARG	CZ-NH1	-7.93	1.21	1.32
30	R8	30	ARG	CD-NE	-7.93	1.35	1.46
8	YI	50	ARG	CZ-NH2	-7.92	1.23	1.33
36	XE	143	ARG	NE-CZ	-7.92	1.24	1.33
3	RD	54	ARG	NE-CZ	-7.91	1.24	1.33
33	XB	119	GLU	CG-CD	-7.88	1.32	1.52
33	XB	157	ARG	CZ-NH1	-7.87	1.21	1.32
12	YQ	60	ARG	CZ-NH1	-7.85	1.21	1.32
12	YQ	16	ARG	NE-CZ	-7.85	1.24	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
18	RW	15	ARG	NE-CZ	-7.84	1.24	1.33
52	XU	7	ARG	NE-CZ	-7.84	1.24	1.33
13	YR	33	ARG	CZ-NH1	-7.83	1.21	1.32
33	XB	114	ARG	NE-CZ	-7.78	1.24	1.33
33	XB	217	ARG	CZ-NH1	-7.77	1.21	1.32
30	Y8	30	ARG	CZ-NH2	-7.73	1.23	1.33
54	XY	214	HIS	CG-CD2	7.73	1.44	1.35
40	QI	104	ARG	CZ-NH2	-7.69	1.23	1.33
38	XG	10	ARG	CD-NE	-7.68	1.35	1.46
5	RF	106	ARG	NE-CZ	-7.68	1.24	1.33
26	Y4	48	ARG	CZ-NH2	-7.67	1.23	1.33
14	RS	20	ARG	CZ-NH1	-7.65	1.22	1.32
38	XG	76	ARG	NE-CZ	-7.65	1.24	1.33
47	QP	71	ARG	NE-CZ	-7.64	1.24	1.33
26	Y4	48	ARG	CD-NE	-7.61	1.35	1.46
4	RE	82	ARG	CZ-NH2	-7.56	1.23	1.33
10	RO	23	ARG	NE-CZ	-7.54	1.24	1.33
35	XD	122	ARG	NE-CZ	-7.54	1.24	1.33
16	RU	36	ARG	CZ-NH1	-7.53	1.22	1.32
5	YF	106	ARG	NE-CZ	-7.52	1.24	1.33
33	XB	217	ARG	CZ-NH2	-7.51	1.23	1.33
48	XQ	72	ARG	CZ-NH1	-7.50	1.22	1.32
3	YD	211	ARG	CZ-NH2	-7.49	1.23	1.33
11	YP	21	ARG	NE-CZ	-7.49	1.24	1.33
12	RQ	59	ARG	NE-CZ	-7.46	1.24	1.33
21	YZ	131	ARG	CZ-NH2	-7.46	1.23	1.33
33	XB	217	ARG	CD-NE	-7.46	1.35	1.46
3	RD	103	ARG	NE-CZ	-7.46	1.24	1.33
9	RN	97	ARG	NE-CZ	-7.45	1.24	1.33
40	QI	104	ARG	CD-NE	-7.44	1.35	1.46
37	XF	28	ARG	NE-CZ	-7.43	1.24	1.33
6	RG	153	ARG	CZ-NH2	-7.43	1.23	1.33
12	RQ	56	ARG	CD-NE	-7.41	1.35	1.46
7	YH	95	ARG	NE-CZ	-7.41	1.25	1.33
30	Y8	30	ARG	CZ-NH1	-7.40	1.22	1.32
48	XQ	68	ARG	NE-CZ	-7.39	1.25	1.33
4	RE	119	ARG	CZ-NH1	-7.39	1.22	1.32
21	RZ	31	ARG	CZ-NH1	-7.37	1.22	1.32
49	QR	32	ARG	NE-CZ	-7.37	1.25	1.33
13	YR	96	ARG	CZ-NH2	-7.36	1.23	1.33
18	RW	11	ARG	NE-CZ	-7.36	1.25	1.33
4	RE	82	ARG	CZ-NH1	-7.35	1.22	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	YD	54	ARG	NE-CZ	-7.34	1.25	1.33
12	YQ	60	ARG	CZ-NH2	-7.34	1.24	1.33
15	YT	118	ARG	CZ-NH2	-7.32	1.24	1.33
3	YD	211	ARG	NE-CZ	-7.32	1.25	1.33
30	R8	30	ARG	CZ-NH1	-7.30	1.22	1.32
9	RN	61	ARG	NE-CZ	-7.30	1.25	1.33
45	XN	3	ARG	NE-CZ	-7.29	1.25	1.33
16	YU	36	ARG	CZ-NH1	-7.29	1.22	1.32
13	RR	96	ARG	CZ-NH2	-7.29	1.24	1.33
30	R8	30	ARG	CZ-NH2	-7.28	1.24	1.33
9	YN	97	ARG	NE-CZ	-7.26	1.25	1.33
35	QD	168	ARG	NE-CZ	-7.25	1.25	1.33
52	XU	7	ARG	CZ-NH2	-7.25	1.24	1.33
48	QQ	72	ARG	CZ-NH1	-7.23	1.22	1.32
36	XE	143	ARG	CZ-NH2	-7.22	1.24	1.33
38	XG	114	ARG	CZ-NH1	-7.22	1.22	1.32
8	YI	54	GLN	CD-OE1	-7.22	1.09	1.23
45	QN	3	ARG	CZ-NH2	-7.22	1.24	1.33
3	YD	211	ARG	CD-NE	-7.20	1.36	1.46
19	YX	76	ARG	CZ-NH1	-7.17	1.22	1.32
18	YW	11	ARG	NE-CZ	-7.17	1.25	1.33
34	QC	131	ARG	NE-CZ	-7.17	1.25	1.33
15	RT	23	ARG	CZ-NH2	-7.16	1.24	1.33
33	QB	21	ARG	NE-CZ	-7.16	1.25	1.33
4	RE	144	ARG	CZ-NH1	-7.16	1.22	1.32
15	RT	118	ARG	CZ-NH2	-7.14	1.24	1.33
12	RQ	59	ARG	CZ-NH2	-7.14	1.24	1.33
47	XP	8	ARG	CZ-NH1	-7.14	1.22	1.32
33	XB	157	ARG	CZ-NH2	-7.10	1.24	1.33
33	QB	144	ARG	NE-CZ	-7.10	1.25	1.33
12	YQ	60	ARG	CD-NE	-7.10	1.36	1.46
15	YT	118	ARG	NE-CZ	-7.09	1.25	1.33
52	QU	9	ARG	NE-CZ	-7.09	1.25	1.33
11	YP	21	ARG	CD-NE	-7.08	1.36	1.46
4	YE	82	ARG	CZ-NH1	-7.07	1.22	1.32
25	Y3	44	ARG	NE-CZ	-7.07	1.25	1.33
15	RT	23	ARG	NE-CZ	-7.05	1.25	1.33
6	YG	21	ARG	NE-CZ	-7.04	1.25	1.33
46	QO	38	ARG	CZ-NH2	-7.04	1.24	1.33
47	XP	25	ARG	CZ-NH1	-7.02	1.23	1.32
13	RR	96	ARG	CD-NE	-7.02	1.36	1.46
29	Y7	9	ARG	NE-CZ	-7.01	1.25	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
7	YH	69	ARG	NE-CZ	-7.01	1.25	1.33
18	YW	11	ARG	CZ-NH2	-7.01	1.24	1.33
15	YT	23	ARG	CZ-NH2	-7.00	1.24	1.33
46	QO	38	ARG	CD-NE	-6.99	1.36	1.46
44	XM	94	ARG	NE-CZ	-6.99	1.25	1.33
9	RN	115	ARG	NE-CZ	-6.98	1.25	1.33
48	XQ	68	ARG	CD-NE	-6.97	1.36	1.46
7	RH	59	ARG	CZ-NH1	-6.96	1.23	1.32
21	RZ	72	ARG	CZ-NH1	-6.96	1.23	1.32
52	XU	7	ARG	CD-NE	-6.96	1.36	1.46
16	RU	92	ARG	NE-CZ	-6.96	1.25	1.33
34	QC	131	ARG	CD-NE	-6.95	1.36	1.46
47	XP	25	ARG	CD-NE	-6.95	1.36	1.46
38	QG	41	ARG	CD-NE	-6.95	1.36	1.46
12	RQ	59	ARG	CD-NE	-6.93	1.36	1.46
37	XF	28	ARG	CZ-NH2	-6.93	1.24	1.33
16	RU	36	ARG	CD-NE	-6.92	1.36	1.46
30	Y8	30	ARG	CD-NE	-6.90	1.36	1.46
46	QO	38	ARG	CZ-NH1	-6.89	1.23	1.32
21	YZ	131	ARG	CD-NE	-6.89	1.36	1.46
4	RE	144	ARG	CD-NE	-6.88	1.36	1.46
15	YT	118	ARG	CD-NE	-6.88	1.36	1.46
3	YD	103	ARG	NE-CZ	-6.88	1.25	1.33
19	RX	76	ARG	CZ-NH1	-6.87	1.23	1.32
36	XE	143	ARG	CD-NE	-6.85	1.36	1.46
11	YP	21	ARG	CZ-NH2	-6.83	1.24	1.33
49	XR	32	ARG	NE-CZ	-6.83	1.25	1.33
15	YT	23	ARG	CD-NE	-6.82	1.36	1.46
37	QF	46	ARG	NE-CZ	-6.79	1.25	1.33
10	YO	23	ARG	CZ-NH2	-6.78	1.24	1.33
33	QB	178	ARG	NE-CZ	-6.77	1.25	1.33
22	R0	20	ARG	NE-CZ	-6.77	1.25	1.33
33	XB	157	ARG	CD-NE	-6.76	1.36	1.46
19	RX	76	ARG	CD-NE	-6.76	1.36	1.46
13	YR	96	ARG	CD-NE	-6.76	1.36	1.46
50	QS	81	ARG	CZ-NH2	-6.76	1.24	1.33
48	XQ	68	ARG	CZ-NH2	-6.75	1.24	1.33
39	XH	91	ARG	NE-CZ	-6.74	1.25	1.33
34	QC	131	ARG	CZ-NH2	-6.73	1.24	1.33
14	YS	71	ARG	CZ-NH2	-6.73	1.24	1.33
10	YO	23	ARG	CD-NE	-6.73	1.36	1.46
48	XQ	72	ARG	CD-NE	-6.72	1.36	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
6	YG	21	ARG	CD-NE	-6.71	1.36	1.46
38	QG	41	ARG	CZ-NH2	-6.71	1.24	1.33
3	RD	211	ARG	CD-NE	-6.69	1.36	1.46
12	YQ	16	ARG	CZ-NH2	-6.68	1.24	1.33
34	XC	131	ARG	NE-CZ	-6.68	1.25	1.33
37	XF	28	ARG	CD-NE	-6.68	1.36	1.46
12	YQ	16	ARG	CD-NE	-6.67	1.36	1.46
14	RS	20	ARG	CZ-NH2	-6.66	1.24	1.33
47	XP	25	ARG	CZ-NH2	-6.64	1.24	1.33
22	Y0	20	ARG	NE-CZ	-6.62	1.25	1.33
15	RT	23	ARG	CD-NE	-6.62	1.36	1.46
37	XF	46	ARG	CZ-NH1	-6.61	1.23	1.32
15	RT	118	ARG	CD-NE	-6.61	1.37	1.46
50	QS	81	ARG	CD-NE	-6.60	1.37	1.46
38	XG	78	ARG	CZ-NH1	-6.60	1.23	1.32
10	RO	23	ARG	CZ-NH2	-6.60	1.24	1.33
33	QB	144	ARG	CZ-NH2	-6.59	1.24	1.33
40	QI	42	ARG	NE-CZ	-6.55	1.25	1.33
45	XN	57	ARG	CZ-NH1	-6.55	1.23	1.32
33	QB	144	ARG	CD-NE	-6.55	1.37	1.46
18	YW	11	ARG	CD-NE	-6.54	1.37	1.46
16	YU	36	ARG	CD-NE	-6.54	1.37	1.46
21	RZ	19	ARG	NE-CZ	-6.54	1.25	1.33
35	XD	122	ARG	CZ-NH2	-6.54	1.25	1.33
40	QI	42	ARG	CZ-NH2	-6.53	1.25	1.33
52	QU	7	ARG	CZ-NH2	-6.53	1.25	1.33
52	QU	9	ARG	CZ-NH2	-6.53	1.25	1.33
4	RE	82	ARG	CD-NE	-6.52	1.37	1.46
6	YG	21	ARG	CZ-NH2	-6.52	1.25	1.33
16	RU	36	ARG	CZ-NH2	-6.52	1.25	1.33
44	QM	110	ARG	CZ-NH1	-6.50	1.23	1.32
45	XN	12	ARG	CZ-NH2	-6.47	1.25	1.33
47	QP	71	ARG	CZ-NH1	-6.46	1.23	1.32
14	YS	71	ARG	NE-CZ	-6.46	1.25	1.33
40	QI	42	ARG	CD-NE	-6.46	1.37	1.46
35	XD	122	ARG	CD-NE	-6.45	1.37	1.46
35	QD	187	ARG	CZ-NH1	-6.45	1.23	1.32
33	QB	96	ARG	CZ-NH1	-6.45	1.23	1.32
37	QF	46	ARG	CZ-NH2	-6.44	1.25	1.33
33	QB	178	ARG	CZ-NH2	-6.42	1.25	1.33
35	XD	65	ARG	NE-CZ	-6.42	1.25	1.33
52	QU	9	ARG	CD-NE	-6.41	1.37	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
39	XH	84	ARG	NE-CZ	-6.40	1.26	1.33
48	XQ	72	ARG	CZ-NH2	-6.39	1.25	1.33
37	QF	46	ARG	CD-NE	-6.39	1.37	1.46
7	RH	69	ARG	CZ-NH1	-6.38	1.23	1.32
10	RO	23	ARG	CD-NE	-6.37	1.37	1.46
6	YG	136	ARG	CZ-NH2	-6.37	1.25	1.33
15	RT	96	ARG	CD-NE	-6.36	1.37	1.46
33	XB	144	ARG	CZ-NH1	-6.35	1.23	1.32
38	XG	10	ARG	CZ-NH1	-6.34	1.23	1.32
21	RZ	72	ARG	CZ-NH2	-6.33	1.25	1.33
14	YS	67	ARG	CZ-NH1	-6.33	1.23	1.32
4	YE	119	ARG	CZ-NH1	-6.32	1.24	1.32
39	QH	18	ARG	CZ-NH1	-6.32	1.24	1.32
26	Y4	61	ARG	CZ-NH1	-6.30	1.24	1.32
7	YH	69	ARG	CZ-NH2	-6.29	1.25	1.33
46	XO	54	ARG	NE-CZ	-6.28	1.26	1.33
21	RZ	72	ARG	CD-NE	-6.27	1.37	1.46
52	XU	10	ARG	CZ-NH1	-6.27	1.24	1.32
15	RT	96	ARG	CZ-NH1	-6.25	1.24	1.32
23	Y1	21	ARG	NE-CZ	-6.25	1.26	1.33
42	QK	96	ARG	CZ-NH1	-6.24	1.24	1.32
52	QU	7	ARG	CD-NE	-6.22	1.37	1.46
45	XN	12	ARG	CD-NE	-6.20	1.37	1.46
46	XO	54	ARG	CD-NE	-6.20	1.37	1.46
3	RD	211	ARG	NE-CZ	-6.17	1.26	1.33
34	XC	131	ARG	CD-NE	-6.14	1.37	1.46
8	YI	54	GLN	CD-NE2	-6.12	1.20	1.33
9	RN	115	ARG	CZ-NH1	-6.12	1.24	1.32
46	XO	54	ARG	CZ-NH2	-6.11	1.25	1.33
14	YS	71	ARG	CD-NE	-6.10	1.37	1.46
15	RT	118	ARG	CZ-NH1	-6.10	1.24	1.32
29	Y7	9	ARG	CZ-NH1	-6.09	1.24	1.32
33	QB	21	ARG	CZ-NH2	-6.08	1.25	1.33
33	XB	96	ARG	CZ-NH1	-6.07	1.24	1.32
34	XC	131	ARG	CZ-NH2	-6.07	1.25	1.33
15	RT	96	ARG	CZ-NH2	-6.04	1.25	1.33
7	YH	69	ARG	CD-NE	-6.04	1.37	1.46
36	XE	79	GLU	CD-OE1	-6.03	1.13	1.25
50	QS	81	ARG	CZ-NH1	-6.03	1.24	1.32
48	QQ	72	ARG	CD-NE	-6.02	1.37	1.46
37	XF	82	ARG	NE-CZ	-6.01	1.26	1.33
49	QR	32	ARG	CZ-NH1	-6.00	1.24	1.32

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
33	XB	114	ARG	CD-NE	-5.99	1.37	1.46
3	RD	103	ARG	CZ-NH1	-5.99	1.24	1.32
42	QK	54	ARG	CZ-NH1	-5.98	1.24	1.32
18	RW	15	ARG	CZ-NH2	-5.97	1.25	1.33
47	XP	8	ARG	CZ-NH2	-5.96	1.25	1.33
6	YG	136	ARG	CD-NE	-5.95	1.38	1.46
3	YD	88	ARG	CZ-NH1	-5.95	1.24	1.32
16	YU	104	GLN	CD-OE1	-5.93	1.12	1.23
22	R0	20	ARG	CZ-NH1	-5.93	1.24	1.32
33	XB	144	ARG	CD-NE	-5.91	1.38	1.46
9	RN	97	ARG	CZ-NH1	-5.89	1.24	1.32
19	RX	76	ARG	CZ-NH2	-5.89	1.25	1.33
16	RU	104	GLN	CD-OE1	-5.89	1.12	1.23
45	XN	3	ARG	CZ-NH2	-5.88	1.25	1.33
8	RI	61	ARG	CZ-NH2	-5.87	1.25	1.33
19	YX	76	ARG	CD-NE	-5.87	1.38	1.46
4	RE	119	ARG	CZ-NH2	-5.86	1.25	1.33
38	QG	41	ARG	CZ-NH1	-5.86	1.24	1.32
33	XB	114	ARG	CZ-NH2	-5.85	1.25	1.33
8	RI	61	ARG	NE-CZ	-5.84	1.26	1.33
6	YG	136	ARG	CZ-NH1	-5.84	1.24	1.32
35	XD	65	ARG	CD-NE	-5.84	1.38	1.46
3	YD	54	ARG	CZ-NH1	-5.83	1.24	1.32
39	XH	91	ARG	CZ-NH2	-5.82	1.25	1.33
12	RQ	6	ARG	CZ-NH2	-5.82	1.25	1.33
16	YU	36	ARG	CZ-NH2	-5.80	1.25	1.33
8	RI	61	ARG	CD-NE	-5.80	1.38	1.46
37	XF	82	ARG	CZ-NH2	-5.79	1.25	1.33
48	QQ	72	ARG	CZ-NH2	-5.77	1.25	1.33
33	XB	144	ARG	CZ-NH2	-5.77	1.25	1.33
21	YZ	72	ARG	CG-CD	-5.75	1.35	1.52
14	RS	20	ARG	CD-NE	-5.72	1.38	1.46
13	YR	33	ARG	CZ-NH2	-5.72	1.26	1.33
39	QH	91	ARG	CZ-NH2	-5.71	1.26	1.33
37	QF	82	ARG	CD-NE	-5.71	1.38	1.46
16	YU	104	GLN	CD-NE2	-5.71	1.21	1.33
3	RD	211	ARG	CZ-NH2	-5.71	1.26	1.33
35	QD	187	ARG	CZ-NH2	-5.70	1.26	1.33
35	QD	65	ARG	NE-CZ	-5.67	1.26	1.33
26	R4	30	GLU	CD-OE1	-5.67	1.14	1.25
44	QM	110	ARG	CZ-NH2	-5.67	1.26	1.33
33	QB	178	ARG	CD-NE	-5.66	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	XD	65	ARG	CZ-NH2	-5.65	1.26	1.33
52	QU	7	ARG	CZ-NH1	-5.65	1.24	1.32
35	QD	168	ARG	CZ-NH1	-5.65	1.24	1.32
39	XH	91	ARG	CD-NE	-5.64	1.38	1.46
3	RD	217	ARG	NE-CZ	-5.64	1.26	1.33
15	YT	96	ARG	CD-NE	-5.64	1.38	1.46
12	RQ	56	ARG	CZ-NH1	-5.64	1.24	1.32
10	RO	23	ARG	CZ-NH1	-5.63	1.24	1.32
36	XE	143	ARG	CZ-NH1	-5.62	1.24	1.32
33	QB	157	ARG	NE-CZ	-5.62	1.26	1.33
5	RF	132	VAL	CA-CB	5.61	1.60	1.53
10	YO	23	ARG	CZ-NH1	-5.60	1.25	1.32
34	QC	21	ARG	NE-CZ	-5.59	1.26	1.33
44	QM	110	ARG	CD-NE	-5.59	1.38	1.46
14	YS	20	ARG	CZ-NH1	-5.58	1.25	1.32
6	RG	170	ARG	CZ-NH1	-5.58	1.25	1.32
39	QH	91	ARG	NE-CZ	-5.58	1.26	1.33
3	YD	88	ARG	CD-NE	-5.57	1.38	1.46
47	XP	28	ARG	NE-CZ	-5.57	1.26	1.33
33	XB	114	ARG	CZ-NH1	-5.56	1.25	1.32
28	R6	28	ARG	NE-CZ	-5.56	1.26	1.33
9	YN	97	ARG	CZ-NH1	-5.55	1.25	1.32
37	QF	82	ARG	NE-CZ	-5.55	1.26	1.33
25	Y3	44	ARG	CZ-NH2	-5.54	1.26	1.33
38	QG	114	ARG	NE-CZ	-5.53	1.26	1.33
33	QB	96	ARG	CZ-NH2	-5.53	1.26	1.33
47	XP	8	ARG	CD-NE	-5.52	1.38	1.46
38	QG	76	ARG	NE-CZ	-5.52	1.26	1.33
18	RW	15	ARG	CD-NE	-5.52	1.38	1.46
3	YD	88	ARG	CZ-NH2	-5.51	1.26	1.33
33	XB	96	ARG	CZ-NH2	-5.51	1.26	1.33
15	YT	96	ARG	CZ-NH2	-5.48	1.26	1.33
3	RD	103	ARG	CD-NE	-5.48	1.38	1.46
3	RD	103	ARG	CZ-NH2	-5.48	1.26	1.33
38	XG	76	ARG	CZ-NH1	-5.47	1.25	1.32
38	XG	114	ARG	CD-NE	-5.47	1.38	1.46
7	YH	95	ARG	CZ-NH1	-5.47	1.25	1.32
38	XG	114	ARG	CZ-NH2	-5.47	1.26	1.33
38	QG	52	GLU	CD-OE1	-5.47	1.15	1.25
12	RQ	6	ARG	CD-NE	-5.47	1.38	1.46
25	Y3	44	ARG	CD-NE	-5.47	1.38	1.46
6	RG	153	ARG	CD-NE	-5.47	1.38	1.46

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
5	YF	106	ARG	CZ-NH1	-5.46	1.25	1.32
3	YD	103	ARG	CD-NE	-5.46	1.38	1.46
3	RD	54	ARG	CZ-NH1	-5.45	1.25	1.32
19	YX	76	ARG	CZ-NH2	-5.42	1.26	1.33
35	QD	187	ARG	CD-NE	-5.42	1.38	1.46
12	RQ	60	ARG	CZ-NH2	-5.42	1.26	1.33
5	RF	106	ARG	CZ-NH1	-5.41	1.25	1.32
9	YN	137	LYS	CG-CD	-5.41	1.36	1.52
23	Y1	52	ARG	CZ-NH2	-5.41	1.26	1.33
44	XM	94	ARG	CZ-NH1	-5.41	1.25	1.32
54	QY	281	HIS	CG-CD2	5.40	1.41	1.35
18	RW	15	ARG	CZ-NH1	-5.40	1.25	1.32
35	QD	65	ARG	CZ-NH2	-5.39	1.26	1.33
37	QF	82	ARG	CZ-NH2	-5.39	1.26	1.33
45	QN	3	ARG	CZ-NH1	-5.38	1.25	1.32
39	QH	91	ARG	CD-NE	-5.37	1.38	1.46
43	QL	33	ARG	NE-CZ	-5.37	1.27	1.33
33	XB	96	ARG	CD-NE	-5.36	1.38	1.46
23	Y1	52	ARG	CD-NE	-5.35	1.38	1.46
21	RZ	19	ARG	CZ-NH1	-5.34	1.25	1.32
6	YG	153	ARG	NE-CZ	-5.34	1.27	1.33
15	YT	96	ARG	CZ-NH1	-5.33	1.25	1.32
4	RE	119	ARG	CD-NE	-5.33	1.38	1.46
13	YR	33	ARG	CD-NE	-5.32	1.38	1.46
16	RU	92	ARG	CZ-NH1	-5.32	1.25	1.32
4	RE	144	ARG	CZ-NH2	-5.30	1.26	1.33
23	Y1	21	ARG	CD-NE	-5.25	1.39	1.46
23	Y1	21	ARG	CZ-NH2	-5.24	1.26	1.33
54	XY	290	GLN	CD-OE1	5.24	1.33	1.23
29	R7	9	ARG	CD-NE	-5.24	1.39	1.46
46	XO	68	ARG	CD-NE	-5.23	1.39	1.46
39	XH	68	ARG	NE-CZ	-5.22	1.27	1.33
19	RX	68	ARG	CZ-NH2	-5.22	1.26	1.33
49	QR	32	ARG	CZ-NH2	-5.22	1.26	1.33
46	XO	68	ARG	NE-CZ	-5.21	1.27	1.33
17	RV	21	ARG	CZ-NH2	-5.21	1.26	1.33
23	Y1	52	ARG	NE-CZ	-5.20	1.27	1.33
47	XP	28	ARG	CZ-NH2	-5.20	1.26	1.33
42	XK	96	ARG	CZ-NH1	-5.19	1.25	1.32
35	QD	65	ARG	CD-NE	-5.17	1.39	1.46
49	XR	32	ARG	CZ-NH1	-5.17	1.25	1.32
3	YD	103	ARG	CZ-NH2	-5.15	1.26	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
44	XM	32	GLU	CD-OE1	-5.15	1.15	1.25
3	YD	103	ARG	CZ-NH1	-5.14	1.25	1.32
26	R4	58	ARG	NE-CZ	-5.14	1.27	1.33
17	RV	21	ARG	NE-CZ	-5.13	1.27	1.33
29	R7	9	ARG	CZ-NH2	-5.12	1.26	1.33
26	R4	58	ARG	CD-NE	-5.12	1.39	1.46
12	RQ	60	ARG	NE-CZ	-5.10	1.27	1.33
38	QG	114	ARG	CZ-NH2	-5.09	1.26	1.33
22	Y0	20	ARG	CZ-NH1	-5.08	1.25	1.32
43	QL	33	ARG	CZ-NH2	-5.06	1.26	1.33
47	XP	28	ARG	CD-NE	-5.05	1.39	1.46
43	QL	33	ARG	CD-NE	-5.05	1.39	1.46
33	QB	157	ARG	CD-NE	-5.04	1.39	1.46
5	RF	53	THR	CB-OG1	-5.04	1.35	1.43
15	RT	23	ARG	CZ-NH1	-5.03	1.25	1.32
37	XF	82	ARG	CD-NE	-5.03	1.39	1.46
16	RU	92	ARG	CD-NE	-5.03	1.39	1.46
4	YE	119	ARG	CZ-NH2	-5.02	1.26	1.33
32	QA	1498	UR3	O3'-P	5.00	1.61	1.56

All (141) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	QD	188	LEU	CA-C-N	10.70	131.38	119.83
35	QD	188	LEU	C-N-CA	10.70	131.38	119.83
43	XL	88	GLY	N-CA-C	8.51	123.66	112.25
33	QB	128	GLU	N-CA-C	-8.11	102.95	113.17
4	YE	190	GLY	CA-C-N	7.82	127.97	120.31
4	YE	190	GLY	C-N-CA	7.82	127.97	120.31
20	RY	92	ASN	N-CA-C	7.77	120.73	111.33
43	XL	87	GLY	N-CA-C	7.55	126.03	112.22
44	XM	106	ASN	N-CA-C	7.16	121.28	111.54
41	QJ	84	GLN	OE1-CD-NE2	-7.16	115.44	122.60
44	QM	6	GLY	N-CA-C	-7.07	105.52	113.79
26	Y4	61	ARG	N-CA-C	-7.06	102.13	111.24
43	XL	28	LYS	N-CA-C	7.04	120.95	111.24
26	R4	52	THR	N-CA-C	-7.04	104.70	112.72
35	XD	171	GLY	CA-C-N	7.01	127.60	119.47
35	XD	171	GLY	C-N-CA	7.01	127.60	119.47
6	RG	53	LEU	N-CA-C	-6.92	104.41	112.92
33	XB	193	ASP	CA-C-N	6.89	126.40	119.24
33	XB	193	ASP	C-N-CA	6.89	126.40	119.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	YE	72	VAL	N-CA-C	6.88	118.39	108.48
26	R4	68	ARG	N-CA-C	6.84	120.22	109.96
54	XY	338	THR	N-CA-C	6.82	122.00	112.93
3	RD	229	VAL	CB-CA-C	-6.79	102.13	112.05
34	XC	108	ASN	CA-C-N	6.76	126.71	119.28
34	XC	108	ASN	C-N-CA	6.76	126.71	119.28
4	YE	52	LEU	CA-C-N	-6.74	113.03	119.76
4	YE	52	LEU	C-N-CA	-6.74	113.03	119.76
28	R6	40	CYS	CA-C-N	6.71	126.34	119.56
28	R6	40	CYS	C-N-CA	6.71	126.34	119.56
26	Y4	19	GLY	N-CA-C	-6.64	106.16	115.32
35	QD	191	ARG	N-CA-C	-6.55	104.06	111.07
26	R4	40	HIS	CA-C-N	6.47	127.93	119.84
26	R4	40	HIS	C-N-CA	6.47	127.93	119.84
7	YH	38	SER	CA-C-N	6.43	126.12	119.56
7	YH	38	SER	C-N-CA	6.43	126.12	119.56
37	XF	55	ASP	CA-C-N	6.39	126.08	119.56
37	XF	55	ASP	C-N-CA	6.39	126.08	119.56
8	RI	110	ASP	CA-C-N	6.38	125.88	119.24
8	RI	110	ASP	C-N-CA	6.38	125.88	119.24
11	YP	22	GLY	CA-C-N	6.30	125.71	118.85
11	YP	22	GLY	C-N-CA	6.30	125.71	118.85
47	QP	5	ARG	N-CA-C	6.29	116.37	108.45
33	QB	193	ASP	CA-C-N	6.28	125.77	119.24
33	QB	193	ASP	C-N-CA	6.28	125.77	119.24
22	Y0	82	ARG	CA-C-N	6.25	126.21	119.78
22	Y0	82	ARG	C-N-CA	6.25	126.21	119.78
8	RI	107	VAL	N-CA-C	6.24	117.07	108.84
35	XD	38	TYR	CA-C-N	6.21	126.78	120.38
35	XD	38	TYR	C-N-CA	6.21	126.78	120.38
4	YE	51	PHE	CA-C-N	6.21	132.88	121.70
4	YE	51	PHE	C-N-CA	6.21	132.88	121.70
3	RD	220	HIS	CA-C-N	-6.19	115.52	123.19
3	RD	220	HIS	C-N-CA	-6.19	115.52	123.19
50	QS	75	ALA	CA-C-N	6.14	126.17	119.90
50	QS	75	ALA	C-N-CA	6.14	126.17	119.90
6	RG	48	GLU	N-CA-C	-6.13	102.86	108.75
3	YD	229	VAL	CB-CA-C	-6.13	104.02	112.04
50	XS	58	VAL	N-CA-C	6.05	113.06	107.56
26	R4	66	SER	N-CA-C	6.04	120.38	113.19
36	XE	127	ASN	CA-C-N	6.03	125.51	119.24
36	XE	127	ASN	C-N-CA	6.03	125.51	119.24

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	RD	70	TRP	CA-C-N	6.02	128.63	120.38
3	RD	70	TRP	C-N-CA	6.02	128.63	120.38
34	XC	72	LYS	CA-C-N	6.01	125.72	119.05
34	XC	72	LYS	C-N-CA	6.01	125.72	119.05
4	RE	8	LYS	CA-C-N	-5.94	115.34	122.35
4	RE	8	LYS	C-N-CA	-5.94	115.34	122.35
46	QO	87	ILE	N-CA-C	5.90	116.68	111.90
3	YD	70	TRP	CA-C-N	5.88	128.15	120.28
3	YD	70	TRP	C-N-CA	5.88	128.15	120.28
26	Y4	59	PHE	N-CA-C	5.80	117.44	107.28
42	XK	38	ASN	CA-C-N	5.78	126.11	119.93
42	XK	38	ASN	C-N-CA	5.78	126.11	119.93
44	QM	106	ASN	CB-CA-C	-5.76	108.29	115.89
40	XI	63	ILE	N-CA-C	5.72	116.53	108.17
42	QK	34	ASP	CA-C-N	-5.69	113.81	119.56
42	QK	34	ASP	C-N-CA	-5.69	113.81	119.56
42	QK	38	ASN	CA-C-N	5.64	125.96	119.93
42	QK	38	ASN	C-N-CA	5.64	125.96	119.93
43	XL	119	LYS	N-CA-C	-5.63	102.56	110.50
41	XJ	32	ALA	N-CA-C	-5.57	102.22	110.46
6	RG	96	ARG	CB-CA-C	-5.57	110.13	116.54
5	YF	21	ALA	CA-C-N	5.57	131.72	121.70
5	YF	21	ALA	C-N-CA	5.57	131.72	121.70
16	YU	9	VAL	N-CA-C	5.56	115.76	110.53
6	YG	45	GLU	N-CA-C	-5.56	106.34	113.01
34	QC	99	VAL	N-CA-C	5.54	115.25	106.32
42	QK	116	HIS	N-CA-C	-5.51	104.75	112.25
11	YP	116	GLY	N-CA-C	5.51	122.54	115.32
9	YN	110	GLY	CA-C-N	5.50	124.68	118.97
9	YN	110	GLY	C-N-CA	5.50	124.68	118.97
26	Y4	59	PHE	CA-C-N	5.49	131.57	121.70
26	Y4	59	PHE	C-N-CA	5.49	131.57	121.70
26	R4	55	ARG	CA-C-N	5.48	131.57	121.70
26	R4	55	ARG	C-N-CA	5.48	131.57	121.70
10	RO	9	GLU	CA-C-N	-5.48	115.89	122.90
10	RO	9	GLU	C-N-CA	-5.48	115.89	122.90
49	QR	22	VAL	N-CA-C	5.46	116.85	110.62
7	YH	8	PRO	CA-C-N	-5.46	118.89	122.60
7	YH	8	PRO	C-N-CA	-5.46	118.89	122.60
51	QT	11	SER	N-CA-C	-5.37	106.51	113.16
54	QY	338	THR	N-CA-C	5.36	120.06	112.93
32	XA	266	G	P-O3'-C3'	5.35	128.23	120.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	RG	127	GLY	N-CA-C	-5.35	108.71	115.08
3	YD	275	LYS	N-CA-C	-5.33	99.60	108.07
29	R7	47	ARG	N-CA-C	5.32	118.93	112.23
6	YG	96	ARG	CB-CA-C	-5.31	110.44	116.54
34	QC	4	LYS	N-CA-C	5.31	118.17	110.42
7	YH	45	VAL	N-CA-C	5.30	115.21	107.37
7	RH	92	ILE	N-CA-C	5.29	115.50	110.42
32	QA	1442(A)	G	P-O3'-C3'	5.28	126.04	119.70
33	QB	19	HIS	N-CA-C	5.27	114.79	107.73
36	XE	105	VAL	CA-C-N	-5.26	113.62	119.19
36	XE	105	VAL	C-N-CA	-5.26	113.62	119.19
8	YI	72	LEU	N-CA-C	5.25	116.80	111.14
32	XA	1442(A)	G	OP1-P-O3'	5.24	116.74	105.20
33	QB	123	ALA	N-CA-C	-5.24	106.86	113.20
6	RG	121	ASN	CA-C-N	5.23	125.03	119.28
6	RG	121	ASN	C-N-CA	5.23	125.03	119.28
33	XB	124	SER	N-CA-C	5.22	121.35	109.81
33	XB	19	HIS	N-CA-C	5.22	117.00	109.07
5	RF	24	LEU	N-CA-C	-5.21	103.10	110.29
6	RG	45	GLU	N-CA-C	-5.21	106.76	113.01
4	YE	193	GLY	N-CA-C	-5.20	108.44	115.21
20	RY	106	LEU	N-CA-C	-5.19	107.33	113.97
43	XL	105	TYR	CB-CA-C	-5.18	110.18	117.23
32	XA	1442(A)	G	P-O3'-C3'	5.18	125.92	119.70
51	XT	10	LEU	N-CA-C	5.11	117.52	111.33
4	YE	21	VAL	CA-C-N	5.11	125.26	119.90
4	YE	21	VAL	C-N-CA	5.11	125.26	119.90
54	QY	290	GLN	CG-CD-NE2	-5.10	108.75	116.40
15	YT	19	LEU	CA-C-N	5.08	125.06	120.03
15	YT	19	LEU	C-N-CA	5.08	125.06	120.03
33	XB	129	GLU	N-CA-C	-5.08	106.93	113.02
44	QM	112	GLY	CA-C-N	5.07	125.06	119.89
44	QM	112	GLY	C-N-CA	5.07	125.06	119.89
21	YZ	176	PRO	O-C-N	5.06	123.53	121.15
36	XE	68	GLU	CA-C-N	-5.05	118.39	123.04
36	XE	68	GLU	C-N-CA	-5.05	118.39	123.04
44	QM	114	ARG	N-CA-C	5.04	117.62	110.10
32	XA	266	G	C2'-C3'-O3'	5.03	117.04	109.50

There are no chirality outliers.

All (6) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
33	QB	231	GLU	Peptide
14	RS	58	LEU	Peptide
19	RX	93	GLU	Peptide
43	XL	86	ARG	Peptide
54	XY	213	ARG	Peptide
19	YX	93	GLU	Peptide

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	RA	61758	0	31146	677	0
1	YA	61758	0	31149	665	1
2	RB	2572	0	1305	12	0
2	YB	2573	0	1306	23	0
3	RD	2131	0	2207	48	0
3	YD	2136	0	2218	51	0
4	RE	1559	0	1618	38	0
4	YE	1559	0	1618	59	0
5	RF	1584	0	1625	46	0
5	YF	1580	0	1619	69	0
6	RG	1426	0	1445	65	0
6	YG	1424	0	1441	101	0
7	RH	1330	0	1407	27	0
7	YH	1324	0	1402	56	7
8	RI	1094	0	1127	35	0
8	YI	1076	0	1094	49	0
9	RN	1121	0	1195	28	0
9	YN	1117	0	1184	27	0
10	RO	933	0	996	27	0
10	YO	933	0	996	18	0
11	RP	1135	0	1212	40	0
11	YP	1135	0	1212	43	0
12	RQ	1122	0	1179	26	0
12	YQ	1122	0	1179	28	0
13	RR	968	0	1033	15	0
13	YR	968	0	1033	34	0
14	RS	877	0	938	15	0
14	YS	870	0	923	22	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
15	RT	1091	0	1151	40	0
15	YT	1083	0	1136	33	0
16	RU	959	0	1019	16	0
16	YU	959	0	1019	11	0
17	RV	775	0	841	22	0
17	YV	771	0	830	19	8
18	RW	886	0	940	18	1
18	YW	886	0	940	23	0
19	RX	750	0	814	27	0
19	YX	750	0	814	16	0
20	RY	810	0	892	18	0
20	YY	810	0	887	21	8
21	RZ	1587	0	1598	45	0
21	YZ	1557	0	1564	52	0
22	R0	608	0	622	8	0
22	Y0	608	0	622	16	0
23	R1	754	0	823	12	0
23	Y1	759	0	837	24	0
24	R2	588	0	643	17	1
24	Y2	592	0	654	8	0
25	R3	469	0	518	9	0
25	Y3	464	0	514	16	0
26	R4	546	0	522	58	0
26	Y4	536	0	514	64	0
27	R5	459	0	476	18	0
27	Y5	455	0	465	11	8
28	R6	453	0	473	9	0
28	Y6	449	0	469	6	0
29	R7	418	0	467	13	0
29	Y7	418	0	467	5	0
30	R8	517	0	582	27	0
30	Y8	517	0	582	21	0
31	R9	307	0	335	6	0
31	Y9	307	0	335	6	0
32	QA	32246	0	16293	407	0
32	XA	32331	0	16339	423	0
33	QB	1842	0	1862	87	0
33	XB	1825	0	1828	92	0
34	QC	1558	0	1557	44	0
34	XC	1542	0	1517	56	0
35	QD	1665	0	1687	72	0
35	XD	1668	0	1703	38	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
36	QE	1133	0	1191	49	0
36	XE	1133	0	1191	31	0
37	QF	814	0	808	20	0
37	XF	816	0	808	24	0
38	QG	1235	0	1249	38	0
38	XG	1229	0	1238	27	0
39	QH	1098	0	1143	42	0
39	XH	1088	0	1126	22	0
40	QI	986	0	990	44	0
40	XI	966	0	953	49	0
41	QJ	719	0	672	34	0
41	XJ	710	0	661	42	0
42	QK	834	0	838	16	0
42	XK	833	0	836	24	0
43	QL	932	0	981	18	0
43	XL	932	0	981	22	0
44	QM	914	0	954	53	0
44	XM	895	0	920	50	0
45	QN	492	0	529	20	0
45	XN	492	0	529	22	0
46	QO	728	0	760	28	0
46	XO	728	0	760	7	0
47	QP	681	0	697	20	0
47	XP	677	0	686	27	0
48	QQ	823	0	891	16	0
48	XQ	823	0	891	11	0
49	QR	555	0	618	17	0
49	XR	555	0	618	26	0
50	QS	648	0	658	29	0
50	XS	645	0	635	42	0
51	QT	732	0	809	34	0
51	XT	733	0	795	34	0
52	QU	199	0	208	3	0
52	XU	199	0	208	6	0
53	QV	1644	0	836	29	0
53	XV	1644	0	836	22	0
54	QY	2833	0	2729	98	0
54	XY	2833	0	2728	125	0
55	QX	129	0	64	1	0
55	XX	129	0	65	1	0
56	QA	280	0	0	0	0
56	QB	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	QD	4	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	2	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	QV	4	0	0	0	0
56	QY	2	0	0	0	0
56	R0	4	0	0	0	0
56	R1	4	0	0	0	0
56	R3	2	0	0	0	0
56	R4	1	0	0	0	0
56	R5	4	0	0	0	0
56	R7	2	0	0	0	0
56	R8	1	0	0	0	0
56	R9	2	0	0	0	0
56	RA	1069	0	0	0	0
56	RB	28	0	0	0	0
56	RD	14	0	0	0	0
56	RE	7	0	0	0	0
56	RF	11	0	0	0	0
56	RG	4	0	0	0	0
56	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	4	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	193	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	XE	2	0	0	0	0
56	XF	3	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	XT	1	0	0	0	0
56	XV	3	0	0	0	0
56	XY	1	0	0	0	0
56	Y0	1	0	0	0	0
56	Y1	2	0	0	0	0
56	Y5	1	0	0	0	0
56	Y6	1	0	0	0	0
56	Y7	1	0	0	0	0
56	Y8	2	0	0	0	0
56	YA	756	0	0	0	0
56	YB	19	0	0	0	0
56	YD	9	0	0	0	0
56	YE	7	0	0	0	0
56	YF	3	0	0	0	0
56	YG	3	0	0	0	0
56	YI	1	0	0	0	0
56	YN	1	0	0	0	0
56	YO	2	0	0	0	0
56	YP	1	0	0	0	0
56	YQ	2	0	0	0	0
56	YR	1	0	0	0	0
56	YT	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

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
57	YY	1	0	0	0	0
58	QD	8	0	0	0	0
58	XD	8	0	0	0	0
All	All	296497	0	200048	4760	17

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 10.

All (4760) 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)
33:XB:114:ARG:NH1	33:XB:118:LEU:HG	1.41	1.36
42:QK:48:ILE:HD12	42:QK:63:LEU:CB	1.60	1.29
7:YH:7:LEU:O	7:YH:69:ARG:NH1	1.63	1.29
42:QK:48:ILE:CD1	42:QK:63:LEU:HB2	1.66	1.25
26:Y4:59:PHE:CE1	50:XS:64:GLU:HB2	1.73	1.23
26:Y4:58:ARG:NH1	50:XS:65:ASN:O	1.71	1.21
34:XC:152:ILE:HG22	34:XC:167:TRP:CB	1.74	1.16
40:XI:16:ARG:HB2	40:XI:64:THR:HG22	1.26	1.16
4:YE:119:ARG:HD3	4:YE:160:TYR:HB2	1.27	1.15
44:QM:64:TRP:C	26:R4:50:VAL:HG21	1.69	1.14
6:RG:7:LEU:CD1	6:RG:100:TRP:HE3	1.59	1.14
8:YI:72:LEU:HA	8:YI:75:LEU:HD22	1.23	1.13
51:XT:56:MET:CE	51:XT:84:LEU:HD22	1.77	1.13
6:RG:7:LEU:CD1	6:RG:100:TRP:CE3	2.32	1.13
15:YT:118:ARG:HH22	15:YT:121:ILE:HG21	1.01	1.13
6:YG:56:ALA:HA	6:YG:153:ARG:NH2	1.64	1.12
8:YI:72:LEU:O	8:YI:75:LEU:HD23	1.49	1.12
8:YI:40:THR:O	8:YI:44:LEU:HD22	1.46	1.11
9:YN:120:LEU:HD11	9:YN:122:VAL:HG23	1.33	1.11
42:QK:48:ILE:HD12	42:QK:63:LEU:HB2	1.10	1.10
21:RZ:126:VAL:HG11	21:RZ:161:VAL:CG2	1.81	1.09
5:YF:178:PRO:HB2	5:YF:201:VAL:HG21	1.35	1.09
21:RZ:126:VAL:CG1	21:RZ:161:VAL:HG23	1.83	1.09
40:QI:17:VAL:HG21	40:QI:81:ILE:HG22	1.33	1.08
14:RS:59:LYS:HD2	14:RS:60:GLY:H	1.03	1.08
9:YN:120:LEU:CD1	9:YN:122:VAL:HG23	1.82	1.08
8:YI:72:LEU:O	8:YI:75:LEU:CD2	2.01	1.07
34:XC:152:ILE:HG22	34:XC:167:TRP:HB2	1.36	1.07
44:QM:65:LYS:HA	26:R4:50:VAL:HG11	1.35	1.07
51:XT:56:MET:HE3	51:XT:84:LEU:HD22	1.13	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:YS:50:SER:O	14:YS:76:LYS:NZ	1.89	1.06
6:YG:146:TYR:HD2	44:XM:8:GLU:CD	1.63	1.05
33:XB:122:PHE:CG	33:XB:127:ILE:HD12	1.90	1.05
9:YN:120:LEU:HD11	9:YN:122:VAL:CG2	1.88	1.04
40:QI:16:ARG:HB2	40:QI:64:THR:HG22	1.37	1.04
15:RT:55:ASN:H	15:RT:59:THR:HG22	1.19	1.04
6:YG:136:ARG:H	6:YG:136:ARG:HD3	1.21	1.03
7:YH:41:MET:HE2	7:YH:64:LEU:HB3	1.41	1.03
46:QO:3:ILE:HD11	46:QO:34:LEU:HD21	1.37	1.03
46:QO:71:GLN:NE2	46:QO:78:TYR:CE2	2.26	1.03
40:QI:89:ASN:OD1	40:QI:92:TYR:CD1	2.13	1.02
26:Y4:59:PHE:CZ	50:XS:64:GLU:HB2	1.94	1.01
32:QA:1422:G:H5''	10:RO:48:PRO:HB3	1.41	1.01
33:XB:114:ARG:NH1	33:XB:118:LEU:CG	2.23	1.00
25:R3:8:LEU:HD12	25:R3:31:LEU:HA	1.39	1.00
32:XA:1003:G:H2'	32:XA:1004:A:H4'	1.42	0.99
6:YG:16:ARG:HH21	6:YG:31:VAL:HG22	1.28	0.98
6:RG:7:LEU:HD12	6:RG:100:TRP:HE3	1.28	0.98
6:YG:16:ARG:NH2	6:YG:31:VAL:HG22	1.77	0.98
6:YG:56:ALA:CA	6:YG:153:ARG:NH2	2.27	0.98
3:RD:108:PRO:HD2	3:RD:111:LEU:CD1	1.93	0.98
8:YI:72:LEU:CA	8:YI:75:LEU:HD22	1.94	0.97
8:YI:92:VAL:HG23	8:YI:120:ILE:HB	1.43	0.97
40:XI:23:ASN:OD1	40:XI:25:LYS:HE3	1.64	0.97
4:YE:12:THR:HG22	4:YE:13:ARG:H	1.29	0.97
26:Y4:59:PHE:HE1	50:XS:64:GLU:HB2	1.27	0.97
1:RA:2131:G:H5''	1:RA:2132:U:H5'	1.47	0.97
7:YH:41:MET:HE2	7:YH:64:LEU:CB	1.94	0.96
51:XT:56:MET:HE3	51:XT:84:LEU:CD2	1.95	0.96
33:XB:114:ARG:HH11	33:XB:118:LEU:HG	1.01	0.96
51:QT:89:ARG:O	51:QT:93:GLU:HG2	1.66	0.96
26:Y4:59:PHE:HA	26:Y4:61:ARG:N	1.80	0.96
15:YT:118:ARG:NH2	15:YT:121:ILE:HG21	1.79	0.96
44:QM:64:TRP:CA	26:R4:50:VAL:HG21	1.95	0.95
46:QO:3:ILE:HD11	46:QO:34:LEU:CD2	1.95	0.95
10:YO:48:PRO:HB3	32:XA:1422:G:H5''	1.45	0.95
1:YA:2131:G:H5''	1:YA:2132:U:H5'	1.49	0.95
7:YH:33:LEU:HD11	7:YH:75:ALA:HB1	1.48	0.95
15:YT:118:ARG:HH21	15:YT:121:ILE:CD1	1.79	0.95
34:XC:152:ILE:HG22	34:XC:167:TRP:HB3	1.45	0.95
35:QD:88:VAL:HG22	36:QE:96:PRO:HB2	1.48	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:R3:8:LEU:HD11	25:R3:31:LEU:HD22	1.50	0.94
6:YG:44:GLY:O	6:YG:47:LYS:HD2	1.68	0.94
4:RE:175:VAL:HG12	4:RE:182:LEU:HD12	1.50	0.93
8:YI:72:LEU:HA	8:YI:75:LEU:CD2	1.98	0.93
8:RI:140:LEU:CD1	8:RI:142:VAL:CG2	2.45	0.93
8:RI:140:LEU:CD1	8:RI:142:VAL:HG22	1.98	0.93
37:QF:99:ALA:HB2	49:QR:31:LEU:HD21	1.47	0.93
21:YZ:126:VAL:HG11	21:YZ:161:VAL:HG13	1.47	0.92
6:RG:179:PRO:HB2	26:R4:42:PHE:HE2	1.31	0.92
44:XM:96:LEU:O	44:XM:110:ARG:NH1	2.02	0.92
9:RN:120:LEU:HD22	9:RN:122:VAL:HG23	1.51	0.92
7:YH:7:LEU:C	7:YH:69:ARG:HH12	1.78	0.92
35:QD:108:LEU:HD22	35:QD:174:LEU:HD13	1.49	0.91
46:QO:3:ILE:CD1	46:QO:34:LEU:HD21	2.00	0.91
21:RZ:126:VAL:CG1	21:RZ:161:VAL:CG2	2.42	0.91
25:Y3:8:LEU:CD1	25:Y3:31:LEU:HD22	2.01	0.91
9:RN:29:LYS:O	9:RN:33:LEU:HD22	1.69	0.91
3:RD:108:PRO:HD2	3:RD:111:LEU:HD12	1.50	0.90
13:RR:36:THR:HG22	13:RR:37:THR:H	1.35	0.90
51:QT:57:ARG:HH12	51:QT:100:ILE:HD12	1.36	0.90
33:QB:96:ARG:HD2	33:QB:98:LEU:HD23	1.54	0.90
8:YI:75:LEU:HD12	8:YI:105:HIS:ND1	1.87	0.90
34:QC:59:ARG:O	41:QJ:92:THR:CG2	2.19	0.89
42:QK:48:ILE:HD12	42:QK:63:LEU:HB3	1.52	0.89
13:YR:55:ALA:CB	13:YR:79:LEU:HD22	2.02	0.89
1:YA:250:G:OP2	30:Y8:13:ARG:NH2	2.06	0.89
6:YG:56:ALA:HA	6:YG:153:ARG:HH22	1.35	0.89
33:XB:122:PHE:CE1	33:XB:127:ILE:HD11	2.06	0.89
32:XA:582:U:OP1	46:XO:68:ARG:NH2	2.06	0.89
33:QB:15:VAL:CG2	33:QB:209:ARG:HG2	2.02	0.88
25:Y3:8:LEU:HD11	25:Y3:31:LEU:HD22	1.53	0.88
8:RI:140:LEU:HD11	8:RI:142:VAL:HG22	1.55	0.88
29:R7:34:ARG:NH1	29:R7:41:ARG:O	2.07	0.88
1:RA:2602:A:N6	54:QY:253:HIS:O	2.06	0.88
15:RT:55:ASN:N	15:RT:59:THR:HG22	1.89	0.88
6:YG:36:LYS:HE2	6:YG:95:ARG:NH1	1.89	0.88
51:QT:10:LEU:HD23	51:QT:11:SER:H	1.39	0.88
14:RS:59:LYS:CD	14:RS:60:GLY:H	1.85	0.88
28:R6:14:THR:HG21	28:R6:48:VAL:HG13	1.53	0.88
8:YI:40:THR:O	8:YI:44:LEU:CD2	2.22	0.87
50:XS:50:ALA:HB1	50:XS:57:HIS:HB3	1.55	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:QI:89:ASN:OD1	40:QI:92:TYR:HD1	1.53	0.87
46:QO:3:ILE:CD1	46:QO:34:LEU:CD2	2.52	0.87
21:RZ:126:VAL:HG11	21:RZ:161:VAL:HG23	1.48	0.87
33:XB:15:VAL:HB	33:XB:209:ARG:HB3	1.53	0.87
8:RI:109:ILE:HG13	8:RI:130:TYR:CZ	2.09	0.87
25:R3:8:LEU:CD1	25:R3:31:LEU:HD22	2.04	0.87
6:YG:56:ALA:CB	6:YG:153:ARG:NH2	2.37	0.86
6:YG:146:TYR:CD2	44:XM:8:GLU:CD	2.53	0.86
41:XJ:49:VAL:HG23	45:XN:41:ARG:HB2	1.57	0.86
1:YA:1041:C:H42	1:YA:1114:G:H1	1.24	0.86
13:YR:18:LEU:HD11	13:YR:22:ARG:CZ	2.05	0.86
13:YR:55:ALA:HB2	13:YR:79:LEU:HD22	1.57	0.86
33:QB:96:ARG:HD2	33:QB:98:LEU:CD2	2.05	0.86
34:QC:59:ARG:O	41:QJ:92:THR:HG22	1.75	0.86
5:RF:178:PRO:HB2	5:RF:201:VAL:HG21	1.57	0.86
26:Y4:58:ARG:CZ	44:XM:80:ARG:NH2	2.39	0.85
6:RG:7:LEU:HD13	6:RG:100:TRP:CE3	2.08	0.85
14:RS:59:LYS:HD2	14:RS:60:GLY:N	1.89	0.85
5:RF:165:ARG:HA	5:RF:168:ARG:HD2	1.58	0.85
7:RH:116:GLU:OE1	7:RH:117:PRO:HD2	1.76	0.85
17:RV:72:VAL:HG13	17:RV:85:LYS:HB3	1.58	0.85
18:RW:11:ARG:HG3	18:RW:11:ARG:O	1.75	0.85
53:XV:75:C:OP2	54:XY:278:ARG:NH2	2.09	0.85
33:QB:82:ARG:NH1	33:QB:86:GLU:OE2	2.10	0.85
35:XD:18:LYS:NZ	35:XD:31:CYS:SG	2.50	0.85
38:QG:89:MET:HE1	38:QG:155:ARG:HB2	1.58	0.85
6:YG:16:ARG:HH21	6:YG:31:VAL:CG2	1.89	0.84
4:RE:51:PHE:H	4:RE:75:VAL:HG11	1.41	0.84
5:YF:178:PRO:HB2	5:YF:201:VAL:CG2	2.05	0.84
37:QF:1:MET:HE3	37:QF:66:GLU:HG2	1.59	0.84
33:XB:88:ALA:HB1	33:XB:222:ILE:HD11	1.59	0.84
6:RG:41:GLN:HB3	6:RG:43:LEU:HD13	1.60	0.84
27:R5:47:PRO:O	27:R5:60:VAL:HG21	1.76	0.84
34:QC:6:HIS:CE1	34:QC:8:ILE:HB	2.12	0.84
44:XM:107:ALA:HB3	44:XM:111:LYS:HD2	1.60	0.84
40:QI:16:ARG:HD3	40:QI:64:THR:HG21	1.58	0.84
10:YO:24:VAL:HG23	10:YO:33:ALA:HB2	1.60	0.84
40:XI:16:ARG:HD3	40:XI:64:THR:HG21	1.58	0.83
12:RQ:80:GLU:OE1	54:QY:281:HIS:CD2	2.31	0.83
7:YH:9:ILE:HG12	7:YH:69:ARG:HD3	1.58	0.83
7:YH:41:MET:CE	7:YH:64:LEU:HB2	2.09	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:2103:C:N3	1:RA:2104:G:N2	2.27	0.83
5:RF:178:PRO:HB2	5:RF:201:VAL:CG2	2.08	0.83
40:QI:16:ARG:HB2	40:QI:64:THR:CG2	2.07	0.83
9:YN:94:HIS:CB	9:YN:97:ARG:HD3	2.08	0.83
9:YN:94:HIS:HB3	9:YN:97:ARG:HD3	1.57	0.83
26:Y4:59:PHE:HA	26:Y4:61:ARG:H	1.40	0.83
26:R4:41:PRO:HG3	26:R4:49:PHE:CE1	2.13	0.83
1:RA:1310:G:OP2	29:R7:9:ARG:NH1	2.10	0.83
12:YQ:34:LEU:HB2	12:YQ:118:LEU:HD22	1.60	0.83
1:RA:250:G:OP2	30:R8:13:ARG:NH2	2.09	0.83
40:XI:53:VAL:O	40:XI:55:ALA:N	2.11	0.82
33:QB:15:VAL:CG1	33:QB:213:LEU:HD12	2.08	0.82
39:QH:51:VAL:HG12	39:QH:52:ASP:H	1.43	0.82
39:XH:12:ARG:HD2	39:XH:26:VAL:HG12	1.61	0.82
26:Y4:58:ARG:NH1	44:XM:80:ARG:HH21	1.76	0.82
4:RE:51:PHE:H	4:RE:75:VAL:CG1	1.92	0.82
18:YW:11:ARG:O	18:YW:11:ARG:HG3	1.80	0.82
44:QM:15:VAL:O	44:QM:19:LEU:HD13	1.80	0.82
36:XE:50:GLU:HB2	36:XE:53:LEU:HD13	1.62	0.82
1:YA:2103:C:N3	1:YA:2104:G:N2	2.29	0.81
5:YF:39:TRP:CZ2	5:YF:106:ARG:NH2	2.48	0.81
6:YG:16:ARG:NH2	6:YG:31:VAL:CG2	2.43	0.81
15:YT:118:ARG:HH22	15:YT:121:ILE:CG2	1.89	0.81
33:QB:15:VAL:HG23	33:QB:209:ARG:CG	2.11	0.81
15:YT:118:ARG:HH21	15:YT:121:ILE:HD12	1.43	0.81
15:YT:118:ARG:NH2	15:YT:121:ILE:CD1	2.42	0.81
19:RX:88:LYS:NZ	19:RX:90:GLU:OE1	2.13	0.81
32:XA:559:A:H4'	32:XA:560:U:H3'	1.62	0.81
13:RR:24:GLN:HB3	13:RR:44:LEU:HD11	1.61	0.81
21:RZ:72:ARG:CG	21:RZ:89:PHE:HB2	2.11	0.81
13:YR:62:ALA:HA	13:YR:65:LEU:HD23	1.62	0.81
41:XJ:35:SER:HB3	41:XJ:73:ASP:H	1.45	0.81
1:RA:587:C:OP2	11:RP:21:ARG:NH2	2.13	0.81
50:XS:20:LEU:HD23	50:XS:23:ASN:HD22	1.46	0.81
40:QI:108:VAL:HG12	40:QI:109:VAL:H	1.45	0.81
27:R5:40:LYS:NZ	27:R5:44:THR:O	2.13	0.81
5:RF:20:LEU:HD13	5:RF:21:ALA:N	1.96	0.80
6:YG:56:ALA:CB	6:YG:153:ARG:HH21	1.93	0.80
40:QI:50:LEU:HD13	40:QI:56:LEU:HA	1.62	0.80
13:YR:61:HIS:O	13:YR:65:LEU:HD22	1.80	0.80
11:YP:97:PRO:HA	11:YP:112:LEU:HD12	1.64	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:YH:9:ILE:HG12	7:YH:69:ARG:CD	2.12	0.80
40:XI:16:ARG:HB2	40:XI:64:THR:CG2	2.08	0.80
54:XY:203:ARG:HD3	54:XY:328:LEU:HD12	1.64	0.80
48:QQ:66:SER:O	48:QQ:70:ARG:NH1	2.15	0.80
33:XB:47:THR:HA	33:XB:202:PRO:HG2	1.64	0.80
5:YF:24:LEU:HD23	5:YF:115:ALA:HA	1.64	0.80
33:XB:114:ARG:HH12	33:XB:118:LEU:HG	1.45	0.80
15:RT:95:ARG:HH11	15:RT:95:ARG:HG2	1.47	0.80
6:RG:161:THR:HG22	6:RG:163:ALA:H	1.47	0.79
22:R0:10:THR:HG22	22:R0:12:ASN:H	1.45	0.79
6:YG:36:LYS:HE2	6:YG:95:ARG:HH12	1.45	0.79
40:QI:16:ARG:CB	40:QI:64:THR:HG22	2.11	0.79
7:YH:9:ILE:CG1	7:YH:69:ARG:HD3	2.12	0.79
33:XB:122:PHE:CG	33:XB:127:ILE:CD1	2.66	0.79
4:YE:119:ARG:CD	4:YE:160:TYR:HB2	2.09	0.79
25:Y3:8:LEU:HD12	25:Y3:31:LEU:HA	1.62	0.79
6:RG:179:PRO:HB2	26:R4:42:PHE:CE2	2.18	0.79
4:YE:47:VAL:HG11	4:YE:86:PRO:HD2	1.65	0.79
32:QA:532:A:N6	32:QA:1206:G:O2'	2.16	0.79
4:RE:47:VAL:HG21	4:RE:86:PRO:HD2	1.64	0.79
27:R5:47:PRO:O	27:R5:60:VAL:CG2	2.30	0.79
34:QC:6:HIS:HE1	34:QC:8:ILE:HB	1.46	0.79
1:RA:140:G:N2	1:RA:142(A):A:N6	2.31	0.79
4:YE:12:THR:HG22	4:YE:13:ARG:N	1.98	0.78
33:QB:200:ILE:HG22	33:QB:202:PRO:HD3	1.65	0.78
8:RI:140:LEU:HD12	8:RI:142:VAL:CG2	2.11	0.78
21:YZ:45:ASP:OD1	21:YZ:49:ARG:NH1	2.17	0.78
37:XF:33:TYR:HB2	37:XF:75:LEU:HD23	1.65	0.78
1:RA:1530:C:O2'	1:RA:1531:C:O5'	2.01	0.78
1:YA:1530:C:O2'	1:YA:1531:C:O5'	2.00	0.78
18:RW:23:LEU:HD11	27:R5:25:LEU:HB2	1.63	0.78
7:YH:41:MET:CE	7:YH:64:LEU:CB	2.61	0.78
13:YR:100:LEU:HD22	13:YR:112:ALA:HA	1.65	0.78
51:QT:10:LEU:CD2	51:QT:11:SER:H	1.97	0.78
9:RN:120:LEU:CD2	9:RN:122:VAL:HG23	2.13	0.78
15:RT:35:LYS:HD2	15:RT:36:GLU:N	1.98	0.78
54:XY:203:ARG:HH12	54:XY:206:PRO:HD3	1.49	0.78
1:YA:1069:A:H5'	1:YA:1096:A:H5'	1.66	0.78
5:YF:39:TRP:CH2	5:YF:106:ARG:NH2	2.52	0.78
33:XB:229:VAL:HG12	33:XB:230:VAL:H	1.49	0.78
9:YN:42:TRP:HA	9:YN:48:MET:HE1	1.65	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:1492:A:O4'	43:QL:47:LYS:NZ	2.17	0.78
33:QB:15:VAL:HG23	33:QB:209:ARG:HG2	1.64	0.78
33:XB:8:LYS:HG2	33:XB:9:GLU:H	1.49	0.77
35:QD:166:LYS:N	35:QD:168:ARG:HH21	1.82	0.77
32:XA:1402:4OC:HM22	32:XA:1403:C:H5'	1.67	0.77
1:RA:272(K):U:H1'	8:RI:50:ARG:HH21	1.48	0.77
1:YA:2640:G:O3'	9:YN:74:ARG:NH2	2.13	0.77
8:YI:92:VAL:CG2	8:YI:120:ILE:HB	2.14	0.77
33:XB:18:GLY:HA2	33:XB:42:ILE:HD12	1.66	0.77
32:QA:1189:C:OP1	41:QJ:51:ARG:NH2	2.17	0.77
1:RA:994:C:OP1	16:RU:53:ARG:NH2	2.16	0.77
32:QA:673:G:H2'	32:QA:674:G:C8	2.19	0.77
44:QM:65:LYS:HG2	26:R4:50:VAL:HG13	1.67	0.77
8:YI:72:LEU:O	8:YI:75:LEU:HD22	1.83	0.77
33:XB:185:ILE:HD12	33:XB:199:TYR:HB2	1.66	0.77
5:RF:53:THR:HG22	5:RF:55:GLY:H	1.50	0.77
32:XA:975:A:H4'	32:XA:976:G:H5''	1.67	0.77
10:RO:24:VAL:HG23	10:RO:33:ALA:HB2	1.67	0.77
11:RP:101:VAL:HG23	11:RP:106:LEU:HD12	1.66	0.77
13:RR:55:ALA:CB	13:RR:79:LEU:HD22	2.15	0.76
1:YA:2748:A:H5'	7:YH:4:ILE:HD12	1.67	0.76
10:YO:35:VAL:HG11	10:YO:103:ALA:HB3	1.67	0.76
32:XA:673:G:H2'	32:XA:674:G:C8	2.20	0.76
46:QO:84:LYS:O	46:QO:84:LYS:HD3	1.85	0.76
9:RN:29:LYS:O	9:RN:33:LEU:CD2	2.33	0.76
32:QA:538:G:H5''	43:QL:114:LYS:HB2	1.66	0.76
6:YG:35:GLU:HG3	6:YG:36:LYS:HE3	1.67	0.76
33:QB:185:ILE:HG22	33:QB:199:TYR:HB2	1.67	0.76
8:YI:72:LEU:C	8:YI:75:LEU:HD22	2.09	0.76
15:YT:118:ARG:NH2	15:YT:121:ILE:HD13	1.99	0.76
46:XO:17:ARG:HD3	46:XO:26:GLU:OE1	1.85	0.76
44:QM:3:ARG:HG3	44:QM:4:ILE:H	1.50	0.76
21:RZ:144:LEU:HD21	21:RZ:150:LEU:HD13	1.67	0.76
32:XA:390:C:O3'	47:XP:28:ARG:NH2	2.18	0.76
10:RO:35:VAL:HG11	10:RO:103:ALA:HB3	1.66	0.76
1:YA:2602:A:N6	54:XY:253:HIS:O	2.18	0.76
32:QA:677:U:H3	32:QA:713:G:H22	1.34	0.76
11:RP:63:PRO:HG2	30:R8:25:MET:HB2	1.68	0.76
1:YA:2785:C:OP1	4:YE:41:LYS:NZ	2.19	0.76
44:XM:15:VAL:O	44:XM:19:LEU:HD13	1.85	0.76
6:YG:56:ALA:HB2	6:YG:153:ARG:NH2	2.00	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Y0:10:THR:HG22	22:Y0:12:ASN:H	1.51	0.75
21:YZ:72:ARG:CG	21:YZ:89:PHE:HB2	2.17	0.75
33:XB:122:PHE:CD1	33:XB:127:ILE:CD1	2.69	0.75
20:YY:23:ARG:HG2	20:YY:42:VAL:HG22	1.67	0.75
23:Y1:75:GLU:HA	23:Y1:78:LYS:HE2	1.68	0.75
6:YG:161:THR:HG22	6:YG:163:ALA:H	1.49	0.75
25:Y3:8:LEU:CD1	25:Y3:31:LEU:HA	2.16	0.75
6:YG:56:ALA:HA	6:YG:153:ARG:HH21	1.52	0.75
6:YG:136:ARG:H	6:YG:136:ARG:CD	1.98	0.75
32:QA:1402:4OC:HM22	32:QA:1403:C:H5'	1.68	0.75
44:QM:68:GLY:HA3	6:RG:116:ASP:OD1	1.87	0.75
32:QA:370:C:O2	32:QA:391:G:N2	2.18	0.75
32:QA:975:A:H4'	32:QA:976:G:H5''	1.67	0.75
15:YT:16:ARG:NH2	15:YT:83:ILE:O	2.20	0.75
1:RA:1073:A:H2'	1:RA:1074:G:H8	1.50	0.75
13:RR:55:ALA:HB2	13:RR:79:LEU:HD22	1.69	0.75
11:RP:98:GLU:OE1	11:RP:102:ARG:NH1	2.16	0.74
21:RZ:72:ARG:HG2	21:RZ:89:PHE:HB2	1.69	0.74
23:R1:50:ARG:HG2	23:R1:59:THR:HG22	1.69	0.74
51:QT:57:ARG:NH1	51:QT:100:ILE:HD12	2.03	0.74
1:RA:956:G:OP2	12:RQ:14:ARG:NH2	2.18	0.74
9:YN:120:LEU:HD13	9:YN:122:VAL:HG23	1.66	0.74
18:YW:51:LEU:HD13	18:YW:51:LEU:C	2.13	0.74
28:Y6:13:CYS:SG	28:Y6:47:THR:HG21	2.27	0.74
33:QB:15:VAL:HG21	33:QB:209:ARG:HG2	1.69	0.74
44:QM:65:LYS:N	26:R4:50:VAL:HG21	2.02	0.74
32:XA:1302:U:OP1	44:XM:13:LYS:NZ	2.20	0.74
54:XY:334:LYS:HG2	54:XY:341:GLU:HG2	1.69	0.74
32:QA:1124:G:N2	32:QA:1125:U:O4	2.19	0.74
41:QJ:35:SER:HB3	41:QJ:73:ASP:HB2	1.69	0.74
3:RD:69:ARG:NH2	3:RD:128:GLY:O	2.20	0.74
11:RP:112:LEU:HD12	11:RP:127:ALA:CB	2.18	0.74
21:YZ:10:ARG:NH2	21:YZ:26:GLY:O	2.21	0.74
21:YZ:126:VAL:CG1	21:YZ:161:VAL:HG13	2.17	0.74
49:XR:56:THR:HB	49:XR:58:LEU:HD23	1.70	0.74
1:RA:2748:A:H5'	7:RH:4:ILE:HD12	1.69	0.74
26:Y4:59:PHE:CE1	50:XS:64:GLU:CB	2.65	0.74
32:XA:501:C:H2'	32:XA:502:G:H8	1.53	0.74
1:RA:1250:G:N7	11:RP:18:ARG:NH2	2.35	0.74
54:QY:162:LYS:HB2	54:QY:184:SER:HB3	1.70	0.74
5:YF:110:LEU:HD13	5:YF:202:PHE:HE1	1.52	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:1060:C:HO2'	41:XJ:56:HIS:HD1	1.34	0.73
39:QH:14:ARG:O	39:QH:18:ARG:HG2	1.87	0.73
44:QM:65:LYS:CA	26:R4:50:VAL:HG11	2.15	0.73
33:XB:122:PHE:CZ	33:XB:127:ILE:HD11	2.23	0.73
21:RZ:9:TYR:OH	21:RZ:61:LEU:HD23	1.89	0.73
53:XV:75:C:H5	54:XY:278:ARG:HH12	1.37	0.73
44:QM:64:TRP:HA	26:R4:50:VAL:HG21	1.70	0.73
1:RA:83:G:OP1	20:RY:95:LYS:NZ	2.19	0.73
3:RD:72:LYS:HG3	3:RD:103:ARG:NH2	2.02	0.73
3:YD:30:GLU:HG3	3:YD:94:LEU:HD21	1.71	0.73
7:YH:69:ARG:HD2	7:YH:69:ARG:O	1.88	0.73
39:QH:20:TYR:CE1	39:QH:78:GLN:NE2	2.55	0.73
6:YG:136:ARG:HG2	6:YG:137:GLU:HG3	1.71	0.73
6:YG:101:ILE:HD13	26:Y4:25:TYR:HB2	1.69	0.73
44:QM:4:ILE:HD12	44:QM:57:ARG:HA	1.71	0.73
49:XR:58:LEU:HD12	49:XR:62:GLU:HG3	1.69	0.73
11:RP:59:LEU:HD11	30:R8:10:ALA:HB2	1.70	0.73
55:XX:21:A:H62	54:XY:215:THR:HG1	1.34	0.73
32:XA:1318:A:H5''	50:XS:3:ARG:HH22	1.53	0.73
40:QI:25:LYS:HE2	40:QI:25:LYS:HA	1.71	0.73
50:QS:64:GLU:HG3	26:R4:59:PHE:CE1	2.23	0.73
38:XG:151:TYR:OH	42:XK:54:ARG:NH1	2.21	0.72
28:R6:14:THR:HG21	28:R6:48:VAL:CG1	2.18	0.72
32:XA:109:A:C6	32:XA:326:G:C6	2.77	0.72
32:XA:978:A:OP2	32:XA:1363(A):C:N4	2.21	0.72
1:YA:1266:G:O5'	18:YW:15:ARG:NH2	2.22	0.72
21:YZ:179:ASP:O	21:YZ:182:LYS:HG2	1.89	0.72
26:Y4:18:CYS:SG	26:Y4:39:CYS:HB3	2.28	0.72
32:XA:1456:G:O6	51:XT:54:LYS:NZ	2.22	0.72
32:QA:946:A:H2'	32:QA:947:G:C8	2.24	0.72
32:XA:677:U:H3	32:XA:713:G:H22	1.36	0.72
35:XD:108:LEU:CD1	35:XD:174:LEU:HD13	2.19	0.72
44:XM:58:GLU:O	44:XM:62:ASN:ND2	2.23	0.72
32:QA:159:G:N2	32:QA:162:A:OP2	2.17	0.72
21:RZ:126:VAL:HG13	21:RZ:161:VAL:HG23	1.70	0.72
7:YH:41:MET:HE1	7:YH:64:LEU:HB2	1.70	0.72
8:YI:50:ARG:O	8:YI:54:GLN:NE2	2.23	0.72
41:XJ:17:ASP:OD1	41:XJ:70:ARG:NH1	2.22	0.72
32:QA:1356:G:H2'	32:QA:1357:A:C8	2.24	0.72
41:QJ:49:VAL:HG23	45:QN:41:ARG:HB2	1.70	0.72
44:QM:4:ILE:CD1	44:QM:57:ARG:HA	2.20	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:RG:63:ILE:HA	6:RG:143:GLU:HG3	1.71	0.72
15:RT:16:ARG:NH2	15:RT:83:ILE:O	2.22	0.72
13:YR:36:THR:HG22	13:YR:37:THR:H	1.54	0.72
26:Y4:58:ARG:CZ	44:XM:80:ARG:HH21	2.02	0.72
33:QB:8:LYS:HZ3	33:QB:52:GLU:HA	1.54	0.72
1:RA:2126:A:H4'	1:RA:2127:G:O5'	1.90	0.72
41:XJ:38:ILE:CG1	41:XJ:71:LEU:HB3	2.20	0.72
35:QD:148:VAL:HG11	35:QD:158:ILE:HD12	1.69	0.72
1:RA:1971:A:OP2	3:RD:242:ARG:NH2	2.23	0.72
21:RZ:126:VAL:HG11	21:RZ:161:VAL:HG21	1.70	0.72
10:YO:24:VAL:CG2	10:YO:33:ALA:HB2	2.20	0.72
27:Y5:16:ARG:NH1	27:Y5:17:ASP:OD1	2.23	0.72
34:QC:59:ARG:H	41:QJ:92:THR:HG21	1.53	0.72
46:QO:54:ARG:HG2	46:QO:58:MET:HE2	1.71	0.72
54:QY:138:GLY:O	54:QY:140:GLU:N	2.22	0.72
26:Y4:58:ARG:HH12	50:XS:66:MET:HA	1.55	0.71
37:XF:67:MET:SD	37:XF:72:VAL:HG12	2.30	0.71
40:XI:16:ARG:CB	40:XI:64:THR:HG22	2.14	0.71
32:QA:339:C:OP2	10:RO:97:ARG:NH1	2.23	0.71
35:QD:88:VAL:CG2	36:QE:96:PRO:HB2	2.20	0.71
26:Y4:16:CYS:SG	26:Y4:17:GLY:N	2.63	0.71
32:QA:343:U:O2'	32:QA:346:G:O6	2.06	0.71
33:QB:229:VAL:HG12	33:QB:230:VAL:H	1.54	0.71
35:QD:50:ARG:HH12	36:QE:9:LYS:HZ2	1.38	0.71
39:QH:112:LEU:HD23	39:QH:133:LEU:HA	1.72	0.71
44:QM:64:TRP:C	26:R4:50:VAL:CG2	2.58	0.71
7:RH:116:GLU:OE1	7:RH:117:PRO:CD	2.38	0.71
11:RP:112:LEU:CD1	11:RP:127:ALA:CB	2.69	0.71
54:XY:201:LEU:HD21	54:XY:203:ARG:HE	1.53	0.71
33:QB:21:ARG:H	33:QB:21:ARG:CD	2.03	0.71
32:XA:1086:U:H3	32:XA:1099:G:H22	1.38	0.71
4:YE:11:MET:HG2	4:YE:24:THR:HG22	1.71	0.71
32:XA:1356:G:H2'	32:XA:1357:A:C8	2.25	0.71
32:QA:56:U:H2'	32:QA:57:G:H8	1.55	0.71
44:QM:3:ARG:HG3	44:QM:4:ILE:N	2.05	0.71
1:RA:631:A:OP1	11:RP:65:ARG:NH1	2.22	0.71
34:XC:6:HIS:HD2	34:XC:9:GLY:H	1.38	0.71
50:XS:41:VAL:HG12	50:XS:44:MET:HG3	1.71	0.71
50:QS:41:VAL:HG12	50:QS:44:MET:HG3	1.71	0.71
35:QD:106:TYR:HE2	35:QD:107:ARG:HH11	1.38	0.71
5:RF:33:LEU:HD13	5:RF:112:MET:CE	2.21	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:R6:13:CYS:SG	28:R6:47:THR:HG21	2.31	0.71
1:RA:1041:C:H42	1:RA:1114:G:H1	1.38	0.71
13:RR:36:THR:HG22	13:RR:37:THR:N	2.04	0.70
1:YA:1073:A:H2'	1:YA:1074:G:H8	1.55	0.70
32:QA:974:A:OP2	45:QN:29:ARG:NH2	2.24	0.70
35:QD:57:ARG:NH2	36:QE:107:ARG:CD	2.55	0.70
53:QV:75:C:OP2	54:QY:278:ARG:NH2	2.24	0.70
6:YG:41:GLN:HB3	6:YG:43:LEU:HD13	1.73	0.70
7:YH:33:LEU:CD1	7:YH:75:ALA:HB1	2.19	0.70
15:YT:118:ARG:HH21	15:YT:121:ILE:HD13	1.52	0.70
33:XB:91:PRO:HG3	33:XB:155:LEU:HD23	1.74	0.70
33:QB:15:VAL:HG11	33:QB:213:LEU:HD12	1.73	0.70
1:YA:1064:C:H3'	1:YA:1065:U:C5'	2.22	0.70
1:YA:2406:U:N3	11:YP:73:GLY:O	2.23	0.70
6:YG:63:ILE:HA	6:YG:143:GLU:HG3	1.73	0.70
51:QT:60:GLU:HG3	51:QT:81:LYS:HD2	1.72	0.70
25:R3:3:ARG:NH1	25:R3:60:GLU:OE2	2.24	0.70
8:YI:86:THR:HA	8:YI:123:LEU:HD23	1.73	0.70
19:YX:57:LEU:HD12	19:YX:78:LYS:HG2	1.73	0.70
10:RO:10:VAL:CG2	10:RO:16:ALA:O	2.40	0.70
33:QB:21:ARG:H	33:QB:21:ARG:HD2	1.57	0.69
19:YX:29:TRP:CZ2	19:YX:76:ARG:NH2	2.59	0.69
24:Y2:35:LEU:HD21	24:Y2:49:LYS:HE2	1.74	0.69
32:QA:1298:C:C4	38:QG:114:ARG:HD2	2.27	0.69
35:QD:88:VAL:HG13	36:QE:97:GLY:HA2	1.72	0.69
6:RG:115:ARG:HB3	6:RG:136:ARG:HH22	1.58	0.69
8:RI:140:LEU:CD1	8:RI:142:VAL:HG23	2.22	0.69
29:R7:9:ARG:NH2	29:R7:47:ARG:HB3	2.07	0.69
54:QY:22:ARG:HG2	54:QY:70:LEU:HD13	1.71	0.69
54:XY:130:LEU:HD12	54:XY:192:LEU:HD13	1.73	0.69
40:QI:108:VAL:HG12	40:QI:109:VAL:N	2.07	0.69
44:QM:2:ALA:O	26:R4:34:GLU:OE1	2.10	0.69
33:XB:122:PHE:CD1	33:XB:127:ILE:HD12	2.26	0.69
34:QC:59:ARG:O	41:QJ:92:THR:HG23	1.91	0.69
1:RA:1064:C:H3'	1:RA:1065:U:C5'	2.22	0.69
26:Y4:59:PHE:CZ	50:XS:64:GLU:CB	2.75	0.69
32:QA:992:U:H4'	32:QA:993:G:H5'	1.75	0.69
32:QA:1492:A:H2'	54:QY:319:TRP:HE1	1.56	0.69
35:QD:18:LYS:NZ	35:QD:31:CYS:SG	2.65	0.69
1:RA:20:C:OP1	16:RU:22:LYS:NZ	2.26	0.69
10:YO:10:VAL:CG2	10:YO:16:ALA:O	2.40	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:XC:109:PRO:HB3	34:XC:115:LEU:HD23	1.74	0.69
32:QA:1304:G:OP1	52:QU:2:GLY:N	2.25	0.69
3:RD:108:PRO:HD2	3:RD:111:LEU:CG	2.21	0.69
26:Y4:59:PHE:HZ	50:XS:64:GLU:OE1	1.75	0.69
32:XA:17:U:H2'	32:XA:18:C:C6	2.28	0.69
47:QP:53:VAL:HG13	47:QP:79:VAL:HG12	1.74	0.69
12:YQ:80:GLU:OE1	54:XY:281:HIS:ND1	2.26	0.69
21:YZ:72:ARG:HG3	21:YZ:89:PHE:HB2	1.74	0.69
32:XA:946:A:H2'	32:XA:947:G:C8	2.28	0.69
19:RX:5:TYR:O	24:R2:36:ARG:NH2	2.25	0.69
1:YA:1721:G:H8	1:YA:1741:A:H62	1.39	0.69
15:YT:118:ARG:NH2	15:YT:121:ILE:CG2	2.54	0.69
32:QA:1025:U:C2	32:QA:1036:G:O6	2.46	0.69
26:Y4:61:ARG:HG2	50:XS:42:PRO:CG	2.23	0.68
32:XA:1189:C:OP1	41:XJ:51:ARG:NH2	2.23	0.68
32:QA:1030(A):C:N4	32:QA:1032:G:O6	2.27	0.68
35:QD:57:ARG:HH22	36:QE:107:ARG:CD	2.06	0.68
10:RO:24:VAL:CG2	10:RO:33:ALA:HB2	2.22	0.68
1:YA:641:C:O2'	1:YA:2350:C:OP1	2.12	0.68
7:YH:33:LEU:HD11	7:YH:75:ALA:CB	2.23	0.68
38:QG:89:MET:CE	38:QG:155:ARG:HB2	2.23	0.68
20:RY:92:ASN:HB2	20:RY:94:LYS:H	1.59	0.68
17:YV:72:VAL:HG13	17:YV:85:LYS:HB3	1.75	0.68
32:XA:1360:A:OP2	45:XN:35:ARG:NH2	2.26	0.68
1:RA:140:G:H22	1:RA:1596:A:H4'	1.57	0.68
4:RE:51:PHE:N	4:RE:75:VAL:HG11	2.07	0.68
54:XY:228:ASP:HB3	54:XY:230:ILE:HG13	1.75	0.68
1:YA:857:C:OP2	22:Y0:77:ARG:NH2	2.26	0.68
15:YT:108:ARG:NH1	32:XA:1464:G:OP1	2.27	0.68
18:YW:23:LEU:HD11	27:Y5:25:LEU:HB2	1.76	0.68
32:XA:642:A:N3	39:XH:113:SER:OG	2.26	0.68
32:XA:946:A:H2'	32:XA:947:G:H8	1.58	0.68
37:XF:100:ASN:ND2	49:XR:23:LYS:HE2	2.09	0.68
1:RA:1296:G:OP1	1:RA:2709:G:O2'	2.11	0.68
8:YI:72:LEU:C	8:YI:75:LEU:CD2	2.65	0.68
33:XB:114:ARG:HH12	33:XB:118:LEU:CG	2.04	0.68
47:XP:66:PRO:HG2	47:XP:71:ARG:NH1	2.09	0.68
32:QA:1158:C:H5	32:QA:1181:G:H1	1.42	0.68
34:QC:131:ARG:NH1	36:QE:50:GLU:CD	2.51	0.68
54:XY:144:TRP:HE3	54:XY:147:MET:HE3	1.58	0.68
6:YG:146:TYR:HE2	44:XM:8:GLU:HB3	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:YZ:198:LYS:NZ	53:XV:52:G:H2'	2.08	0.68
33:XB:96:ARG:HD2	33:XB:98:LEU:HD23	1.74	0.68
35:QD:50:ARG:NH1	36:QE:9:LYS:NZ	2.41	0.68
21:RZ:45:ASP:OD1	21:RZ:49:ARG:NH1	2.26	0.68
54:QY:115:PHE:HB3	54:QY:119:PHE:HD2	1.57	0.68
6:YG:21:ARG:HE	6:YG:22:ARG:HG2	1.59	0.68
32:XA:581:G:OP1	46:XO:65:ARG:NH2	2.27	0.68
42:XK:99:GLN:HG2	42:XK:105:VAL:HG21	1.75	0.68
33:QB:21:ARG:HH22	33:QB:23:ARG:HH21	1.39	0.68
6:RG:3:LEU:HD22	26:R4:25:TYR:CE2	2.28	0.68
3:YD:134:ARG:NH1	3:YD:188:GLU:OE2	2.25	0.68
30:Y8:6:THR:HG22	30:Y8:63:PRO:HD2	1.76	0.68
32:XA:1182:G:H4'	32:XA:1183:A:H3'	1.75	0.68
36:XE:137:GLU:HG2	36:XE:140:ARG:HH11	1.59	0.68
8:YI:40:THR:C	8:YI:44:LEU:CD2	2.67	0.67
23:Y1:50:ARG:HG2	23:Y1:59:THR:HG22	1.76	0.67
32:XA:559:A:OP1	36:XE:126:ARG:NH2	2.26	0.67
33:XB:122:PHE:HA	33:XB:127:ILE:HD12	1.76	0.67
33:QB:96:ARG:CD	33:QB:98:LEU:HD23	2.23	0.67
21:RZ:72:ARG:HG3	21:RZ:89:PHE:HB2	1.75	0.67
18:YW:14:PRO:HG2	18:YW:78:GLU:HG2	1.77	0.67
7:RH:9:ILE:HD11	7:RH:69:ARG:HD2	1.74	0.67
54:QY:168:GLU:HG2	54:QY:179:VAL:HG12	1.76	0.67
54:XY:162:LYS:HB2	54:XY:184:SER:HB3	1.75	0.67
1:YA:2126:A:H4'	1:YA:2127:G:O5'	1.93	0.67
1:YA:2753:A:N3	31:Y9:15:LYS:NZ	2.42	0.67
32:QA:559:A:OP1	36:QE:126:ARG:NH2	2.28	0.67
5:RF:165:ARG:HA	5:RF:168:ARG:CD	2.24	0.67
53:XV:53:G:H4'	53:XV:54:U:OP1	1.93	0.67
26:Y4:58:ARG:HH11	50:XS:65:ASN:C	2.02	0.67
41:XJ:11:PHE:HE1	41:XJ:67:THR:HG22	1.57	0.67
1:RA:2115:G:N1	1:RA:2119:A:OP2	2.27	0.67
11:RP:112:LEU:HD12	11:RP:127:ALA:HB2	1.77	0.67
54:XY:21:LEU:HD23	54:XY:70:LEU:HD21	1.76	0.67
4:YE:12:THR:HG23	15:YT:58:ASN:HD21	1.60	0.67
32:QA:1492:A:H3'	32:QA:1493:A:H8	1.60	0.67
33:QB:8:LYS:NZ	33:QB:52:GLU:HA	2.09	0.67
19:YX:11:PRO:HB3	19:YX:92:LEU:HD11	1.76	0.67
33:XB:122:PHE:CD2	33:XB:127:ILE:HD12	2.28	0.67
19:RX:5:TYR:HB3	24:R2:33:MET:HB2	1.77	0.67
1:YA:1971:A:OP2	3:YD:242:ARG:NH2	2.27	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:QB:106:LYS:HD3	33:QB:106:LYS:H	1.59	0.67
1:RA:574:C:N3	4:RE:145:LYS:NZ	2.39	0.67
6:RG:16:ARG:NH2	6:RG:31:VAL:HG22	2.10	0.67
1:YA:2689:U:H4'	1:YA:2690:C:H5'	1.76	0.67
33:QB:21:ARG:O	33:QB:23:ARG:N	2.26	0.67
44:QM:2:ALA:C	26:R4:34:GLU:OE1	2.38	0.67
50:QS:45:VAL:HG21	26:R4:59:PHE:HZ	1.60	0.67
6:RG:25:TYR:CD2	6:RG:31:VAL:HG12	2.30	0.67
54:XY:25:LEU:O	54:XY:30:LYS:NZ	2.25	0.67
6:YG:3:LEU:HD12	26:Y4:25:TYR:CE1	2.30	0.66
38:QG:69:VAL:HG21	38:QG:104:LEU:HD21	1.77	0.66
41:QJ:61:GLU:OE2	45:QN:49:HIS:NE2	2.27	0.66
46:QO:3:ILE:CD1	46:QO:34:LEU:HD23	2.24	0.66
1:RA:1405:U:H2'	1:RA:1406:U:H6	1.60	0.66
5:YF:31:HIS:HB2	11:YP:9:ASN:OD1	1.95	0.66
5:YF:185:ASP:HA	5:YF:188:ARG:HD3	1.77	0.66
7:YH:143:GLN:NE2	7:YH:147:ASN:OD1	2.28	0.66
1:RA:84:A:H5''	20:RY:8:LYS:HE2	1.75	0.66
1:RA:102:G:OP1	24:R2:7:ARG:NH2	2.28	0.66
1:RA:1405:U:H2'	1:RA:1406:U:C6	2.30	0.66
11:YP:100:LEU:HD12	11:YP:112:LEU:HD11	1.76	0.66
12:YQ:21:THR:CG2	12:YQ:23:GLY:O	2.44	0.66
32:XA:452:A:N3	47:XP:72:ARG:NH1	2.43	0.66
32:XA:1031:G:H2'	32:XA:1032:G:C8	2.30	0.66
4:RE:116:VAL:HG22	4:RE:122:PHE:CD2	2.29	0.66
5:YF:110:LEU:CD1	5:YF:202:PHE:HE1	2.08	0.66
32:QA:56:U:H2'	32:QA:57:G:C8	2.30	0.66
4:RE:77:ILE:HD13	4:RE:195:LEU:HD13	1.77	0.66
23:R1:3:LYS:HG3	23:R1:4:VAL:H	1.61	0.66
32:XA:1278:U:H5''	32:XA:1279:A:H5'	1.77	0.66
1:RA:2218:U:O4'	23:R1:52:ARG:NH2	2.29	0.66
9:RN:94:HIS:HB2	9:RN:97:ARG:HD3	1.77	0.66
54:XY:161:PHE:HD1	54:XY:185:GLY:HA3	1.59	0.66
1:YA:140:G:N2	1:YA:142(A):A:N6	2.43	0.66
32:XA:664:G:H22	32:XA:741:G:H1	1.43	0.66
32:QA:1013:G:N2	32:QA:1016:A:OP2	2.27	0.66
41:QJ:33:GLN:O	41:QJ:75:ILE:N	2.28	0.66
5:RF:140:LEU:HD21	5:RF:170:LEU:HD11	1.78	0.66
18:RW:14:PRO:HG2	18:RW:78:GLU:HG2	1.78	0.66
32:XA:1128:C:H1'	32:XA:1147:C:H42	1.59	0.66
33:XB:122:PHE:CD2	33:XB:127:ILE:CD1	2.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:QC:58:GLU:O	34:QC:64:VAL:HG23	1.96	0.66
6:RG:7:LEU:CD1	6:RG:100:TRP:CZ3	2.78	0.66
11:RP:112:LEU:HD11	11:RP:114:ILE:HD11	1.76	0.66
35:XD:175:SER:HB3	35:XD:186:LEU:HD11	1.77	0.66
33:QB:42:ILE:HD12	33:QB:203:GLY:HA2	1.78	0.66
34:QC:59:ARG:N	41:QJ:92:THR:HG21	2.11	0.66
1:YA:1405:U:H2'	1:YA:1406:U:C6	2.31	0.66
5:YF:21:ALA:HB3	5:YF:22:ALA:HA	1.78	0.66
33:QB:15:VAL:HG23	33:QB:209:ARG:HB3	1.78	0.66
37:QF:10:LEU:HD21	37:QF:61:LEU:HD22	1.78	0.66
50:QS:3:ARG:HH21	50:QS:7:LYS:HE2	1.60	0.66
1:RA:2140:C:H2'	1:RA:2141:G:H8	1.61	0.66
21:RZ:28:MET:HE1	21:RZ:61:LEU:HD21	1.75	0.66
1:YA:631:A:OP1	11:YP:65:ARG:NH1	2.28	0.66
1:YA:1385:G:O2'	1:YA:1396:U:O2	2.13	0.66
1:YA:1607:C:N4	1:YA:1622:G:OP2	2.27	0.66
36:XE:102:ALA:HB1	36:XE:106:PRO:HG2	1.78	0.66
35:QD:50:ARG:HH12	36:QE:9:LYS:NZ	1.93	0.66
1:RA:2206:G:H5''	1:RA:2207:G:C8	2.31	0.66
1:YA:530:G:N1	1:YA:2023:G:OP1	2.25	0.65
1:YA:1405:U:H2'	1:YA:1406:U:H6	1.61	0.65
9:RN:94:HIS:CB	9:RN:97:ARG:HD3	2.25	0.65
12:YQ:21:THR:HG21	12:YQ:23:GLY:O	1.97	0.65
33:XB:101:MET:HA	33:XB:108:ILE:HG13	1.78	0.65
32:QA:560:U:O2'	32:QA:561:U:OP2	2.13	0.65
24:Y2:32:LEU:HD12	24:Y2:57:ILE:CD1	2.27	0.65
32:XA:790:A:OP1	53:XV:38:A:O2'	2.13	0.65
41:XJ:38:ILE:HG12	41:XJ:71:LEU:HB3	1.78	0.65
1:RA:2102:U:H2'	1:RA:2103:C:C6	2.31	0.65
1:YA:529:A:OP2	9:YN:114:ARG:NH2	2.30	0.65
4:YE:170:LEU:HD23	4:YE:184:VAL:HG11	1.78	0.65
5:YF:33:LEU:HD13	5:YF:112:MET:HE2	1.79	0.65
32:QA:664:G:H22	32:QA:741:G:H1	1.42	0.65
33:QB:15:VAL:HG13	33:QB:213:LEU:HD12	1.77	0.65
6:RG:77:ILE:N	6:RG:82:LEU:O	2.25	0.65
19:RX:29:TRP:CZ2	19:RX:76:ARG:NH2	2.64	0.65
1:YA:139(A):G:O6	1:YA:140:G:O2'	2.13	0.65
6:YG:3:LEU:H	6:YG:3:LEU:HD23	1.62	0.65
44:XM:20:THR:HG21	44:XM:27:LYS:NZ	2.10	0.65
32:QA:376:G:H5''	47:QP:5:ARG:HD3	1.78	0.65
32:QA:1510:U:H2'	32:QA:1511:G:C8	2.32	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:QV:58:A:O2'	53:QV:60:U:OP2	2.13	0.65
1:YA:2102:U:H2'	1:YA:2103:C:C6	2.31	0.65
26:Y4:58:ARG:HH22	50:XS:69:HIS:CD2	2.15	0.65
36:QE:8:GLU:OE2	36:QE:63:ARG:NH2	2.29	0.65
37:QF:99:ALA:HB2	49:QR:31:LEU:CD2	2.25	0.65
8:RI:92:VAL:HG13	8:RI:120:ILE:HB	1.79	0.65
54:XY:22:ARG:HG2	54:XY:70:LEU:HD13	1.79	0.65
4:YE:51:PHE:N	4:YE:75:VAL:HG21	2.11	0.65
44:QM:64:TRP:CA	26:R4:50:VAL:CG2	2.74	0.65
21:RZ:203:GLU:C	53:QV:53:G:H4'	2.20	0.65
28:R6:14:THR:CG2	28:R6:48:VAL:HG13	2.27	0.65
23:Y1:76:ARG:HH22	23:Y1:97:LEU:HB3	1.61	0.65
33:XB:77:ALA:HB2	33:XB:211:ILE:HD13	1.78	0.65
33:XB:122:PHE:CD1	33:XB:127:ILE:HD11	2.30	0.65
37:XF:10:LEU:HD21	37:XF:61:LEU:HD22	1.79	0.65
40:XI:9:ARG:HG2	40:XI:14:VAL:HG12	1.79	0.65
5:RF:185:ASP:HA	5:RF:188:ARG:HD3	1.79	0.65
19:RX:5:TYR:HD1	24:R2:33:MET:SD	2.19	0.65
18:YW:29:LEU:HD11	18:YW:51:LEU:HD11	1.78	0.65
21:YZ:5:LEU:HD11	21:YZ:39:VAL:HB	1.79	0.65
38:XG:15:ASP:OD1	38:XG:20:ASP:N	2.28	0.65
47:XP:20:VAL:HG21	47:XP:32:TYR:CG	2.31	0.65
32:QA:17:U:H2'	32:QA:18:C:C6	2.32	0.65
1:RA:301:G:OP2	20:RY:84:ARG:NH2	2.30	0.65
54:XY:338:THR:HG23	54:XY:339:GLY:HA2	1.79	0.65
1:YA:2304:G:H22	1:YA:2312:U:H3	1.45	0.64
23:Y1:3:LYS:HB2	23:Y1:61:ARG:NH1	2.12	0.64
37:XF:97:PHE:HB2	49:XR:32:ARG:NH1	2.12	0.64
40:XI:42:ARG:NH1	40:XI:71:SER:O	2.30	0.64
42:XK:62:GLN:HB2	42:XK:93:GLN:HG3	1.80	0.64
35:QD:194:LEU:HD12	35:QD:195:ALA:H	1.62	0.64
38:QG:100:ALA:O	38:QG:104:LEU:HD23	1.96	0.64
19:RX:57:LEU:HD12	19:RX:78:LYS:HG2	1.79	0.64
35:QD:57:ARG:NH2	36:QE:107:ARG:HD3	2.13	0.64
44:QM:13:LYS:HA	44:QM:44:ARG:HH11	1.60	0.64
1:RA:997:G:H5''	16:RU:92:ARG:HH21	1.62	0.64
1:RA:2478:A:OP2	31:R9:2:LYS:NZ	2.29	0.64
54:QY:250:GLY:HA3	54:QY:254:VAL:HB	1.78	0.64
36:XE:69:VAL:HG11	36:XE:113:ALA:HB1	1.78	0.64
34:QC:59:ARG:H	41:QJ:92:THR:CG2	2.10	0.64
34:QC:131:ARG:HH12	36:QE:50:GLU:CD	2.05	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:2646:C:OP2	1:YA:2732:G:O2'	2.12	0.64
11:YP:59:LEU:HD11	30:Y8:10:ALA:HB2	1.77	0.64
32:QA:201:C:H42	32:QA:216:G:H1	1.46	0.64
50:QS:64:GLU:HG3	26:R4:59:PHE:HE1	1.62	0.64
25:R3:8:LEU:CD1	25:R3:31:LEU:HA	2.22	0.64
30:R8:23:VAL:HG11	30:R8:47:LYS:HD3	1.79	0.64
4:YE:72:VAL:HG12	4:YE:73:GLU:O	1.97	0.64
6:YG:136:ARG:HD3	6:YG:136:ARG:N	1.97	0.64
17:YV:62:LEU:HD21	17:YV:95:LEU:HB2	1.78	0.64
32:XA:1001(A):A:H2'	32:XA:1001(B):G:C8	2.32	0.64
1:RA:299:A:N1	1:RA:322:A:O2'	2.30	0.64
5:YF:33:LEU:HD13	5:YF:112:MET:CE	2.27	0.64
32:XA:1353:G:OP1	52:XU:10:ARG:NH1	2.30	0.64
37:XF:95:GLU:O	49:XR:32:ARG:NH2	2.30	0.64
54:XY:219:SER:HB3	54:XY:317:ILE:HG12	1.79	0.64
23:Y1:3:LYS:HB2	23:Y1:61:ARG:HH12	1.63	0.64
1:RA:1075:C:OP1	12:RQ:59:ARG:NH2	2.31	0.64
1:RA:1568:G:H5''	3:RD:61:LEU:HD13	1.80	0.64
21:RZ:126:VAL:HG13	21:RZ:161:VAL:CG2	2.26	0.64
6:YG:25:TYR:CD2	6:YG:31:VAL:HG12	2.31	0.64
51:XT:56:MET:HE1	51:XT:85:MET:HA	1.77	0.64
35:QD:85:LYS:HD3	35:QD:86:LYS:N	2.12	0.64
44:QM:4:ILE:HD12	44:QM:57:ARG:CA	2.28	0.64
6:RG:7:LEU:HD21	6:RG:176:LEU:HD22	1.80	0.64
4:YE:116:VAL:HG22	4:YE:122:PHE:CD2	2.33	0.64
5:YF:37:VAL:HG21	11:YP:6:LEU:CD1	2.28	0.64
5:YF:110:LEU:CD1	5:YF:202:PHE:CE1	2.81	0.64
34:QC:131:ARG:HH12	36:QE:50:GLU:CG	2.11	0.64
51:QT:86:ARG:O	51:QT:90:GLN:NE2	2.31	0.64
6:RG:108:ASN:O	26:R4:37:SER:N	2.30	0.64
8:RI:140:LEU:HD13	8:RI:140:LEU:C	2.23	0.64
4:YE:73:GLU:OE1	4:YE:74:PRO:HD2	1.98	0.64
9:YN:42:TRP:HA	9:YN:48:MET:CE	2.28	0.64
23:Y1:4:VAL:HG11	23:Y1:11:ARG:NH1	2.13	0.64
32:XA:370:C:H2'	32:XA:371:G:H8	1.63	0.64
36:QE:41:VAL:HG13	36:QE:113:ALA:HA	1.80	0.64
1:YA:1712:C:O2	1:YA:1747(B):G:N2	2.31	0.63
32:XA:56:U:H2'	32:XA:57:G:H8	1.63	0.63
34:XC:58:GLU:HB3	41:XJ:92:THR:HG21	1.78	0.63
35:QD:13:ARG:NH1	35:QD:38:TYR:O	2.30	0.63
13:RR:41:ALA:HB1	13:RR:114:VAL:HG22	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:833:U:O2	11:YP:55:ARG:NH2	2.27	0.63
4:YE:51:PHE:C	4:YE:75:VAL:HG22	2.23	0.63
36:XE:144:THR:H	36:XE:147:ASP:HB2	1.63	0.63
40:XI:108:VAL:HG12	40:XI:109:VAL:H	1.62	0.63
41:XJ:52:GLY:O	45:XN:41:ARG:NH2	2.30	0.63
39:QH:64:LYS:HG2	39:QH:79:VAL:HG21	1.80	0.63
1:YA:1340:U:OP1	19:YX:16:LYS:NZ	2.31	0.63
1:YA:1920:4OC:HM22	1:YA:1921:G:H5'	1.79	0.63
7:YH:69:ARG:HD2	7:YH:69:ARG:C	2.23	0.63
34:QC:131:ARG:HH12	36:QE:50:GLU:HG3	1.63	0.63
1:YA:140:G:H22	1:YA:1596:A:H4'	1.63	0.63
1:YA:947:G:H2'	1:YA:948:G:H8	1.62	0.63
4:YE:52:LEU:HB3	4:YE:53:PRO:HD2	1.80	0.63
32:XA:1244:C:H2'	32:XA:1245:A:C8	2.34	0.63
32:QA:45:U:H2'	32:QA:46:G:C8	2.34	0.63
32:QA:1191:A:OP2	34:QC:3:ASN:ND2	2.31	0.63
17:YV:6:LYS:HB2	17:YV:38:LEU:HD21	1.79	0.63
32:XA:406:G:H5'	35:XD:5:ILE:HD11	1.81	0.63
35:XD:8:VAL:HG22	35:XD:21:LEU:HD13	1.78	0.63
32:QA:790:A:OP1	53:QV:38:A:O2'	2.16	0.63
36:QE:143:ARG:NH1	39:QH:77:GLU:OE2	2.31	0.63
32:XA:501:C:H2'	32:XA:502:G:C8	2.33	0.63
48:XQ:66:SER:O	48:XQ:70:ARG:NH1	2.31	0.63
33:QB:195:ASP:O	39:QH:68:ARG:NH2	2.31	0.63
1:YA:1316:U:H2'	1:YA:1317:A:H8	1.63	0.63
34:QC:22:TRP:CZ2	45:QN:54:PRO:HG2	2.33	0.63
35:QD:173:TRP:CD2	35:QD:189:PRO:HG3	2.34	0.63
37:QF:38:GLU:OE1	37:QF:64:GLN:NE2	2.30	0.63
1:RA:1094:U:OP1	1:RA:1096:A:N6	2.32	0.63
1:RA:2452:C:H4'	54:QY:256:ARG:HG3	1.80	0.63
9:RN:103:VAL:HG11	9:RN:120:LEU:HD12	1.81	0.63
11:RP:112:LEU:CD1	11:RP:127:ALA:HB2	2.28	0.63
19:RX:53:LYS:HB3	19:RX:82:GLN:HB3	1.80	0.63
53:QV:16:C:O2'	53:QV:61:C:OP1	2.16	0.63
1:YA:994:C:OP1	16:YU:53:ARG:NH2	2.31	0.63
6:YG:55:LYS:HD3	6:YG:150:ASP:OD2	1.99	0.63
22:Y0:27:GLU:HG3	22:Y0:68:GLU:HA	1.81	0.63
43:XL:70:ILE:HG12	43:XL:100:ILE:HD12	1.81	0.63
3:RD:108:PRO:HD2	3:RD:111:LEU:HG	1.80	0.63
4:RE:175:VAL:HG12	4:RE:182:LEU:CD1	2.26	0.63
11:RP:52:GLU:OE1	11:RP:55:ARG:NH1	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:1064:C:H3'	1:YA:1065:U:H5'	1.81	0.63
1:YA:2012:G:OP1	18:YW:11:ARG:NH2	2.31	0.63
1:YA:2379:G:O2'	14:YS:17:ARG:NH2	2.20	0.63
21:YZ:19:ARG:NH1	21:YZ:84:GLU:O	2.32	0.63
19:RX:5:TYR:CD1	24:R2:33:MET:HE2	2.33	0.63
32:XA:316:G:OP2	32:XA:351:G:O2'	2.15	0.62
40:XI:108:VAL:HG12	40:XI:109:VAL:N	2.14	0.62
32:QA:1286:A:H2'	32:QA:1287:A:H4'	1.79	0.62
37:QF:69:GLU:O	37:QF:72:VAL:HG12	1.99	0.62
1:RA:139(A):G:O6	1:RA:140:G:O2'	2.17	0.62
6:RG:50:ALA:C	6:RG:52:ILE:H	2.07	0.62
1:YA:38:A:H2'	1:YA:39:C:C6	2.34	0.62
13:YR:100:LEU:CD2	13:YR:112:ALA:HA	2.29	0.62
34:XC:6:HIS:CD2	34:XC:9:GLY:H	2.17	0.62
44:XM:59:TYR:CE1	44:XM:63:THR:HG21	2.35	0.62
38:QG:27:ILE:HD12	38:QG:40:ALA:HA	1.81	0.62
42:QK:92:GLU:O	42:QK:96:ARG:HG2	1.99	0.62
1:RA:752:A:H3'	29:R7:1:MET:HE2	1.81	0.62
1:RA:947:G:H2'	1:RA:948:G:H8	1.64	0.62
1:RA:1266:G:O5'	18:RW:15:ARG:NH2	2.33	0.62
4:RE:175:VAL:CG1	4:RE:182:LEU:HD12	2.27	0.62
21:RZ:139:VAL:CG1	21:RZ:150:LEU:HD23	2.29	0.62
5:YF:110:LEU:HD12	5:YF:206:ILE:CG2	2.29	0.62
34:XC:152:ILE:HG13	34:XC:199:LYS:HB2	1.82	0.62
39:QH:51:VAL:HG12	39:QH:52:ASP:N	2.11	0.62
44:QM:65:LYS:HD3	26:R4:51:ASP:CB	2.29	0.62
1:RA:1721:G:H8	1:RA:1741:A:H62	1.48	0.62
54:QY:161:PHE:HD1	54:QY:185:GLY:HA3	1.63	0.62
1:YA:1296:G:OP1	1:YA:2709:G:O2'	2.15	0.62
1:YA:2334:G:H5'	14:YS:9:ARG:HG2	1.82	0.62
33:QB:69:LEU:HD13	33:QB:91:PRO:HB2	1.80	0.62
37:QF:97:PHE:HB2	49:QR:32:ARG:HH11	1.65	0.62
1:RA:793:A:OP2	1:RA:2071:A:O2'	2.16	0.62
1:RA:1101:U:H2'	1:RA:1102:C:H6	1.64	0.62
1:RA:2850:A:N7	1:RA:2868:A:O2'	2.29	0.62
1:YA:2140:C:H2'	1:YA:2141:G:H8	1.63	0.62
1:YA:2218:U:O2	23:Y1:52:ARG:NH2	2.32	0.62
1:YA:2328:A:H2'	1:YA:2329:G:C8	2.34	0.62
32:XA:1119:C:H2'	32:XA:1120:G:H8	1.64	0.62
34:XC:12:LEU:HD11	45:YN:51:GLY:HA2	1.80	0.62
40:XI:46:ALA:HB2	40:XI:74:ILE:HG23	1.82	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:1033:G:H2'	32:QA:1034:G:H8	1.64	0.62
33:QB:15:VAL:HG23	33:QB:209:ARG:CB	2.29	0.62
46:QO:71:GLN:HB2	46:QO:78:TYR:CG	2.35	0.62
18:YW:29:LEU:CD1	18:YW:51:LEU:HD11	2.29	0.62
40:XI:53:VAL:C	40:XI:55:ALA:H	2.06	0.62
36:QE:74:GLY:HA3	36:QE:116:THR:HG22	1.82	0.62
37:QF:97:PHE:HB2	49:QR:32:ARG:HD2	1.82	0.62
1:RA:1165:U:H2'	1:RA:1166:C:C6	2.35	0.62
11:RP:59:LEU:HD21	30:R8:10:ALA:HA	1.82	0.62
54:QY:150:ARG:HB3	54:QY:154:ARG:NH1	2.14	0.62
1:YA:848:G:H2'	1:YA:849:A:C8	2.35	0.62
1:YA:1165:U:H2'	1:YA:1166:C:C6	2.34	0.62
32:XA:689:C:OP1	42:XK:27:ASN:ND2	2.32	0.62
32:XA:1510:U:H2'	32:XA:1511:G:C8	2.35	0.62
33:QB:76:GLN:NE2	33:QB:206:ASP:OD1	2.33	0.62
1:YA:1816:G:O6	3:YD:35:LYS:NZ	2.24	0.62
1:YA:2206:G:H5''	1:YA:2207:G:C8	2.34	0.62
35:QD:8:VAL:HG22	35:QD:21:LEU:HD13	1.82	0.62
1:RA:37:C:H2'	1:RA:38:A:C8	2.35	0.62
1:RA:140:G:N2	1:RA:142(A):A:H62	1.95	0.62
1:RA:140:G:C2	1:RA:142(A):A:N6	2.67	0.62
1:RA:309:G:N3	1:RA:329:G:O2'	2.33	0.62
11:RP:112:LEU:CD1	11:RP:127:ALA:HB1	2.29	0.62
17:RV:40:LEU:HD12	17:RV:46:VAL:CG1	2.30	0.62
32:XA:1002:G:N3	32:XA:1003:G:H8	1.97	0.62
32:QA:266:G:H5'	32:QA:268:C:H41	1.65	0.62
1:RA:1064:C:H3'	1:RA:1065:U:H5'	1.82	0.62
3:RD:72:LYS:HG3	3:RD:103:ARG:HH22	1.63	0.62
6:RG:7:LEU:HD11	6:RG:100:TRP:CE3	2.31	0.62
32:XA:390:C:H4'	47:XP:28:ARG:HH21	1.65	0.61
32:QA:922:G:H2'	32:QA:923:A:C8	2.35	0.61
38:QG:69:VAL:HG21	38:QG:104:LEU:CD2	2.30	0.61
1:RA:517:C:OP1	27:R5:16:ARG:NH2	2.33	0.61
11:RP:112:LEU:HD13	11:RP:127:ALA:HB1	1.82	0.61
32:QA:501:C:H2'	32:QA:502:G:H8	1.64	0.61
26:Y4:20:ASN:HD21	26:Y4:38:LYS:HG3	1.64	0.61
40:XI:50:LEU:HD23	40:XI:85:LEU:HD11	1.83	0.61
32:QA:410:G:OP1	35:QD:30:LYS:NZ	2.23	0.61
51:QT:57:ARG:HH12	51:QT:100:ILE:CD1	2.12	0.61
1:RA:2573:C:N4	54:QY:245:ARG:HE	1.98	0.61
9:RN:14:VAL:HG11	9:RN:138:LEU:HD12	1.81	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YE:9:VAL:HG12	15:YT:1:MET:HE1	1.83	0.61
32:XA:41:G:H2'	32:XA:42:G:H8	1.64	0.61
32:QA:1492:A:H3'	32:QA:1493:A:C8	2.34	0.61
42:QK:48:ILE:CD1	42:QK:63:LEU:CB	2.42	0.61
13:RR:83:ILE:O	13:RR:86:ARG:HG2	1.99	0.61
54:XY:14:LEU:HD21	54:XY:107:GLU:HG3	1.82	0.61
1:YA:2343:C:HO2'	1:YA:2373:G:HO2'	1.41	0.61
1:YA:2724:C:OP1	4:YE:111:ARG:NH1	2.34	0.61
7:YH:88:LEU:CD2	7:YH:165:ALA:HA	2.31	0.61
32:XA:68:G:C5'	32:XA:68:G:H8	2.14	0.61
44:QM:34:LEU:HD13	44:QM:41:PRO:HA	1.82	0.61
19:RX:41:ASN:O	19:RX:45:THR:HG23	2.00	0.61
54:XY:106:LEU:HD23	54:XY:109:LYS:HD2	1.81	0.61
32:XA:370:C:H2'	32:XA:371:G:C8	2.36	0.61
1:RA:2684:U:O2'	10:RO:68:GLU:OE1	2.17	0.61
3:RD:108:PRO:CD	3:RD:111:LEU:HD12	2.29	0.61
8:RI:92:VAL:CG1	8:RI:120:ILE:HB	2.31	0.61
15:RT:64:ARG:HB2	15:RT:73:GLU:HG2	1.81	0.61
54:XY:265:HIS:HB2	54:XY:291:MET:HE2	1.82	0.61
38:XG:113:GLU:HG2	38:XG:119:ARG:HG2	1.81	0.61
1:RA:1024:G:HO2'	1:RA:1144:G:HO2'	1.44	0.61
54:QY:243:VAL:HG12	54:QY:261:VAL:HG12	1.83	0.61
1:YA:2074:U:H2'	1:YA:2075:U:C6	2.35	0.61
2:YB:66:A:H61	2:YB:109:C:H5'	1.66	0.61
3:YD:108:PRO:HB3	3:YD:143:HIS:CE1	2.35	0.61
5:YF:101:LEU:HD12	5:YF:102:PRO:HD2	1.82	0.61
27:Y5:40:LYS:HD3	27:Y5:41:PRO:O	2.01	0.61
32:QA:341:C:H2'	32:QA:342:C:C6	2.36	0.61
39:QH:112:LEU:CD2	39:QH:133:LEU:HA	2.30	0.61
1:RA:856:C:H2'	1:RA:857:C:C6	2.35	0.61
11:RP:83:VAL:HG12	11:RP:112:LEU:HD21	1.83	0.61
24:R2:23:LYS:O	24:R2:27:GLU:HG3	2.00	0.61
1:YA:1076:C:H4'	1:YA:1077:A:OP1	2.00	0.61
21:YZ:91:LEU:HD11	21:YZ:96:VAL:HG11	1.83	0.61
33:XB:114:ARG:HH11	33:XB:118:LEU:CG	1.93	0.61
34:QC:82:GLU:OE1	34:QC:85:ARG:NH2	2.33	0.61
54:XY:203:ARG:NH1	54:XY:206:PRO:HD3	2.15	0.61
1:YA:589:C:H2'	1:YA:590:A:H8	1.65	0.61
32:XA:1073:U:O2'	33:XB:104:ASN:OD1	2.16	0.61
32:XA:1244:C:H2'	32:XA:1245:A:H8	1.63	0.61
32:XA:1513:A:H2'	32:XA:1514:C:C6	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:XL:60:LEU:HD21	43:XL:66:VAL:HG22	1.81	0.61
32:QA:1005:A:OP1	32:QA:1006:C:N4	2.34	0.61
54:QY:156:ALA:HB1	54:QY:161:PHE:HB2	1.83	0.61
7:YH:12:PRO:O	7:YH:15:VAL:HG22	2.01	0.60
27:Y5:40:LYS:CD	27:Y5:41:PRO:O	2.49	0.60
32:XA:501:C:OP1	43:XL:117:ARG:NH2	2.26	0.60
32:QA:45:U:H2'	32:QA:46:G:H8	1.65	0.60
32:QA:1238:A:H2	32:QA:1241:G:N3	1.99	0.60
5:RF:33:LEU:HD13	5:RF:112:MET:HE2	1.83	0.60
19:RX:5:TYR:CD1	24:R2:33:MET:CE	2.84	0.60
53:QV:4:G:HO2'	53:QV:5:G:H8	1.48	0.60
1:YA:956:G:OP2	12:YQ:14:ARG:NH2	2.34	0.60
13:YR:100:LEU:CD2	13:YR:112:ALA:CA	2.79	0.60
24:Y2:16:LEU:O	24:Y2:67:LYS:NZ	2.34	0.60
40:XI:50:LEU:HB2	40:XI:56:LEU:HD23	1.82	0.60
32:QA:1216:G:H5''	45:QN:5:ALA:HB2	1.84	0.60
46:QO:26:GLU:OE1	46:QO:77:ARG:NE	2.34	0.60
51:QT:47:GLY:HA2	51:QT:48:LYS:HB2	1.81	0.60
1:RA:987:G:O2'	1:RA:1000:A:N3	2.32	0.60
54:XY:342:THR:HG22	54:XY:344:ASN:H	1.65	0.60
1:YA:458:G:O2'	1:YA:469:G:O6	2.15	0.60
4:YE:170:LEU:HD23	4:YE:184:VAL:CG1	2.30	0.60
18:YW:23:LEU:CD1	27:Y5:25:LEU:HB2	2.31	0.60
35:XD:13:ARG:NH1	35:XD:38:TYR:O	2.34	0.60
49:XR:58:LEU:HD12	49:XR:62:GLU:CG	2.31	0.60
44:QM:15:VAL:HG11	44:QM:48:LEU:HD21	1.82	0.60
6:RG:139:LEU:HD21	6:RG:149:VAL:HG11	1.81	0.60
22:R0:11:ARG:O	22:R0:14:ARG:NH2	2.25	0.60
1:YA:947:G:H2'	1:YA:948:G:C8	2.36	0.60
54:XY:129:TYR:HE1	54:XY:182:LYS:HG3	1.66	0.60
10:YO:115:VAL:HG13	10:YO:121:VAL:HG21	1.82	0.60
32:QA:824:C:H2'	32:QA:825:G:H8	1.65	0.60
41:QJ:38:ILE:HG12	41:QJ:71:LEU:HB3	1.82	0.60
1:RA:1101:U:H2'	1:RA:1102:C:C6	2.36	0.60
6:RG:170:ARG:O	6:RG:170:ARG:HD3	2.01	0.60
36:XE:57:LYS:HG2	36:XE:61:TYR:HE2	1.66	0.60
1:YA:2659:G:O2'	7:YH:175:LYS:HE2	2.02	0.60
21:YZ:72:ARG:HG2	21:YZ:89:PHE:HB2	1.83	0.60
33:XB:84:GLU:HB3	33:XB:219:VAL:HG21	1.84	0.60
34:XC:40:ARG:NH2	34:XC:55:VAL:O	2.34	0.60
34:XC:57:ILE:HG12	34:XC:66:VAL:HG22	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:XR:47:THR:HG23	49:XR:49:LYS:HG3	1.82	0.60
26:R4:24:THR:OG1	26:R4:25:TYR:N	2.35	0.60
54:XY:291:MET:HE3	54:XY:295:LEU:HG	1.83	0.60
1:YA:140:G:C2	1:YA:142(A):A:N6	2.70	0.60
1:YA:307:G:N1	1:YA:310:A:OP2	2.31	0.60
1:YA:2478:A:OP2	31:Y9:2:LYS:NZ	2.29	0.60
26:Y4:24:THR:OG1	26:Y4:25:TYR:N	2.34	0.60
1:RA:1076:C:H4'	1:RA:1077:A:OP1	2.00	0.60
54:QY:84:LEU:HD22	54:QY:96:PHE:HD1	1.67	0.60
6:YG:18:GLU:OE1	6:YG:21:ARG:NH2	2.35	0.60
22:Y0:11:ARG:O	22:Y0:14:ARG:NH2	2.30	0.60
32:XA:404:U:H2'	32:XA:405:U:H6	1.67	0.60
41:XJ:9:ARG:NH2	41:XJ:95:GLU:OE1	2.35	0.60
32:QA:407:G:H2'	32:QA:408:A:C8	2.37	0.60
43:QL:83:VAL:HG13	43:QL:100:ILE:HG23	1.83	0.60
1:RA:530:G:N1	1:RA:2023:G:OP1	2.32	0.60
1:RA:674:G:H1'	5:RF:74:ARG:HD3	1.81	0.60
1:RA:1385:G:O2'	1:RA:1396:U:O2	2.19	0.60
1:YA:140:G:N2	1:YA:1596:A:H4'	2.17	0.60
5:YF:103:LYS:HA	5:YF:106:ARG:HD3	1.83	0.60
6:YG:5:VAL:HG12	26:Y4:25:TYR:CE1	2.37	0.60
33:XB:16:HIS:CG	33:XB:210:SER:HB3	2.37	0.60
36:QE:57:LYS:HG2	36:QE:61:TYR:CE2	2.37	0.60
1:RA:1507:A:O2'	1:RA:1508:A:O5'	2.17	0.60
19:RX:2:LYS:NZ	19:RX:38:GLU:OE2	2.30	0.60
1:YA:987:G:O2'	1:YA:1000:A:N3	2.30	0.59
1:YA:1019:U:H2'	1:YA:1020:A:H8	1.67	0.59
1:YA:1059:G:O6	1:YA:1079:C:N4	2.35	0.59
15:YT:95:ARG:HG2	15:YT:95:ARG:HH11	1.66	0.59
32:XA:1292:U:OP2	38:XG:41:ARG:NH2	2.35	0.59
33:XB:229:VAL:HG12	33:XB:230:VAL:N	2.16	0.59
33:QB:115:LEU:O	33:QB:119:GLU:HG2	2.02	0.59
49:QR:32:ARG:HA	49:QR:69:THR:HG21	1.83	0.59
54:QY:149:GLU:OE2	54:QY:179:VAL:HG11	2.02	0.59
54:QY:241:ILE:HG12	54:QY:263:ILE:HG12	1.83	0.59
54:QY:326:TYR:CD1	54:QY:333:ILE:HG23	2.37	0.59
1:YA:11:G:H2'	1:YA:12:U:H5'	1.84	0.59
1:YA:1066:U:O2'	1:YA:1068:G:OP2	2.16	0.59
1:YA:2752:C:OP2	7:YH:4:ILE:HD11	2.02	0.59
5:YF:132:VAL:HG21	5:YF:163:VAL:HG22	1.84	0.59
32:XA:1410:G:H2'	32:XA:1411:C:C6	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:XB:78:GLN:O	33:XB:94:ASN:ND2	2.34	0.59
33:XB:88:ALA:HB2	33:XB:219:VAL:HG13	1.83	0.59
1:RA:856:C:H2'	1:RA:857:C:H6	1.67	0.59
12:RQ:21:THR:HG21	12:RQ:101:ARG:HB2	1.84	0.59
8:YI:72:LEU:CA	8:YI:75:LEU:CD2	2.67	0.59
41:XJ:61:GLU:OE1	45:XN:58:LYS:NZ	2.34	0.59
46:XO:35:ARG:HH21	46:XO:59:MET:HE2	1.66	0.59
33:QB:19:HIS:NE2	33:QB:189:ASP:OD2	2.33	0.59
35:QD:196:LEU:H	35:QD:196:LEU:HD12	1.67	0.59
40:QI:25:LYS:HA	40:QI:25:LYS:CE	2.28	0.59
1:RA:192:C:O2'	1:RA:802:A:N3	2.30	0.59
27:R5:40:LYS:CD	27:R5:41:PRO:O	2.50	0.59
1:YA:1379:A:H4'	1:YA:1380:G:OP2	2.02	0.59
15:YT:39:ARG:NH2	32:XA:345:C:OP2	2.34	0.59
27:Y5:16:ARG:HG2	27:Y5:16:ARG:HH11	1.67	0.59
32:XA:1005:A:H5''	32:XA:1006:C:C5	2.37	0.59
40:XI:4:TYR:HB2	40:XI:19:LEU:HB2	1.84	0.59
32:QA:1027:C:H2'	32:QA:1028:C:C5	2.36	0.59
1:RA:642:G:N2	1:RA:644:A:H3'	2.17	0.59
1:RA:848:G:H2'	1:RA:849:A:C8	2.37	0.59
1:RA:2064:C:H2'	1:RA:2065:C:C6	2.36	0.59
6:RG:170:ARG:HD3	6:RG:170:ARG:C	2.27	0.59
54:QY:335:ASP:O	54:QY:337:ARG:N	2.31	0.59
54:XY:204:LYS:NZ	54:XY:211:GLY:O	2.34	0.59
1:YA:1196:C:HO2'	1:YA:1227:G:HO2'	1.49	0.59
33:XB:114:ARG:NH1	33:XB:118:LEU:CD1	2.65	0.59
1:RA:589:C:H2'	1:RA:590:A:H8	1.68	0.59
1:YA:855:G:O2'	22:Y0:27:GLU:OE2	2.20	0.59
1:YA:2156:G:N7	1:YA:2157:G:N2	2.51	0.59
32:QA:946:A:O2'	32:QA:1333:A:N3	2.33	0.59
44:QM:11:ARG:HA	44:QM:45:VAL:HB	1.84	0.59
1:RA:947:G:H2'	1:RA:948:G:C8	2.37	0.59
5:RF:12:LEU:HD13	5:RF:124:LEU:HD11	1.84	0.59
6:RG:131:TYR:HB3	6:RG:159:VAL:CG1	2.32	0.59
7:RH:25:LYS:HG3	7:RH:34:GLU:HG2	1.83	0.59
21:RZ:144:LEU:HD21	21:RZ:150:LEU:CD1	2.31	0.59
23:R1:40:ARG:HD3	23:R1:40:ARG:C	2.27	0.59
1:YA:2823:A:OP1	4:YE:159:HIS:NE2	2.35	0.59
2:YB:84:C:OP1	25:Y3:15:TYR:OH	2.18	0.59
32:XA:539:A:OP2	43:XL:115:LYS:NZ	2.35	0.59
32:XA:992:U:H4'	32:XA:993:G:O5'	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:1414:U:H2'	32:XA:1415:G:H8	1.67	0.59
35:QD:8:VAL:HG22	35:QD:21:LEU:CD1	2.33	0.59
35:QD:162:LEU:HD13	35:QD:181:MET:HG2	1.85	0.59
42:QK:109:VAL:HG23	49:QR:85:LEU:O	2.03	0.59
48:QQ:78:GLU:HG2	48:QQ:79:SER:H	1.68	0.59
50:QS:52:TYR:HB2	50:QS:57:HIS:CE1	2.36	0.59
1:RA:538:G:H2'	1:RA:539:G:H8	1.67	0.59
1:RA:1936:A:OP2	1:RA:1962:5MC:N4	2.34	0.59
32:XA:922:G:H2'	32:XA:923:A:C8	2.38	0.59
32:XA:976:G:H5'	32:XA:1358:U:O2'	2.02	0.59
37:XF:25:ILE:HD13	37:XF:82:ARG:HE	1.68	0.59
32:QA:1360:A:OP2	45:QN:35:ARG:NH2	2.36	0.59
35:QD:170:VAL:HG12	35:QD:174:LEU:HB2	1.85	0.59
8:RI:130:TYR:HB3	8:RI:138:ILE:HB	1.84	0.59
15:RT:24:PRO:HA	15:RT:49:VAL:HG23	1.85	0.59
54:XY:270:ILE:HD11	54:XY:298:VAL:HG21	1.85	0.59
1:YA:309:G:N3	1:YA:329:G:O2'	2.35	0.59
1:YA:637:A:H8	11:YP:117:GLU:HG3	1.66	0.59
1:YA:2128:C:H5'	1:YA:2129:C:OP2	2.02	0.59
50:QS:41:VAL:HG22	50:QS:42:PRO:HD2	1.84	0.59
1:RA:1036:G:OP2	7:RH:59:ARG:NH1	2.36	0.59
11:RP:101:VAL:CG2	11:RP:106:LEU:HD12	2.32	0.59
26:R4:41:PRO:HG3	26:R4:49:PHE:CD1	2.37	0.59
1:YA:538:G:H2'	1:YA:539:G:H8	1.68	0.59
1:YA:581:C:H2'	1:YA:582:G:H8	1.68	0.59
1:YA:1796:U:H2'	1:YA:1797:C:C6	2.38	0.59
32:XA:28:G:O2'	32:XA:296:U:OP1	2.20	0.59
41:XJ:57:LYS:HE2	41:XJ:60:ARG:NH2	2.18	0.59
32:QA:339:C:H2'	32:QA:340:U:C6	2.38	0.59
32:QA:1003:G:H2'	32:QA:1004:A:H4'	1.83	0.59
1:RA:1073:A:H2'	1:RA:1074:G:C8	2.36	0.59
1:RA:1530:C:O2'	1:RA:1531:C:H6	1.86	0.59
9:RN:34:LEU:HD23	9:RN:107:LEU:HD11	1.85	0.59
10:RO:80:ASP:OD1	15:RT:64:ARG:NH2	2.34	0.59
18:RW:23:LEU:CD1	27:R5:25:LEU:HB2	2.33	0.59
3:YD:79:VAL:HG21	3:YD:111:LEU:HD11	1.85	0.58
32:XA:68:G:H8	32:XA:68:G:O5'	1.85	0.58
33:QB:40:HIS:HB3	33:QB:190:THR:HG21	1.83	0.58
36:QE:57:LYS:HG2	36:QE:61:TYR:HE2	1.68	0.58
1:YA:854:G:H2'	1:YA:855:G:H8	1.67	0.58
1:YA:1514:U:H2'	1:YA:1515:G:H8	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:YH:11:VAL:HG21	7:YH:50:VAL:HG23	1.85	0.58
13:YR:18:LEU:HD11	13:YR:22:ARG:NE	2.18	0.58
26:Y4:57:GLU:CB	26:Y4:58:ARG:HD2	2.33	0.58
1:RA:641:C:O2'	1:RA:2350:C:OP1	2.15	0.58
5:RF:101:LEU:O	5:RF:106:ARG:NH1	2.36	0.58
27:R5:16:ARG:HH11	27:R5:16:ARG:HG2	1.68	0.58
1:YA:856:C:H2'	1:YA:857:C:C6	2.37	0.58
6:YG:66:GLN:OE1	6:YG:98:ARG:NE	2.34	0.58
11:YP:59:LEU:HD21	30:Y8:10:ALA:HA	1.84	0.58
32:XA:411:A:OP2	35:XD:25:ARG:NH2	2.36	0.58
32:XA:986:A:H2'	32:XA:987:G:C8	2.38	0.58
32:XA:1435:G:H2'	32:XA:1436:U:C6	2.38	0.58
48:XQ:74:LEU:CD1	48:XQ:75:ARG:HG2	2.33	0.58
49:XR:52:PRO:HB2	49:XR:54:ARG:HG2	1.85	0.58
9:RN:120:LEU:CD2	9:RN:122:VAL:CG2	2.79	0.58
32:XA:1352:C:OP1	52:XU:3:LYS:NZ	2.21	0.58
32:XA:1422:G:H2'	32:XA:1423:G:H8	1.67	0.58
32:QA:22:G:H4'	32:QA:885:G:C8	2.38	0.58
32:QA:1143:G:H2'	32:QA:1144:G:H8	1.68	0.58
1:RA:272(K):U:H1'	8:RI:50:ARG:NH2	2.17	0.58
1:RA:1711:C:H2'	1:RA:1712:C:C6	2.39	0.58
1:RA:2328:A:H2'	1:RA:2329:G:C8	2.38	0.58
1:RA:2853:C:H2'	1:RA:2854:G:H8	1.68	0.58
1:YA:184:C:H2'	1:YA:185:U:C6	2.39	0.58
1:YA:1062:G:N7	1:YA:1070:A:H1'	2.18	0.58
11:YP:126:VAL:HG12	11:YP:148:LEU:HD22	1.84	0.58
19:YX:53:LYS:HB3	19:YX:82:GLN:HB3	1.85	0.58
33:XB:16:HIS:HB2	33:XB:204:ASN:HB3	1.84	0.58
32:QA:976:G:H5'	32:QA:1358:U:O2'	2.03	0.58
36:QE:33:VAL:HG21	36:QE:109:ILE:HA	1.84	0.58
38:QG:111:ARG:NH1	38:QG:113:GLU:OE1	2.35	0.58
40:QI:49:PRO:HD2	40:QI:81:ILE:HD11	1.84	0.58
1:RA:2246:G:H2'	1:RA:2247:A:H8	1.69	0.58
1:RA:2291:U:H2'	1:RA:2292:C:C6	2.37	0.58
1:YA:589:C:H2'	1:YA:590:A:C8	2.38	0.58
1:YA:2321:G:O2'	1:YA:2322:A:OP1	2.21	0.58
32:XA:21:G:H2'	32:XA:22:G:C8	2.39	0.58
32:XA:68:G:C5'	32:XA:68:G:C8	2.86	0.58
32:XA:474:G:H2'	32:XA:475:G:H8	1.68	0.58
34:XC:9:GLY:HA3	45:XN:49:HIS:HA	1.86	0.58
35:QD:108:LEU:CD2	35:QD:174:LEU:HD13	2.28	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:QR:47:THR:HG23	49:QR:49:LYS:HG3	1.85	0.58
1:RA:463:G:N2	1:RA:466:A:OP2	2.27	0.58
1:RA:1779:U:OP2	1:RA:1784:A:N6	2.29	0.58
4:RE:119:ARG:HD3	4:RE:160:TYR:HB2	1.85	0.58
9:RN:4:TYR:CD2	16:RU:100:VAL:HG11	2.39	0.58
54:QY:324:ARG:HG3	54:QY:335:ASP:HA	1.86	0.58
54:QY:338:THR:HG23	54:QY:339:GLY:HA2	1.85	0.58
54:XY:34:LEU:HD13	54:XY:63:LEU:HB2	1.85	0.58
54:XY:136:SER:O	54:XY:138:GLY:N	2.32	0.58
1:YA:1316:U:H2'	1:YA:1317:A:C8	2.38	0.58
26:Y4:58:ARG:NH2	44:XM:80:ARG:NH2	2.51	0.58
32:XA:126:G:OP1	32:XA:605:U:O2'	2.14	0.58
32:XA:473:G:OP2	47:XP:75:ARG:HD3	2.03	0.58
32:XA:1129:C:H2'	32:XA:1139:G:N7	2.19	0.58
50:XS:27:GLU:OE1	50:XS:47:HIS:NE2	2.36	0.58
36:QE:8:GLU:HG2	36:QE:34:VAL:HG22	1.84	0.58
48:QQ:53:LEU:HD23	48:QQ:82:MET:HE1	1.86	0.58
1:YA:1065:U:H4'	1:YA:1066:U:H5'	1.85	0.58
3:YD:10:THR:OG1	3:YD:13:ARG:HG2	2.04	0.58
21:YZ:144:LEU:HD21	21:YZ:150:LEU:HD13	1.85	0.58
30:Y8:23:VAL:HG11	30:Y8:47:LYS:HD3	1.86	0.58
47:QP:20:VAL:HG21	47:QP:32:TYR:CG	2.38	0.58
1:RA:1062:G:N7	1:RA:1070:A:H1'	2.19	0.58
1:RA:2074:U:H2'	1:RA:2075:U:C6	2.38	0.58
1:RA:2446:G:N2	1:RA:2449:U:O2	2.35	0.58
1:RA:2839:G:H5'	13:RR:46:GLY:HA2	1.85	0.58
14:RS:15:ARG:O	14:RS:19:LYS:HG2	2.03	0.58
1:YA:140:G:N2	1:YA:142(A):A:H62	2.02	0.58
1:YA:2347:C:OP1	28:Y6:38:LYS:NZ	2.33	0.58
1:YA:2724:C:P	4:YE:111:ARG:NH1	2.77	0.58
6:YG:83:ARG:O	6:YG:86:MET:HB2	2.04	0.58
32:XA:266:G:O2'	32:XA:267:C:OP2	2.18	0.58
32:XA:674:G:H2'	32:XA:675:A:H8	1.68	0.58
33:XB:54:THR:HG21	33:XB:201:ILE:HD11	1.86	0.58
35:XD:122:ARG:NH1	35:XD:134:ASP:O	2.37	0.58
17:RV:61:VAL:HG23	17:RV:92:THR:CG2	2.34	0.58
21:RZ:198:LYS:NZ	53:QV:52:G:H2'	2.18	0.58
13:YR:100:LEU:CD2	13:YR:112:ALA:C	2.77	0.58
21:RZ:158:PRO:HG2	21:RZ:161:VAL:HG11	1.86	0.58
1:YA:2749:A:OP1	7:YH:3:ARG:NH2	2.30	0.57
15:YT:41:ARG:NH2	32:XA:346:G:OP1	2.29	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:922:G:H4'	36:XE:20:GLN:HA	1.86	0.57
51:XT:100:ILE:HG22	51:XT:101:GLY:H	1.68	0.57
1:RA:1353:A:H2'	1:RA:1354:A:C8	2.38	0.57
54:QY:144:TRP:CD1	54:QY:218:SER:HG	2.21	0.57
32:XA:979:C:H42	45:XN:18:VAL:HG12	1.69	0.57
34:XC:179:ARG:NH1	34:XC:206:GLU:OE1	2.36	0.57
32:QA:1086:U:H3	32:QA:1099:G:H22	1.52	0.57
35:QD:108:LEU:HD21	35:QD:174:LEU:HD22	1.85	0.57
1:RA:918:A:N3	2:RB:80:U:O2'	2.32	0.57
1:RA:2321:G:O2'	1:RA:2322:A:OP1	2.22	0.57
54:XY:201:LEU:HD21	54:XY:203:ARG:NE	2.18	0.57
1:YA:1530:C:O2'	1:YA:1531:C:H6	1.87	0.57
1:YA:2359:C:H2'	1:YA:2360:A:O4'	2.05	0.57
17:YV:52:VAL:HG23	17:YV:55:ALA:HB3	1.85	0.57
38:XG:50:ILE:HD11	38:XG:58:PRO:HA	1.86	0.57
32:QA:370:C:H2'	32:QA:371:G:C8	2.39	0.57
51:QT:53:LEU:CD1	51:QT:100:ILE:HG13	2.34	0.57
1:RA:1316:U:H2'	1:RA:1317:A:H8	1.68	0.57
21:YZ:91:LEU:HG	21:YZ:130:PRO:HG3	1.85	0.57
21:YZ:198:LYS:HZ1	53:XV:52:G:H2'	1.69	0.57
32:XA:380:G:N2	32:XA:383:A:OP2	2.37	0.57
33:QB:76:GLN:HE21	33:QB:206:ASP:HA	1.69	0.57
39:QH:95:VAL:HB	39:QH:99:GLU:HB2	1.86	0.57
12:RQ:21:THR:CG2	12:RQ:101:ARG:HB2	2.34	0.57
1:YA:1786:A:H1'	1:YA:1938:A:N6	2.19	0.57
5:RF:51:THR:HB	5:RF:88:VAL:HG11	1.87	0.57
17:RV:40:LEU:HB2	17:RV:46:VAL:HG12	1.87	0.57
30:R8:14:VAL:HG13	30:R8:22:VAL:HG13	1.85	0.57
1:YA:2698:U:H2'	1:YA:2699:C:C6	2.40	0.57
1:YA:2836:U:H2'	1:YA:2837:G:C8	2.39	0.57
7:YH:113:VAL:HG11	7:YH:151:ILE:HD13	1.86	0.57
17:YV:40:LEU:HB2	17:YV:46:VAL:HG12	1.86	0.57
32:XA:1001(A):A:H2'	32:XA:1001(B):G:H8	1.69	0.57
32:XA:1456:G:N1	51:XT:51:GLU:OE1	2.36	0.57
36:QE:151:LEU:HD11	39:QH:77:GLU:CD	2.30	0.57
1:RA:1141:U:OP1	9:RN:25:ARG:NH1	2.38	0.57
9:RN:15:LEU:HB2	9:RN:135:PRO:HB2	1.84	0.57
11:RP:95:VAL:HG22	11:RP:125:VAL:HG12	1.86	0.57
11:RP:126:VAL:HG12	11:RP:148:LEU:HD21	1.86	0.57
1:YA:1815:A:OP2	3:YD:54:ARG:NH2	2.37	0.57
1:YA:2853:C:H2'	1:YA:2854:G:H8	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:YB:14:U:O3'	2:YB:108:U:O2'	2.23	0.57
31:Y9:25:VAL:HB	31:Y9:34:GLN:HB2	1.85	0.57
32:XA:1002:G:H2'	32:XA:1003:G:C8	2.40	0.57
5:RF:33:LEU:CD1	5:RF:112:MET:HE2	2.35	0.57
53:QV:21:A:H61	53:QV:46:G:H2'	1.70	0.57
1:YA:144:C:H5'	19:YX:2:LYS:HE2	1.87	0.57
14:YS:15:ARG:O	14:YS:19:LYS:HG2	2.03	0.57
32:XA:164:U:H2'	32:XA:165:C:C6	2.40	0.57
32:XA:1399:C:O2	32:XA:1502:A:N6	2.38	0.57
40:XI:24:GLY:HA2	40:XI:59:PHE:O	2.05	0.57
32:QA:1513:A:H2'	32:QA:1514:C:C6	2.40	0.57
34:QC:32:LEU:HD22	34:QC:59:ARG:NH1	2.20	0.57
35:QD:57:ARG:NH2	36:QE:107:ARG:NE	2.52	0.57
36:QE:12:LEU:HB3	36:QE:31:LEU:HB2	1.86	0.57
40:QI:17:VAL:HG23	40:QI:63:ILE:HG12	1.85	0.57
1:RA:414:C:H2'	1:RA:415:A:H8	1.70	0.57
12:RQ:80:GLU:OE1	54:QY:281:HIS:HD2	1.82	0.57
54:QY:135:GLY:HA2	54:QY:317:ILE:HD12	1.87	0.57
4:YE:24:THR:HG23	4:YE:186:GLY:O	2.04	0.57
5:YF:33:LEU:CD1	5:YF:112:MET:HE2	2.34	0.57
32:XA:1027:C:H3'	32:XA:1028:C:C6	2.39	0.57
32:QA:519:C:OP2	43:QL:50:SER:OG	2.20	0.57
1:RA:2081:C:H2'	1:RA:2082:A:H8	1.70	0.57
1:RA:2384:G:OP2	22:R0:55:ARG:NH1	2.38	0.57
15:RT:35:LYS:HE2	15:RT:35:LYS:C	2.29	0.57
19:RX:5:TYR:HD1	24:R2:33:MET:CE	2.18	0.57
26:R4:1:MET:HE2	26:R4:6:HIS:CD2	2.40	0.57
54:XY:176:ILE:HG21	54:XY:179:VAL:HG13	1.87	0.57
5:YF:110:LEU:HD11	5:YF:202:PHE:CD1	2.39	0.57
11:YP:86:LYS:HB3	11:YP:118:GLY:HA3	1.86	0.57
26:R4:44:THR:O	26:R4:46:GLN:N	2.38	0.57
1:YA:1353:A:H2'	1:YA:1354:A:C8	2.40	0.56
1:YA:2065:C:H2'	1:YA:2066:C:H6	1.70	0.56
4:YE:51:PHE:N	4:YE:75:VAL:CG2	2.68	0.56
9:YN:15:LEU:HB2	9:YN:135:PRO:HB2	1.87	0.56
21:YZ:198:LYS:HE3	53:XV:52:G:N3	2.20	0.56
32:XA:189(L):U:H2'	32:XA:189(M):G:C8	2.39	0.56
32:QA:1279:A:H5''	41:QJ:7:LYS:NZ	2.20	0.56
36:QE:137:GLU:OE1	36:QE:141:GLN:NE2	2.35	0.56
1:RA:1796:U:H2'	1:RA:1797:C:C6	2.40	0.56
1:RA:2138:C:H2'	1:RA:2139:C:C6	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:XP:59:TRP:HA	47:XP:62:VAL:HG12	1.87	0.56
34:QC:70:VAL:HG22	34:QC:72:LYS:H	1.69	0.56
45:QN:48:ALA:HB2	45:QN:53:LEU:HD12	1.88	0.56
1:RA:140:G:N2	1:RA:1596:A:H4'	2.20	0.56
1:RA:2010:G:H5''	18:RW:42:ARG:HB2	1.86	0.56
1:RA:2573:C:N4	54:QY:255:ASN:O	2.37	0.56
53:QV:75:C:H5	54:QY:278:ARG:HH12	1.53	0.56
54:QY:270:ILE:HD11	54:QY:298:VAL:HG21	1.86	0.56
1:YA:321:G:OP2	5:YF:135:LYS:HD3	2.05	0.56
1:YA:2115:G:H21	1:YA:2171:A:H61	1.54	0.56
7:YH:33:LEU:HD12	7:YH:33:LEU:O	2.05	0.56
15:YT:39:ARG:HH22	32:XA:344:A:H4'	1.71	0.56
32:XA:45:U:H2'	32:XA:46:G:C8	2.40	0.56
32:XA:1238:A:N7	32:XA:1303:C:H1'	2.20	0.56
39:XH:37:ARG:NH2	39:XH:38:ILE:HD11	2.20	0.56
32:QA:411:A:OP2	35:QD:25:ARG:NH2	2.38	0.56
32:QA:945:G:C2	32:QA:946:A:C8	2.93	0.56
32:QA:1030(D):G:N7	32:QA:1031:G:N2	2.53	0.56
33:QB:8:LYS:HZ3	33:QB:52:GLU:CA	2.18	0.56
1:RA:675:A:N3	1:RA:2443:C:O2'	2.37	0.56
1:RA:813:U:H2'	1:RA:814:C:C6	2.41	0.56
1:RA:861:A:N3	2:RB:79:C:O2'	2.39	0.56
1:RA:1102:C:H2'	1:RA:1103:A:C8	2.40	0.56
1:RA:2406:U:C4	11:RP:72:PRO:HD2	2.41	0.56
7:RH:3:ARG:HD3	7:RH:54:ARG:HH12	1.70	0.56
54:QY:330:ASP:OD2	54:QY:332:ARG:NH2	2.37	0.56
54:XY:315:SER:HB3	54:XY:316:ASP:HB3	1.87	0.56
1:YA:1019:U:H2'	1:YA:1020:A:C8	2.40	0.56
1:YA:1798:U:H5'	3:YD:259:THR:HG22	1.86	0.56
11:YP:97:PRO:CA	11:YP:112:LEU:HD12	2.33	0.56
16:YU:92:ARG:HA	16:YU:95:LEU:HB2	1.88	0.56
23:Y1:64:ALA:HA	23:Y1:67:ILE:HG13	1.88	0.56
32:XA:41:G:H2'	32:XA:42:G:C8	2.40	0.56
6:RG:7:LEU:HD12	6:RG:100:TRP:CE3	2.20	0.56
1:YA:1471:A:OP2	1:YA:1519:G:N2	2.30	0.56
1:YA:2111:C:H42	1:YA:2147:G:H22	1.52	0.56
1:YA:2261:C:OP1	22:Y0:19:LYS:NZ	2.37	0.56
1:YA:2683:C:OP1	15:YT:53:ARG:NH2	2.38	0.56
3:YD:145:VAL:HG12	3:YD:146:GLU:O	2.05	0.56
7:YH:48:GLY:O	7:YH:49:VAL:HG23	2.05	0.56
32:XA:101:A:H5'	51:XT:10:LEU:HD21	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:XD:173:TRP:CD1	35:XD:174:LEU:HG	2.40	0.56
39:XH:20:TYR:CE1	39:XH:78:GLN:NE2	2.74	0.56
33:QB:7:VAL:HG12	33:QB:217:ARG:HD2	1.88	0.56
54:QY:315:SER:HB3	54:QY:316:ASP:HB3	1.87	0.56
1:YA:639:U:H2'	1:YA:640:C:C6	2.41	0.56
1:YA:2246:G:H2'	1:YA:2247:A:H8	1.69	0.56
1:YA:2291:U:H2'	1:YA:2292:C:C6	2.40	0.56
1:YA:2693:A:H2'	1:YA:2694:G:H8	1.71	0.56
4:YE:82:ARG:CG	4:YE:82:ARG:HH11	2.17	0.56
32:XA:404:U:H5'	35:XD:122:ARG:HD3	1.88	0.56
32:QA:1062:U:H2'	32:QA:1063:C:C6	2.40	0.56
50:QS:27:GLU:CB	50:QS:28:LYS:HE3	2.35	0.56
50:QS:45:VAL:HG21	26:R4:59:PHE:CZ	2.39	0.56
1:RA:1316:U:H2'	1:RA:1317:A:C8	2.40	0.56
1:RA:1453:U:OP1	13:RR:77:ARG:NH1	2.36	0.56
1:YA:301:G:OP2	20:YY:84:ARG:NH2	2.39	0.56
1:YA:489:G:N7	18:YW:49:LYS:NZ	2.54	0.56
6:YG:146:TYR:HD2	44:XM:8:GLU:CG	2.18	0.56
12:YQ:6:ARG:NH2	21:YZ:197:ILE:HG12	2.20	0.56
32:QA:123:C:OP1	32:QA:311:C:O2'	2.22	0.56
3:RD:257:LEU:HD13	3:RD:257:LEU:C	2.31	0.56
32:XA:1047:G:H5''	45:YN:4:LYS:HD3	1.88	0.56
41:XJ:38:ILE:HG12	41:XJ:71:LEU:CD2	2.36	0.56
41:XJ:38:ILE:CD1	41:XJ:71:LEU:HD22	2.36	0.56
32:QA:339:C:H2'	32:QA:340:U:H6	1.71	0.56
32:QA:836:G:OP1	49:QR:61:LYS:NZ	2.31	0.56
32:QA:946:A:H2'	32:QA:947:G:H8	1.67	0.56
48:QQ:74:LEU:HD13	48:QQ:75:ARG:HG2	1.87	0.56
26:R4:54:GLY:O	26:R4:56:VAL:HA	2.06	0.56
1:YA:1429:G:H2'	1:YA:1430:C:C6	2.41	0.56
7:YH:28:GLY:HA3	7:YH:79:VAL:HB	1.88	0.56
32:XA:769:G:H4'	32:XA:1513:A:H4'	1.88	0.56
33:XB:187:LEU:HA	33:XB:201:ILE:HB	1.87	0.56
33:QB:106:LYS:HD3	33:QB:106:LYS:N	2.20	0.56
51:QT:18:GLN:O	51:QT:22:ARG:HG3	2.05	0.56
1:RA:37:C:H2'	1:RA:38:A:H8	1.71	0.56
1:RA:2698:U:H2'	1:RA:2699:C:C6	2.40	0.56
16:RU:108:GLU:O	16:RU:112:ARG:HG2	2.06	0.56
1:YA:581:C:H2'	1:YA:582:G:C8	2.41	0.56
3:YD:133:LEU:HB3	3:YD:173:VAL:HG21	1.88	0.56
32:XA:1030(D):G:H2'	32:XA:1030(E):A:C8	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:1286:A:H2'	32:XA:1287:A:H4'	1.87	0.56
33:XB:58:ILE:CG2	33:XB:222:ILE:HG22	2.36	0.56
33:XB:185:ILE:CD1	33:XB:199:TYR:HD2	2.18	0.56
44:XM:54:VAL:HA	44:XM:57:ARG:HB3	1.87	0.56
48:XQ:74:LEU:HD13	48:XQ:75:ARG:HG2	1.88	0.56
32:QA:1399:C:O2	32:QA:1502:A:N6	2.39	0.56
35:QD:53:ASP:HB3	35:QD:57:ARG:HH12	1.69	0.56
35:QD:178:VAL:HG12	35:QD:179:GLU:H	1.71	0.56
1:RA:1028:A:N3	1:RA:2486:G:O2'	2.35	0.56
1:RA:1084:A:C8	1:RA:1085:A:H4'	2.41	0.56
1:RA:2094:G:P	8:RI:22:LYS:HD2	2.46	0.56
1:RA:2336:A:H61	22:R0:43:THR:HG22	1.70	0.56
5:RF:184:TYR:O	5:RF:188:ARG:HG3	2.06	0.56
54:QY:176:ILE:HG21	54:QY:179:VAL:HG13	1.87	0.56
54:XY:261:VAL:HG21	54:XY:284:LYS:HA	1.88	0.56
1:YA:483:A:O2'	20:YY:49:VAL:O	2.15	0.55
1:YA:2336:A:H61	22:Y0:43:THR:HG22	1.71	0.55
1:YA:2420:C:OP1	30:Y8:34:TRP:HB3	2.06	0.55
3:YD:206:LEU:HD22	3:YD:211:ARG:HG2	1.86	0.55
4:YE:101:ARG:CZ	4:YE:171:GLU:HB2	2.37	0.55
5:YF:122:LYS:NZ	5:YF:152:GLU:OE2	2.32	0.55
10:YO:64:ARG:NH1	10:YO:81:ASP:OD1	2.38	0.55
32:XA:1003:G:H3'	32:XA:1003:G:N3	2.21	0.55
42:XK:92:GLU:O	42:XK:96:ARG:HG2	2.06	0.55
32:QA:297:G:N2	32:QA:300:A:OP2	2.33	0.55
32:QA:514:C:H2'	32:QA:515:G:H8	1.70	0.55
32:QA:811:C:O2'	32:QA:901:A:N1	2.38	0.55
33:QB:200:ILE:HG22	33:QB:202:PRO:CD	2.34	0.55
51:QT:10:LEU:HD13	51:QT:12:ALA:HB2	1.87	0.55
1:RA:414:C:H2'	1:RA:415:A:C8	2.40	0.55
1:RA:2102:U:O2	1:RA:2187:G:O6	2.24	0.55
3:RD:16:MET:CG	3:RD:211:ARG:HH21	2.19	0.55
6:RG:16:ARG:CZ	6:RG:31:VAL:CG2	2.84	0.55
1:YA:2150:U:H2'	1:YA:2151:G:C8	2.42	0.55
1:YA:2206:G:H3'	1:YA:2207:G:H8	1.70	0.55
1:YA:2648:C:H2'	1:YA:2649:U:H6	1.71	0.55
6:YG:80:PHE:O	6:YG:82:LEU:N	2.40	0.55
36:XE:74:GLY:HA3	36:XE:116:THR:HG22	1.87	0.55
32:QA:1030(D):G:H2'	32:QA:1030(E):A:C8	2.41	0.55
51:QT:57:ARG:HH22	51:QT:100:ILE:HD12	1.71	0.55
1:RA:2059:A:O2'	5:RF:69:HIS:ND1	2.38	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:2689:U:H4'	1:RA:2690:C:H5'	1.88	0.55
21:RZ:129:SER:HB3	21:RZ:132:ASN:HB2	1.87	0.55
54:XY:333:ILE:HG13	54:XY:345:THR:HG22	1.88	0.55
1:YA:1429:G:H2'	1:YA:1430:C:H6	1.72	0.55
1:YA:2647:U:H2'	1:YA:2648:C:C6	2.41	0.55
2:YB:43:C:H5''	26:Y4:1:MET:HG2	1.87	0.55
3:YD:30:GLU:HG2	3:YD:94:LEU:HD11	1.88	0.55
14:YS:43:GLU:OE1	22:Y0:49:LYS:HE3	2.07	0.55
21:YZ:198:LYS:CE	53:XV:52:G:H2'	2.36	0.55
32:XA:69:G:H2'	32:XA:70:G:H8	1.72	0.55
38:XG:10:ARG:HG3	38:XG:10:ARG:NH1	2.21	0.55
35:QD:166:LYS:HB2	35:QD:168:ARG:NH2	2.22	0.55
54:XY:144:TRP:HH2	54:XY:326:TYR:CD2	2.23	0.55
1:YA:881:G:H2'	1:YA:882:G:C8	2.42	0.55
1:YA:2189:U:H2'	1:YA:2190:G:C8	2.41	0.55
3:YD:221:VAL:HG13	3:YD:226:MET:CE	2.36	0.55
32:XA:678:U:H2'	32:XA:679:C:C6	2.41	0.55
32:XA:945:G:C2	32:XA:946:A:C8	2.94	0.55
32:XA:1005:A:OP2	32:XA:1024:G:N2	2.39	0.55
39:QH:51:VAL:HG11	39:QH:60:ARG:HH12	1.71	0.55
39:QH:112:LEU:CD2	39:QH:133:LEU:HG	2.36	0.55
1:RA:11:G:H2'	1:RA:12:U:H5'	1.87	0.55
1:RA:566:U:H5''	11:RP:29:LYS:HE3	1.89	0.55
1:RA:652(U):C:H2'	1:RA:652(V):G:C8	2.42	0.55
6:RG:50:ALA:O	6:RG:52:ILE:N	2.40	0.55
53:QV:3:C:H2'	53:QV:4:G:H5'	1.87	0.55
2:YB:105:A:OP1	21:YZ:72:ARG:NH1	2.39	0.55
13:YR:18:LEU:CD1	13:YR:22:ARG:HD2	2.36	0.55
32:XA:545:C:OP1	35:XD:61:LYS:NZ	2.40	0.55
33:XB:87:ARG:HD3	33:XB:234:PRO:HD2	1.88	0.55
1:RA:2064:C:H2'	1:RA:2065:C:H6	1.72	0.55
54:QY:200:ARG:HD3	54:QY:322:GLN:HE21	1.71	0.55
1:YA:579:G:H2'	1:YA:580:C:C6	2.42	0.55
1:YA:2134:A:N6	1:YA:2156:G:O2'	2.39	0.55
32:XA:539:A:H2'	32:XA:540:G:C8	2.41	0.55
33:XB:76:GLN:HB2	33:XB:208:ILE:HG12	1.88	0.55
45:YN:32:SER:OG	45:YN:41:ARG:HG2	2.06	0.55
32:QA:1279:A:H5''	41:QJ:7:LYS:HZ1	1.71	0.55
1:RA:392:C:H5''	1:RA:409:C:H5''	1.88	0.55
1:RA:1053:C:H2'	1:RA:1054:A:C8	2.41	0.55
4:RE:170:LEU:HB3	4:RE:184:VAL:HG22	1.89	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:RF:51:THR:HB	5:RF:88:VAL:CG1	2.37	0.55
6:RG:16:ARG:NH2	6:RG:31:VAL:CG2	2.69	0.55
7:RH:116:GLU:OE1	7:RH:116:GLU:HA	2.06	0.55
13:RR:21:TYR:OH	13:RR:43:GLU:HG2	2.06	0.55
1:YA:1050:A:H2'	1:YA:1051:G:H8	1.72	0.55
1:YA:1614:A:C2	18:YW:93:ALA:HB2	2.41	0.55
1:YA:2461:C:H2'	1:YA:2462:U:C6	2.41	0.55
17:YV:43:GLU:N	17:YV:43:GLU:OE2	2.40	0.55
1:RA:143(A):G:H4'	19:RX:35:THR:HG21	1.88	0.55
6:RG:77:ILE:HB	6:RG:82:LEU:HB3	1.88	0.55
15:RT:108:ARG:HA	15:RT:111:ARG:NH1	2.21	0.55
1:YA:265:A:N1	1:YA:427:U:O2'	2.35	0.55
1:YA:1709:U:H2'	1:YA:1710:C:C6	2.41	0.55
1:YA:1823:G:OP1	3:YD:54:ARG:NH1	2.40	0.55
8:YI:82:ARG:HD2	32:QA:368:U:O4	2.06	0.55
51:XT:18:GLN:O	51:XT:22:ARG:HG3	2.06	0.55
32:QA:924:C:H2'	32:QA:925:G:H8	1.71	0.55
33:QB:229:VAL:HG12	33:QB:230:VAL:N	2.19	0.55
35:QD:85:LYS:HD3	35:QD:86:LYS:H	1.71	0.55
1:RA:265:A:N1	1:RA:427:U:O2'	2.38	0.55
1:RA:881:G:H2'	1:RA:882:G:C8	2.42	0.55
1:RA:2137:C:H2'	1:RA:2138:C:C6	2.41	0.55
54:QY:166:ILE:HG22	54:QY:167:GLU:HG3	1.88	0.55
54:XY:196:THR:HG22	54:XY:222:VAL:H	1.70	0.55
1:YA:306:U:H2'	1:YA:307:G:O4'	2.07	0.55
1:YA:813:U:H2'	1:YA:814:C:C6	2.42	0.55
5:YF:164:ARG:HD2	5:YF:175:THR:HG23	1.89	0.55
8:YI:130:TYR:HB3	8:YI:138:ILE:HB	1.88	0.55
32:XA:427:U:OP1	35:XD:13:ARG:NH2	2.39	0.55
32:XA:624:C:H2'	32:XA:625:G:H8	1.72	0.55
33:QB:84:GLU:HB3	33:QB:219:VAL:HG21	1.89	0.55
35:QD:50:ARG:NH1	36:QE:9:LYS:HZ3	2.03	0.55
1:RA:2180:U:H2'	1:RA:2181:G:C8	2.42	0.55
53:XV:51:C:H2'	53:XV:52:G:O4'	2.07	0.55
1:YA:2110:G:H5''	1:YA:2111:C:H5	1.72	0.55
6:YG:146:TYR:CD2	44:XM:8:GLU:CG	2.90	0.55
11:YP:101:VAL:HA	11:YP:106:LEU:O	2.07	0.55
34:XC:32:LEU:HD12	34:XC:59:ARG:NH1	2.22	0.55
36:XE:12:LEU:HD12	36:XE:128:PRO:HB2	1.89	0.55
38:XG:132:GLY:O	38:XG:136:LYS:HG2	2.06	0.55
32:QA:539:A:H2'	32:QA:540:G:C8	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:24:G:O2'	18:RW:78:GLU:O	2.24	0.55
1:RA:1266:G:O2'	1:RA:2012:G:O6	2.25	0.55
9:RN:67:LEU:O	9:RN:88:GLU:HG3	2.07	0.55
54:XY:121:GLY:O	54:XY:123:TYR:N	2.39	0.55
1:YA:1101:U:H2'	1:YA:1102:C:C6	2.42	0.54
4:YE:150:VAL:CG1	4:YE:154:LYS:HG3	2.37	0.54
6:YG:46:ALA:HB2	6:YG:53:LEU:HD12	1.89	0.54
21:YZ:198:LYS:HD3	53:XV:53:G:O4'	2.07	0.54
32:XA:56:U:H2'	32:XA:57:G:C8	2.42	0.54
32:XA:954:G:H21	32:XA:1227:A:H62	1.53	0.54
32:XA:1187:G:H4'	40:XI:111:ARG:HH11	1.72	0.54
47:XP:68:ASP:O	47:XP:71:ARG:HG2	2.07	0.54
32:QA:316:G:OP2	32:QA:351:G:O2'	2.24	0.54
33:QB:158:LEU:HG	33:QB:182:ILE:HD11	1.89	0.54
1:RA:1639:U:H2'	1:RA:1640:C:H5''	1.89	0.54
3:RD:126:GLN:O	3:RD:193:VAL:CG2	2.54	0.54
13:RR:102:GLU:OE2	18:RW:37:ARG:NH2	2.36	0.54
16:RU:8:VAL:HG11	16:RU:12:ARG:CZ	2.37	0.54
6:YG:5:VAL:HG12	26:Y4:25:TYR:HE1	1.72	0.54
26:Y4:20:ASN:ND2	26:Y4:38:LYS:HG3	2.21	0.54
32:XA:338:A:H2'	32:XA:339:C:H6	1.73	0.54
32:XA:1309:G:O2'	44:XM:77:ASN:ND2	2.39	0.54
41:XJ:38:ILE:HG12	41:XJ:71:LEU:HD22	1.89	0.54
49:XR:26:LEU:HD11	49:XR:42:ARG:NE	2.22	0.54
32:QA:881:G:P	43:QL:12:ARG:HH22	2.30	0.54
34:QC:148:GLY:HA3	34:QC:172:ARG:O	2.07	0.54
35:QD:15:GLU:HG3	35:QD:63:LYS:HD3	1.89	0.54
41:QJ:78:ASN:O	41:QJ:80:LYS:N	2.39	0.54
1:RA:752:A:H3'	29:R7:1:MET:CE	2.37	0.54
1:RA:911:A:H2'	12:RQ:9:TYR:OH	2.08	0.54
1:RA:2689:U:OP2	1:RA:2719:G:N2	2.28	0.54
11:RP:126:VAL:CG1	11:RP:148:LEU:HD21	2.38	0.54
17:RV:62:LEU:HD11	17:RV:95:LEU:HB2	1.89	0.54
54:XY:203:ARG:HH12	54:XY:206:PRO:CD	2.20	0.54
1:YA:414:C:H2'	1:YA:415:A:C8	2.41	0.54
32:XA:201:C:H42	32:XA:216:G:H1	1.55	0.54
32:XA:1410:G:H2'	32:XA:1411:C:H6	1.72	0.54
35:XD:8:VAL:HG22	35:XD:21:LEU:CD1	2.38	0.54
41:XJ:37:PRO:HA	41:XJ:72:VAL:HG12	1.89	0.54
44:XM:6:GLY:HA3	44:XM:67:GLU:HG3	1.89	0.54
51:XT:60:GLU:HG3	51:XT:81:LYS:HD2	1.88	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:407:G:H2'	32:QA:408:A:H8	1.71	0.54
35:QD:57:ARG:HH22	36:QE:107:ARG:HD3	1.69	0.54
1:RA:582:G:H2'	1:RA:583:G:C8	2.42	0.54
6:RG:7:LEU:HD11	6:RG:100:TRP:CZ3	2.41	0.54
7:RH:41:MET:HE2	7:RH:65:HIS:HA	1.89	0.54
17:RV:21:ARG:NH2	17:RV:91:TYR:OH	2.40	0.54
1:YA:752:A:H4'	1:YA:753:C:O5'	2.08	0.54
1:YA:1430:C:H2'	1:YA:1431:U:C6	2.42	0.54
1:YA:1444:G:H2'	1:YA:1445(B):C:C5	2.43	0.54
1:YA:2162:G:O3'	1:YA:2172:U:O2'	2.24	0.54
32:XA:1346:A:OP1	40:XI:120:ARG:NH1	2.38	0.54
34:XC:63:ASN:HB2	34:XC:98:ASN:HB2	1.89	0.54
32:QA:126:G:OP1	32:QA:605:U:O2'	2.17	0.54
41:QJ:19:SER:O	41:QJ:23:ILE:HG12	2.08	0.54
41:QJ:37:PRO:HA	41:QJ:72:VAL:HG12	1.89	0.54
1:RA:876:C:H2'	1:RA:877:U:O4'	2.08	0.54
1:RA:1065:U:H4'	1:RA:1066:U:H5'	1.89	0.54
7:RH:11:VAL:HG21	7:RH:50:VAL:HG23	1.88	0.54
54:XY:166:ILE:HG22	54:XY:167:GLU:HG3	1.90	0.54
1:YA:566:U:H5''	11:YP:29:LYS:HE3	1.88	0.54
1:YA:1101:U:H2'	1:YA:1102:C:H6	1.71	0.54
1:YA:2033:A:O2'	1:YA:2035:G:OP2	2.23	0.54
17:YV:52:VAL:CG2	17:YV:55:ALA:HB3	2.38	0.54
32:XA:1391:U:H2'	32:XA:1392:G:C8	2.43	0.54
36:QE:41:VAL:HG11	36:QE:113:ALA:HB2	1.90	0.54
1:RA:270:A:OP2	1:RA:272(X):G:N1	2.30	0.54
1:RA:2243:U:H2'	1:RA:2244:U:C6	2.42	0.54
29:R7:9:ARG:HH22	29:R7:47:ARG:HD3	1.71	0.54
53:QV:51:C:H2'	53:QV:52:G:O4'	2.08	0.54
54:XY:129:TYR:HD2	54:XY:223:TYR:HE1	1.56	0.54
1:YA:151:C:H2'	1:YA:152:G:H8	1.72	0.54
1:YA:476:G:N1	1:YA:479:A:OP2	2.40	0.54
1:YA:1388:G:H2'	1:YA:1389:G:H8	1.72	0.54
9:YN:120:LEU:HD11	9:YN:122:VAL:HG21	1.81	0.54
32:XA:25:C:H2'	32:XA:26:A:C8	2.43	0.54
33:XB:33:TYR:N	33:XB:41:ILE:O	2.36	0.54
38:XG:45:ASP:O	38:XG:49:ILE:HG13	2.07	0.54
32:QA:1244:C:H2'	32:QA:1245:A:H8	1.72	0.54
1:RA:140:G:H21	1:RA:142(A):A:N6	2.05	0.54
1:YA:1073:A:H2'	1:YA:1074:G:C8	2.38	0.54
1:YA:2375:G:N2	1:YA:2378:A:OP2	2.39	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:YE:51:PHE:H	4:YE:75:VAL:CG2	2.20	0.54
32:XA:662:G:H2'	32:XA:663:A:C8	2.43	0.54
32:QA:404:U:H2'	32:QA:405:U:H6	1.71	0.54
32:QA:1414:U:H3	32:QA:1486:G:H1	1.54	0.54
35:QD:53:ASP:HB3	35:QD:57:ARG:NH1	2.23	0.54
41:QJ:11:PHE:HE1	41:QJ:67:THR:HG22	1.71	0.54
48:QQ:74:LEU:CD1	48:QQ:75:ARG:HG2	2.38	0.54
1:RA:595:C:H2'	1:RA:596:G:H8	1.72	0.54
1:RA:1406:U:H2'	1:RA:1407:C:C6	2.42	0.54
1:RA:1794:U:H2'	1:RA:1795:C:H6	1.73	0.54
1:RA:1799:G:OP1	3:RD:260:ARG:NH2	2.39	0.54
21:RZ:156:LYS:HD2	21:RZ:156:LYS:O	2.08	0.54
54:XY:324:ARG:HD2	54:XY:326:TYR:HE1	1.73	0.54
1:YA:764:A:H5'	3:YD:210:GLY:HA2	1.90	0.54
1:YA:2648:C:H2'	1:YA:2649:U:C6	2.43	0.54
5:YF:11:VAL:HB	5:YF:18:ARG:HB3	1.90	0.54
19:YX:88:LYS:HE2	19:YX:93:GLU:HG3	1.89	0.54
42:XK:27:ASN:OD1	42:XK:28:THR:N	2.38	0.54
46:XO:25:THR:HG21	46:XO:70:LEU:HB2	1.89	0.54
32:QA:562:C:H1'	43:QL:15:ARG:HD2	1.89	0.54
33:QB:16:HIS:HB2	33:QB:204:ASN:HB3	1.90	0.54
44:QM:61:GLU:OE1	26:R4:49:PHE:HE2	1.90	0.54
46:QO:17:ARG:HD3	46:QO:26:GLU:OE1	2.07	0.54
48:QQ:86:GLU:O	48:QQ:90:ILE:HG12	2.07	0.54
1:RA:637:A:H8	11:RP:117:GLU:HG3	1.72	0.54
54:XY:136:SER:OG	54:XY:317:ILE:O	2.17	0.54
1:YA:594:U:H2'	1:YA:595:C:C6	2.43	0.54
1:YA:994:C:O2'	1:YA:996:A:OP1	2.17	0.54
1:YA:1094:U:OP1	1:YA:1096:A:N6	2.41	0.54
1:YA:2064:C:H2'	1:YA:2065:C:C6	2.43	0.54
1:YA:2071:A:H2'	1:YA:2072:G:H8	1.72	0.54
9:YN:131:GLN:CD	9:YN:131:GLN:H	2.15	0.54
11:YP:91:PHE:CE2	11:YP:99:LEU:HD21	2.43	0.54
37:XF:33:TYR:CB	37:XF:75:LEU:HD23	2.38	0.54
32:QA:256:U:OP1	48:QQ:17:LYS:NZ	2.38	0.54
32:QA:1518:MA6:N6	32:QA:1519:MA6:H103	2.23	0.54
1:RA:1019:U:H2'	1:RA:1020:A:H8	1.73	0.54
1:RA:2030:A:H4'	1:RA:2031:A:H8	1.72	0.54
6:RG:101:ILE:HD13	26:R4:25:TYR:HB2	1.90	0.54
8:RI:109:ILE:HG13	8:RI:130:TYR:OH	2.08	0.54
5:YF:184:TYR:CE2	5:YF:188:ARG:HD2	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:YT:65:LYS:HE3	15:YT:67:SER:HB2	1.90	0.54
25:Y3:23:LEU:HD22	25:Y3:50:VAL:HG11	1.90	0.54
32:XA:45:U:H2'	32:XA:46:G:H8	1.73	0.54
32:XA:1118:C:OP1	40:XI:104:ARG:NH1	2.39	0.54
34:XC:152:ILE:CG2	34:XC:167:TRP:HB3	2.27	0.54
32:QA:669:U:H2'	32:QA:670:G:C8	2.43	0.54
32:QA:1435:G:H2'	32:QA:1436:U:C6	2.42	0.54
50:QS:64:GLU:HA	26:R4:59:PHE:HE1	1.73	0.54
1:RA:152:G:H2'	1:RA:153:C:C6	2.43	0.54
1:RA:749:C:H5'	1:RA:1271:G:H1'	1.90	0.54
1:RA:854:G:H2'	1:RA:855:G:H8	1.72	0.54
1:RA:2246:G:H2'	1:RA:2247:A:C8	2.43	0.54
9:RN:62:VAL:CG1	9:RN:66:LYS:HB2	2.38	0.54
54:QY:84:LEU:HD22	54:QY:96:PHE:CD1	2.43	0.54
1:YA:249:C:O2	30:Y8:12:LYS:NZ	2.30	0.53
1:YA:2096:U:H3	1:YA:2193:G:H1	1.56	0.53
1:YA:2329:G:H2'	1:YA:2330:G:H8	1.73	0.53
25:Y3:6:VAL:HG12	25:Y3:54:VAL:CG2	2.38	0.53
32:XA:1492:A:O4'	43:XL:47:LYS:HD3	2.08	0.53
37:XF:97:PHE:CB	49:XR:32:ARG:HD3	2.38	0.53
47:XP:20:VAL:HG21	47:XP:32:TYR:CD2	2.43	0.53
32:QA:28:G:O2'	32:QA:296:U:OP1	2.26	0.53
34:QC:22:TRP:CH2	45:QN:54:PRO:HG2	2.43	0.53
41:QJ:35:SER:N	41:QJ:73:ASP:O	2.32	0.53
44:QM:40:ASN:HB3	44:QM:43:THR:HG23	1.89	0.53
1:RA:1019:U:OP1	1:RA:1035:U:O2'	2.21	0.53
1:RA:1406:U:H2'	1:RA:1407:C:H6	1.73	0.53
5:RF:64:ILE:HG21	5:RF:78:ILE:HG23	1.90	0.53
5:RF:136:THR:O	5:RF:140:LEU:HD23	2.08	0.53
26:R4:16:CYS:SG	26:R4:17:GLY:N	2.81	0.53
1:YA:863:A:P	12:YQ:22:LYS:HG3	2.48	0.53
1:YA:2641:G:P	9:YN:74:ARG:HH22	2.29	0.53
11:YP:100:LEU:HD22	11:YP:105:LEU:HD12	1.89	0.53
32:XA:1006:C:H2'	32:XA:1007:C:C6	2.43	0.53
33:XB:71:VAL:HG12	33:XB:93:VAL:HG22	1.89	0.53
32:QA:922:G:H4'	36:QE:20:GLN:HA	1.89	0.53
33:QB:21:ARG:CD	33:QB:21:ARG:N	2.67	0.53
1:RA:1223:G:N2	1:RA:1226:A:OP2	2.39	0.53
1:RA:2030:A:H4'	1:RA:2031:A:C8	2.44	0.53
6:RG:108:ASN:HA	26:R4:37:SER:HB3	1.90	0.53
15:RT:56:GLY:O	15:RT:59:THR:HG23	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:RT:91:ARG:HD2	15:RT:120:ARG:NH1	2.23	0.53
54:XY:148:LEU:HD21	54:XY:199:HIS:HD2	1.72	0.53
1:YA:23:G:OP1	1:YA:504:U:N3	2.39	0.53
1:YA:1068:G:H1	54:XY:58:LYS:HB2	1.73	0.53
1:YA:1341:U:OP1	1:YA:1397:U:N3	2.39	0.53
1:YA:2110:G:OP1	1:YA:2118:U:N3	2.40	0.53
1:YA:2246:G:H2'	1:YA:2247:A:C8	2.43	0.53
5:YF:33:LEU:HB3	11:YP:6:LEU:HD21	1.89	0.53
33:XB:69:LEU:HB3	33:XB:162:ILE:HG22	1.89	0.53
39:XH:12:ARG:CD	39:XH:26:VAL:HG12	2.37	0.53
40:XI:100:GLY:O	40:XI:103:THR:HG22	2.09	0.53
41:XJ:11:PHE:CE1	41:XJ:67:THR:HG22	2.40	0.53
32:QA:923:A:O2'	32:QA:1399:C:OP2	2.23	0.53
32:QA:1065:U:H4'	32:QA:1066:C:O5'	2.08	0.53
44:QM:63:THR:C	26:R4:50:VAL:HG23	2.34	0.53
1:RA:586:A:N1	1:RA:809:G:O2'	2.37	0.53
1:RA:871:U:OP1	12:RQ:5:ARG:HD3	2.07	0.53
54:QY:41:LEU:HD23	54:QY:46:VAL:HG21	1.89	0.53
54:XY:144:TRP:CE3	54:XY:201:LEU:HD22	2.43	0.53
1:YA:2291:U:H2'	1:YA:2292:C:H6	1.74	0.53
1:YA:2329:G:H2'	1:YA:2330:G:C8	2.42	0.53
21:YZ:156:LYS:O	21:YZ:156:LYS:HD2	2.07	0.53
32:XA:407:G:H2'	32:XA:408:A:C8	2.42	0.53
32:QA:673:G:H2'	32:QA:674:G:H8	1.73	0.53
32:QA:1006:C:H2'	32:QA:1007:C:C6	2.44	0.53
32:QA:1187:G:H4'	40:QI:111:ARG:NH1	2.23	0.53
1:RA:2693:A:H2'	1:RA:2694:G:H8	1.74	0.53
1:YA:652(U):C:H2'	1:YA:652(V):G:C8	2.44	0.53
1:YA:2838:G:C4	1:YA:2839:G:C8	2.97	0.53
6:YG:16:ARG:NH2	6:YG:28:VAL:O	2.41	0.53
8:YI:110:ASP:N	8:YI:130:TYR:OH	2.31	0.53
41:XJ:32:ALA:HB1	41:XJ:33:GLN:CD	2.34	0.53
32:QA:1058:G:OP1	34:QC:199:LYS:HE3	2.08	0.53
1:RA:1847:A:H3'	1:RA:1848:A:H5'	1.90	0.53
1:RA:2753:A:N3	31:R9:15:LYS:NZ	2.55	0.53
5:RF:184:TYR:CE2	5:RF:188:ARG:HD2	2.43	0.53
19:RX:5:TYR:CE2	24:R2:30:ARG:HB2	2.44	0.53
20:RY:87:LYS:HB3	20:RY:95:LYS:HD3	1.90	0.53
30:R8:23:VAL:CG1	30:R8:47:LYS:HD3	2.39	0.53
54:XY:326:TYR:CD1	54:XY:333:ILE:HG23	2.43	0.53
54:XY:344:ASN:HB3	54:XY:347:ALA:HB3	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:1165:U:H2'	1:YA:1166:C:H6	1.71	0.53
13:YR:61:HIS:O	13:YR:65:LEU:CD2	2.55	0.53
32:XA:411:A:OP1	35:XD:30:LYS:NZ	2.38	0.53
34:XC:164:ARG:NH1	34:XC:166:GLU:OE1	2.42	0.53
39:XH:64:LYS:HG2	39:XH:79:VAL:HG21	1.89	0.53
34:QC:179:ARG:NH1	34:QC:206:GLU:OE1	2.42	0.53
1:RA:1019:U:H2'	1:RA:1020:A:C8	2.44	0.53
1:RA:2478:A:H5'	31:R9:31:LYS:HE2	1.89	0.53
1:YA:1796:U:H2'	1:YA:1797:C:H6	1.74	0.53
1:YA:1859:A:N6	1:YA:1883:G:O2'	2.40	0.53
1:YA:2817:G:OP1	13:YR:42:LYS:NZ	2.29	0.53
5:YF:103:LYS:O	5:YF:106:ARG:HG2	2.09	0.53
6:YG:47:LYS:HG2	6:YG:48:GLU:N	2.22	0.53
9:YN:94:HIS:HB2	9:YN:97:ARG:HD3	1.88	0.53
32:XA:919:A:O2'	32:XA:1080:A:N1	2.38	0.53
32:XA:950:U:OP2	44:XM:102:ARG:HD3	2.08	0.53
49:XR:32:ARG:HA	49:XR:69:THR:HG21	1.90	0.53
1:RA:1066:U:O2'	1:RA:1068:G:OP2	2.18	0.53
1:RA:1657:C:H2'	1:RA:1658:C:H6	1.74	0.53
30:R8:62:LEU:HB3	30:R8:65:GLU:HG2	1.90	0.53
54:QY:202:VAL:HG22	54:QY:215:THR:HG23	1.90	0.53
1:YA:856:C:H2'	1:YA:857:C:H6	1.73	0.53
1:YA:1102:C:H2'	1:YA:1103:A:C8	2.44	0.53
1:YA:1507:A:O2'	1:YA:1508:A:O5'	2.26	0.53
1:YA:1514:U:H2'	1:YA:1515:G:C8	2.44	0.53
1:YA:2115:G:N1	1:YA:2119:A:OP2	2.41	0.53
2:YB:45:A:OP2	6:YG:96:ARG:NH2	2.37	0.53
3:YD:92:ILE:HD12	3:YD:104:TYR:CD1	2.43	0.53
3:YD:108:PRO:HB3	3:YD:143:HIS:HE1	1.72	0.53
6:YG:66:GLN:HB3	6:YG:92:VAL:HG21	1.90	0.53
7:YH:40:GLU:OE1	7:YH:60:ARG:NH1	2.42	0.53
8:YI:40:THR:C	8:YI:44:LEU:HD22	2.23	0.53
13:YR:18:LEU:C	13:YR:18:LEU:HD13	2.34	0.53
13:YR:41:ALA:HB1	13:YR:114:VAL:HG22	1.91	0.53
26:Y4:59:PHE:HE1	50:XS:64:GLU:CB	2.12	0.53
32:XA:437:U:H5'	35:XD:155:LEU:HD21	1.90	0.53
35:XD:15:GLU:HG3	35:XD:63:LYS:HD3	1.91	0.53
32:QA:1297:C:O2'	38:QG:114:ARG:NH2	2.42	0.53
32:QA:1410:G:H2'	32:QA:1411:C:C6	2.44	0.53
33:QB:167:PRO:HG3	33:QB:186:ALA:HB1	1.91	0.53
1:RA:1657:C:H2'	1:RA:1658:C:C6	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:RN:75:TYR:CE2	9:RN:77:GLY:HA2	2.43	0.53
15:RT:95:ARG:HH11	15:RT:95:ARG:CG	2.20	0.53
21:RZ:139:VAL:HG11	21:RZ:150:LEU:HD23	1.91	0.53
54:QY:217:PHE:CE2	54:QY:319:TRP:HA	2.43	0.53
1:YA:1798:U:H5'	3:YD:259:THR:CG2	2.39	0.53
12:YQ:45:GLN:OE1	12:YQ:45:GLN:N	2.41	0.53
32:XA:1009:G:H1	32:XA:1020:U:H3	1.57	0.53
32:XA:1221:G:OP1	32:XA:1320:C:N4	2.42	0.53
38:XG:9:VAL:HG11	38:XG:94:ARG:HD3	1.91	0.53
51:XT:57:ARG:HH12	51:XT:100:ILE:HB	1.74	0.53
51:XT:97:ALA:O	51:XT:99:LEU:HD13	2.09	0.53
32:QA:41:G:H2'	32:QA:42:G:H8	1.74	0.53
34:QC:18:TRP:HZ2	45:QN:57:ARG:HB3	1.74	0.53
34:QC:109:PRO:CB	34:QC:115:LEU:HD23	2.39	0.53
35:QD:166:LYS:H	35:QD:168:ARG:HH21	1.52	0.53
1:RA:7:G:H2'	1:RA:8:A:C8	2.44	0.53
1:RA:1050:A:H2'	1:RA:1051:G:H8	1.73	0.53
54:QY:80:VAL:HG22	54:QY:102:GLU:OE1	2.09	0.53
54:XY:217:PHE:CE2	54:XY:319:TRP:HA	2.44	0.53
1:YA:184:C:H2'	1:YA:185:U:H6	1.72	0.53
4:YE:21:VAL:HG23	4:YE:185:LYS:HD2	1.91	0.53
5:YF:165:ARG:HG2	5:YF:168:ARG:NH2	2.24	0.53
11:YP:62:LEU:O	30:Y8:13:ARG:HD3	2.08	0.53
32:XA:811:C:O2'	32:XA:901:A:N1	2.41	0.53
32:QA:501:C:H2'	32:QA:502:G:C8	2.43	0.53
40:QI:24:GLY:HA2	40:QI:59:PHE:O	2.09	0.53
49:QR:33:ASP:OD2	49:QR:36:ASN:HB2	2.09	0.53
1:RA:639:U:H2'	1:RA:640:C:C6	2.44	0.53
17:RV:21:ARG:NH2	17:RV:91:TYR:CZ	2.77	0.53
54:XY:241:ILE:HG21	54:XY:284:LYS:HE2	1.90	0.53
1:YA:38:A:H2'	1:YA:39:C:H6	1.75	0.52
1:YA:777:A:H2'	1:YA:778:G:H8	1.73	0.52
1:YA:1164:G:H2'	1:YA:1165:U:C6	2.44	0.52
1:YA:1936:A:OP2	1:YA:1962:5MC:N4	2.39	0.52
1:YA:2022:U:O2'	1:YA:2617:C:H5'	2.08	0.52
5:YF:130:ALA:HB3	5:YF:142:TRP:HD1	1.75	0.52
32:XA:160:A:H2'	32:XA:161:A:O4'	2.08	0.52
32:XA:976:G:OP2	32:XA:1358:U:O2'	2.22	0.52
33:XB:200:ILE:HG22	33:XB:202:PRO:HD3	1.90	0.52
37:XF:99:ALA:HB2	49:XR:31:LEU:HD21	1.92	0.52
41:XJ:78:ASN:O	41:XJ:80:LYS:N	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:791:G:N2	32:QA:1497:G:O3'	2.41	0.52
32:QA:1143:G:H2'	32:QA:1144:G:C8	2.44	0.52
44:QM:65:LYS:HA	26:R4:50:VAL:CG1	2.24	0.52
48:QQ:78:GLU:HG2	48:QQ:79:SER:N	2.23	0.52
1:RA:1059:G:O6	1:RA:1079:C:N4	2.42	0.52
1:RA:1429:G:H2'	1:RA:1430:C:C6	2.44	0.52
1:RA:1827:C:O2'	1:RA:1970:A:N3	2.35	0.52
1:RA:2025:C:H2'	1:RA:2026:C:C6	2.44	0.52
1:RA:2836:U:H2'	1:RA:2837:G:C8	2.43	0.52
6:RG:5:VAL:HG22	6:RG:8:LYS:HB3	1.91	0.52
15:RT:54:ARG:HA	15:RT:59:THR:HB	1.91	0.52
1:YA:1047:G:H21	1:YA:1111:A:H62	1.56	0.52
1:YA:1991:U:H2'	1:YA:1992:G:H5''	1.91	0.52
32:XA:337:C:H2'	32:XA:338:A:C8	2.43	0.52
32:XA:503:C:OP2	43:XL:116:SER:HB3	2.09	0.52
32:XA:1314:C:OP2	50:XS:4:SER:OG	2.13	0.52
32:QA:1316:G:N1	32:QA:1319:A:OP2	2.42	0.52
32:QA:1475:G:H4'	1:RA:1689:A:H4'	1.91	0.52
44:QM:62:ASN:O	26:R4:50:VAL:HA	2.09	0.52
27:R5:40:LYS:HD3	27:R5:41:PRO:O	2.09	0.52
1:YA:414:C:H2'	1:YA:415:A:H8	1.74	0.52
1:YA:746:A:O2'	1:YA:2611:U:O2'	2.23	0.52
1:YA:2839:G:H5'	13:YR:46:GLY:HA2	1.91	0.52
3:YD:85:ASP:OD2	3:YD:88:ARG:HD2	2.09	0.52
33:XB:16:HIS:O	33:XB:18:GLY:N	2.42	0.52
36:XE:12:LEU:HB3	36:XE:31:LEU:HB2	1.92	0.52
32:QA:255:G:H2'	32:QA:256:U:C6	2.44	0.52
32:QA:998:G:H2'	32:QA:999:C:C6	2.44	0.52
32:QA:1003:G:N2	32:QA:1004:A:N3	2.57	0.52
43:QL:60:LEU:HD21	43:QL:66:VAL:HG22	1.90	0.52
1:RA:38:A:H2'	1:RA:39:C:C6	2.45	0.52
1:RA:579:G:H2'	1:RA:580:C:C6	2.44	0.52
1:RA:2189:U:H2'	1:RA:2190:G:C8	2.44	0.52
18:RW:17:VAL:CG2	18:RW:76:VAL:HG11	2.39	0.52
20:RY:92:ASN:N	20:RY:93:GLY:HA2	2.24	0.52
22:R0:27:GLU:HG3	22:R0:68:GLU:HA	1.90	0.52
28:R6:6:ARG:NH1	28:R6:26:ASN:HB2	2.25	0.52
1:YA:185:U:H4'	1:YA:218:A:H4'	1.92	0.52
2:YB:29:A:H2'	2:YB:30:C:C6	2.44	0.52
32:QA:370:C:H2'	32:QA:371:G:H8	1.74	0.52
35:QD:173:TRP:CD1	35:QD:173:TRP:H	2.26	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:QJ:38:ILE:CG1	41:QJ:71:LEU:HB3	2.39	0.52
1:RA:2156:G:N7	1:RA:2157:G:N2	2.56	0.52
54:XY:241:ILE:HG12	54:XY:263:ILE:HG12	1.90	0.52
3:YD:108:PRO:HG2	3:YD:111:LEU:HB2	1.90	0.52
6:YG:5:VAL:HG22	6:YG:8:LYS:HB3	1.92	0.52
6:YG:56:ALA:CA	6:YG:153:ARG:HH21	2.06	0.52
6:YG:77:ILE:HG21	6:YG:80:PHE:CD2	2.44	0.52
9:YN:34:LEU:HD23	9:YN:107:LEU:HD11	1.91	0.52
14:YS:93:LYS:HD2	14:YS:95:HIS:HB2	1.90	0.52
21:YZ:125:LEU:HB3	21:YZ:165:VAL:HG13	1.89	0.52
26:Y4:15:ILE:HD12	26:Y4:21:VAL:HG22	1.92	0.52
32:XA:1366:C:HO2'	41:XJ:60:ARG:HH22	1.51	0.52
35:XD:70:ILE:HD11	35:XD:74:GLN:HB3	1.91	0.52
32:QA:500:G:H2'	32:QA:501:C:C6	2.45	0.52
40:QI:33:PHE:HE1	40:QI:43:ALA:HB1	1.75	0.52
45:QN:4:LYS:O	45:QN:7:ILE:HG12	2.10	0.52
47:QP:43:LYS:HG2	47:QP:48:TRP:CE2	2.45	0.52
1:RA:1794:U:H2'	1:RA:1795:C:C6	2.45	0.52
1:RA:2591:C:H2'	1:RA:2592:G:C8	2.44	0.52
54:QY:130:LEU:HD12	54:QY:192:LEU:HD13	1.91	0.52
1:YA:286:C:H2'	1:YA:287:C:C6	2.45	0.52
1:YA:2659:G:H4'	7:YH:175:LYS:HD3	1.92	0.52
34:XC:8:ILE:HG23	34:XC:16:ARG:HG2	1.91	0.52
41:XJ:19:SER:O	41:XJ:23:ILE:HG12	2.10	0.52
32:QA:939:G:H2'	32:QA:940:C:C6	2.44	0.52
32:QA:1073:U:OP1	36:QE:57:LYS:NZ	2.40	0.52
32:QA:1412:C:H2'	32:QA:1413:A:C8	2.45	0.52
40:QI:65:VAL:HG21	40:QI:73:GLN:HB3	1.92	0.52
47:QP:74:LEU:O	47:QP:79:VAL:HG22	2.09	0.52
1:RA:302:C:H2'	1:RA:303:U:H6	1.73	0.52
1:RA:2115:G:H21	1:RA:2171:A:H61	1.55	0.52
3:RD:16:MET:HG3	3:RD:211:ARG:HH21	1.74	0.52
4:RE:2:LYS:HB2	4:RE:95:ILE:HD12	1.92	0.52
5:RF:157:VAL:HB	5:RF:194:MET:HG2	1.91	0.52
7:RH:98:LEU:HD13	7:RH:125:VAL:HG23	1.92	0.52
1:YA:272(P):C:H5''	8:YI:45:LYS:HD2	1.91	0.52
1:YA:1404:C:H2'	1:YA:1405:U:H6	1.74	0.52
1:YA:2206:G:H8	1:YA:2207:G:N7	2.07	0.52
1:YA:2243:U:H2'	1:YA:2244:U:C6	2.45	0.52
7:YH:90:LYS:HD2	7:YH:163:TYR:CD1	2.45	0.52
32:XA:184:G:H2'	32:XA:185:A:H8	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:XD:150:GLU:HA	35:XD:153:ARG:HE	1.75	0.52
37:XF:100:ASN:HD21	49:XR:23:LYS:HE2	1.73	0.52
50:XS:41:VAL:HG22	50:XS:42:PRO:HD2	1.91	0.52
32:QA:838:G:H2'	32:QA:839:U:H2'	1.91	0.52
32:QA:1025:U:O2	32:QA:1036:G:O6	2.28	0.52
32:QA:1241:G:H2'	32:QA:1242:C:C6	2.44	0.52
37:QF:82:ARG:HG2	37:QF:82:ARG:HH11	1.72	0.52
1:RA:1467:C:C5	1:RA:1546:C:H2'	2.43	0.52
54:QY:216:SER:C	54:QY:217:PHE:HD1	2.17	0.52
1:YA:1079:C:N4	1:YA:1080:C:C2	2.78	0.52
1:YA:1711:C:H2'	1:YA:1712:C:C6	2.44	0.52
32:XA:113:G:H2'	32:XA:114:U:H6	1.74	0.52
32:XA:269:C:H2'	32:XA:270:A:C8	2.45	0.52
32:XA:1062:U:H2'	32:XA:1063:C:C6	2.45	0.52
45:XN:4:LYS:HG3	45:XN:7:ILE:HD11	1.92	0.52
54:XY:217:PHE:N	54:XY:217:PHE:HD1	2.08	0.52
1:YA:27:G:N2	1:YA:512:G:H1'	2.25	0.52
1:YA:1187:G:H5'	17:YV:81:TYR:CE1	2.45	0.52
32:XA:674:G:H2'	32:XA:675:A:C8	2.45	0.52
32:XA:881:G:P	43:XL:12:ARG:HH22	2.32	0.52
36:XE:57:LYS:HG2	36:XE:61:TYR:CE2	2.44	0.52
38:XG:10:ARG:HG3	38:XG:10:ARG:HH11	1.74	0.52
32:QA:34:C:H2'	32:QA:35:G:H8	1.74	0.52
32:QA:924:C:H2'	32:QA:925:G:C8	2.45	0.52
38:QG:113:GLU:HG2	38:QG:119:ARG:HG2	1.90	0.52
44:QM:61:GLU:OE1	26:R4:49:PHE:CE2	2.62	0.52
1:RA:2304:G:H22	1:RA:2312:U:H3	1.56	0.52
1:RA:2646:C:OP2	1:RA:2732:G:O2'	2.21	0.52
54:XY:141:ALA:HA	54:XY:144:TRP:HB3	1.92	0.52
54:XY:251:GLY:O	54:XY:254:VAL:HG12	2.09	0.52
54:XY:334:LYS:NZ	54:XY:341:GLU:OE2	2.42	0.52
1:YA:579:G:O2'	1:YA:2019:A:OP1	2.25	0.52
3:YD:182:LEU:HB2	3:YD:272:ALA:HB3	1.92	0.52
25:Y3:8:LEU:HD12	25:Y3:31:LEU:CA	2.37	0.52
33:XB:40:HIS:HB3	33:XB:190:THR:HG21	1.91	0.52
49:XR:56:THR:CB	49:XR:58:LEU:HD23	2.39	0.52
32:QA:341:C:H2'	32:QA:342:C:H6	1.74	0.52
32:QA:973:G:H3'	32:QA:974:A:H5''	1.92	0.52
33:QB:9:GLU:CD	33:QB:217:ARG:HH22	2.18	0.52
36:QE:92:LYS:HB3	36:QE:119:LEU:HB2	1.91	0.52
50:QS:22:LEU:HD22	50:QS:28:LYS:HA	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:1079:C:N4	1:RA:1080:C:C2	2.78	0.52
1:RA:2206:G:H5''	1:RA:2207:G:N7	2.24	0.52
8:RI:77:LEU:CD1	8:RI:101:LEU:HG	2.40	0.52
11:RP:125:VAL:HG22	11:RP:138:LEU:HD21	1.92	0.52
54:XY:212:ARG:HB2	54:XY:214:HIS:CD2	2.45	0.52
1:YA:299:A:N1	1:YA:322:A:O2'	2.37	0.51
1:YA:958:U:OP2	12:YQ:14:ARG:NH1	2.42	0.51
1:YA:964:C:O2'	1:YA:2273:A:N3	2.41	0.51
1:YA:1250:G:N7	11:YP:18:ARG:NH2	2.57	0.51
1:YA:2171:A:H4'	1:YA:2172:U:OP1	2.09	0.51
1:YA:2635:C:O2'	4:YE:80:GLU:OE1	2.21	0.51
5:YF:39:TRP:CZ2	5:YF:106:ARG:CZ	2.93	0.51
6:YG:56:ALA:HB2	6:YG:153:ARG:CZ	2.39	0.51
14:YS:14:VAL:O	14:YS:18:ILE:HG12	2.10	0.51
17:YV:15:GLU:O	17:YV:18:LEU:HB2	2.09	0.51
19:YX:57:LEU:HD12	19:YX:78:LYS:CG	2.39	0.51
22:Y0:8:GLY:N	53:XV:2:G:H4'	2.24	0.51
32:QA:25:C:H2'	32:QA:26:A:C8	2.45	0.51
32:QA:103:C:O2'	32:QA:172:A:N1	2.40	0.51
32:QA:1034:G:H3'	32:QA:1035:A:C8	2.45	0.51
1:RA:249:C:OP2	1:RA:2394:C:O2'	2.27	0.51
1:RA:579:G:O2'	1:RA:2019:A:OP1	2.21	0.51
1:RA:862:G:H2'	1:RA:863:A:O4'	2.10	0.51
1:RA:1475:G:H2'	1:RA:1476:C:C6	2.46	0.51
1:RA:1709:U:H2'	1:RA:1710:C:C6	2.44	0.51
1:RA:1864:U:OP1	1:RA:2410:G:O2'	2.20	0.51
54:QY:200:ARG:HB2	54:QY:322:GLN:HG2	1.91	0.51
53:XV:3:C:H2'	53:XV:4:G:H5'	1.91	0.51
54:XY:314:LYS:HG3	54:XY:315:SER:H	1.75	0.51
1:YA:207:A:H2'	1:YA:208:C:O4'	2.10	0.51
1:YA:784:A:C6	3:YD:229:VAL:HG11	2.45	0.51
1:YA:2025:C:H2'	1:YA:2026:C:C6	2.45	0.51
1:YA:2138:C:H2'	1:YA:2139:C:C6	2.44	0.51
1:YA:2711:A:H5''	1:YA:2712(A):U:H5''	1.91	0.51
5:YF:110:LEU:HD11	5:YF:202:PHE:CE1	2.45	0.51
20:YY:38:ILE:HD11	20:YY:66:PRO:HG3	1.91	0.51
20:YY:87:LYS:HB3	20:YY:95:LYS:HD3	1.91	0.51
21:YZ:152:ALA:O	21:YZ:155:LEU:HB2	2.10	0.51
32:XA:443:C:H2'	32:XA:444:C:C6	2.44	0.51
46:XO:26:GLU:OE1	46:XO:77:ARG:HD2	2.10	0.51
32:QA:324:G:N1	32:QA:327:A:OP2	2.42	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:769:G:H4'	32:QA:1513:A:H4'	1.92	0.51
32:QA:1072:G:H2'	32:QA:1073:U:C6	2.45	0.51
1:RA:2334:G:H5'	14:RS:9:ARG:HG2	1.91	0.51
4:RE:73:GLU:H	4:RE:73:GLU:CD	2.18	0.51
9:RN:103:VAL:HG11	9:RN:120:LEU:CD1	2.40	0.51
54:XY:134:ALA:O	54:XY:317:ILE:HG21	2.09	0.51
54:XY:324:ARG:HD2	54:XY:326:TYR:CE1	2.45	0.51
1:YA:277:C:O2'	1:YA:278:A:OP1	2.27	0.51
1:YA:616:G:H5'	5:YF:205:ARG:HD2	1.92	0.51
1:YA:1047:G:H2'	1:YA:1110:G:H22	1.76	0.51
5:YF:34:TRP:CZ3	11:YP:8:PRO:HB3	2.46	0.51
7:YH:164:TYR:HB2	7:YH:167:GLU:HB2	1.91	0.51
11:YP:106:LEU:HD13	11:YP:107:LYS:O	2.10	0.51
21:YZ:23:LYS:NZ	21:YZ:40:ASP:OD2	2.44	0.51
21:YZ:198:LYS:NZ	53:XV:53:G:O5'	2.43	0.51
33:XB:222:ILE:HG13	33:XB:223:ILE:N	2.26	0.51
37:XF:24:GLU:HG3	37:XF:28:ARG:HD3	1.92	0.51
32:QA:1492:A:H2'	54:QY:319:TRP:NE1	2.22	0.51
33:QB:115:LEU:HD13	33:QB:145:LEU:HB3	1.90	0.51
40:QI:16:ARG:HH11	40:QI:64:THR:HG21	1.75	0.51
44:QM:11:ARG:C	44:QM:13:LYS:H	2.19	0.51
1:RA:900:A:H2'	1:RA:901:A:O4'	2.10	0.51
27:R5:45:VAL:HG11	27:R5:58:LEU:HD12	1.92	0.51
53:QV:50:U:H3	53:QV:64:G:H1	1.58	0.51
3:YD:242:ARG:HD3	3:YD:242:ARG:N	2.25	0.51
6:YG:67:LYS:HE3	6:YG:68:PRO:O	2.10	0.51
11:YP:91:PHE:O	11:YP:121:LYS:NZ	2.39	0.51
20:YY:82:PRO:O	20:YY:101:LYS:NZ	2.27	0.51
25:Y3:6:VAL:CG1	25:Y3:54:VAL:HG21	2.41	0.51
32:XA:34:C:H2'	32:XA:35:G:H8	1.76	0.51
32:XA:474:G:H2'	32:XA:475:G:C8	2.45	0.51
32:XA:828:A:H2'	32:XA:829:G:O4'	2.09	0.51
38:QG:28:ASN:HA	38:QG:31:MET:HE2	1.92	0.51
38:QG:50:ILE:HD11	38:QG:58:PRO:HA	1.93	0.51
1:RA:273(C):G:H2'	1:RA:273(D):G:H8	1.75	0.51
1:RA:286:C:H2'	1:RA:287:C:C6	2.45	0.51
1:RA:1378:A:OP1	29:R7:10:ARG:NH2	2.43	0.51
1:RA:1430:C:H2'	1:RA:1431:U:C6	2.45	0.51
29:R7:9:ARG:NH2	29:R7:47:ARG:CB	2.73	0.51
54:QY:265:HIS:CD2	54:QY:267:PRO:HD2	2.45	0.51
1:YA:675:A:N3	1:YA:2443:C:O2'	2.39	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:1057:A:N7	1:YA:1086:A:H2'	2.26	0.51
1:YA:1789:A:H2'	1:YA:1790:C:O4'	2.11	0.51
4:YE:116:VAL:CG2	4:YE:122:PHE:CD2	2.93	0.51
32:XA:737:A:H2'	32:XA:738:C:C6	2.45	0.51
32:XA:977:A:N6	32:XA:1224:G:OP1	2.35	0.51
32:XA:1047:G:OP1	45:XN:4:LYS:NZ	2.43	0.51
32:XA:1458:G:H5''	51:XT:31:SER:HB2	1.93	0.51
35:QD:108:LEU:HB3	35:QD:110:PHE:CE1	2.45	0.51
37:QF:100:ASN:HD22	49:QR:27:GLY:C	2.18	0.51
51:QT:10:LEU:HD22	51:QT:12:ALA:H	1.75	0.51
1:RA:587:C:P	11:RP:21:ARG:HH22	2.33	0.51
1:RA:589:C:H2'	1:RA:590:A:C8	2.44	0.51
1:RA:2122:U:H2'	1:RA:2123:G:C8	2.46	0.51
1:RA:2266:A:H4'	1:RA:2267:A:N3	2.26	0.51
4:RE:78:LEU:O	4:RE:79:ARG:NH1	2.38	0.51
14:RS:27:SER:HA	14:RS:88:ASP:HB3	1.91	0.51
19:RX:60:ARG:HH12	29:R7:47:ARG:HH22	1.59	0.51
1:YA:1430:C:H2'	1:YA:1431:U:H6	1.75	0.51
1:YA:1453:U:O2'	1:YA:1455:G:N7	2.40	0.51
19:YX:31:HIS:CE1	19:YX:33:LYS:HB2	2.46	0.51
33:XB:16:HIS:CD2	33:XB:210:SER:HB3	2.46	0.51
33:XB:119:GLU:OE2	33:XB:153:ARG:NH1	2.42	0.51
44:XM:3:ARG:HG3	44:XM:8:GLU:HG3	1.91	0.51
44:XM:20:THR:CG2	44:XM:27:LYS:HZ3	2.24	0.51
1:RA:536:A:H2'	1:RA:537:C:C6	2.46	0.51
1:RA:581:C:H2'	1:RA:582:G:H8	1.74	0.51
1:RA:1029:A:OP1	12:RQ:128:LYS:NZ	2.43	0.51
1:RA:1113:U:H2'	1:RA:1114:G:H8	1.76	0.51
1:RA:2641:G:H2'	1:RA:2642:G:H8	1.76	0.51
5:RF:170:LEU:HD23	5:RF:172:TRP:CZ2	2.45	0.51
10:RO:10:VAL:HG22	10:RO:16:ALA:O	2.10	0.51
17:RV:40:LEU:HD12	17:RV:46:VAL:HG11	1.91	0.51
1:YA:272(P):C:O2'	8:YI:42:SER:OG	2.26	0.51
1:YA:1184:G:OP1	25:Y3:30:ARG:HD2	2.09	0.51
6:YG:11:TYR:HA	6:YG:15:VAL:HB	1.91	0.51
6:YG:97:ASP:HA	6:YG:100:TRP:HD1	1.75	0.51
8:YI:101:LEU:HD11	8:YI:140:LEU:HD11	1.92	0.51
15:YT:60:THR:HG22	15:YT:77:PRO:HA	1.92	0.51
16:YU:108:GLU:O	16:YU:112:ARG:HG2	2.11	0.51
32:XA:407:G:H2'	32:XA:408:A:H8	1.74	0.51
32:XA:1118:C:P	40:XI:104:ARG:HH11	2.33	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:XC:70:VAL:HG22	34:XC:72:LYS:H	1.76	0.51
42:XK:115:PRO:C	42:XK:117:ASN:HA	2.36	0.51
32:QA:160:A:H2'	32:QA:161:A:O4'	2.10	0.51
32:QA:1071:C:H2'	32:QA:1072:G:H8	1.75	0.51
32:QA:1077:G:N2	32:QA:1080:A:OP2	2.40	0.51
32:QA:1187:G:H4'	40:QI:111:ARG:HH11	1.76	0.51
32:QA:1375:A:H4'	38:QG:29:LYS:HE2	1.92	0.51
1:RA:140:G:N2	1:RA:142(A):A:C6	2.79	0.51
27:R5:16:ARG:NH1	27:R5:17:ASP:OD1	2.44	0.51
32:XA:404:U:C5'	35:XD:122:ARG:HD3	2.41	0.51
32:QA:624:C:H2'	32:QA:625:G:H8	1.76	0.51
32:QA:1117:G:O3'	40:QI:104:ARG:NH1	2.43	0.51
32:QA:1323:G:H2'	32:QA:1324:A:C8	2.46	0.51
50:QS:64:GLU:HG3	26:R4:59:PHE:CD1	2.46	0.51
1:RA:1444:G:H2'	1:RA:1445(B):C:C5	2.45	0.51
2:RB:84:C:OP1	25:R3:15:TYR:OH	2.23	0.51
54:XY:138:GLY:O	54:XY:141:ALA:N	2.44	0.51
54:XY:238:ASP:HB2	54:XY:267:PRO:HD3	1.93	0.51
1:YA:1794:U:H2'	1:YA:1795:C:H6	1.76	0.51
21:YZ:40:ASP:HB3	21:YZ:43:GLU:HB2	1.92	0.51
32:XA:69:G:H8	32:XA:69:G:OP2	1.93	0.51
32:XA:1187:G:OP1	40:XI:113:LYS:NZ	2.43	0.51
49:XR:33:ASP:OD2	49:XR:36:ASN:HB2	2.10	0.51
32:QA:376:G:H5''	47:QP:5:ARG:CD	2.40	0.51
32:QA:765:G:N1	32:QA:812:C:O2'	2.42	0.51
33:QB:163:PHE:CD2	33:QB:185:ILE:HD11	2.46	0.51
39:QH:51:VAL:HG21	39:QH:60:ARG:HH11	1.76	0.51
47:QP:20:VAL:HG21	47:QP:32:TYR:CD2	2.45	0.51
47:QP:79:VAL:HG23	47:QP:80:PHE:CD1	2.46	0.51
1:RA:184:C:H2'	1:RA:185:U:C6	2.46	0.51
1:RA:306:U:H2'	1:RA:307:G:O4'	2.11	0.51
1:RA:321:G:O2'	1:RA:340:A:N3	2.41	0.51
1:RA:1514:U:H2'	1:RA:1515:G:H8	1.76	0.51
21:RZ:92:SER:O	21:RZ:130:PRO:HG2	2.11	0.51
1:YA:997:G:OP1	16:YU:92:ARG:HG2	2.11	0.51
1:YA:1478:G:O2'	1:YA:1558:A:N7	2.43	0.51
1:YA:1525:G:H2'	1:YA:1526:G:C8	2.45	0.51
1:YA:2134:A:H8	1:YA:2156:G:H21	1.57	0.51
6:YG:68:PRO:HB2	6:YG:90:LEU:HB3	1.93	0.51
21:YZ:150:LEU:HB3	21:YZ:171:ILE:HD11	1.93	0.51
32:XA:538:G:H5''	43:XL:114:LYS:HB2	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:1309:G:OP1	44:XM:88:ARG:HD2	2.11	0.51
33:XB:42:ILE:HD13	33:XB:203:GLY:HA2	1.93	0.51
33:XB:55:PHE:CE1	33:XB:218:ALA:HA	2.46	0.51
51:XT:100:ILE:HG22	51:XT:101:GLY:N	2.25	0.51
35:QD:201:GLN:HE22	36:QE:99:GLY:HA2	1.76	0.51
39:QH:10:LEU:HD22	39:QH:83:ILE:HD11	1.93	0.51
50:QS:64:GLU:HA	26:R4:59:PHE:CE1	2.46	0.51
1:RA:1053:C:H2'	1:RA:1054:A:H8	1.75	0.51
1:RA:1942:5MC:O2'	54:QY:290:GLN:NE2	2.44	0.51
1:YA:2612:C:OP2	27:Y5:2:ALA:N	2.44	0.50
1:YA:2687:U:H2'	1:YA:2688:U:O4'	2.12	0.50
9:YN:62:VAL:CG1	9:YN:66:LYS:HB2	2.41	0.50
26:Y4:47:GLN:C	26:Y4:48:ARG:HG2	2.36	0.50
32:XA:1343:G:H4'	40:XI:122:ALA:HB3	1.93	0.50
32:QA:678:U:H2'	32:QA:679:C:C6	2.46	0.50
32:QA:1036:G:H5''	32:QA:1037:C:C5	2.46	0.50
39:QH:6:ILE:O	39:QH:10:LEU:HG	2.10	0.50
46:QO:74:ASP:OD2	46:QO:77:ARG:HG3	2.11	0.50
1:RA:307:G:N1	1:RA:310:A:OP2	2.35	0.50
4:RE:116:VAL:CG2	4:RE:122:PHE:CD2	2.93	0.50
9:RN:15:LEU:HD12	9:RN:137:LYS:HG2	1.92	0.50
15:RT:28:VAL:HG13	15:RT:86:ILE:HG23	1.92	0.50
23:R1:51:VAL:HG11	23:R1:74:VAL:HG21	1.93	0.50
27:R5:47:PRO:O	27:R5:60:VAL:HG23	2.09	0.50
54:QY:121:GLY:O	54:QY:123:TYR:N	2.44	0.50
54:QY:215:THR:HG22	54:QY:217:PHE:HE1	1.76	0.50
1:YA:2099:U:H2'	1:YA:2100:G:C8	2.45	0.50
6:YG:18:GLU:O	6:YG:21:ARG:HG3	2.12	0.50
12:YQ:32:TYR:OH	12:YQ:111:GLU:OE1	2.23	0.50
26:Y4:13:ARG:NH2	26:Y4:21:VAL:HG11	2.25	0.50
32:XA:113:G:H2'	32:XA:114:U:C6	2.46	0.50
32:XA:973:G:H3'	32:XA:974:A:H5''	1.93	0.50
33:XB:53:ARG:HH22	33:XB:199:TYR:HE1	1.59	0.50
33:XB:95:GLN:HG3	33:XB:147:LYS:O	2.11	0.50
39:XH:19:VAL:HG23	39:XH:21:LYS:HD3	1.91	0.50
32:QA:115:G:H4'	32:QA:116:A:O5'	2.11	0.50
32:QA:179:A:H2'	32:QA:180:U:H6	1.75	0.50
32:QA:1218:C:H2'	32:QA:1219:U:C6	2.47	0.50
40:QI:108:VAL:CG1	40:QI:109:VAL:H	2.21	0.50
41:QJ:30:SER:OG	41:QJ:81:THR:HG22	2.11	0.50
1:RA:817:C:O2'	1:RA:839:U:H5''	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:2206:G:H8	1:RA:2207:G:N7	2.09	0.50
6:RG:62:LEU:HD13	26:R4:28:LYS:NZ	2.25	0.50
7:RH:7:LEU:O	7:RH:69:ARG:NH1	2.43	0.50
8:RI:72:LEU:C	8:RI:74:ASN:H	2.18	0.50
12:RQ:109:VAL:HG13	12:RQ:113:GLN:CB	2.41	0.50
26:R4:7:PRO:HB2	26:R4:27:THR:HG21	1.94	0.50
1:YA:2647:U:H2'	1:YA:2648:C:H6	1.76	0.50
2:YB:22:U:H2'	2:YB:23:G:C8	2.46	0.50
4:YE:11:MET:CG	4:YE:24:THR:HG22	2.39	0.50
23:Y1:77:ALA:O	23:Y1:80:LEU:HB2	2.12	0.50
25:Y3:29:ARG:HB2	25:Y3:30:ARG:HD3	1.91	0.50
30:Y8:46:ARG:HB2	30:Y8:46:ARG:HH21	1.76	0.50
37:QF:97:PHE:O	49:QR:31:LEU:N	2.33	0.50
39:QH:86:ILE:HG13	39:QH:133:LEU:HD22	1.92	0.50
50:QS:3:ARG:NH1	50:QS:10:PHE:HB2	2.25	0.50
1:RA:813:U:H2'	1:RA:814:C:H6	1.77	0.50
1:RA:1354:A:H3'	1:RA:1355:G:H8	1.77	0.50
6:RG:7:LEU:HD13	6:RG:100:TRP:CZ3	2.43	0.50
53:QV:53:G:H1'	53:QV:54:U:H5'	1.93	0.50
3:YD:275:LYS:HG3	3:YD:276:LYS:HA	1.94	0.50
38:XG:149:ARG:HG2	42:XK:59:TYR:CE1	2.47	0.50
32:QA:646:U:H2'	32:QA:647:C:C6	2.47	0.50
32:QA:1256:A:H5'	34:QC:27:LYS:HE2	1.92	0.50
39:QH:23:SER:HA	39:QH:63:LEU:HD22	1.91	0.50
1:RA:30:G:H2'	1:RA:31:C:C6	2.47	0.50
1:RA:1798:U:H5'	3:RD:259:THR:CG2	2.41	0.50
1:RA:1816:G:O6	3:RD:35:LYS:NZ	2.29	0.50
1:RA:2138:C:H2'	1:RA:2139:C:H6	1.76	0.50
1:RA:2398:U:H2'	1:RA:2399:G:H8	1.76	0.50
30:R8:31:HIS:CE1	30:R8:32:LEU:CD2	2.94	0.50
1:YA:876:C:H2'	1:YA:877:U:O4'	2.12	0.50
1:YA:1275:A:N1	1:YA:1295:C:O2'	2.41	0.50
1:YA:1406:U:H2'	1:YA:1407:C:C6	2.46	0.50
1:YA:2361:A:P	30:Y8:26:LYS:NZ	2.84	0.50
39:XH:63:LEU:HD23	39:XH:65:TYR:OH	2.11	0.50
32:QA:69:G:H2'	32:QA:70:G:H8	1.77	0.50
33:QB:15:VAL:CG2	33:QB:209:ARG:CG	2.76	0.50
33:QB:16:HIS:CG	33:QB:17:PHE:N	2.78	0.50
35:QD:8:VAL:CG2	35:QD:21:LEU:HD13	2.42	0.50
39:QH:12:ARG:HD2	39:QH:26:VAL:HG12	1.92	0.50
51:QT:10:LEU:CD2	51:QT:11:SER:N	2.70	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:956:G:H5''	12:RQ:77:LYS:HD2	1.92	0.50
1:RA:1113:U:H2'	1:RA:1114:G:C8	2.46	0.50
1:RA:1588:C:H2'	1:RA:1589:C:C6	2.46	0.50
1:RA:1786:A:H1'	1:RA:1938:A:N6	2.26	0.50
22:R0:59:LEU:HD23	22:R0:79:VAL:HB	1.94	0.50
54:QY:335:ASP:C	54:QY:337:ARG:H	2.17	0.50
1:YA:1073:A:O2'	1:YA:1074:G:O5'	2.29	0.50
6:YG:14:GLU:C	6:YG:17:PRO:HD2	2.37	0.50
7:YH:89:ILE:O	7:YH:129:THR:HG23	2.11	0.50
10:YO:10:VAL:HG22	10:YO:16:ALA:O	2.12	0.50
32:XA:382:A:H2'	32:XA:383:A:H8	1.77	0.50
32:XA:1426:C:H2'	32:XA:1427:U:C6	2.46	0.50
40:XI:17:VAL:HG11	40:XI:80:GLY:C	2.37	0.50
41:XJ:16:LEU:HD13	41:XJ:70:ARG:HG2	1.94	0.50
32:QA:539:A:OP2	43:QL:115:LYS:NZ	2.44	0.50
32:QA:918:A:H2'	32:QA:919:A:C8	2.46	0.50
32:QA:978:A:OP2	32:QA:1363(A):C:N4	2.41	0.50
32:QA:1442(A):G:N3	32:QA:1442(A):G:H2'	2.27	0.50
36:QE:79:GLU:HG3	36:QE:93:PRO:HD2	1.93	0.50
1:RA:581:C:H2'	1:RA:582:G:C8	2.46	0.50
1:RA:858:U:O2	1:RA:2268:A:H2'	2.12	0.50
1:RA:1629:U:H2'	1:RA:1630:G:C8	2.47	0.50
1:RA:2128:C:H5'	1:RA:2129:C:OP2	2.12	0.50
1:RA:2171:A:H4'	1:RA:2172:U:OP1	2.12	0.50
1:RA:2853:C:H2'	1:RA:2854:G:C8	2.47	0.50
6:RG:66:GLN:HB3	6:RG:92:VAL:HG21	1.93	0.50
19:RX:57:LEU:HD12	19:RX:78:LYS:CG	2.41	0.50
26:R4:57:GLU:HB2	26:R4:58:ARG:HA	1.94	0.50
54:XY:202:VAL:HG22	54:XY:215:THR:HG23	1.94	0.50
1:YA:690:G:H2'	1:YA:691:C:C6	2.47	0.50
1:YA:1068:G:H3'	1:YA:1096:A:OP2	2.12	0.50
1:YA:2127:G:H2'	1:YA:2128:C:O4'	2.11	0.50
4:YE:14:ILE:HG13	4:YE:21:VAL:HG13	1.92	0.50
8:YI:27:ARG:HD3	23:Y1:71:TYR:CE1	2.46	0.50
34:XC:116:VAL:HG21	34:XC:202:ILE:HD11	1.93	0.50
37:XF:97:PHE:HB2	49:XR:32:ARG:HD3	1.94	0.50
50:XS:20:LEU:HD23	50:XS:23:ASN:ND2	2.22	0.50
32:QA:258:G:H2'	32:QA:259:G:H8	1.76	0.50
32:QA:1316:G:H5''	45:QN:17:LYS:NZ	2.27	0.50
33:QB:54:THR:HG21	33:QB:201:ILE:HD11	1.93	0.50
44:QM:57:ARG:O	44:QM:61:GLU:HG3	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:QM:63:THR:O	26:R4:50:VAL:HG23	2.11	0.50
1:RA:302:C:H2'	1:RA:303:U:C6	2.46	0.50
1:RA:635:C:H2'	1:RA:636:G:O4'	2.12	0.50
1:RA:1278:A:H2'	1:RA:1279:G:C8	2.47	0.50
1:RA:1824:G:O3'	3:RD:249:PRO:HD3	2.11	0.50
4:RE:111:ARG:HG3	4:RE:160:TYR:CD2	2.46	0.50
5:RF:20:LEU:HD13	5:RF:21:ALA:H	1.75	0.50
5:RF:30:PRO:HB3	11:RP:1:MET:HE1	1.93	0.50
54:QY:41:LEU:HA	54:QY:46:VAL:HG21	1.94	0.50
1:YA:1657:C:H2'	1:YA:1658:C:H6	1.77	0.50
1:YA:1952:A:OP1	10:YO:42:SER:OG	2.27	0.50
7:YH:54:ARG:HD3	7:YH:65:HIS:ND1	2.27	0.50
24:Y2:12:GLU:HA	24:Y2:15:LYS:HZ2	1.77	0.50
32:XA:1148:U:O2'	40:XI:66:ARG:NH1	2.40	0.50
32:XA:1159:U:O4'	32:XA:1182:G:N2	2.45	0.50
33:XB:124:SER:HB2	33:XB:125:PRO:HD3	1.94	0.50
34:XC:111:LEU:HD22	34:XC:146:ALA:HB2	1.93	0.50
36:XE:6:PHE:HB2	36:XE:34:VAL:HG13	1.93	0.50
40:XI:8:GLY:HA2	40:XI:79:LEU:HD23	1.92	0.50
50:XS:30:LEU:HD11	50:XS:50:ALA:HB2	1.92	0.50
32:QA:881:G:OP2	43:QL:12:ARG:NH2	2.44	0.50
32:QA:1410:G:H2'	32:QA:1411:C:H6	1.77	0.50
1:RA:1165:U:H2'	1:RA:1166:C:H6	1.76	0.50
1:RA:1166:C:H2'	1:RA:1167:U:C6	2.47	0.50
1:RA:2111:C:H42	1:RA:2147:G:H22	1.59	0.50
1:RA:2291:U:H2'	1:RA:2292:C:H6	1.76	0.50
54:XY:216:SER:C	54:XY:217:PHE:HD1	2.19	0.50
54:XY:324:ARG:HG3	54:XY:335:ASP:HA	1.93	0.50
1:YA:302:C:H2'	1:YA:303:U:C6	2.47	0.50
1:YA:2086:U:H2'	1:YA:2087:G:C8	2.46	0.50
1:YA:2109:U:H2'	1:YA:2110:G:C8	2.47	0.50
8:YI:114:LEU:HD12	8:YI:116:LEU:HB2	1.93	0.50
18:YW:23:LEU:O	18:YW:27:LYS:NZ	2.45	0.50
32:XA:273:A:H1'	48:XQ:16:GLN:NE2	2.26	0.50
32:XA:580:U:H2'	32:XA:581:G:O4'	2.12	0.50
32:XA:678:U:H2'	32:XA:679:C:H6	1.77	0.50
32:XA:1030(C):C:H41	32:XA:1030(D):G:H21	1.60	0.50
32:XA:1218:C:H2'	32:XA:1219:U:C6	2.46	0.50
41:XJ:51:ARG:O	45:XN:45:ARG:NH1	2.45	0.50
32:QA:750:G:O2'	46:QO:22:THR:O	2.16	0.50
32:QA:920:U:H2'	32:QA:921:U:C6	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:1492:A:C4'	43:QL:47:LYS:NZ	2.75	0.50
33:QB:115:LEU:HD12	33:QB:142:LEU:HD12	1.93	0.50
5:RF:13:SER:OG	5:RF:127:GLU:OE2	2.29	0.50
8:RI:68:LEU:HD13	8:RI:68:LEU:O	2.11	0.50
17:RV:52:VAL:CG2	17:RV:55:ALA:HB3	2.42	0.50
23:R1:64:ALA:HA	23:R1:67:ILE:HG13	1.94	0.50
30:R8:28:GLY:O	30:R8:36:LYS:NZ	2.44	0.50
1:YA:2206:G:H3'	1:YA:2207:G:C8	2.47	0.49
6:YG:146:TYR:HE2	44:XM:8:GLU:CB	2.23	0.49
26:Y4:48:ARG:HG3	26:Y4:52:THR:HG23	1.94	0.49
32:XA:328:C:H4'	32:XA:329:A:H5'	1.94	0.49
32:XA:890:G:O2'	32:XA:906:G:O6	2.27	0.49
32:XA:1289:A:N1	32:XA:1371:G:O2'	2.42	0.49
36:XE:92:LYS:HB3	36:XE:119:LEU:HB2	1.93	0.49
32:QA:35:G:H2'	32:QA:36:C:C6	2.47	0.49
32:QA:1352:C:H2'	32:QA:1353:G:C8	2.46	0.49
35:QD:194:LEU:HD12	35:QD:195:ALA:N	2.25	0.49
51:QT:57:ARG:NH2	51:QT:100:ILE:HD12	2.27	0.49
1:RA:1797:C:O3'	3:RD:259:THR:HG22	2.12	0.49
1:RA:2022:U:O2'	1:RA:2617:C:H5'	2.12	0.49
1:RA:2164:C:H3'	1:RA:2165:G:H8	1.76	0.49
1:RA:2629:A:H1'	1:RA:2630:G:H5''	1.94	0.49
4:RE:21:VAL:HG23	4:RE:185:LYS:HD2	1.94	0.49
54:XY:132:ILE:HD11	54:XY:152:TYR:HD2	1.76	0.49
1:YA:1639:U:H2'	1:YA:1640:C:H5''	1.94	0.49
6:YG:5:VAL:CG2	6:YG:8:LYS:HB3	2.43	0.49
6:YG:146:TYR:CD2	44:XM:8:GLU:OE1	2.65	0.49
26:Y4:58:ARG:NH1	50:XS:65:ASN:C	2.61	0.49
32:XA:22:G:H4'	32:XA:885:G:C8	2.47	0.49
32:XA:1002:G:N3	32:XA:1003:G:C8	2.79	0.49
51:XT:56:MET:HE2	51:XT:84:LEU:HD22	1.85	0.49
32:QA:328:C:H4'	32:QA:329:A:H5'	1.94	0.49
33:QB:231:GLU:HB3	33:QB:232:PRO:HD3	1.94	0.49
34:QC:36:ASP:OD1	34:QC:57:ILE:HG21	2.12	0.49
38:QG:70:LYS:O	38:QG:138:LYS:HE2	2.12	0.49
39:QH:14:ARG:O	39:QH:18:ARG:CG	2.58	0.49
40:QI:121:ARG:NH1	40:QI:122:ALA:O	2.46	0.49
41:QJ:8:LEU:HB2	41:QJ:70:ARG:HB2	1.93	0.49
46:QO:39:LEU:HD13	46:QO:56:LEU:HB2	1.94	0.49
1:RA:662:G:H5''	11:RP:16:ARG:HG3	1.93	0.49
1:RA:1068:G:H3'	1:RA:1096:A:OP2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:RV:40:LEU:HB2	17:RV:46:VAL:CG1	2.43	0.49
54:XY:335:ASP:O	54:XY:337:ARG:N	2.45	0.49
1:YA:528:A:OP2	9:YN:114:ARG:NH1	2.44	0.49
1:YA:2137:C:H2'	1:YA:2138:C:C6	2.46	0.49
1:YA:2591:C:H2'	1:YA:2592:G:C8	2.47	0.49
4:YE:51:PHE:O	4:YE:77:ILE:N	2.42	0.49
15:YT:117:ASP:OD2	15:YT:120:ARG:NE	2.39	0.49
18:YW:12:ILE:HD13	18:YW:17:VAL:HG13	1.94	0.49
20:YY:37:VAL:HG21	20:YY:72:VAL:HG21	1.94	0.49
32:XA:1131:G:H2'	32:XA:1132:C:C6	2.47	0.49
35:XD:162:LEU:HD13	35:XD:181:MET:HG2	1.94	0.49
40:XI:21:PRO:HA	40:XI:59:PHE:HA	1.93	0.49
40:XI:22:GLY:HA3	40:XI:60:ASP:OD1	2.13	0.49
48:XQ:41:LYS:HZ3	48:XQ:92:ARG:HH21	1.61	0.49
51:XT:42:GLN:O	51:XT:45:GLN:HB3	2.12	0.49
32:QA:692:U:O2'	32:QA:694:A:N7	2.33	0.49
34:QC:59:ARG:N	41:QJ:92:THR:CG2	2.74	0.49
46:QO:18:PHE:HB2	46:QO:19:PRO:HD2	1.94	0.49
49:QR:65:ILE:O	49:QR:69:THR:HG23	2.12	0.49
1:RA:75:G:H22	1:RA:111:A:H2	1.60	0.49
1:RA:78:A:H2'	1:RA:79:G:H8	1.78	0.49
1:RA:922:U:H2'	1:RA:923:C:C6	2.47	0.49
1:RA:2696:U:H2'	1:RA:2697:G:C8	2.47	0.49
8:RI:81:VAL:O	8:RI:146:ALA:HA	2.11	0.49
30:R8:23:VAL:HG13	30:R8:47:LYS:HB3	1.93	0.49
1:YA:300:A:OP1	20:YY:86:ARG:NH2	2.46	0.49
1:YA:862:G:H2'	1:YA:863:A:O4'	2.11	0.49
1:YA:1798:U:OP2	3:YD:274:ARG:NH2	2.45	0.49
1:YA:2266:A:H4'	1:YA:2267:A:N3	2.27	0.49
1:YA:2693:A:H2'	1:YA:2694:G:C8	2.47	0.49
7:YH:55:PRO:HG2	7:YH:61:HIS:CE1	2.48	0.49
7:YH:87:LEU:HD23	7:YH:164:TYR:HA	1.95	0.49
18:YW:51:LEU:C	18:YW:51:LEU:CD1	2.84	0.49
32:XA:17:U:H2'	32:XA:18:C:H6	1.75	0.49
32:XA:1426:C:H2'	32:XA:1427:U:H6	1.77	0.49
33:XB:122:PHE:CE2	33:XB:127:ILE:CD1	2.95	0.49
41:XJ:25:GLU:O	41:XJ:29:ARG:HG2	2.11	0.49
44:XM:20:THR:HG21	44:XM:27:LYS:HZ3	1.78	0.49
45:XN:27:CYS:SG	45:XN:29:ARG:HB2	2.52	0.49
32:QA:1003:G:C2'	32:QA:1004:A:H4'	2.43	0.49
32:QA:1239:A:O2'	38:QG:114:ARG:O	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:2238:G:H2'	1:RA:2238:G:N3	2.28	0.49
6:RG:126:ASP:HB3	6:RG:128:ARG:H	1.77	0.49
54:XY:141:ALA:O	54:XY:145:ALA:N	2.40	0.49
54:XY:150:ARG:HG3	54:XY:154:ARG:HH12	1.77	0.49
1:YA:601:C:O2'	1:YA:605:C:OP1	2.31	0.49
1:YA:1057:A:O2'	1:YA:1058:G:OP1	2.30	0.49
3:YD:72:LYS:HG3	3:YD:103:ARG:HH22	1.77	0.49
18:YW:86:LEU:HD22	18:YW:96:ILE:HD11	1.94	0.49
32:XA:35:G:H2'	32:XA:36:C:C6	2.47	0.49
32:XA:1427:U:H2'	32:XA:1428:A:C8	2.48	0.49
32:QA:1020:U:H2'	32:QA:1021:G:C8	2.47	0.49
32:QA:1060:C:H2'	32:QA:1061:G:H8	1.77	0.49
32:QA:1172:C:H2'	32:QA:1173:G:H8	1.78	0.49
35:QD:81:GLU:O	35:QD:85:LYS:HB2	2.11	0.49
39:QH:36:LEU:HD12	39:QH:59:LEU:HD13	1.92	0.49
41:QJ:38:ILE:O	41:QJ:38:ILE:HG13	2.11	0.49
1:RA:2119:A:H61	1:RA:2168:G:H21	1.61	0.49
3:RD:126:GLN:O	3:RD:193:VAL:HG22	2.13	0.49
6:RG:50:ALA:C	6:RG:52:ILE:N	2.67	0.49
17:RV:28:GLU:O	17:RV:61:VAL:HG11	2.12	0.49
19:RX:5:TYR:CG	24:R2:30:ARG:HA	2.48	0.49
54:XY:166:ILE:HD11	54:XY:182:LYS:HE3	1.94	0.49
1:YA:303:U:H2'	1:YA:304:G:H8	1.77	0.49
1:YA:863:A:H2'	1:YA:864:G:H8	1.77	0.49
1:YA:2119:A:H61	1:YA:2168:G:H21	1.58	0.49
1:YA:2773:C:OP1	4:YE:164:ARG:NE	2.38	0.49
1:YA:2853:C:H2'	1:YA:2854:G:C8	2.46	0.49
19:YX:41:ASN:O	19:YX:45:THR:HG23	2.13	0.49
21:YZ:198:LYS:HZ1	53:XV:52:G:C2'	2.26	0.49
32:XA:246:A:C2	32:XA:282:A:C5	3.00	0.49
34:XC:152:ILE:CG2	34:XC:167:TRP:HB2	2.26	0.49
34:XC:174:PRO:HD2	34:XC:182:ILE:HD11	1.94	0.49
40:XI:8:GLY:HA3	40:XI:76:ALA:O	2.13	0.49
32:QA:9:G:H2'	32:QA:10:A:H8	1.78	0.49
32:QA:868:C:H2'	32:QA:869:G:O4'	2.13	0.49
40:QI:43:ALA:O	40:QI:45:ALA:N	2.45	0.49
50:QS:65:ASN:O	26:R4:58:ARG:HD2	2.13	0.49
1:RA:1085:A:H2'	1:RA:1086:A:C2	2.46	0.49
4:RE:119:ARG:HG2	4:RE:120:TRP:CE2	2.47	0.49
1:YA:212:G:H2'	1:YA:213:A:O4'	2.13	0.49
5:YF:167:ALA:O	5:YF:170:LEU:HD23	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:YI:116:LEU:CD2	8:YI:118:LYS:O	2.61	0.49
27:Y5:16:ARG:NH1	27:Y5:16:ARG:HG2	2.27	0.49
32:XA:8:A:H5'	36:XE:101:ILE:HG22	1.93	0.49
32:XA:1346:A:N1	32:XA:1374:A:H5''	2.28	0.49
33:XB:189:ASP:OD1	33:XB:189:ASP:N	2.43	0.49
36:XE:60:TYR:CZ	36:XE:64:ARG:HD3	2.48	0.49
38:XG:65:ALA:HB1	38:XG:127:ALA:HB3	1.94	0.49
42:XK:20:TYR:CE1	42:XK:83:ILE:HD12	2.48	0.49
47:XP:18:ARG:NH1	47:XP:32:TYR:OH	2.45	0.49
32:QA:21:G:H2'	32:QA:22:G:C8	2.48	0.49
32:QA:34:C:H2'	32:QA:35:G:C8	2.47	0.49
32:QA:714:G:H2'	32:QA:715:A:C8	2.47	0.49
37:QF:76:ALA:O	37:QF:80:ARG:HG3	2.12	0.49
46:QO:25:THR:HG21	46:QO:70:LEU:HB2	1.94	0.49
1:RA:1614:A:C2	18:RW:93:ALA:HB2	2.47	0.49
3:RD:77:ALA:HB2	3:RD:97:TYR:CD2	2.48	0.49
10:RO:10:VAL:HG21	10:RO:16:ALA:HB3	1.95	0.49
17:RV:28:GLU:O	17:RV:61:VAL:CG1	2.61	0.49
54:XY:264:THR:HG22	54:XY:271:VAL:HG12	1.94	0.49
1:YA:1827:C:O2'	1:YA:1970:A:N3	2.36	0.49
1:YA:1918:A:O2'	1:YA:1920:4OC:N4	2.45	0.49
1:YA:2820:A:O2'	1:YA:2821:A:OP1	2.29	0.49
6:YG:46:ALA:HB2	6:YG:53:LEU:CD1	2.43	0.49
12:YQ:21:THR:HG22	12:YQ:23:GLY:O	2.13	0.49
13:YR:87:TYR:OH	13:YR:117:VAL:O	2.20	0.49
32:QA:1244:C:H2'	32:QA:1245:A:C8	2.48	0.49
32:QA:1278:U:H5'	32:QA:1279:A:O4'	2.13	0.49
32:QA:1343:G:H4'	40:QI:122:ALA:HB3	1.95	0.49
33:QB:178:ARG:HH22	39:QH:68:ARG:HH12	1.61	0.49
39:QH:81:HIS:N	39:QH:138:TRP:O	2.45	0.49
40:QI:16:ARG:H	40:QI:64:THR:HG22	1.77	0.49
44:QM:65:LYS:HG2	26:R4:50:VAL:CG1	2.39	0.49
1:RA:601:C:O2'	1:RA:605:C:OP1	2.29	0.49
8:RI:77:LEU:HD12	8:RI:101:LEU:HG	1.94	0.49
30:R8:31:HIS:CG	30:R8:32:LEU:HD22	2.47	0.49
1:YA:272(E):U:H2'	1:YA:272(F):C:C6	2.48	0.49
1:YA:1210:A:H5''	1:YA:1212:G:O4'	2.13	0.49
1:YA:1467:C:C5	1:YA:1546:C:H2'	2.47	0.49
1:YA:1833:U:O2'	1:YA:1969:A:N1	2.44	0.49
1:YA:2115:G:N1	1:YA:2117:A:N7	2.61	0.49
4:YE:12:THR:CG2	4:YE:13:ARG:H	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:Y9:2:LYS:HE2	31:Y9:31:LYS:O	2.12	0.49
38:XG:26:PHE:O	38:XG:30:ILE:HG13	2.12	0.49
32:QA:235:C:H5'	48:QQ:70:ARG:HG2	1.95	0.49
46:QO:55:GLY:HA2	46:QO:58:MET:HE3	1.94	0.49
1:RA:212:G:H2'	1:RA:213:A:O4'	2.13	0.49
1:RA:881:G:H2'	1:RA:882:G:H8	1.76	0.49
1:RA:1829:A:H3'	1:RA:1830:C:H6	1.77	0.49
1:RA:1853:A:H2'	1:RA:1854:A:C8	2.48	0.49
1:RA:2555:U:O2	54:QY:245:ARG:NH1	2.41	0.49
4:RE:150:VAL:CG1	4:RE:154:LYS:HG3	2.43	0.49
1:YA:950:G:H2'	1:YA:951:C:C6	2.48	0.49
1:YA:1475:G:H2'	1:YA:1476:C:C6	2.47	0.49
1:YA:1791:A:OP2	1:YA:1791:A:H8	1.96	0.49
1:YA:2079:U:OP1	23:Y1:21:ARG:NH2	2.46	0.49
1:YA:2138:C:H2'	1:YA:2139:C:H6	1.77	0.49
2:YB:75:G:H21	21:YZ:85:HIS:CE1	2.31	0.49
3:YD:127:VAL:HA	3:YD:193:VAL:HG23	1.94	0.49
21:YZ:10:ARG:HH21	21:YZ:26:GLY:H	1.60	0.49
26:Y4:15:ILE:HB	26:Y4:32:TYR:CD1	2.48	0.49
32:XA:441:A:H3'	32:XA:442:C:H6	1.78	0.49
32:XA:715:A:H2'	32:XA:716:A:C8	2.48	0.49
34:XC:164:ARG:HG2	34:XC:165:THR:H	1.77	0.49
37:XF:91:VAL:HG11	49:XR:72:ARG:NH1	2.27	0.49
40:XI:31:GLN:HG3	40:XI:36:TYR:HB2	1.95	0.49
32:QA:524:G:H2'	32:QA:525:C:C6	2.48	0.49
34:QC:130:VAL:HG21	34:QC:157:ILE:HG23	1.95	0.49
45:QN:32:SER:HB3	45:QN:41:ARG:HG2	1.94	0.49
50:QS:27:GLU:CB	50:QS:28:LYS:CE	2.90	0.49
1:RA:108:U:H2'	1:RA:109:G:C8	2.48	0.49
1:RA:372:G:O2'	1:RA:400:G:O6	2.29	0.49
1:RA:1656:C:H2'	1:RA:1657:C:H6	1.78	0.49
1:RA:2075:U:OP2	1:RA:2238:G:O2'	2.30	0.49
1:RA:2547:U:H2'	1:RA:2548:G:H8	1.77	0.49
5:RF:136:THR:HG22	5:RF:140:LEU:CD2	2.43	0.49
7:RH:90:LYS:HD3	7:RH:159:GLU:HG2	1.95	0.49
12:RQ:14:ARG:HG2	12:RQ:41:TRP:HH2	1.78	0.49
21:RZ:155:LEU:HD11	21:RZ:171:ILE:HD13	1.94	0.49
54:XY:217:PHE:N	54:XY:217:PHE:CD1	2.81	0.49
1:YA:1005:C:O2'	9:YN:28:THR:HG21	2.13	0.48
1:YA:1866:C:H2'	1:YA:1876:A:O4'	2.13	0.48
6:YG:11:TYR:OH	6:YG:33:ARG:HG3	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:YY:20:TYR:CE1	20:YY:43:ASN:HA	2.48	0.48
26:Y4:1:MET:HE2	26:Y4:6:HIS:CD2	2.48	0.48
26:Y4:59:PHE:CA	26:Y4:61:ARG:H	2.20	0.48
32:XA:256:U:H2'	32:XA:257:G:C8	2.48	0.48
32:XA:382:A:H2'	32:XA:383:A:C8	2.48	0.48
43:XL:77:LEU:HD21	43:XL:107:ALA:HA	1.95	0.48
1:RA:55:G:O2'	1:RA:127:A:N1	2.42	0.48
1:RA:121:G:H4'	1:RA:149:A:H5'	1.93	0.48
1:RA:721:C:H2'	1:RA:722:A:H8	1.78	0.48
1:RA:2489:G:N2	1:RA:2491:U:O4	2.43	0.48
1:RA:2502:G:H5''	1:RA:2503:2MA:H5''	1.95	0.48
15:RT:35:LYS:C	15:RT:35:LYS:CD	2.86	0.48
54:XY:168:GLU:HG2	54:XY:179:VAL:HG12	1.95	0.48
1:YA:708:C:H2'	1:YA:709:U:C6	2.49	0.48
1:YA:2328:A:H2'	1:YA:2329:G:H8	1.74	0.48
32:XA:601:C:H2'	32:XA:602:A:C8	2.48	0.48
32:XA:1422:G:H2'	32:XA:1423:G:C8	2.46	0.48
32:XA:1438:G:H2'	32:XA:1439:C:H6	1.78	0.48
32:QA:736:C:H2'	32:QA:737:A:C8	2.48	0.48
34:QC:8:ILE:HG23	34:QC:16:ARG:HG2	1.95	0.48
40:QI:25:LYS:HE2	40:QI:25:LYS:CA	2.35	0.48
1:RA:152:G:H2'	1:RA:153:C:H6	1.78	0.48
1:RA:729:G:O2'	1:RA:763:G:H4'	2.14	0.48
1:RA:2849:U:O4	15:RT:23:ARG:NH2	2.46	0.48
8:RI:140:LEU:HD12	8:RI:142:VAL:HG23	1.86	0.48
54:XY:265:HIS:CD2	54:XY:267:PRO:HD2	2.48	0.48
1:YA:1000:A:H2'	1:YA:1001:A:C8	2.48	0.48
1:YA:1805:U:O2	3:YD:50:THR:HB	2.13	0.48
1:YA:2164:C:H3'	1:YA:2165:G:H8	1.78	0.48
6:YG:115:ARG:HG2	6:YG:136:ARG:HH21	1.77	0.48
10:YO:16:ALA:HB2	10:YO:52:VAL:HG21	1.95	0.48
20:YY:56:PRO:O	20:YY:57:GLN:HB2	2.14	0.48
21:YZ:110:GLY:HA3	21:YZ:174:VAL:HG11	1.95	0.48
30:Y8:63:PRO:HG2	30:Y8:64:TYR:CE2	2.48	0.48
32:XA:115:G:H4'	32:XA:116:A:O5'	2.12	0.48
33:XB:8:LYS:HG2	33:XB:9:GLU:N	2.25	0.48
48:XQ:53:LEU:HD23	48:XQ:82:MET:HE1	1.94	0.48
32:QA:166:G:H2'	32:QA:167:G:C8	2.47	0.48
32:QA:559:A:H4'	32:QA:560:U:H5''	1.96	0.48
34:QC:15:THR:HG21	34:QC:181:ASN:HA	1.95	0.48
1:RA:1952:A:N3	10:RO:22:ILE:HD12	2.27	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:2816:C:O2	1:RA:2883:A:O2'	2.30	0.48
2:RB:14:U:O3'	2:RB:108:U:O2'	2.31	0.48
8:RI:109:ILE:CG1	8:RI:130:TYR:CZ	2.91	0.48
1:YA:854:G:H2'	1:YA:855:G:C8	2.46	0.48
4:YE:150:VAL:HG13	4:YE:154:LYS:HG3	1.95	0.48
5:YF:110:LEU:HA	5:YF:183:VAL:HG12	1.95	0.48
32:XA:939:G:H2'	32:XA:940:C:C6	2.49	0.48
32:XA:1025:U:H3	32:XA:1036:G:H1	1.60	0.48
32:XA:1120:G:H2'	32:XA:1121:U:C6	2.49	0.48
32:XA:1179:A:H2'	32:XA:1180:A:O4'	2.12	0.48
49:XR:56:THR:O	49:XR:58:LEU:HD22	2.13	0.48
32:QA:1492:A:C1'	43:QL:47:LYS:HZ2	2.27	0.48
1:RA:1812:A:O2'	3:RD:45:ASN:N	2.46	0.48
1:RA:2130:U:H2'	1:RA:2158:A:H61	1.78	0.48
11:RP:97:PRO:HD3	11:RP:126:VAL:O	2.13	0.48
19:RX:11:PRO:HB3	19:RX:92:LEU:HD11	1.95	0.48
1:YA:753:C:O5'	1:YA:753:C:H6	1.96	0.48
1:YA:956:G:H5''	12:YQ:77:LYS:HD2	1.96	0.48
1:YA:2747:G:O6	1:YA:2755:C:H5''	2.12	0.48
4:YE:18:ASP:HB3	15:YT:82:LEU:HD21	1.96	0.48
5:YF:34:TRP:CH2	11:YP:8:PRO:HB3	2.48	0.48
7:YH:9:ILE:HG12	7:YH:69:ARG:NE	2.28	0.48
32:XA:978:A:OP1	32:XA:1361:G:N2	2.39	0.48
34:XC:164:ARG:HG2	34:XC:165:THR:N	2.29	0.48
38:XG:70:LYS:O	38:XG:138:LYS:HE2	2.14	0.48
32:QA:142:G:O2'	32:QA:196:A:N1	2.47	0.48
32:QA:966:M2G:HM13	32:QA:967:5MC:H1'	1.95	0.48
32:QA:1314:C:H2'	32:QA:1315:U:C6	2.49	0.48
1:RA:1866:C:H2'	1:RA:1876:A:O4'	2.14	0.48
1:RA:2153:G:H2'	1:RA:2154:G:C8	2.48	0.48
5:RF:9:ILE:HG21	5:RF:125:LEU:CD2	2.44	0.48
7:RH:40:GLU:OE1	7:RH:60:ARG:NH1	2.47	0.48
11:RP:94:GLU:HG3	11:RP:124:LYS:HD3	1.96	0.48
19:RX:5:TYR:CZ	24:R2:30:ARG:HG3	2.48	0.48
20:RY:13:VAL:HB	20:RY:72:VAL:HG13	1.95	0.48
1:YA:223:A:N1	1:YA:407:G:O2'	2.44	0.48
1:YA:2233:U:H2'	1:YA:2234:G:C8	2.49	0.48
5:YF:120:GLU:HB2	5:YF:122:LYS:HG2	1.95	0.48
7:YH:115:VAL:HG11	7:YH:148:ILE:HD11	1.95	0.48
33:XB:71:VAL:HG12	33:XB:93:VAL:CG2	2.43	0.48
35:XD:114:ARG:HA	35:XD:117:ALA:HB3	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:XK:84:VAL:HG11	42:XK:91:ARG:HD2	1.94	0.48
44:XM:81:LEU:HD13	44:XM:88:ARG:HG2	1.95	0.48
52:XU:5:ASP:O	52:XU:11:GLY:HA3	2.14	0.48
32:QA:437:U:H5'	35:QD:155:LEU:HD21	1.94	0.48
32:QA:679:C:H2'	32:QA:680:C:H6	1.78	0.48
32:QA:861:G:HO2'	32:QA:874:G:HO2'	1.60	0.48
32:QA:1240:U:C2	38:QG:32:ARG:HD3	2.49	0.48
32:QA:1277:C:O2'	32:QA:1279:A:H1'	2.13	0.48
33:QB:82:ARG:HG3	33:QB:92:TYR:CZ	2.49	0.48
33:QB:215:LEU:O	33:QB:219:VAL:HG23	2.14	0.48
35:QD:173:TRP:CE3	35:QD:174:LEU:HG	2.49	0.48
1:RA:679:C:H2'	1:RA:680:G:H8	1.78	0.48
1:RA:864:G:H2'	1:RA:865:C:C6	2.47	0.48
3:RD:2:ALA:N	3:RD:200:ASP:OD2	2.46	0.48
4:RE:101:ARG:CZ	4:RE:171:GLU:HB2	2.43	0.48
6:RG:133:LEU:HD11	6:RG:157:ILE:HD12	1.95	0.48
15:RT:35:LYS:HD2	15:RT:35:LYS:C	2.38	0.48
54:XY:129:TYR:HB2	54:XY:223:TYR:CE1	2.48	0.48
54:XY:132:ILE:HD11	54:XY:152:TYR:CD2	2.48	0.48
1:YA:30:G:H2'	1:YA:31:C:C6	2.48	0.48
1:YA:270:A:OP2	1:YA:272(X):G:N1	2.37	0.48
1:YA:1525:G:H2'	1:YA:1526:G:H8	1.79	0.48
8:YI:27:ARG:CD	23:Y1:71:TYR:CE1	2.96	0.48
18:YW:9:TYR:HA	18:YW:100:THR:CG2	2.44	0.48
32:XA:255:G:H2'	32:XA:256:U:C6	2.49	0.48
32:XA:501:C:H1'	32:XA:549:C:H1'	1.96	0.48
32:XA:738:C:OP1	37:XF:2:ARG:NH1	2.45	0.48
32:XA:1027:C:H3'	32:XA:1028:C:H6	1.78	0.48
32:XA:1072:G:H2'	32:XA:1073:U:C6	2.49	0.48
36:XE:78:HIS:HE1	36:XE:80:ILE:HD13	1.79	0.48
44:XM:17:VAL:HA	44:XM:27:LYS:NZ	2.29	0.48
32:QA:1245:A:H2'	32:QA:1246:C:C6	2.49	0.48
39:QH:41:ARG:NH2	39:QH:123:GLU:OE2	2.44	0.48
41:QJ:40:LEU:HB2	41:QJ:69:ASN:HB2	1.96	0.48
1:RA:489:G:N7	18:RW:49:LYS:NZ	2.62	0.48
1:RA:534:U:H2'	1:RA:535:C:C6	2.48	0.48
1:RA:595:C:H2'	1:RA:596:G:C8	2.47	0.48
1:RA:1055:G:H2'	1:RA:1056:G:O4'	2.13	0.48
1:RA:1263:U:C4	1:RA:1264:G:C6	3.02	0.48
1:RA:1802:A:H2'	1:RA:1803:A:C8	2.49	0.48
10:RO:64:ARG:HB2	10:RO:83:ALA:HB3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:RX:44:GLU:HG3	19:RX:51:VAL:HG23	1.96	0.48
1:YA:2070:G:H2'	1:YA:2071:A:C8	2.49	0.48
1:YA:2115:G:N2	1:YA:2171:A:H61	2.12	0.48
2:YB:96:U:H2'	2:YB:97:G:C8	2.48	0.48
17:YV:40:LEU:HB2	17:YV:46:VAL:CG1	2.43	0.48
32:XA:71:C:H2'	32:XA:72:C:C6	2.48	0.48
32:XA:935:A:C2	38:XG:3:ARG:NH2	2.82	0.48
34:XC:114:PRO:HA	34:XC:185:GLY:HA3	1.95	0.48
35:XD:108:LEU:HD13	35:XD:174:LEU:HD13	1.95	0.48
44:XM:74:VAL:O	44:XM:78:ILE:HG13	2.13	0.48
50:XS:23:ASN:HA	50:XS:27:GLU:OE2	2.14	0.48
32:QA:452:A:H4'	47:QP:72:ARG:NH1	2.28	0.48
32:QA:553:A:H5''	43:QL:24:VAL:HG21	1.96	0.48
1:RA:590:A:H2'	1:RA:591:C:C6	2.49	0.48
1:RA:2573:C:N4	54:QY:256:ARG:HA	2.29	0.48
3:RD:108:PRO:CD	3:RD:111:LEU:CD1	2.81	0.48
10:RO:10:VAL:HG21	10:RO:16:ALA:O	2.13	0.48
17:RV:72:VAL:CG1	17:RV:85:LYS:HB3	2.37	0.48
21:RZ:70:LEU:HG	21:RZ:91:LEU:HD21	1.95	0.48
54:XY:189:TYR:CE2	54:XY:193:ARG:HD3	2.49	0.48
1:YA:1802:A:H2'	1:YA:1803:A:C8	2.49	0.48
1:YA:2364:C:H2'	1:YA:2365:G:O4'	2.14	0.48
4:YE:181:LEU:HD23	15:YT:10:VAL:CG2	2.43	0.48
13:YR:118:GLU:H	13:YR:118:GLU:CD	2.21	0.48
32:XA:64:G:H4'	32:XA:65:U:H3'	1.95	0.48
32:XA:181:G:N2	32:XA:182:U:O4	2.43	0.48
32:XA:184:G:H2'	32:XA:185:A:C8	2.49	0.48
32:XA:743:U:H2'	32:XA:744:C:C6	2.49	0.48
32:XA:1342:C:H2'	32:XA:1343:G:H8	1.79	0.48
33:XB:71:VAL:HG23	33:XB:164:VAL:HA	1.95	0.48
34:XC:36:ASP:O	34:XC:40:ARG:HG3	2.14	0.48
40:XI:26:VAL:HA	40:XI:61:ALA:O	2.13	0.48
32:QA:1119:C:H2'	32:QA:1120:G:H8	1.78	0.48
32:QA:1256:A:OP2	34:QC:26:LYS:NZ	2.44	0.48
33:QB:185:ILE:HG22	33:QB:199:TYR:CD2	2.48	0.48
1:RA:251:A:C5	1:RA:252:G:H1'	2.49	0.48
6:RG:73:ALA:HB1	6:RG:82:LEU:HD11	1.94	0.48
21:RZ:4:ARG:NE	21:RZ:60:GLU:OE1	2.36	0.48
21:RZ:5:LEU:HD11	21:RZ:39:VAL:HG11	1.96	0.48
1:YA:37:C:H2'	1:YA:38:A:H8	1.78	0.48
1:YA:39:C:H2'	1:YA:40:C:C6	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:588:U:H1'	5:YF:90:PHE:HB3	1.95	0.48
1:YA:674:G:H1'	5:YF:74:ARG:HD3	1.96	0.48
1:YA:1364:G:P	23:Y1:3:LYS:HG3	2.53	0.48
1:YA:2106:G:C4	1:YA:2107:C:H1'	2.49	0.48
7:YH:105:LEU:HD21	7:YH:162:ILE:HD11	1.96	0.48
9:YN:90:MET:HE3	9:YN:97:ARG:HB3	1.95	0.48
21:YZ:140:ASP:OD1	21:YZ:142:SER:OG	2.32	0.48
26:Y4:61:ARG:HG2	50:XS:42:PRO:HG3	1.95	0.48
32:XA:512:U:H2'	32:XA:513:C:C6	2.49	0.48
32:XA:669:U:H2'	32:XA:670:G:C8	2.48	0.48
44:XM:34:LEU:HD13	44:XM:41:PRO:HA	1.96	0.48
32:QA:9:G:H2'	32:QA:10:A:C8	2.49	0.48
33:QB:134:GLU:HG3	33:QB:137:ARG:NH2	2.28	0.48
1:RA:1075:C:H2'	1:RA:1076:C:H3'	1.95	0.48
1:RA:1514:U:H2'	1:RA:1515:G:C8	2.49	0.48
1:RA:2650:U:H2'	1:RA:2651:C:H6	1.79	0.48
1:RA:2740:A:H2'	1:RA:2741:A:C8	2.49	0.48
54:XY:215:THR:HG22	54:XY:217:PHE:CE1	2.49	0.48
1:YA:247:G:H4'	1:YA:386:G:C5	2.49	0.47
1:YA:1025:G:C4	1:YA:1135:C:H1'	2.49	0.47
1:YA:1068:G:N1	54:XY:58:LYS:HB2	2.29	0.47
1:YA:1649:G:O2'	13:YR:107:ASP:OD2	2.27	0.47
3:YD:72:LYS:HG3	3:YD:103:ARG:NH2	2.28	0.47
32:XA:912:C:OP1	43:XL:46:LYS:NZ	2.45	0.47
32:XA:1010:G:H2'	32:XA:1011:G:H8	1.79	0.47
32:XA:1352:C:H2'	32:XA:1353:G:C8	2.48	0.47
35:QD:156:GLU:O	35:QD:160:GLN:HG2	2.14	0.47
1:RA:690:G:H2'	1:RA:691:C:C6	2.48	0.47
1:RA:1086:A:OP1	1:RA:1104:C:O2'	2.27	0.47
1:RA:1164:G:H2'	1:RA:1165:U:C6	2.49	0.47
1:RA:1791:A:H8	1:RA:1791:A:OP2	1.96	0.47
1:RA:2206:G:H3'	1:RA:2207:G:C8	2.49	0.47
5:RF:132:VAL:HG11	5:RF:139:PHE:HA	1.95	0.47
13:RR:118:GLU:H	13:RR:118:GLU:CD	2.22	0.47
14:RS:66:ALA:O	14:RS:69:VAL:HG22	2.14	0.47
15:RT:51:ARG:HG3	15:RT:98:LYS:HE3	1.95	0.47
53:QV:7:G:O2'	53:QV:49:G:H5'	2.13	0.47
54:QY:37:VAL:HG13	54:QY:56:LEU:HB3	1.96	0.47
1:YA:1657:C:H2'	1:YA:1658:C:C6	2.48	0.47
1:YA:2502:G:H5''	1:YA:2503:2MA:H5''	1.96	0.47
6:YG:106:LEU:HA	6:YG:110:ALA:HB3	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:YG:170:ARG:NH2	6:YG:182:LYS:O	2.47	0.47
14:YS:51:ALA:HB1	14:YS:69:VAL:HG23	1.96	0.47
17:YV:29:PRO:HA	17:YV:61:VAL:HG23	1.95	0.47
23:Y1:4:VAL:HG12	23:Y1:11:ARG:HB3	1.96	0.47
32:XA:338:A:H2'	32:XA:339:C:C6	2.49	0.47
32:XA:1004:A:N7	32:XA:1037:C:H2'	2.30	0.47
32:QA:683:G:H2'	32:QA:684:A:C8	2.50	0.47
37:QF:91:VAL:HG12	37:QF:92:LYS:O	2.14	0.47
40:QI:16:ARG:CD	40:QI:64:THR:HG21	2.37	0.47
44:QM:64:TRP:HA	26:R4:50:VAL:CG2	2.40	0.47
45:QN:4:LYS:HG3	45:QN:7:ILE:HD11	1.96	0.47
1:RA:585:G:H2'	1:RA:1251:C:H42	1.78	0.47
1:RA:1899:G:H2'	1:RA:1899:G:N3	2.29	0.47
1:RA:1949:G:H2'	1:RA:1950:G:C8	2.49	0.47
1:RA:2735:G:H2'	1:RA:2736:G:H8	1.77	0.47
6:RG:77:ILE:HG21	6:RG:80:PHE:CD2	2.49	0.47
7:RH:9:ILE:HG12	7:RH:69:ARG:CD	2.45	0.47
7:RH:86:GLU:OE2	7:RH:132:ARG:NH2	2.44	0.47
15:RT:16:ARG:HD3	15:RT:18:ASP:OD1	2.14	0.47
1:YA:196:A:O4'	11:YP:46:LYS:HD2	2.14	0.47
1:YA:336:C:H5''	20:YY:6:HIS:ND1	2.29	0.47
1:YA:745:G:O6	1:YA:746:A:N6	2.47	0.47
1:YA:1113:U:H2'	1:YA:1114:G:C8	2.50	0.47
1:YA:1412:A:H2'	1:YA:1413:G:C8	2.49	0.47
1:YA:1683:C:H2'	1:YA:1684:C:C6	2.49	0.47
1:YA:2152:G:H2'	1:YA:2153:G:C8	2.48	0.47
1:YA:2870:C:H2'	1:YA:2871:C:O4'	2.14	0.47
15:YT:64:ARG:HB2	15:YT:73:GLU:HG2	1.96	0.47
28:Y6:35:GLU:OE2	28:Y6:50:ARG:NH1	2.47	0.47
32:XA:1010:G:H2'	32:XA:1011:G:C8	2.50	0.47
32:XA:1412:C:H2'	32:XA:1413:A:C8	2.49	0.47
41:XJ:38:ILE:O	41:XJ:38:ILE:HG13	2.13	0.47
32:QA:266:G:H5''	32:QA:267:C:C5	2.49	0.47
33:QB:16:HIS:HB3	33:QB:210:SER:HB2	1.95	0.47
50:QS:12:ASP:O	50:QS:14:HIS:N	2.45	0.47
1:RA:2109:U:N3	1:RA:2110:G:O6	2.48	0.47
1:RA:2648:C:H2'	1:RA:2649:U:H6	1.79	0.47
12:RQ:35:VAL:CG1	12:RQ:130:LYS:HB3	2.44	0.47
19:RX:5:TYR:CE1	24:R2:30:ARG:HG3	2.50	0.47
54:XY:338:THR:CG2	54:XY:339:GLY:HA2	2.44	0.47
1:YA:392:C:H5''	1:YA:409:C:H5''	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:1799:G:O2'	3:YD:181:GLU:OE2	2.23	0.47
1:YA:2443:C:OP1	5:YF:68:LYS:HD3	2.13	0.47
1:YA:2543:G:H2'	1:YA:2544:G:C8	2.49	0.47
1:YA:2590:A:H2'	1:YA:2591:C:C6	2.50	0.47
7:YH:9:ILE:N	7:YH:50:VAL:O	2.30	0.47
8:YI:102:SER:OG	8:YI:103:ARG:N	2.46	0.47
12:YQ:103:MET:HE1	12:YQ:125:LEU:HD13	1.96	0.47
32:XA:222:U:H2'	32:XA:223:U:C6	2.49	0.47
32:XA:552:U:O3'	43:XL:87:GLY:HA2	2.14	0.47
32:XA:961:U:OP2	32:XA:1223:C:O2'	2.22	0.47
36:XE:148:VAL:HG21	39:XH:107:LEU:HD13	1.95	0.47
48:XQ:74:LEU:HD13	48:XQ:75:ARG:CG	2.43	0.47
32:QA:164:U:H2'	32:QA:165:C:C6	2.49	0.47
32:QA:509:A:N3	32:QA:543:C:O2'	2.40	0.47
33:QB:200:ILE:N	33:QB:200:ILE:HD12	2.29	0.47
38:QG:113:GLU:HG3	38:QG:118:VAL:HG12	1.96	0.47
48:QQ:6:LEU:HG	48:QQ:23:VAL:HG11	1.97	0.47
51:QT:56:MET:CG	51:QT:84:LEU:HD22	2.44	0.47
1:RA:247:G:H4'	1:RA:386:G:C5	2.49	0.47
1:RA:250:G:P	30:R8:13:ARG:HH22	2.35	0.47
1:RA:2647:U:H2'	1:RA:2648:C:C6	2.49	0.47
54:QY:217:PHE:N	54:QY:217:PHE:CD1	2.82	0.47
1:YA:855:G:H2'	1:YA:856:C:C6	2.50	0.47
1:YA:2065:C:H2'	1:YA:2066:C:C6	2.49	0.47
1:YA:2314:C:H5'	6:YG:38:VAL:HG11	1.95	0.47
2:YB:77:U:OP1	21:YZ:19:ARG:NH2	2.47	0.47
5:YF:37:VAL:HG21	11:YP:6:LEU:HD11	1.97	0.47
7:YH:88:LEU:HD22	7:YH:165:ALA:HA	1.96	0.47
21:YZ:146:ILE:HA	21:YZ:174:VAL:HG12	1.95	0.47
32:XA:1118:C:H1'	32:XA:1179:A:C4	2.50	0.47
34:XC:6:HIS:NE2	34:XC:8:ILE:HB	2.29	0.47
34:XC:150:LYS:HG3	34:XC:169:ALA:HB2	1.97	0.47
40:XI:50:LEU:HD11	40:XI:81:ILE:HD11	1.96	0.47
32:QA:404:U:H5'	35:QD:122:ARG:HD3	1.96	0.47
32:QA:679:C:H2'	32:QA:680:C:C6	2.50	0.47
42:QK:20:TYR:CE1	42:QK:83:ILE:HD12	2.50	0.47
1:RA:184:C:H2'	1:RA:185:U:H6	1.79	0.47
1:RA:721:C:H2'	1:RA:722:A:C8	2.50	0.47
1:RA:1388:G:H2'	1:RA:1389:G:H8	1.79	0.47
1:RA:2243:U:H2'	1:RA:2244:U:H6	1.80	0.47
1:RA:2567:G:H2'	1:RA:2568:C:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:RE:51:PHE:O	4:RE:75:VAL:HG13	2.15	0.47
1:YA:251:A:C5	1:YA:252:G:H1'	2.50	0.47
1:YA:747:U:O2	1:YA:2014:A:H1'	2.14	0.47
1:YA:1411:C:H2'	1:YA:1412:A:C8	2.50	0.47
17:YV:98:GLU:OE1	17:YV:100:ARG:NH1	2.48	0.47
22:Y0:70:GLN:HE21	22:Y0:72:ARG:CG	2.28	0.47
32:XA:765:G:N1	32:XA:812:C:O2'	2.43	0.47
32:XA:1060:C:OP1	45:YN:45:ARG:NH2	2.39	0.47
32:XA:1074:G:H2'	32:XA:1075:C:H6	1.80	0.47
32:XA:1342:C:H2'	32:XA:1343:G:C8	2.50	0.47
36:XE:116:THR:HG23	36:XE:117:ASP:OD2	2.14	0.47
36:XE:143:ARG:NH1	39:XH:77:GLU:OE2	2.43	0.47
37:XF:97:PHE:HB2	49:XR:32:ARG:HH11	1.78	0.47
39:XH:14:ARG:O	39:XH:18:ARG:HD3	2.15	0.47
32:QA:514:C:H2'	32:QA:515:G:C8	2.48	0.47
32:QA:985:C:H2'	32:QA:986:A:C8	2.50	0.47
39:QH:121:ASP:HB2	39:QH:125:ARG:NH2	2.30	0.47
41:QJ:52:GLY:O	45:QN:41:ARG:NH2	2.48	0.47
51:QT:14:LYS:HE3	51:QT:18:GLN:NE2	2.30	0.47
1:RA:610:G:H2'	1:RA:611:C:C6	2.50	0.47
1:RA:784:A:C6	3:RD:229:VAL:HG11	2.50	0.47
1:RA:823:G:H2'	1:RA:824:A:C8	2.48	0.47
1:RA:1805:U:O2	3:RD:50:THR:HB	2.14	0.47
21:RZ:198:LYS:HZ3	53:QV:52:G:H2'	1.77	0.47
54:XY:73:MET:HE2	54:XY:110:LEU:HB2	1.97	0.47
1:YA:284:U:H2'	1:YA:285:C:H6	1.79	0.47
1:YA:680:G:H2'	1:YA:681:G:C8	2.49	0.47
1:YA:861:A:N3	2:YB:79:C:O2'	2.46	0.47
1:YA:1166:C:H2'	1:YA:1167:U:C6	2.50	0.47
1:YA:1263:U:C4	1:YA:1264:G:C6	3.03	0.47
1:YA:1614:A:P	1:YA:1614:A:H8	2.37	0.47
1:YA:1794:U:H2'	1:YA:1795:C:C6	2.50	0.47
1:YA:1899:G:H2'	1:YA:1899:G:N3	2.30	0.47
1:YA:2812:G:H2'	1:YA:2813:A:H8	1.80	0.47
32:XA:324:G:N1	32:XA:327:A:OP2	2.45	0.47
32:XA:340:U:H2'	32:XA:341:C:H6	1.80	0.47
32:XA:518:C:C4	32:XA:530:G:C6	3.02	0.47
32:XA:537:G:OP1	43:XL:113:ARG:NH2	2.42	0.47
38:XG:144:MET:CA	38:XG:144:MET:HE3	2.44	0.47
39:XH:73:ASP:OD1	39:XH:75:ARG:HD3	2.15	0.47
40:XI:5:TYR:OH	40:XI:16:ARG:HG2	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:XJ:38:ILE:HG13	41:XJ:71:LEU:HB3	1.96	0.47
47:XP:43:LYS:HA	47:XP:48:TRP:HB3	1.96	0.47
32:QA:113:G:H2'	32:QA:114:U:H6	1.80	0.47
32:QA:134:A:H1'	32:QA:325:A:C5	2.50	0.47
32:QA:417:C:H2'	32:QA:418:C:H6	1.80	0.47
32:QA:678:U:H2'	32:QA:679:C:H6	1.78	0.47
32:QA:757:U:H2'	32:QA:758:G:O4'	2.15	0.47
32:QA:948:C:H2'	32:QA:949:A:H8	1.79	0.47
32:QA:1020:U:H2'	32:QA:1021:G:H8	1.79	0.47
32:QA:1151:A:O2'	32:QA:1152:A:O5'	2.33	0.47
32:QA:1263:C:H2'	32:QA:1264:C:C6	2.49	0.47
33:QB:185:ILE:HG22	33:QB:199:TYR:HD2	1.80	0.47
39:QH:23:SER:HA	39:QH:63:LEU:CD2	2.45	0.47
46:QO:29:VAL:HG11	46:QO:67:LEU:HD21	1.97	0.47
1:RA:108:U:H2'	1:RA:109:G:H8	1.79	0.47
1:RA:272(E):U:H2'	1:RA:272(F):C:C6	2.50	0.47
1:RA:593:G:H2'	1:RA:594:U:C6	2.50	0.47
1:RA:679:C:H2'	1:RA:680:G:C8	2.50	0.47
1:RA:680:G:H2'	1:RA:681:G:C8	2.50	0.47
1:RA:1056:G:H5''	1:RA:1057:A:H5'	1.96	0.47
1:RA:1278:A:H2'	1:RA:1279:G:H8	1.78	0.47
1:RA:1939:5MU:OP1	1:RA:2604:U:O2'	2.32	0.47
1:RA:1991:U:H2'	1:RA:1992:G:H5''	1.97	0.47
1:RA:2106:G:C4	1:RA:2107:C:H1'	2.50	0.47
1:RA:2320:A:N3	1:RA:2320:A:H2'	2.30	0.47
1:RA:2461:C:H2'	1:RA:2462:U:C6	2.49	0.47
1:RA:2462:U:H2'	1:RA:2463:C:C6	2.49	0.47
1:RA:2648:C:H2'	1:RA:2649:U:C6	2.50	0.47
10:RO:2:ILE:HG21	10:RO:8:LEU:HD21	1.97	0.47
11:RP:112:LEU:HD11	11:RP:114:ILE:CD1	2.42	0.47
15:RT:54:ARG:HA	15:RT:59:THR:CG2	2.45	0.47
54:XY:127:ASP:HB2	54:XY:225:GLU:OE1	2.15	0.47
1:YA:7:G:H2'	1:YA:8:A:C8	2.50	0.47
1:YA:330:A:N7	1:YA:1210:A:O2'	2.35	0.47
1:YA:2889:C:H3'	1:YA:2891:G:C8	2.49	0.47
4:YE:9:VAL:HG22	4:YE:25:VAL:O	2.14	0.47
20:YY:13:VAL:HG12	20:YY:74:PRO:HA	1.97	0.47
32:XA:500:G:H2'	32:XA:501:C:C6	2.50	0.47
32:XA:677:U:H2'	32:XA:678:U:H6	1.80	0.47
35:XD:173:TRP:CD1	35:XD:189:PRO:HG3	2.49	0.47
32:QA:335:C:H2'	32:QA:336:C:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
35:QD:6:GLY:O	35:QD:115:ARG:NH1	2.35	0.47
35:QD:173:TRP:CG	35:QD:189:PRO:HG3	2.50	0.47
39:QH:44:PHE:HB3	39:QH:80:ILE:HD11	1.96	0.47
41:QJ:49:VAL:HG21	45:QN:41:ARG:O	2.15	0.47
1:RA:886:C:O2'	1:RA:889:C:N4	2.43	0.47
1:RA:1000:A:H2'	1:RA:1001:A:C8	2.49	0.47
1:RA:1210:A:H5''	1:RA:1212:G:O4'	2.14	0.47
1:RA:2537:U:H2'	1:RA:2538:C:C6	2.50	0.47
8:RI:109:ILE:HD11	8:RI:130:TYR:CE2	2.50	0.47
8:RI:117:GLU:HG3	8:RI:118:LYS:N	2.30	0.47
20:RY:20:TYR:O	20:RY:23:ARG:HB2	2.15	0.47
54:QY:106:LEU:HD23	54:QY:109:LYS:HD2	1.97	0.47
54:QY:200:ARG:HD3	54:QY:322:GLN:NE2	2.30	0.47
54:XY:129:TYR:CD2	54:XY:223:TYR:HE1	2.33	0.47
54:XY:141:ALA:HB2	54:XY:216:SER:HB2	1.97	0.47
1:YA:125:G:N3	29:Y7:48:LYS:HE2	2.30	0.47
1:YA:536:A:H2'	1:YA:537:C:C6	2.50	0.47
1:YA:729:G:O2'	1:YA:763:G:H4'	2.15	0.47
1:YA:858:U:O2	1:YA:2268:A:H2'	2.15	0.47
1:YA:1164:G:H2'	1:YA:1165:U:H6	1.78	0.47
1:YA:1720:U:H2'	1:YA:1721:G:O4'	2.15	0.47
1:YA:2688:U:OP1	1:YA:2713:A:N6	2.48	0.47
3:YD:5:LYS:HB3	3:YD:5:LYS:HE3	1.66	0.47
6:YG:35:GLU:HG3	6:YG:36:LYS:CE	2.40	0.47
32:XA:417:C:H2'	32:XA:418:C:H6	1.80	0.47
32:XA:1347:G:N2	32:XA:1373:G:H2'	2.30	0.47
40:XI:31:GLN:NE2	40:XI:36:TYR:HD1	2.13	0.47
32:QA:953:G:H2'	32:QA:954:G:O4'	2.15	0.47
32:QA:1074:G:O2'	32:QA:1101:A:N1	2.42	0.47
35:QD:88:VAL:HG13	36:QE:97:GLY:CA	2.42	0.47
37:QF:89:MET:HE1	49:QR:72:ARG:HB3	1.96	0.47
40:QI:125:TYR:OH	40:QI:127:LYS:HD3	2.14	0.47
43:QL:70:ILE:HG12	43:QL:100:ILE:HD12	1.97	0.47
1:RA:321:G:H5'	5:RF:134:GLY:O	2.15	0.47
1:RA:1581:G:H2'	1:RA:1582:C:O4'	2.14	0.47
1:RA:1914:C:H41	54:QY:221:PHE:HB2	1.79	0.47
18:RW:4:LYS:HB2	18:RW:106:ILE:HG12	1.97	0.47
1:YA:2327:A:H2'	1:YA:2328:A:C8	2.50	0.47
13:YR:18:LEU:HD13	13:YR:18:LEU:O	2.15	0.47
14:YS:101:LEU:HD23	14:YS:101:LEU:C	2.40	0.47
32:XA:1106:G:H5''	34:XC:172:ARG:HG2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:1258:G:H2'	32:XA:1259:C:C6	2.50	0.47
32:XA:1333:A:H2'	32:XA:1334:G:O4'	2.15	0.47
51:XT:14:LYS:O	51:XT:18:GLN:HG3	2.15	0.47
32:QA:1118:C:H1'	32:QA:1179:A:C4	2.49	0.47
32:QA:1329:A:P	44:QM:28:ALA:HB3	2.54	0.47
1:RA:26:G:H1'	1:RA:515:A:H61	1.80	0.47
1:RA:273(C):G:H2'	1:RA:273(D):G:C8	2.49	0.47
1:RA:2206:G:H3'	1:RA:2207:G:H8	1.80	0.47
54:QY:30:LYS:HD2	54:QY:66:VAL:HG11	1.97	0.47
54:QY:161:PHE:CD1	54:QY:185:GLY:HA3	2.48	0.47
1:YA:192:C:O2'	1:YA:802:A:N3	2.41	0.46
1:YA:2857:G:N2	1:YA:2860:A:OP2	2.43	0.46
4:YE:114:ALA:HB3	4:YE:119:ARG:CG	2.45	0.46
6:YG:55:LYS:HA	6:YG:58:GLN:HB3	1.96	0.46
18:YW:4:LYS:HE2	18:YW:6:ILE:HD11	1.97	0.46
32:XA:824:C:H2'	32:XA:825:G:H8	1.80	0.46
32:XA:1241:G:H2'	32:XA:1242:C:C6	2.50	0.46
34:XC:43:LEU:O	34:XC:47:LEU:HB2	2.14	0.46
44:XM:20:THR:HA	44:XM:25:ILE:O	2.15	0.46
32:QA:656:C:O2'	46:QO:28:GLN:OE1	2.19	0.46
35:QD:50:ARG:NH1	36:QE:9:LYS:HZ2	2.04	0.46
1:RA:286:C:H2'	1:RA:287:C:H6	1.80	0.46
1:RA:743:G:O2'	1:RA:1659:U:OP1	2.31	0.46
1:RA:855:G:H2'	1:RA:856:C:C6	2.50	0.46
1:RA:2047:U:H2'	1:RA:2048:G:H8	1.80	0.46
1:RA:2695:C:H2'	1:RA:2696:U:C6	2.50	0.46
5:RF:170:LEU:CD2	5:RF:172:TRP:CZ2	2.99	0.46
30:R8:31:HIS:NE2	30:R8:32:LEU:CD2	2.78	0.46
53:QV:54:U:C4	53:QV:58:A:C8	3.03	0.46
54:XY:319:TRP:O	54:XY:321:SER:N	2.46	0.46
1:YA:37:C:H2'	1:YA:38:A:C8	2.50	0.46
1:YA:152:G:H2'	1:YA:153:C:C6	2.50	0.46
1:YA:2712(A):U:H2'	1:YA:2714:G:H5''	1.97	0.46
14:YS:25:ARG:HD3	14:YS:42:ASP:OD2	2.15	0.46
15:YT:118:ARG:NH2	15:YT:121:ILE:CB	2.79	0.46
32:XA:71:C:H2'	32:XA:72:C:H6	1.80	0.46
32:XA:531:U:OP1	54:XY:213:ARG:NH2	2.48	0.46
32:XA:582:U:H2'	32:XA:583:A:C8	2.51	0.46
32:XA:1057:G:H2'	32:XA:1058:G:O4'	2.14	0.46
33:XB:134:GLU:O	33:XB:138:LEU:HG	2.15	0.46
40:XI:26:VAL:HG13	40:XI:61:ALA:HB3	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:XK:20:TYR:CZ	42:XK:83:ILE:HD12	2.49	0.46
49:XR:59:SER:OG	49:XR:62:GLU:HG2	2.15	0.46
32:QA:932:C:H4'	38:QG:4:ARG:NH2	2.30	0.46
33:QB:15:VAL:CG2	33:QB:209:ARG:HB3	2.45	0.46
33:QB:18:GLY:HA3	33:QB:42:ILE:HG13	1.97	0.46
33:QB:200:ILE:HD12	33:QB:200:ILE:H	1.80	0.46
36:QE:102:ALA:HB1	36:QE:106:PRO:HG2	1.97	0.46
38:QG:79:ARG:HA	38:QG:84:ASN:HA	1.96	0.46
52:QU:5:ASP:O	52:QU:11:GLY:HA3	2.15	0.46
1:RA:747:U:O2	1:RA:2014:A:H1'	2.14	0.46
1:RA:888:C:H2'	1:RA:889:C:C2	2.49	0.46
1:RA:1937:A:H1'	1:RA:1939:5MU:H72	1.96	0.46
1:RA:2133:G:N2	1:RA:2157:G:H2'	2.31	0.46
1:RA:2233:U:H2'	1:RA:2234:G:C8	2.51	0.46
11:RP:99:LEU:HD23	11:RP:102:ARG:HH21	1.80	0.46
14:RS:84:GLN:HA	14:RS:111:GLU:HB2	1.96	0.46
1:YA:534:U:H2'	1:YA:535:C:C6	2.51	0.46
1:YA:813:U:H2'	1:YA:814:C:H6	1.80	0.46
1:YA:2361:A:OP2	30:Y8:26:LYS:NZ	2.47	0.46
4:YE:93:VAL:HB	4:YE:175:VAL:CG2	2.45	0.46
24:Y2:38:GLN:HB3	24:Y2:44:LEU:HB2	1.97	0.46
32:XA:109:A:N1	32:XA:326:G:C6	2.82	0.46
32:XA:258:G:H2'	32:XA:259:G:H8	1.80	0.46
32:QA:456:C:H2'	32:QA:457:C:C6	2.50	0.46
1:RA:78:A:H2'	1:RA:79:G:C8	2.51	0.46
1:RA:764:A:H5'	3:RD:210:GLY:HA2	1.97	0.46
1:RA:1095:A:N6	54:QY:54:GLN:OE1	2.30	0.46
1:RA:1430:C:H2'	1:RA:1431:U:H6	1.79	0.46
1:RA:2150:U:H2'	1:RA:2151:G:C8	2.50	0.46
6:RG:181:ARG:HG3	6:RG:182:LYS:N	2.30	0.46
13:RR:67:LEU:HD13	13:RR:76:VAL:HG21	1.97	0.46
21:RZ:182:LYS:O	21:RZ:185:GLU:HG3	2.15	0.46
26:R4:68:ARG:HA	26:R4:68:ARG:NH2	2.30	0.46
1:YA:1386:C:H2'	1:YA:1387:C:C6	2.51	0.46
1:YA:1759:A:H1'	1:YA:2711:A:C2	2.51	0.46
1:YA:2134:A:O2'	1:YA:2159:G:H1'	2.16	0.46
10:YO:10:VAL:HG21	10:YO:16:ALA:HB3	1.98	0.46
23:Y1:8:SER:HB3	23:Y1:66:HIS:CD2	2.50	0.46
32:XA:514:C:H2'	32:XA:515:G:H8	1.81	0.46
32:XA:560:U:H4'	32:XA:561:U:O5'	2.15	0.46
32:XA:583:A:H2'	32:XA:584:G:O4'	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:1003:G:H1	32:XA:1035:A:N6	2.13	0.46
32:XA:1312:G:H5'	50:XS:5:LEU:CD2	2.45	0.46
32:XA:1376:U:H2'	32:XA:1377:A:H8	1.80	0.46
35:XD:108:LEU:HB3	35:XD:110:PHE:CE1	2.50	0.46
43:XL:32:PHE:CD2	43:XL:86:ARG:HB3	2.51	0.46
32:QA:985:C:H2'	32:QA:986:A:H8	1.79	0.46
32:QA:1060:C:C4	34:QC:2:GLY:HA3	2.50	0.46
33:QB:189:ASP:OD1	33:QB:189:ASP:N	2.38	0.46
33:QB:208:ILE:HA	33:QB:211:ILE:HD12	1.97	0.46
34:QC:50:ALA:HB1	34:QC:70:VAL:HG21	1.98	0.46
35:QD:15:GLU:OE2	35:QD:66:ARG:NH1	2.48	0.46
44:QM:3:ARG:O	44:QM:57:ARG:NH2	2.38	0.46
1:RA:458:G:O2'	1:RA:469:G:O6	2.23	0.46
1:RA:955:C:OP1	12:RQ:87:LYS:HE2	2.14	0.46
1:RA:1853:A:N3	1:RA:2233:U:O2'	2.40	0.46
7:RH:9:ILE:CG1	7:RH:69:ARG:CD	2.94	0.46
54:XY:251:GLY:O	54:XY:254:VAL:N	2.40	0.46
1:YA:17:G:H2'	1:YA:18:C:C6	2.50	0.46
1:YA:1397:U:OP2	1:YA:1398:C:N4	2.37	0.46
1:YA:2462:U:H2'	1:YA:2463:C:C6	2.51	0.46
1:YA:2735:G:H2'	1:YA:2736:G:H8	1.81	0.46
6:YG:111:LEU:O	6:YG:114:ILE:HB	2.15	0.46
7:YH:17:VAL:HG22	7:YH:26:VAL:HG22	1.97	0.46
21:YZ:70:LEU:HD11	21:YZ:98:MET:SD	2.56	0.46
32:XA:35:G:H2'	32:XA:36:C:H6	1.79	0.46
42:XK:99:GLN:HG3	42:XK:105:VAL:HG11	1.98	0.46
32:QA:266:G:H2'	32:QA:266:G:N3	2.30	0.46
32:QA:677:U:H2'	32:QA:678:U:H6	1.79	0.46
32:QA:1333:A:H3'	32:QA:1334:G:H8	1.80	0.46
32:QA:1347:G:H22	32:QA:1374:A:P	2.39	0.46
35:QD:178:VAL:HG12	35:QD:179:GLU:N	2.31	0.46
1:RA:740:U:H2'	1:RA:741:G:C8	2.51	0.46
1:RA:1429:G:H2'	1:RA:1430:C:H6	1.79	0.46
1:RA:2115:G:N2	1:RA:2171:A:H61	2.14	0.46
53:XV:68:C:H2'	53:XV:69:C:C6	2.51	0.46
1:YA:1028:A:N6	1:YA:1125:G:H2'	2.31	0.46
1:YA:2099:U:H3	1:YA:2190:G:H1	1.64	0.46
1:YA:2650:U:H2'	1:YA:2651:C:H6	1.79	0.46
3:YD:126:GLN:O	3:YD:193:VAL:CG2	2.64	0.46
9:YN:75:TYR:CE2	9:YN:77:GLY:HA2	2.51	0.46
21:YZ:77:ASP:OD2	21:YZ:80:ARG:NH1	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:986:A:H2'	32:XA:987:G:H8	1.81	0.46
32:QA:61:G:H2'	32:QA:62:U:C6	2.51	0.46
32:QA:337:C:H2'	32:QA:338:A:C8	2.50	0.46
32:QA:669:U:H2'	32:QA:670:G:H8	1.79	0.46
32:QA:1314:C:H2'	32:QA:1315:U:H6	1.80	0.46
33:QB:166:ASP:OD2	33:QB:169:LYS:HB2	2.16	0.46
37:QF:81:ILE:HD11	3:RD:137:PRO:HG2	1.98	0.46
39:QH:112:LEU:HD21	39:QH:133:LEU:HG	1.97	0.46
40:QI:33:PHE:CE1	40:QI:43:ALA:HB1	2.51	0.46
45:QN:27:CYS:SG	45:QN:29:ARG:HB2	2.56	0.46
50:QS:50:ALA:HB1	50:QS:57:HIS:HB3	1.97	0.46
1:RA:1064:C:N4	1:RA:1065:U:C2	2.84	0.46
1:RA:2312:U:H5'	6:RG:88:ILE:HD11	1.97	0.46
9:RN:94:HIS:HB3	9:RN:97:ARG:HD3	1.94	0.46
1:YA:78:A:H2'	1:YA:79:G:H8	1.80	0.46
1:YA:1557:C:H5''	1:YA:1558:A:OP2	2.16	0.46
1:YA:1587:A:H2'	1:YA:1588:C:C6	2.51	0.46
1:YA:1683:C:H2'	1:YA:1684:C:H6	1.80	0.46
1:YA:2130:U:H2'	1:YA:2158:A:H61	1.81	0.46
3:YD:221:VAL:HG13	3:YD:226:MET:HE2	1.98	0.46
5:YF:172:TRP:CD1	5:YF:172:TRP:H	2.33	0.46
6:YG:8:LYS:HD2	6:YG:100:TRP:CD1	2.51	0.46
16:YU:76:TYR:OH	16:YU:92:ARG:NH1	2.49	0.46
19:YX:65:ARG:HB3	19:YX:70:LEU:HD23	1.97	0.46
21:YZ:33:LEU:HD11	21:YZ:90:VAL:HG21	1.97	0.46
26:Y4:67:TYR:CB	50:XS:16:LEU:HD11	2.46	0.46
32:QA:57:G:H2'	32:QA:58:C:C6	2.51	0.46
32:QA:189(B):C:H42	32:QA:189(K):G:H1	1.64	0.46
32:QA:542:G:H5'	35:QD:41:GLY:HA3	1.98	0.46
32:QA:1073:U:H2'	32:QA:1074:G:H8	1.81	0.46
32:QA:1466:C:H2'	32:QA:1467:G:O4'	2.16	0.46
33:QB:96:ARG:HD2	33:QB:98:LEU:HD21	1.92	0.46
36:QE:110:LEU:HD13	36:QE:118:ILE:HG21	1.97	0.46
51:QT:57:ARG:HH22	51:QT:100:ILE:CD1	2.27	0.46
1:RA:303:U:H2'	1:RA:304:G:H8	1.81	0.46
1:RA:1292:U:H2'	1:RA:1293:C:C6	2.51	0.46
1:RA:1431:U:H2'	1:RA:1432:C:C6	2.50	0.46
1:RA:2375:G:O2'	1:RA:2377:A:N7	2.46	0.46
2:RB:89:G:H2'	2:RB:90:A:C8	2.50	0.46
3:RD:137:PRO:O	3:RD:140:THR:HG23	2.15	0.46
7:RH:13:LYS:HA	7:RH:14:GLY:HA2	1.75	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:RZ:125:LEU:HB3	21:RZ:165:VAL:HG13	1.98	0.46
53:QV:61:C:H2'	53:QV:62:C:H6	1.80	0.46
54:XY:11:ILE:HG12	54:XY:103:LEU:HD11	1.96	0.46
54:XY:144:TRP:CH2	54:XY:326:TYR:CD2	3.03	0.46
1:YA:285:C:H2'	1:YA:286:C:C6	2.50	0.46
1:YA:852:G:H2'	1:YA:853:G:C8	2.51	0.46
1:YA:1475:G:H2'	1:YA:1476:C:H6	1.80	0.46
2:YB:60:C:H2'	2:YB:61:G:H8	1.80	0.46
6:YG:66:GLN:HG3	26:Y4:1:MET:HE3	1.97	0.46
30:Y8:6:THR:HG23	30:Y8:64:TYR:HD2	1.80	0.46
32:XA:736:C:H2'	32:XA:737:A:C8	2.51	0.46
32:XA:1223:C:P	50:XS:78:ARG:HH22	2.38	0.46
34:XC:180:ALA:HB1	34:XC:203:PHE:HE1	1.81	0.46
32:QA:1182:G:H4'	32:QA:1183:A:H5'	1.97	0.46
32:QA:1429:C:H2'	32:QA:1430:C:C6	2.50	0.46
35:QD:12:CYS:SG	35:QD:19:LEU:HB2	2.55	0.46
1:RA:272(L):U:H5'	8:RI:50:ARG:HH12	1.81	0.46
1:RA:557:U:H2'	1:RA:558:G:H8	1.81	0.46
1:RA:626:U:O4	11:RP:107:LYS:HE2	2.16	0.46
1:RA:652(C):A:H61	1:RA:655:A:H1'	1.81	0.46
1:RA:1166:C:H2'	1:RA:1167:U:H6	1.81	0.46
1:RA:2001:A:H2'	1:RA:2002:G:C8	2.51	0.46
1:RA:2650:U:H2'	1:RA:2651:C:C6	2.51	0.46
7:RH:69:ARG:HD2	7:RH:69:ARG:O	2.16	0.46
21:RZ:139:VAL:CG1	21:RZ:150:LEU:CD2	2.94	0.46
54:QY:212:ARG:NH1	55:QX:21:A:H3'	2.31	0.46
1:YA:55:G:O2'	1:YA:127:A:N1	2.48	0.46
1:YA:180:G:N2	1:YA:215:G:O6	2.48	0.46
1:YA:579:G:H2'	1:YA:580:C:H6	1.80	0.46
1:YA:2740:A:H2'	1:YA:2741:A:C8	2.50	0.46
7:YH:105:LEU:HD21	7:YH:162:ILE:CD1	2.45	0.46
14:YS:36:TYR:OH	14:YS:54:LEU:HD22	2.16	0.46
32:XA:1288:A:N3	32:XA:1352:C:O2'	2.42	0.46
32:XA:1295:G:O2'	32:XA:1302:U:O4	2.20	0.46
33:XB:9:GLU:C	33:XB:11:LEU:H	2.23	0.46
35:XD:8:VAL:HG21	35:XD:21:LEU:HB3	1.96	0.46
39:XH:82:HIS:NE2	39:XH:84:ARG:HG2	2.30	0.46
32:QA:662:G:H2'	32:QA:663:A:C8	2.51	0.46
32:QA:1330:U:H2'	32:QA:1331:G:H5'	1.98	0.46
37:QF:82:ARG:HG2	37:QF:82:ARG:NH1	2.31	0.46
46:QO:16:ALA:HB1	46:QO:21:ASP:HB3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:671:C:H2'	1:RA:672:C:C6	2.51	0.46
1:RA:1073:A:HO2'	1:RA:1074:G:C5'	2.28	0.46
1:RA:1198:U:H2'	1:RA:1199:U:H6	1.81	0.46
3:RD:5:LYS:HE3	3:RD:5:LYS:HB3	1.71	0.46
10:RO:7:TYR:HE1	10:RO:20:MET:HE3	1.80	0.46
18:RW:4:LYS:HG2	18:RW:5:ALA:N	2.31	0.46
18:RW:68:ARG:HH12	18:RW:112:GLY:H	1.62	0.46
23:R1:3:LYS:HG2	23:R1:61:ARG:NH1	2.30	0.46
26:R4:56:VAL:HB	26:R4:60:GLN:HG2	1.97	0.46
1:YA:840:C:H2'	1:YA:841:A:H8	1.80	0.46
1:YA:2206:G:H5''	1:YA:2207:G:N7	2.31	0.46
1:YA:2317:C:H2'	1:YA:2318:G:H5'	1.98	0.46
5:YF:140:LEU:HD21	5:YF:170:LEU:HD11	1.96	0.46
7:YH:20:ALA:HB1	7:YH:21:PRO:HD2	1.98	0.46
9:YN:4:TYR:CD2	16:YU:100:VAL:HG11	2.51	0.46
11:YP:63:PRO:HD3	30:Y8:27:THR:HG22	1.98	0.46
23:Y1:40:ARG:C	23:Y1:40:ARG:HD3	2.41	0.46
32:XA:359:U:H2'	32:XA:360:A:C8	2.51	0.46
32:XA:632:A:H5'	32:XA:633:G:OP2	2.15	0.46
32:XA:1181:G:O2'	32:XA:1182:G:N7	2.48	0.46
32:XA:1438:G:H2'	32:XA:1439:C:C6	2.50	0.46
33:XB:200:ILE:HG22	33:XB:202:PRO:CD	2.46	0.46
38:XG:149:ARG:HG2	42:XK:59:TYR:CZ	2.50	0.46
44:XM:80:ARG:O	44:XM:84:ILE:HG23	2.16	0.46
32:QA:407:G:OP1	35:QD:115:ARG:NH2	2.49	0.46
32:QA:715:A:H2'	32:QA:716:A:C8	2.50	0.46
32:QA:824:C:H2'	32:QA:825:G:C8	2.47	0.46
32:QA:1232:U:H5''	40:QL:124:GLN:O	2.16	0.46
32:QA:1330:U:OP1	44:QM:24:GLY:N	2.43	0.46
44:QM:86:CYS:HB2	50:QS:73:GLU:HB3	1.98	0.46
1:RA:580:C:H2'	1:RA:581:C:C6	2.51	0.46
1:RA:594:U:H2'	1:RA:595:C:C6	2.50	0.46
1:RA:657:U:H2'	1:RA:658:C:C6	2.51	0.46
1:RA:995:C:N4	9:RN:2:LYS:HD2	2.31	0.46
1:RA:1187:G:H5'	17:RV:81:TYR:CE1	2.51	0.46
1:RA:2838:G:C4	1:RA:2839:G:C8	3.04	0.46
1:RA:2849:U:P	15:RT:95:ARG:HH12	2.39	0.46
3:RD:10:THR:OG1	3:RD:13:ARG:HG2	2.15	0.46
3:RD:127:VAL:HA	3:RD:193:VAL:HG23	1.98	0.46
4:RE:28:ALA:HB3	4:RE:93:VAL:CG1	2.46	0.46
8:RI:101:LEU:HD23	8:RI:101:LEU:HA	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:RS:110:LEU:HD12	14:RS:110:LEU:HA	1.78	0.46
30:R8:33:ASN:HA	30:R8:36:LYS:HD2	1.98	0.46
54:QY:217:PHE:HD1	54:QY:217:PHE:N	2.14	0.46
1:YA:483:A:O2'	20:YY:59:GLY:N	2.49	0.45
1:YA:1182:A:H2'	1:YA:1183:G:C8	2.51	0.45
1:YA:1812:A:O2'	3:YD:45:ASN:N	2.48	0.45
1:YA:2012:G:P	18:YW:11:ARG:HH22	2.39	0.45
1:YA:2078:C:H2'	1:YA:2079:U:C6	2.52	0.45
15:YT:28:VAL:HG13	15:YT:86:ILE:HG23	1.98	0.45
26:Y4:47:GLN:C	26:Y4:49:PHE:H	2.24	0.45
32:XA:68:G:C8	32:XA:68:G:H5''	2.51	0.45
32:XA:933:G:O6	38:XG:3:ARG:NH2	2.49	0.45
32:XA:1015:A:H2'	32:XA:1016:A:C8	2.51	0.45
32:XA:1151:A:O2'	32:XA:1152:A:O5'	2.28	0.45
32:XA:1191:A:OP2	34:XC:3:ASN:ND2	2.49	0.45
32:XA:1442(A):G:H2'	32:XA:1442(A):G:N3	2.31	0.45
48:XQ:6:LEU:O	48:XQ:58:GLU:HA	2.16	0.45
32:QA:935:A:C2	38:QG:3:ARG:NH2	2.84	0.45
44:QM:2:ALA:CA	26:R4:34:GLU:OE1	2.64	0.45
44:QM:81:LEU:HD13	44:QM:88:ARG:HG2	1.98	0.45
44:QM:86:CYS:HA	50:QS:73:GLU:O	2.16	0.45
1:RA:659:C:H2'	1:RA:660:G:H8	1.79	0.45
1:RA:2443:C:H2'	1:RA:2444:G:C8	2.51	0.45
1:RA:2712(A):U:H1'	1:RA:2712(B):A:C8	2.51	0.45
1:RA:2823:A:OP1	4:RE:113:PHE:HB2	2.16	0.45
15:RT:49:VAL:HG12	15:RT:63:VAL:HG22	1.98	0.45
54:XY:43:GLN:HG2	54:XY:45:ASP:H	1.81	0.45
1:YA:840:C:H2'	1:YA:841:A:C8	2.51	0.45
1:YA:1364:G:OP2	23:Y1:3:LYS:HG3	2.15	0.45
1:YA:2180:U:H2'	1:YA:2181:G:C8	2.50	0.45
1:YA:2251:OMG:HM23	1:YA:2251:OMG:H1'	1.80	0.45
6:YG:179:PRO:HB2	26:Y4:42:PHE:HE2	1.81	0.45
32:XA:1305:G:H22	32:XA:1331:G:H1'	1.81	0.45
33:XB:44:LEU:H	33:XB:44:LEU:HD22	1.80	0.45
36:XE:33:VAL:HG21	36:XE:109:ILE:HA	1.98	0.45
41:XJ:5:ARG:N	41:XJ:99:LYS:O	2.48	0.45
41:XJ:21:GLN:O	41:XJ:25:GLU:HG2	2.17	0.45
32:QA:725:G:OP1	32:QA:853:G:N2	2.36	0.45
32:QA:1131:G:H2'	32:QA:1132:C:H6	1.80	0.45
32:QA:1263:C:H2'	32:QA:1264:C:H6	1.81	0.45
40:QI:22:GLY:HA3	40:QI:60:ASP:OD1	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
46:QO:8:LYS:O	46:QO:12:ILE:HG13	2.16	0.45
1:RA:603:A:N1	1:RA:625:G:O2'	2.45	0.45
1:RA:610:G:H2'	1:RA:611:C:H6	1.81	0.45
1:RA:974:G:OP1	1:RA:1187:G:O2'	2.22	0.45
1:RA:1048:A:N1	1:RA:1112:G:O2'	2.46	0.45
1:RA:1587:A:H2'	1:RA:1588:C:C6	2.50	0.45
1:RA:2785:C:OP1	4:RE:41:LYS:NZ	2.48	0.45
15:RT:60:THR:HG22	15:RT:77:PRO:HA	1.98	0.45
1:YA:679:C:H2'	1:YA:680:G:H8	1.81	0.45
1:YA:886:C:O2'	1:YA:889:C:N4	2.48	0.45
1:YA:1048:A:N1	1:YA:1112:G:O2'	2.46	0.45
1:YA:1231:G:H2'	1:YA:1232:G:H8	1.81	0.45
1:YA:1411:C:H2'	1:YA:1412:A:H8	1.81	0.45
1:YA:2103:C:C4	1:YA:2104:G:N2	2.85	0.45
1:YA:2889:C:H3'	1:YA:2891:G:H8	1.81	0.45
6:YG:46:ALA:HB2	6:YG:53:LEU:HG	1.98	0.45
7:YH:117:PRO:HA	7:YH:118:PRO:HD3	1.85	0.45
8:YI:27:ARG:HD2	23:Y1:71:TYR:CZ	2.51	0.45
8:YI:38:LEU:HD22	8:YI:40:THR:HG22	1.98	0.45
8:YI:50:ARG:HE	8:YI:50:ARG:HB3	1.42	0.45
32:XA:57:G:H2'	32:XA:58:C:C6	2.51	0.45
32:XA:881:G:OP2	43:XL:12:ARG:NH2	2.48	0.45
32:XA:1120:G:H2'	32:XA:1121:U:H6	1.80	0.45
33:XB:185:ILE:CD1	33:XB:199:TYR:CD2	2.99	0.45
39:XH:20:TYR:HA	39:XH:65:TYR:CZ	2.51	0.45
44:XM:13:LYS:HA	44:XM:44:ARG:HH11	1.81	0.45
46:XO:54:ARG:HD2	46:XO:58:MET:HE2	1.98	0.45
51:XT:50:GLU:HG3	51:XT:100:ILE:HD11	1.97	0.45
32:QA:41:G:H2'	32:QA:42:G:C8	2.50	0.45
32:QA:340:U:H2'	32:QA:341:C:C6	2.51	0.45
33:QB:54:THR:HG23	33:QB:199:TYR:HB3	1.99	0.45
38:QG:26:PHE:O	38:QG:30:ILE:HG13	2.16	0.45
1:RA:1067:A:H4'	1:RA:1068:G:OP2	2.15	0.45
1:RA:1073:A:O2'	1:RA:1074:G:O5'	2.35	0.45
4:RE:1:MET:HE1	4:RE:199:ARG:HG2	1.98	0.45
6:RG:3:LEU:HD22	26:R4:25:TYR:CZ	2.50	0.45
8:RI:38:LEU:H	8:RI:38:LEU:HD12	1.81	0.45
8:RI:81:VAL:HG21	8:RI:88:ILE:HD13	1.99	0.45
9:RN:42:TRP:CH2	9:RN:44:PRO:HB3	2.51	0.45
10:RO:8:LEU:HD13	10:RO:82:ASN:HB3	1.97	0.45
12:RQ:137:TYR:HE2	21:RZ:49:ARG:NH1	2.14	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:QY:197:GLY:HA3	54:QY:323:ILE:HD13	1.97	0.45
54:QY:333:ILE:HG13	54:QY:345:THR:HG22	1.98	0.45
54:QY:338:THR:CG2	54:QY:339:GLY:HA2	2.45	0.45
54:XY:161:PHE:CD1	54:XY:185:GLY:HA3	2.47	0.45
1:YA:139(A):G:H1'	19:YX:41:ASN:ND2	2.31	0.45
1:YA:839:U:H2'	1:YA:840:C:C6	2.52	0.45
1:YA:1539:G:H2'	1:YA:1540:U:O4'	2.17	0.45
1:YA:2849:U:P	15:YT:95:ARG:HH12	2.40	0.45
2:YB:24:G:N7	2:YB:56:G:H2'	2.31	0.45
5:YF:39:TRP:CH2	5:YF:106:ARG:CZ	2.99	0.45
8:YI:130:TYR:CE2	8:YI:132:PRO:HB3	2.52	0.45
20:YY:13:VAL:HB	20:YY:72:VAL:HG13	1.97	0.45
21:YZ:99:TYR:HA	21:YZ:124:ILE:O	2.17	0.45
26:Y4:13:ARG:CZ	26:Y4:21:VAL:HG11	2.47	0.45
26:Y4:59:PHE:CZ	50:XS:64:GLU:OE1	2.61	0.45
32:XA:396:G:O2'	32:XA:398:C:OP1	2.21	0.45
32:XA:691:G:P	42:XK:26:ASN:HD22	2.38	0.45
32:XA:1305:G:N2	32:XA:1331:G:H1'	2.32	0.45
32:XA:1376:U:H2'	32:XA:1377:A:C8	2.52	0.45
35:XD:25:ARG:NH1	35:XD:30:LYS:O	2.49	0.45
41:XJ:30:SER:OG	41:XJ:81:THR:HG22	2.17	0.45
51:XT:64:ASP:CG	51:XT:81:LYS:HZ2	2.24	0.45
1:RA:1252:G:N3	16:RU:33:ARG:HG2	2.32	0.45
1:RA:2070:G:H2'	1:RA:2071:A:C8	2.50	0.45
1:RA:2103:C:C2	1:RA:2104:G:N2	2.84	0.45
1:RA:2507:C:H5'	54:QY:256:ARG:HD2	1.98	0.45
21:RZ:202:GLU:OE2	53:QV:62:C:O2	2.34	0.45
28:R6:19:ARG:NH2	28:R6:52:VAL:HG11	2.31	0.45
30:R8:39:LYS:O	30:R8:43:GLN:HG3	2.16	0.45
54:QY:324:ARG:HD2	54:QY:326:TYR:CE1	2.52	0.45
54:XY:215:THR:HG22	54:XY:217:PHE:HE1	1.79	0.45
54:XY:335:ASP:C	54:XY:337:ARG:H	2.23	0.45
1:YA:1693:U:O2'	3:YD:14:ARG:NH2	2.50	0.45
1:YA:2279:G:N7	22:Y0:14:ARG:NH1	2.65	0.45
3:YD:275:LYS:HA	3:YD:276:LYS:C	2.41	0.45
37:XF:86:ARG:O	37:XF:87:ARG:HG2	2.16	0.45
33:QB:100:GLY:HA2	33:QB:103:THR:OG1	2.17	0.45
33:QB:196:LEU:HD12	33:QB:196:LEU:HA	1.83	0.45
34:QC:47:LEU:HD13	34:QC:68:VAL:HG11	1.97	0.45
51:QT:10:LEU:HD22	51:QT:12:ALA:N	2.32	0.45
1:RA:1796:U:H2'	1:RA:1797:C:H6	1.79	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:RG:78:SER:OG	53:QV:57:A:O4'	2.32	0.45
13:RR:36:THR:CG2	13:RR:37:THR:H	2.18	0.45
53:QV:9:G:N3	53:QV:45:G:H2'	2.31	0.45
53:QV:54:U:C4	53:QV:58:A:H8	2.35	0.45
53:XV:4:G:HO2'	53:XV:5:G:H8	1.65	0.45
1:YA:284:U:H2'	1:YA:285:C:C6	2.51	0.45
1:YA:595:C:H2'	1:YA:596:G:H8	1.81	0.45
1:YA:881:G:H2'	1:YA:882:G:H8	1.79	0.45
1:YA:1336:A:H2'	1:YA:1337:G:C8	2.51	0.45
1:YA:1530:C:HO2'	1:YA:1531:C:P	2.34	0.45
1:YA:1688:U:O2	1:YA:1700:A:H5'	2.17	0.45
1:YA:2119:A:H61	1:YA:2168:G:N2	2.14	0.45
1:YA:2611:U:C4	27:Y5:3:LYS:HG2	2.52	0.45
1:YA:2649:U:H2'	1:YA:2650:U:H6	1.81	0.45
1:YA:2695:C:H2'	1:YA:2696:U:C6	2.51	0.45
5:YF:184:TYR:O	5:YF:188:ARG:HG3	2.15	0.45
12:YQ:109:VAL:HG13	12:YQ:113:GLN:CB	2.46	0.45
22:Y0:11:ARG:NH2	53:XV:63:G:H4'	2.32	0.45
32:XA:1226:C:N4	44:XM:104:ARG:HD2	2.32	0.45
32:XA:1366:C:O2'	41:XJ:60:ARG:NH2	2.29	0.45
32:QA:187:C:O2'	51:QT:89:ARG:NH2	2.40	0.45
32:QA:359:U:H2'	32:QA:360:A:H8	1.82	0.45
39:QH:73:ASP:OD1	39:QH:75:ARG:HD3	2.17	0.45
44:QM:54:VAL:HA	44:QM:57:ARG:HB3	1.99	0.45
44:QM:78:ILE:HD13	44:QM:92:HIS:CE1	2.51	0.45
1:RA:1028:A:N6	1:RA:1125:G:H2'	2.32	0.45
1:RA:2590:A:H2'	1:RA:2591:C:C6	2.51	0.45
18:RW:20:VAL:O	18:RW:23:LEU:HB2	2.16	0.45
21:RZ:72:ARG:HG2	21:RZ:89:PHE:CB	2.42	0.45
27:R5:40:LYS:HD2	27:R5:41:PRO:O	2.15	0.45
1:YA:302:C:H2'	1:YA:303:U:H6	1.80	0.45
1:YA:2506:U:H4'	54:XY:256:ARG:NH1	2.31	0.45
1:YA:2650:U:H2'	1:YA:2651:C:C6	2.52	0.45
13:YR:18:LEU:HD11	13:YR:22:ARG:NH1	2.30	0.45
21:YZ:125:LEU:HG	21:YZ:164:ALA:HB3	1.98	0.45
26:Y4:64:GLY:C	26:Y4:66:SER:N	2.74	0.45
30:Y8:63:PRO:HG2	30:Y8:64:TYR:CD2	2.52	0.45
32:XA:340:U:H2'	32:XA:341:C:C6	2.51	0.45
32:XA:1319:A:OP2	50:XS:3:ARG:NH2	2.49	0.45
38:XG:90:GLU:OE2	38:XG:90:GLU:N	2.43	0.45
43:XL:117:ARG:NH2	43:XL:124:LYS:HB2	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:505:G:H2'	32:QA:506:G:C8	2.51	0.45
32:QA:624:C:H2'	32:QA:625:G:C8	2.51	0.45
32:QA:1040:U:H2'	32:QA:1041:A:H8	1.80	0.45
32:QA:1239:A:C4	32:QA:1298:C:N4	2.85	0.45
42:QK:20:TYR:CZ	42:QK:83:ILE:HD12	2.51	0.45
47:QP:19:ILE:HG22	47:QP:37:GLY:C	2.42	0.45
48:QQ:67:LYS:O	48:QQ:68:ARG:HB3	2.17	0.45
1:RA:1817:G:OP1	3:RD:88:ARG:NH2	2.37	0.45
1:RA:2398:U:H2'	1:RA:2399:G:C8	2.51	0.45
2:RB:13:A:N1	2:RB:69:G:O2'	2.44	0.45
6:RG:83:ARG:O	6:RG:86:MET:HB2	2.16	0.45
17:RV:62:LEU:CD1	17:RV:95:LEU:HB2	2.45	0.45
25:R3:6:VAL:HG13	25:R3:54:VAL:CG1	2.47	0.45
54:XY:197:GLY:HA3	54:XY:323:ILE:HD13	1.97	0.45
1:YA:84:A:C2	1:YA:103:A:C5	3.05	0.45
1:YA:285:C:H2'	1:YA:286:C:H6	1.82	0.45
1:YA:295:G:OP1	20:YY:1:MET:HB2	2.16	0.45
1:YA:749:C:H5'	1:YA:1271:G:H1'	1.97	0.45
1:YA:1097:U:O2	1:YA:1097:U:H2'	2.17	0.45
1:YA:1297:C:OP1	1:YA:2710:C:H4'	2.16	0.45
1:YA:1406:U:H2'	1:YA:1407:C:H6	1.82	0.45
1:YA:1414:G:H2'	1:YA:1415:U:C6	2.52	0.45
7:YH:84:SER:HA	7:YH:133:VAL:O	2.17	0.45
11:YP:96:THR:OG1	11:YP:98:GLU:HG2	2.17	0.45
13:YR:38:VAL:HB	13:YR:39:PRO:HD3	1.98	0.45
14:YS:4:LEU:HD22	14:YS:8:GLU:HB3	1.99	0.45
17:YV:35:LEU:HB2	17:YV:57:VAL:HG22	1.99	0.45
26:Y4:14:ILE:HB	26:Y4:22:ILE:HD13	1.99	0.45
26:Y4:44:THR:O	26:Y4:46:GLN:N	2.50	0.45
32:XA:767:A:H2'	32:XA:768:A:O4'	2.16	0.45
32:XA:1074:G:H2'	32:XA:1075:C:C6	2.51	0.45
38:XG:151:TYR:CZ	42:XK:54:ARG:NH1	2.85	0.45
32:QA:500:G:H2'	32:QA:501:C:H6	1.80	0.45
32:QA:584:G:H2'	32:QA:585:G:H8	1.81	0.45
32:QA:923:A:H2'	32:QA:924:C:C6	2.51	0.45
32:QA:933:G:O6	38:QG:3:ARG:NH2	2.45	0.45
32:QA:1241:G:H2'	32:QA:1242:C:H6	1.81	0.45
32:QA:1427:U:H2'	32:QA:1428:A:C8	2.52	0.45
42:QK:18:ARG:NH2	42:QK:35:PRO:O	2.50	0.45
44:QM:13:LYS:HA	44:QM:44:ARG:NH1	2.30	0.45
1:RA:588:U:H2'	1:RA:589:C:C6	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:608:A:H2'	1:RA:609:A:C8	2.52	0.45
1:RA:691:C:H2'	1:RA:692:C:H6	1.82	0.45
1:RA:2547:U:H2'	1:RA:2548:G:C8	2.51	0.45
1:RA:2696:U:H2'	1:RA:2697:G:H8	1.80	0.45
6:RG:108:ASN:HA	26:R4:37:SER:CB	2.46	0.45
20:RY:15:VAL:HG21	20:RY:42:VAL:HG11	1.97	0.45
21:RZ:80:ARG:O	21:RZ:82:ARG:HG3	2.17	0.45
30:R8:31:HIS:CD2	30:R8:32:LEU:HD22	2.52	0.45
1:YA:582:G:H2'	1:YA:583:G:C8	2.52	0.45
1:YA:2680:C:H5'	4:YE:189:PRO:HA	1.99	0.45
5:YF:116:ASP:O	5:YF:120:GLU:HG3	2.17	0.45
11:YP:97:PRO:HD3	11:YP:126:VAL:O	2.16	0.45
29:Y7:10:ARG:HG2	29:Y7:14:LYS:HD2	1.98	0.45
32:XA:32:A:H2'	32:XA:33:A:C8	2.52	0.45
32:XA:1256:A:OP2	34:XC:26:LYS:NZ	2.50	0.45
32:XA:1318:A:O2'	50:XS:37:ARG:HD2	2.17	0.45
32:XA:1427:U:H2'	32:XA:1428:A:H8	1.82	0.45
32:XA:1503:A:H5'	32:XA:1531:A:H1'	1.99	0.45
33:XB:7:VAL:O	33:XB:217:ARG:NE	2.43	0.45
33:XB:200:ILE:HG22	33:XB:202:PRO:N	2.32	0.45
39:XH:49:GLU:OE2	39:XH:62:TYR:OH	2.19	0.45
41:XJ:5:ARG:O	41:XJ:98:ILE:HA	2.17	0.45
32:QA:950:U:OP2	44:QM:102:ARG:HD2	2.17	0.45
32:QA:1221:G:OP1	32:QA:1320:C:N4	2.45	0.45
32:QA:1239:A:H62	32:QA:1299:A:H61	1.64	0.45
33:QB:178:ARG:HH22	39:QH:68:ARG:NH1	2.15	0.45
33:QB:220:ASP:O	33:QB:224:GLN:HB3	2.17	0.45
37:QF:97:PHE:HB3	49:QR:31:LEU:HB2	1.99	0.45
1:RA:686:G:N2	1:RA:788:A:H61	2.15	0.45
1:RA:1446:C:H2'	1:RA:1447:G:H8	1.82	0.45
1:RA:1475:G:H2'	1:RA:1476:C:H6	1.80	0.45
1:RA:1831:G:H2'	1:RA:1832:C:C6	2.52	0.45
9:RN:42:TRP:CE3	16:RU:63:VAL:HG11	2.52	0.45
11:RP:83:VAL:CG1	11:RP:112:LEU:HD21	2.45	0.45
15:RT:24:PRO:HD3	15:RT:52:ILE:HD12	1.99	0.45
21:RZ:103:ARG:HD2	21:RZ:136:PHE:CD2	2.52	0.45
54:QY:286:GLN:O	54:QY:290:GLN:HG3	2.17	0.45
54:XY:159:ARG:HH21	54:XY:354:ASP:CG	2.23	0.45
1:YA:195:A:H61	1:YA:198:C:H3'	1.82	0.45
1:YA:863:A:H2'	1:YA:864:G:C8	2.52	0.45
1:YA:1317:A:H2'	1:YA:1318:C:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:1685:C:H2'	1:YA:1686:C:H6	1.81	0.45
1:YA:2059:A:O2'	5:YF:69:HIS:ND1	2.48	0.45
1:YA:2452:C:H2'	1:YA:2453:A:C8	2.52	0.45
4:YE:67:PHE:CE1	4:YE:75:VAL:HG12	2.52	0.45
13:YR:29:LEU:HB3	13:YR:75:LEU:HD21	1.99	0.45
18:YW:17:VAL:HG23	18:YW:76:VAL:HG21	1.99	0.45
32:XA:1006:C:H2'	32:XA:1007:C:H6	1.82	0.45
44:XM:87:TYR:HA	44:XM:90:LEU:HD12	1.99	0.45
32:QA:1036:G:H5''	32:QA:1037:C:C6	2.52	0.45
32:QA:1258:G:H2'	32:QA:1259:C:C6	2.52	0.45
34:QC:116:VAL:HG21	34:QC:202:ILE:HD11	1.98	0.45
35:QD:155:LEU:O	35:QD:158:ILE:HG12	2.17	0.45
41:QJ:39:PRO:HA	41:QJ:70:ARG:HD3	1.99	0.45
46:QO:3:ILE:HD12	46:QO:34:LEU:CD2	2.40	0.45
1:RA:195:A:H61	1:RA:198:C:H3'	1.82	0.45
1:RA:414:C:H1'	1:RA:1864:U:H1'	1.99	0.45
1:RA:557:U:H2'	1:RA:558:G:C8	2.52	0.45
1:RA:2286:A:H4'	1:RA:2287:A:O4'	2.17	0.45
1:RA:2677:G:H2'	1:RA:2678:C:C6	2.51	0.45
3:RD:51:VAL:HG11	3:RD:54:ARG:HH11	1.81	0.45
21:RZ:19:ARG:NH1	21:RZ:84:GLU:O	2.50	0.45
54:XY:148:LEU:HD21	54:XY:199:HIS:CD2	2.52	0.45
54:XY:150:ARG:HD3	54:XY:154:ARG:HH22	1.82	0.45
54:XY:200:ARG:HD3	54:XY:322:GLN:HE21	1.81	0.45
1:YA:143(A):G:H4'	19:YX:35:THR:HG21	1.99	0.44
1:YA:224:G:H2'	1:YA:225:A:O4'	2.18	0.44
1:YA:276:A:H5''	1:YA:277:C:H5'	1.99	0.44
1:YA:870:A:H2'	1:YA:871:U:O4'	2.17	0.44
1:YA:1791:A:H3'	1:YA:1792:G:H8	1.82	0.44
1:YA:1829:A:H3'	1:YA:1830:C:H6	1.83	0.44
1:YA:1949:G:H2'	1:YA:1950:G:C8	2.51	0.44
1:YA:2452:C:O2'	54:XY:256:ARG:NH1	2.50	0.44
6:YG:120:LEU:HB3	6:YG:131:TYR:OH	2.17	0.44
6:YG:146:TYR:CE2	44:XM:8:GLU:HB3	2.45	0.44
12:YQ:31:ASP:OD1	12:YQ:134:ARG:NH1	2.38	0.44
21:YZ:33:LEU:HD21	21:YZ:90:VAL:HG11	1.98	0.44
25:Y3:6:VAL:CG1	25:Y3:54:VAL:CG2	2.95	0.44
28:Y6:14:THR:HB	28:Y6:48:VAL:HG13	1.98	0.44
32:XA:337:C:H2'	32:XA:338:A:H8	1.80	0.44
32:XA:1071:C:H2'	32:XA:1072:G:H8	1.82	0.44
32:XA:1431:C:H2'	32:XA:1432:G:O4'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:1513:A:H2'	32:XA:1514:C:H6	1.82	0.44
34:XC:50:ALA:O	34:XC:72:LYS:HB2	2.17	0.44
42:XK:78:GLN:O	42:XK:103:LEU:HA	2.18	0.44
45:XN:22:THR:HB	45:XN:33:VAL:HG11	1.98	0.44
48:XQ:41:LYS:NZ	48:XQ:92:ARG:HH21	2.15	0.44
49:XR:76:LEU:HD12	49:XR:76:LEU:HA	1.79	0.44
32:QA:359:U:H2'	32:QA:360:A:C8	2.52	0.44
32:QA:1201:A:H1'	32:QA:1202:G:OP2	2.17	0.44
32:QA:1512:U:H2'	32:QA:1513:A:H8	1.82	0.44
33:QB:21:ARG:N	33:QB:21:ARG:HD3	2.32	0.44
33:QB:109:SER:O	33:QB:112:VAL:HG22	2.16	0.44
1:RA:635:C:O2'	1:RA:639:U:OP1	2.32	0.44
1:RA:2165:G:H2'	1:RA:2166:G:O4'	2.17	0.44
1:RA:2583:G:H21	54:QY:255:ASN:ND2	2.16	0.44
1:YA:538:G:H2'	1:YA:539:G:C8	2.50	0.44
1:YA:1092:C:O2	1:YA:1092:C:H2'	2.17	0.44
1:YA:2144:U:O2'	1:YA:2147:G:N1	2.45	0.44
1:YA:2389:G:H5''	1:YA:2390:U:O4'	2.17	0.44
4:YE:82:ARG:HH11	4:YE:82:ARG:HG3	1.80	0.44
5:YF:167:ALA:HB1	5:YF:173:VAL:HG11	1.99	0.44
5:YF:184:TYR:CD2	5:YF:188:ARG:HD2	2.52	0.44
10:YO:120:GLU:HG2	10:YO:122:LEU:HG	1.99	0.44
20:YY:102:CYS:SG	20:YY:103:GLY:N	2.91	0.44
32:XA:130:A:O2'	32:XA:131:C:O5'	2.33	0.44
33:XB:92:TYR:CE1	33:XB:94:ASN:HB2	2.53	0.44
32:QA:713:G:H2'	32:QA:714:G:C8	2.52	0.44
36:QE:116:THR:HG23	36:QE:117:ASP:OD2	2.17	0.44
38:QG:89:MET:CE	38:QG:155:ARG:CB	2.94	0.44
40:QI:16:ARG:CB	40:QI:64:THR:CG2	2.83	0.44
47:QP:57:ARG:NH2	47:QP:78:GLY:O	2.50	0.44
49:QR:58:LEU:HG	49:QR:62:GLU:HB2	1.98	0.44
1:RA:725:G:C6	1:RA:726:G:N1	2.85	0.44
1:RA:1057:A:N6	1:RA:1087:G:OP1	2.51	0.44
1:RA:2375:G:N2	1:RA:2377:A:H3'	2.33	0.44
1:RA:2420:C:OP1	30:R8:34:TRP:HB3	2.16	0.44
1:RA:2461:C:H2'	1:RA:2462:U:H6	1.82	0.44
6:RG:79:ASN:OD1	6:RG:79:ASN:N	2.50	0.44
54:QY:324:ARG:HD2	54:QY:326:TYR:HE1	1.83	0.44
1:YA:242:G:C8	30:Y8:3:LYS:HG3	2.53	0.44
1:YA:679:C:H2'	1:YA:680:G:C8	2.53	0.44
1:YA:2152:G:H2'	1:YA:2153:G:H8	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:YH:74:ASN:O	7:YH:78:GLY:N	2.50	0.44
7:YH:144:VAL:O	7:YH:148:ILE:HG12	2.18	0.44
21:YZ:199:LYS:HG3	21:YZ:200:GLY:N	2.32	0.44
23:Y1:83:GLU:HA	23:Y1:84:GLY:HA2	1.68	0.44
24:Y2:67:LYS:HA	24:Y2:70:GLN:OE1	2.16	0.44
32:XA:685:G:O2'	32:XA:686:U:H5'	2.18	0.44
32:XA:1060:C:H2'	32:XA:1061:G:H8	1.82	0.44
33:XB:114:ARG:O	33:XB:118:LEU:N	2.48	0.44
34:XC:30:ARG:NH2	45:XN:38:GLY:HA2	2.33	0.44
36:XE:41:VAL:HG13	36:XE:113:ALA:HA	1.97	0.44
32:QA:22:G:H2'	32:QA:23:C:C6	2.52	0.44
32:QA:35:G:H2'	32:QA:36:C:H6	1.83	0.44
32:QA:370:C:N3	32:QA:391:G:N1	2.41	0.44
32:QA:396:G:O2'	32:QA:398:C:OP1	2.28	0.44
32:QA:977:A:N6	32:QA:1224:G:H5''	2.32	0.44
32:QA:1084:G:C5	32:QA:1085:U:C4	3.06	0.44
32:QA:1157:A:C2	32:QA:1181:G:C4	3.05	0.44
32:QA:1299:A:O2'	32:QA:1300:G:H4'	2.18	0.44
35:QD:140:VAL:HG11	35:QD:146:ILE:HD11	2.00	0.44
1:RA:1474:C:H2'	1:RA:1475:G:H8	1.82	0.44
1:RA:1815:A:OP2	3:RD:54:ARG:NH2	2.49	0.44
1:RA:2134:A:N6	1:RA:2156:G:O2'	2.50	0.44
15:RT:54:ARG:HA	15:RT:59:THR:HG22	2.00	0.44
17:RV:61:VAL:HG23	17:RV:92:THR:HG23	2.00	0.44
17:RV:72:VAL:HG11	17:RV:85:LYS:HD2	1.99	0.44
54:QY:159:ARG:NH2	54:QY:354:ASP:OD2	2.48	0.44
54:XY:272:THR:HG21	54:XY:291:MET:HB2	2.00	0.44
1:YA:657:U:H2'	1:YA:658:C:C6	2.52	0.44
1:YA:889:C:O2'	1:YA:890:A:O5'	2.35	0.44
1:YA:1317:A:H2'	1:YA:1318:C:H6	1.82	0.44
1:YA:2602:A:C5	54:XY:278:ARG:HG2	2.52	0.44
4:YE:59:VAL:HG12	4:YE:64:LYS:HG3	2.00	0.44
5:YF:132:VAL:CG2	5:YF:163:VAL:HG22	2.47	0.44
8:YI:1:MET:HE2	8:YI:38:LEU:HD11	2.00	0.44
32:XA:34:C:H2'	32:XA:35:G:C8	2.51	0.44
32:XA:683:G:H2'	32:XA:684:A:C8	2.52	0.44
32:XA:687:A:C2	32:XA:704:A:C6	3.05	0.44
32:XA:719:C:O2'	49:XR:49:LYS:HB3	2.17	0.44
32:XA:1355:G:H2'	32:XA:1356:G:H8	1.82	0.44
51:XT:59:ALA:O	51:XT:63:ILE:HG13	2.17	0.44
32:QA:1512:U:H2'	32:QA:1513:A:C8	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:QM:11:ARG:O	44:QM:13:LYS:N	2.50	0.44
46:QO:64:ARG:HH11	46:QO:68:ARG:HH21	1.65	0.44
1:RA:361:G:O2'	1:RA:362:U:H5'	2.18	0.44
1:RA:1322:A:C5	1:RA:1323:U:C5	3.06	0.44
1:RA:2024:G:H2'	1:RA:2025:C:C6	2.53	0.44
1:RA:2647:U:H2'	1:RA:2648:C:H6	1.82	0.44
3:RD:126:GLN:C	3:RD:193:VAL:CG2	2.90	0.44
54:XY:280:GLN:HG2	54:XY:281:HIS:CD2	2.53	0.44
1:YA:532:A:H4'	1:YA:533:G:C8	2.52	0.44
1:YA:607:U:OP1	5:YF:102:PRO:HA	2.18	0.44
1:YA:698:C:O2'	1:YA:734:A:N6	2.51	0.44
1:YA:1064:C:N4	1:YA:1065:U:C2	2.86	0.44
1:YA:1645:G:H5''	1:YA:1646:C:H5'	2.00	0.44
1:YA:1803:A:O2'	3:YD:259:THR:HG21	2.18	0.44
1:YA:2279:G:O6	22:Y0:14:ARG:HD2	2.18	0.44
1:YA:2303:G:O2'	6:YG:132:ASN:HB2	2.18	0.44
1:YA:2591:C:H2'	1:YA:2592:G:H8	1.83	0.44
1:YA:2724:C:OP2	4:YE:111:ARG:NH1	2.51	0.44
2:YB:78:A:C2	2:YB:100:A:C4	3.06	0.44
7:YH:90:LYS:HD3	7:YH:159:GLU:HG2	2.00	0.44
21:YZ:198:LYS:HE3	53:XV:52:G:H2'	1.98	0.44
32:XA:69:G:OP2	32:XA:69:G:C8	2.70	0.44
32:XA:748:C:H4'	32:XA:749:C:O5'	2.17	0.44
32:XA:1256:A:H61	32:XA:1278:U:H1'	1.83	0.44
32:XA:1492:A:H3'	32:XA:1493:A:H8	1.83	0.44
33:XB:9:GLU:O	33:XB:12:GLU:OE1	2.35	0.44
33:XB:174:VAL:O	33:XB:178:ARG:HB2	2.17	0.44
34:XC:32:LEU:HD12	34:XC:59:ARG:HH12	1.83	0.44
34:XC:91:LEU:HD22	34:XC:101:LEU:HD22	1.98	0.44
34:XC:110:ASN:OD1	34:XC:140:ARG:NH2	2.50	0.44
47:XP:43:LYS:HA	47:XP:48:TRP:CB	2.48	0.44
32:QA:102:G:O2'	32:QA:151:A:N3	2.48	0.44
32:QA:309:G:O2'	32:QA:607:A:N1	2.50	0.44
32:QA:1158:C:C4	32:QA:1160:G:C8	3.06	0.44
47:QP:75:ARG:HG3	47:QP:80:PHE:HD2	1.81	0.44
51:QT:37:SER:O	51:QT:41:ILE:HG13	2.18	0.44
51:QT:57:ARG:CZ	51:QT:100:ILE:HD12	2.47	0.44
1:RA:1057:A:HO2'	1:RA:1058:G:P	2.40	0.44
1:RA:1084:A:H3'	1:RA:1085:A:C4'	2.48	0.44
1:RA:1630:G:H2'	1:RA:1631(A):C:C6	2.52	0.44
1:RA:1935:G:H1'	1:RA:1964:G:N2	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:2443:C:H2'	1:RA:2444:G:H8	1.82	0.44
1:RA:2453:A:H5''	54:QY:256:ARG:HH21	1.82	0.44
1:RA:2683:C:OP1	15:RT:53:ARG:NH2	2.51	0.44
27:R5:37:LYS:HA	27:R5:37:LYS:HD3	1.82	0.44
54:QY:226:VAL:HG23	54:QY:227:ASP:H	1.82	0.44
54:QY:241:ILE:HG21	54:QY:284:LYS:HE2	1.98	0.44
54:XY:265:HIS:HB2	54:XY:291:MET:CE	2.48	0.44
1:YA:760:G:H2'	1:YA:761:A:O4'	2.18	0.44
1:YA:1210:A:H4'	1:YA:1211:U:O5'	2.18	0.44
1:YA:1266:G:O2'	1:YA:2012:G:O6	2.23	0.44
1:YA:1308:A:H2'	1:YA:1309:G:O4'	2.18	0.44
1:YA:1803:A:H4'	3:YD:259:THR:HG23	2.00	0.44
1:YA:2074:U:H2'	1:YA:2075:U:H6	1.81	0.44
6:YG:146:TYR:CE2	44:XM:8:GLU:CB	3.00	0.44
16:YU:107:ALA:O	16:YU:111:GLU:HG2	2.18	0.44
19:YX:44:GLU:HG3	19:YX:51:VAL:HG23	1.99	0.44
32:XA:73:G:H2'	32:XA:76:C:C6	2.53	0.44
32:XA:601:C:H2'	32:XA:602:A:H8	1.82	0.44
33:XB:48:MET:HA	33:XB:51:LEU:HD12	2.00	0.44
34:XC:6:HIS:HA	34:XC:7:PRO:HD3	1.80	0.44
36:XE:81:GLU:HG2	36:XE:90:VAL:HG13	1.99	0.44
45:XN:4:LYS:O	45:XN:7:ILE:HG12	2.17	0.44
32:QA:737:A:H2'	32:QA:738:C:C6	2.52	0.44
32:QA:860:A:H2'	32:QA:861:G:O4'	2.17	0.44
34:QC:22:TRP:CD1	34:QC:59:ARG:HD2	2.52	0.44
40:QI:49:PRO:HB3	40:QI:82:ALA:HB2	1.99	0.44
1:RA:39:C:H2'	1:RA:40:C:C6	2.53	0.44
1:RA:854:G:H2'	1:RA:855:G:C8	2.52	0.44
1:RA:1658:C:H2'	1:RA:1659:U:C6	2.53	0.44
1:RA:2612:C:OP2	27:R5:2:ALA:N	2.51	0.44
4:RE:119:ARG:HG2	4:RE:120:TRP:NE1	2.32	0.44
7:RH:117:PRO:HG3	7:RH:123:PHE:CD2	2.53	0.44
26:R4:15:ILE:HB	26:R4:32:TYR:CD1	2.53	0.44
54:QY:150:ARG:HB3	54:QY:154:ARG:HH12	1.82	0.44
1:YA:817:C:O2'	1:YA:839:U:H5''	2.18	0.44
1:YA:823:G:H2'	1:YA:824:A:C8	2.53	0.44
1:YA:1359:A:H5'	1:YA:1359:A:N3	2.32	0.44
2:YB:8:U:O2'	14:YS:40:ILE:HD13	2.17	0.44
8:YI:48:GLU:HG3	8:YI:52:ARG:HH11	1.82	0.44
15:YT:91:ARG:HD2	15:YT:120:ARG:NH1	2.32	0.44
32:XA:321:A:N7	32:XA:328:C:O2'	2.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:923:A:O2'	32:XA:1399:C:OP2	2.29	0.44
32:XA:1157:A:C2	32:XA:1181:G:C4	3.06	0.44
32:XA:1429:C:H2'	32:XA:1430:C:C6	2.53	0.44
34:XC:8:ILE:HD12	34:XC:16:ARG:HD3	2.00	0.44
44:XM:90:LEU:HD23	44:XM:93:ARG:HH21	1.83	0.44
47:XP:66:PRO:HG2	47:XP:71:ARG:HH12	1.82	0.44
51:XT:43:LEU:HD23	51:XT:43:LEU:HA	1.88	0.44
32:QA:1030(A):C:C4	32:QA:1030(B):G:H1'	2.52	0.44
32:QA:1073:U:P	36:QE:57:LYS:NZ	2.90	0.44
39:QH:51:VAL:CG1	39:QH:52:ASP:H	2.22	0.44
44:QM:4:ILE:HA	44:QM:5:ALA:HA	1.63	0.44
1:RA:476:G:H4'	1:RA:502:A:N1	2.32	0.44
1:RA:964:C:O2'	1:RA:2273:A:N3	2.43	0.44
1:RA:2099:U:H3	1:RA:2190:G:H1	1.65	0.44
6:RG:47:LYS:O	6:RG:86:MET:HE2	2.17	0.44
10:RO:73:ASP:HB2	15:RT:82:LEU:HD13	2.00	0.44
29:R7:43:THR:HG23	29:R7:44:PRO:HD2	1.99	0.44
30:R8:4:MET:HE3	30:R8:63:PRO:CG	2.48	0.44
1:YA:305:U:H2'	1:YA:306:U:C6	2.53	0.44
1:YA:607:U:C5	1:YA:620:G:C5	3.06	0.44
1:YA:1946:U:H2'	1:YA:1947:C:C6	2.53	0.44
1:YA:2455:G:H2'	1:YA:2456:C:C6	2.53	0.44
1:YA:2590:A:H2'	1:YA:2591:C:H6	1.81	0.44
5:YF:188:ARG:HA	11:YP:3:LEU:HD13	2.00	0.44
8:YI:62:LYS:HG2	8:YI:133:HIS:NE2	2.33	0.44
32:XA:443:C:H2'	32:XA:444:C:H6	1.82	0.44
32:XA:1016:A:H2'	32:XA:1017:G:O4'	2.18	0.44
32:XA:1286:A:N6	32:XA:1354:C:O3'	2.51	0.44
34:XC:148:GLY:HA3	34:XC:172:ARG:O	2.17	0.44
50:XS:40:ILE:HB	50:XS:67:VAL:O	2.18	0.44
32:QA:25:C:H2'	32:QA:26:A:H8	1.82	0.44
32:QA:166:G:H2'	32:QA:167:G:H8	1.83	0.44
32:QA:427:U:OP1	35:QD:13:ARG:NH2	2.51	0.44
32:QA:771:G:H2'	32:QA:772:U:C6	2.53	0.44
32:QA:1016:A:H2'	32:QA:1017:G:O4'	2.17	0.44
32:QA:1073:U:C2	32:QA:1074:G:C8	3.06	0.44
33:QB:44:LEU:HD12	33:QB:44:LEU:HA	1.79	0.44
35:QD:31:CYS:O	35:QD:35:ARG:HG3	2.18	0.44
38:QG:90:GLU:H	38:QG:90:GLU:CD	2.24	0.44
42:QK:120:ARG:HA	42:QK:121:PRO:HD3	1.82	0.44
44:QM:61:GLU:HB3	26:R4:49:PHE:CE2	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:889:C:O2'	1:RA:890:A:O5'	2.35	0.44
1:RA:1266:G:OP2	27:R5:20:ARG:NE	2.34	0.44
1:RA:1404:C:H2'	1:RA:1405:U:H6	1.82	0.44
1:RA:1945:G:H2'	1:RA:1946:U:C6	2.53	0.44
1:RA:2110:G:H5''	1:RA:2111:C:H5	1.83	0.44
1:RA:2282:G:H4'	1:RA:2389:G:O2'	2.17	0.44
1:RA:2747:G:O6	1:RA:2755:C:H5''	2.17	0.44
12:RQ:35:VAL:HG12	12:RQ:130:LYS:O	2.18	0.44
53:QV:3:C:C2'	53:QV:4:G:H5'	2.48	0.44
53:QV:21:A:N6	53:QV:46:G:H2'	2.31	0.44
54:QY:196:THR:HG22	54:QY:222:VAL:H	1.83	0.44
54:QY:334:LYS:NZ	54:QY:341:GLU:OE2	2.51	0.44
54:XY:127:ASP:HB3	54:XY:184:SER:HA	2.00	0.44
1:YA:185:U:H2'	1:YA:186:G:H8	1.82	0.44
1:YA:721:C:H2'	1:YA:722:A:C8	2.53	0.44
1:YA:1322:A:C5	1:YA:1323:U:C5	3.06	0.44
1:YA:1756:G:H4'	1:YA:1758:G:O4'	2.18	0.44
26:Y4:44:THR:C	26:Y4:46:GLN:H	2.25	0.44
28:Y6:6:ARG:NH1	28:Y6:26:ASN:HB2	2.33	0.44
32:XA:73:G:H2'	32:XA:76:C:H6	1.83	0.44
32:XA:791:G:N2	32:XA:1497:G:O3'	2.51	0.44
32:XA:948:C:H2'	32:XA:949:A:H8	1.82	0.44
32:XA:1151:A:O2'	32:XA:1152:A:H8	2.01	0.44
35:XD:11:LEU:O	35:XD:15:GLU:HB2	2.18	0.44
40:XI:111:ARG:O	40:XI:113:LYS:HD2	2.17	0.44
42:XK:18:ARG:HB2	42:XK:33:THR:OG1	2.17	0.44
32:QA:452:A:H4'	47:QP:72:ARG:CZ	2.48	0.44
32:QA:1033:G:H2'	32:QA:1034:G:C8	2.49	0.44
1:RA:52:A:H2'	1:RA:53:A:C8	2.53	0.44
1:RA:887:A:O2'	1:RA:888:C:H3'	2.18	0.44
1:RA:958:U:O2	2:RB:90:A:O2'	2.29	0.44
1:RA:2262:U:H4'	1:RA:2328:A:C2	2.53	0.44
1:RA:2285:C:OP2	28:R6:6:ARG:NH1	2.51	0.44
1:RA:2692:C:H2'	1:RA:2693:A:H8	1.83	0.44
1:RA:2812:G:H2'	1:RA:2813:A:H8	1.83	0.44
4:RE:31:CYS:HB3	4:RE:49:LEU:HG	1.99	0.44
10:RO:110:GLY:HA2	10:RO:112:MET:HE2	2.00	0.44
15:RT:35:LYS:HE3	15:RT:36:GLU:O	2.18	0.44
54:XY:64:GLU:O	54:XY:68:ASP:HB2	2.18	0.44
54:XY:251:GLY:O	54:XY:253:HIS:N	2.51	0.44
1:YA:1171:G:N2	1:YA:1178:C:O2	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:1669:A:C8	10:YO:5:GLN:HG3	2.53	0.43
1:YA:1999:C:H5''	1:YA:2723:C:O2'	2.18	0.43
1:YA:2290:G:H2'	1:YA:2291:U:C6	2.53	0.43
1:YA:2443:C:H2'	1:YA:2444:G:H8	1.82	0.43
1:YA:2461:C:H2'	1:YA:2462:U:H6	1.81	0.43
4:YE:54:GLN:OE1	4:YE:55:ASN:N	2.48	0.43
8:YI:69:LYS:HB2	8:YI:138:ILE:HG12	1.99	0.43
11:YP:63:PRO:HB2	30:Y8:30:ARG:NH2	2.34	0.43
12:YQ:109:VAL:HG13	12:YQ:113:GLN:HB2	1.99	0.43
32:QA:67:C:H2'	32:QA:68:G:C8	2.52	0.43
32:QA:73:G:H1	32:QA:96:U:H3	1.66	0.43
32:QA:73:G:H2'	32:QA:76:C:C6	2.53	0.43
32:QA:629:G:H2'	32:QA:630:G:O4'	2.17	0.43
33:QB:107:THR:O	33:QB:110:GLN:HB2	2.18	0.43
1:RA:17:G:H2'	1:RA:18:C:C6	2.53	0.43
1:RA:27:G:N2	1:RA:512:G:H1'	2.33	0.43
1:RA:1386:C:H2'	1:RA:1387:C:C6	2.53	0.43
1:RA:1482:G:C6	1:RA:1507:A:C6	3.05	0.43
1:RA:1952:A:OP1	10:RO:42:SER:OG	2.28	0.43
1:RA:2051:A:H5'	1:RA:2578:G:O4'	2.17	0.43
1:RA:2590:A:H2'	1:RA:2591:C:H6	1.83	0.43
6:RG:47:LYS:HG3	6:RG:48:GLU:H	1.83	0.43
13:RR:41:ALA:HB1	13:RR:114:VAL:CG2	2.47	0.43
15:RT:35:LYS:C	15:RT:35:LYS:CE	2.90	0.43
18:RW:46:PHE:O	18:RW:50:VAL:HG23	2.18	0.43
18:RW:68:ARG:NH1	18:RW:112:GLY:H	2.16	0.43
23:R1:51:VAL:HG12	23:R1:53:VAL:HG23	2.00	0.43
24:R2:65:ASN:O	24:R2:69:ARG:HB2	2.18	0.43
25:R3:59:VAL:O	25:R3:60:GLU:HG2	2.18	0.43
1:YA:1790:C:O2'	3:YD:209:ALA:HB2	2.18	0.43
1:YA:2021:C:OP1	27:Y5:12:SER:OG	2.33	0.43
1:YA:2047:U:H2'	1:YA:2048:G:H8	1.82	0.43
3:YD:24:ILE:HD13	3:YD:84:TYR:HB2	1.99	0.43
5:YF:192:LEU:CD2	5:YF:194:MET:HG3	2.48	0.43
13:YR:18:LEU:HD13	13:YR:22:ARG:HD2	2.00	0.43
32:XA:438:G:O2'	32:XA:494:U:O4	2.28	0.43
32:XA:913:A:H4'	32:XA:914:A:O5'	2.18	0.43
32:XA:1119:C:H2'	32:XA:1120:G:C8	2.49	0.43
33:XB:211:ILE:O	33:XB:215:LEU:HB2	2.17	0.43
34:XC:22:TRP:CD1	34:XC:59:ARG:HD2	2.53	0.43
40:XI:112:LYS:HE2	40:XI:117:HIS:O	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
47:XP:21:VAL:HG11	47:XP:59:TRP:NE1	2.33	0.43
38:QG:90:GLU:OE2	38:QG:90:GLU:N	2.37	0.43
51:QT:100:ILE:HB	51:QT:101:GLY:H	1.63	0.43
1:RA:852:G:H2'	1:RA:853:G:C8	2.54	0.43
1:RA:1164:G:H2'	1:RA:1165:U:H6	1.83	0.43
1:RA:1685:C:H2'	1:RA:1686:C:H6	1.82	0.43
1:RA:2693:A:H2'	1:RA:2694:G:C8	2.51	0.43
1:RA:2698:U:H2'	1:RA:2699:C:H6	1.82	0.43
1:RA:2812:G:H2'	1:RA:2813:A:C8	2.53	0.43
1:RA:2845:G:H2'	1:RA:2846:G:C8	2.53	0.43
5:RF:192:LEU:HD13	5:RF:194:MET:HE2	2.00	0.43
7:RH:137:ASP:HB3	7:RH:140:LYS:HB3	2.00	0.43
1:YA:272(Q):G:H2'	1:YA:272(R):G:C8	2.54	0.43
1:YA:1029:A:OP1	12:YQ:128:LYS:NZ	2.45	0.43
1:YA:2102:U:O2	1:YA:2187:G:O6	2.36	0.43
1:YA:2286:A:H4'	1:YA:2287:A:O4'	2.18	0.43
13:YR:44:LEU:CD2	13:YR:48:VAL:HG23	2.48	0.43
14:YS:75:GLU:OE1	14:YS:75:GLU:HA	2.17	0.43
32:XA:323:U:H2'	32:XA:324:G:O4'	2.19	0.43
32:XA:669:U:H2'	32:XA:670:G:H8	1.84	0.43
32:XA:923:A:H2'	32:XA:924:C:C6	2.53	0.43
32:XA:1005:A:H1'	32:XA:1025:U:C2	2.53	0.43
33:XB:221:LEU:C	33:XB:221:LEU:HD13	2.44	0.43
41:XJ:45:ARG:HG2	41:XJ:47:PHE:CZ	2.54	0.43
51:XT:14:LYS:HE3	51:XT:18:GLN:NE2	2.33	0.43
32:QA:1280:A:O2'	32:QA:1281:U:H5'	2.19	0.43
33:QB:128:GLU:C	33:QB:130:ARG:H	2.26	0.43
35:QD:107:ARG:HG3	35:QD:173:TRP:HH2	1.84	0.43
37:QF:41:GLU:HG2	37:QF:43:LEU:HD12	2.00	0.43
1:RA:2110:G:OP1	1:RA:2118:U:N3	2.51	0.43
3:RD:242:ARG:N	3:RD:242:ARG:HD3	2.32	0.43
7:RH:167:GLU:HA	7:RH:168:PRO:HD3	1.90	0.43
19:RX:5:TYR:CE1	24:R2:33:MET:CE	3.01	0.43
54:QY:76:GLY:O	54:QY:80:VAL:HG23	2.17	0.43
54:XY:286:GLN:O	54:XY:290:GLN:HG3	2.18	0.43
1:YA:453:C:O2	1:YA:457:A:O2'	2.35	0.43
1:YA:2070:G:C2	1:YA:2442:C:C2	3.06	0.43
5:YF:29:ASN:H	5:YF:112:MET:CE	2.32	0.43
5:YF:192:LEU:HD22	5:YF:194:MET:HG3	2.01	0.43
6:YG:36:LYS:HG3	6:YG:38:VAL:HG23	1.99	0.43
7:YH:55:PRO:HG2	7:YH:61:HIS:ND1	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:YI:4:ILE:HD11	8:YI:44:LEU:HD13	2.00	0.43
10:YO:80:ASP:OD1	15:YT:64:ARG:NH2	2.51	0.43
32:XA:116:A:H61	32:XA:313:A:H1'	1.83	0.43
32:XA:417:C:H2'	32:XA:418:C:C6	2.52	0.43
32:XA:448:A:P	32:XA:485:G:H22	2.41	0.43
34:XC:186:PHE:HZ	34:XC:188:LEU:HD13	1.83	0.43
38:XG:137:LYS:NZ	38:XG:141:VAL:CG2	2.82	0.43
47:XP:43:LYS:HG2	47:XP:48:TRP:CD2	2.52	0.43
51:XT:58:LYS:HA	51:XT:58:LYS:HD2	1.87	0.43
52:XU:3:LYS:HB3	52:XU:14:TRP:CG	2.53	0.43
32:QA:7:G:H5''	32:QA:298:A:O4'	2.18	0.43
32:QA:1308:U:H2'	32:QA:1309:G:H8	1.84	0.43
1:RA:729:G:OP2	3:RD:13:ARG:HD3	2.18	0.43
1:RA:992:C:OP1	16:RU:47:TYR:OH	2.26	0.43
1:RA:1446:C:H2'	1:RA:1447:G:C8	2.54	0.43
1:RA:2572:A:N7	4:RE:144:ARG:HG2	2.33	0.43
6:RG:41:GLN:HB3	6:RG:43:LEU:CD1	2.40	0.43
6:RG:181:ARG:HG3	6:RG:182:LYS:H	1.83	0.43
7:RH:9:ILE:CD1	7:RH:69:ARG:HD2	2.46	0.43
11:RP:112:LEU:HD22	11:RP:113:LYS:N	2.34	0.43
14:RS:14:VAL:O	14:RS:18:ILE:HG12	2.18	0.43
16:RU:86:ALA:O	17:RV:49:THR:HG23	2.18	0.43
21:RZ:203:GLU:OE2	53:QV:54:U:C5'	2.66	0.43
1:YA:817:C:H2'	1:YA:818:G:O4'	2.19	0.43
1:YA:1604:C:O2'	1:YA:1610:A:N1	2.45	0.43
1:YA:1885:A:H2'	1:YA:1886:C:O4'	2.18	0.43
1:YA:2649:U:H2'	1:YA:2650:U:C6	2.54	0.43
4:YE:170:LEU:HB3	4:YE:184:VAL:HG13	2.00	0.43
6:YG:64:THR:HB	6:YG:94:LEU:HD21	2.00	0.43
6:YG:96:ARG:N	6:YG:99:MET:HE2	2.33	0.43
7:YH:13:LYS:HA	7:YH:14:GLY:HA2	1.80	0.43
12:YQ:62:GLY:CA	12:YQ:109:VAL:HG23	2.48	0.43
16:YU:49:HIS:HA	16:YU:52:ARG:HB3	1.99	0.43
19:YX:12:VAL:HG22	19:YX:29:TRP:CE2	2.53	0.43
32:XA:125:U:H2'	32:XA:126:G:C8	2.53	0.43
32:XA:1238:A:H2	32:XA:1241:G:N3	2.16	0.43
32:XA:1512:U:H2'	32:XA:1513:A:H8	1.84	0.43
33:XB:88:ALA:CB	33:XB:222:ILE:HD11	2.40	0.43
35:XD:108:LEU:HD12	35:XD:174:LEU:HD13	1.98	0.43
38:XG:101:LEU:O	38:XG:105:VAL:HG23	2.18	0.43
42:XK:84:VAL:HG21	42:XK:95:ILE:HD11	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:113:G:H2'	32:QA:114:U:C6	2.53	0.43
32:QA:130:A:O2'	32:QA:131:C:O5'	2.35	0.43
32:QA:745:C:H2'	32:QA:746:A:C8	2.53	0.43
32:QA:1148:U:H2'	32:QA:1149:C:O4'	2.19	0.43
32:QA:1148:U:O3'	40:QI:14:VAL:HG11	2.19	0.43
34:QC:5:ILE:HG13	34:QC:6:HIS:N	2.34	0.43
40:QI:111:ARG:HG2	40:QI:112:LYS:N	2.33	0.43
1:RA:823:G:H2'	1:RA:824:A:H8	1.83	0.43
1:RA:2674:G:O2'	10:RO:29:ASN:OD1	2.28	0.43
4:RE:67:PHE:O	4:RE:72:VAL:HG12	2.18	0.43
8:RI:8:PRO:O	8:RI:9:LEU:HD22	2.18	0.43
19:RX:5:TYR:CE1	24:R2:33:MET:HE2	2.52	0.43
24:R2:63:VAL:O	24:R2:66:GLU:HB2	2.18	0.43
29:R7:9:ARG:HH22	29:R7:47:ARG:CD	2.31	0.43
29:R7:16:HIS:HB2	29:R7:44:PRO:HG2	2.00	0.43
54:QY:38:ASN:O	54:QY:42:GLU:HB2	2.18	0.43
54:QY:219:SER:HB3	54:QY:317:ILE:HG22	1.99	0.43
1:YA:637:A:H5''	11:YP:117:GLU:HG2	2.00	0.43
1:YA:796:C:H2'	1:YA:797:C:C6	2.53	0.43
1:YA:868:U:O2	12:YQ:8:LYS:NZ	2.52	0.43
1:YA:978:G:O4'	1:YA:1001:A:H2	2.01	0.43
1:YA:2130:U:H2'	1:YA:2158:A:N1	2.33	0.43
13:YR:36:THR:HG22	13:YR:37:THR:N	2.27	0.43
14:YS:27:SER:HA	14:YS:88:ASP:HB3	1.99	0.43
22:Y0:19:LYS:N	22:Y0:19:LYS:HD2	2.34	0.43
32:XA:1492:A:P	43:XL:47:LYS:HG3	2.58	0.43
38:XG:144:MET:HE3	38:XG:144:MET:O	2.19	0.43
43:XL:27:LEU:HD13	43:XL:98:TYR:CE1	2.54	0.43
32:QA:4:U:O4	39:QH:105:ARG:HD3	2.18	0.43
32:QA:1422:G:H2'	32:QA:1423:G:H8	1.83	0.43
34:QC:123:GLN:O	34:QC:128:PHE:HB2	2.18	0.43
39:QH:46:LYS:HG3	39:QH:64:LYS:HB2	2.00	0.43
44:QM:88:ARG:HG3	44:QM:98:VAL:HG11	2.00	0.43
50:QS:79:THR:CG2	50:QS:81:ARG:NH1	2.82	0.43
51:QT:59:ALA:O	51:QT:63:ILE:HG13	2.19	0.43
1:RA:236:C:H2'	1:RA:237:C:H6	1.84	0.43
1:RA:607:U:C5	1:RA:620:G:C5	3.07	0.43
1:RA:956:G:P	12:RQ:14:ARG:HH22	2.39	0.43
1:RA:1431:U:H2'	1:RA:1432:C:H6	1.82	0.43
3:RD:145:VAL:HG12	3:RD:146:GLU:O	2.18	0.43
1:YA:686:G:N2	1:YA:788:A:H61	2.16	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:1790:C:H5''	1:YA:1791:A:OP1	2.18	0.43
4:YE:144:ARG:HB3	4:YE:145:LYS:H	1.52	0.43
7:YH:54:ARG:NE	7:YH:57:ASP:OD1	2.47	0.43
32:XA:1030(C):C:H41	32:XA:1030(D):G:N2	2.16	0.43
32:XA:1263:C:H2'	32:XA:1264:C:C6	2.53	0.43
32:XA:1355:G:H2'	32:XA:1356:G:C8	2.53	0.43
32:XA:1512:U:H2'	32:XA:1513:A:C8	2.54	0.43
41:XJ:6:ILE:HB	41:XJ:72:VAL:HG22	2.01	0.43
44:XM:110:ARG:HG2	44:XM:110:ARG:HH11	1.83	0.43
51:XT:37:SER:O	51:XT:41:ILE:HG12	2.19	0.43
32:QA:406:G:H5'	35:QD:5:ILE:HD11	2.01	0.43
32:QA:437:U:O2'	35:QD:123:HIS:ND1	2.31	0.43
32:QA:441:A:H3'	32:QA:442:C:H6	1.84	0.43
32:QA:570:G:H2'	32:QA:571:U:C6	2.52	0.43
32:QA:978:A:C4	32:QA:1319:A:C2	3.07	0.43
48:QQ:10:VAL:HG13	48:QQ:19:VAL:HB	2.01	0.43
1:RA:1005:C:H2'	1:RA:1006:C:C6	2.53	0.43
1:RA:1567:A:OP2	3:RD:84:TYR:OH	2.30	0.43
1:RA:2070:G:C2	1:RA:2442:C:C2	3.07	0.43
1:RA:2149:G:H2'	1:RA:2150:U:O4'	2.19	0.43
11:RP:62:LEU:O	30:R8:13:ARG:HD3	2.19	0.43
16:RU:76:TYR:CZ	16:RU:80:ILE:HG13	2.53	0.43
26:R4:59:PHE:C	26:R4:61:ARG:H	2.25	0.43
54:QY:196:THR:HA	54:QY:220:ALA:O	2.18	0.43
53:XV:28:C:H42	53:XV:42:G:H1	1.66	0.43
54:XY:129:TYR:CE1	54:XY:182:LYS:HG3	2.50	0.43
1:YA:586:A:N1	1:YA:809:G:O2'	2.39	0.43
1:YA:652(D):G:N2	1:YA:653:A:H1'	2.33	0.43
1:YA:729:G:C8	3:YD:208:LYS:HD2	2.54	0.43
1:YA:740:U:H2'	1:YA:741:G:C8	2.54	0.43
1:YA:848:G:H2'	1:YA:849:A:H8	1.81	0.43
1:YA:1614:A:N1	18:YW:93:ALA:HB2	2.33	0.43
1:YA:2271:G:OP1	22:Y0:18:ALA:HB1	2.19	0.43
1:YA:2320:A:H2'	1:YA:2320:A:N3	2.33	0.43
23:Y1:53:VAL:HG22	23:Y1:74:VAL:HG13	2.00	0.43
32:XA:69:G:H2'	32:XA:70:G:C8	2.53	0.43
32:XA:476:G:H2'	32:XA:477:A:C8	2.54	0.43
32:XA:985:C:H2'	32:XA:986:A:C8	2.54	0.43
36:XE:127:ASN:HA	36:XE:128:PRO:HD3	1.87	0.43
38:XG:10:ARG:HH11	38:XG:10:ARG:CG	2.29	0.43
44:XM:19:LEU:HD21	44:XM:56:LEU:HD21	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:657:G:H4'	46:QO:28:GLN:HG2	1.99	0.43
32:QA:1101:A:H4'	32:QA:1102:A:O5'	2.19	0.43
1:RA:668:G:C2	1:RA:670:A:C6	3.07	0.43
1:RA:863:A:H2'	1:RA:864:G:H8	1.84	0.43
1:RA:1092:C:H2'	1:RA:1092:C:O2	2.19	0.43
1:RA:1688:U:O2	1:RA:1700:A:H5'	2.19	0.43
1:RA:2513:G:H2'	1:RA:2514:U:C6	2.54	0.43
1:RA:2515:C:H2'	1:RA:2516:G:H8	1.84	0.43
1:RA:2522:U:O2'	1:RA:2647:U:OP1	2.26	0.43
8:RI:75:LEU:HD22	8:RI:105:HIS:ND1	2.33	0.43
26:R4:57:GLU:CB	26:R4:58:ARG:HA	2.49	0.43
30:R8:31:HIS:CD2	30:R8:32:LEU:CD2	3.02	0.43
1:YA:185:U:H2'	1:YA:186:G:C8	2.54	0.43
1:YA:610:G:H2'	1:YA:611:C:C6	2.54	0.43
1:YA:1005:C:H2'	1:YA:1006:C:C6	2.54	0.43
1:YA:1045:A:H2'	1:YA:1045:A:N3	2.33	0.43
1:YA:2153:G:H2'	1:YA:2154:G:C8	2.54	0.43
5:YF:39:TRP:HZ2	5:YF:106:ARG:NH2	2.12	0.43
12:YQ:7:MET:HG3	12:YQ:9:TYR:O	2.18	0.43
13:YR:100:LEU:HD22	13:YR:112:ALA:CA	2.40	0.43
26:Y4:61:ARG:HG2	50:XS:42:PRO:HG2	1.98	0.43
32:XA:110:C:H2'	32:XA:111:G:O4'	2.19	0.43
32:XA:514:C:H2'	32:XA:515:G:C8	2.54	0.43
32:XA:1354:C:H2'	32:XA:1355:G:H8	1.84	0.43
33:XB:28:PHE:CD1	33:XB:190:THR:HA	2.54	0.43
33:XB:96:ARG:CD	33:XB:98:LEU:HD23	2.44	0.43
37:XF:10:LEU:HB2	37:XF:59:TYR:HB3	2.01	0.43
32:QA:1238:A:N7	32:QA:1303:C:H1'	2.33	0.43
32:QA:1328:C:H2'	32:QA:1329:A:O4'	2.18	0.43
36:QE:137:GLU:HG2	36:QE:140:ARG:HH11	1.84	0.43
45:QN:24:CYS:HB2	45:QN:40:CYS:HB3	2.01	0.43
46:QO:3:ILE:HD12	46:QO:34:LEU:HD21	1.93	0.43
48:QQ:67:LYS:O	48:QQ:68:ARG:CB	2.65	0.43
50:QS:22:LEU:HD12	50:QS:31:ILE:HD11	2.00	0.43
1:RA:272(Z):C:H1'	1:RA:273(D):G:H1'	1.99	0.43
1:RA:297:C:H2'	1:RA:298:G:O4'	2.19	0.43
1:RA:1669:A:C8	10:RO:5:GLN:HG3	2.54	0.43
1:RA:1798:U:H5'	3:RD:259:THR:HG22	2.00	0.43
1:RA:2394:C:OP2	30:R8:30:ARG:HD2	2.18	0.43
1:RA:2507:C:O4'	54:QY:255:ASN:HB3	2.19	0.43
1:RA:2530:A:O2'	1:RA:2532:G:OP2	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:RB:22:U:H2'	2:RB:23:G:C8	2.54	0.43
6:RG:43:LEU:HB3	6:RG:44:GLY:H	1.67	0.43
7:RH:20:ALA:HB1	7:RH:21:PRO:HD2	2.00	0.43
8:RI:140:LEU:HD13	8:RI:142:VAL:HG23	2.01	0.43
10:RO:63:VAL:HG12	10:RO:106:LEU:HD11	1.99	0.43
16:RU:8:VAL:CG1	16:RU:12:ARG:CZ	2.97	0.43
19:RX:5:TYR:OH	24:R2:30:ARG:HD2	2.19	0.43
29:R7:9:ARG:HH21	29:R7:47:ARG:HB3	1.79	0.43
54:QY:332:ARG:NH1	54:QY:334:LYS:HE2	2.33	0.43
54:XY:132:ILE:HA	54:XY:219:SER:O	2.19	0.43
1:YA:511:U:O4	1:YA:512:G:N1	2.51	0.43
1:YA:1021:A:H3'	1:YA:1021:A:N3	2.34	0.43
1:YA:2287:A:O2'	1:YA:2288:A:H3'	2.19	0.43
1:YA:2355:C:H2'	1:YA:2356:C:O4'	2.19	0.43
1:YA:2848:G:O2'	1:YA:2867:G:N2	2.49	0.43
12:YQ:62:GLY:O	21:YZ:178:GLU:HG2	2.19	0.43
15:YT:118:ARG:NH2	15:YT:121:ILE:HD12	2.17	0.43
32:XA:253:U:H2'	32:XA:254:G:H8	1.83	0.43
32:XA:691:G:H2'	32:XA:692:U:C6	2.54	0.43
32:XA:908:A:H2'	32:XA:909:A:C8	2.54	0.43
32:XA:1014:A:C2	32:XA:1219:U:H1'	2.54	0.43
32:XA:1273:G:H3'	32:XA:1274:G:H8	1.82	0.43
35:XD:173:TRP:CZ3	35:XD:193:ASP:HB3	2.54	0.43
37:XF:76:ALA:O	37:XF:80:ARG:HG3	2.19	0.43
40:XI:9:ARG:H	40:XI:79:LEU:HD23	1.83	0.43
47:XP:20:VAL:CG2	47:XP:32:TYR:CG	3.00	0.43
32:QA:246:A:C2	32:QA:282:A:C5	3.07	0.43
32:QA:687:A:H1'	32:QA:688:G:OP2	2.19	0.43
32:QA:1120:G:H2'	32:QA:1121:U:H6	1.83	0.43
32:QA:1131:G:H2'	32:QA:1132:C:C6	2.54	0.43
50:QS:64:GLU:CA	26:R4:59:PHE:HE1	2.32	0.43
1:RA:685:A:N1	1:RA:787:U:H1'	2.34	0.43
1:RA:1946:U:H2'	1:RA:1947:C:C6	2.53	0.43
1:RA:2086:U:H2'	1:RA:2087:G:C8	2.53	0.43
1:RA:2300:G:H2'	1:RA:2301:C:C6	2.54	0.43
1:RA:2848:G:O2'	1:RA:2867:G:N2	2.44	0.43
5:RF:168:ARG:HH11	5:RF:168:ARG:HD3	1.69	0.43
11:RP:96:THR:H	11:RP:99:LEU:HD12	1.82	0.43
12:RQ:62:GLY:CA	12:RQ:109:VAL:HG23	2.49	0.43
15:RT:106:SER:O	15:RT:110:ILE:HG13	2.18	0.43
20:RY:92:ASN:CB	20:RY:94:LYS:H	2.30	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:RY:102:CYS:SG	20:RY:103:GLY:N	2.92	0.43
21:RZ:146:ILE:HA	21:RZ:147:GLY:HA2	1.79	0.43
1:YA:709:U:H2'	1:YA:710:G:C8	2.54	0.42
1:YA:774:A:H2'	1:YA:774:A:N3	2.34	0.42
1:YA:1408:C:H2'	1:YA:1409:C:C6	2.54	0.42
1:YA:2365:G:N7	30:Y8:39:LYS:NZ	2.64	0.42
15:YT:118:ARG:NE	15:YT:118:ARG:HA	2.34	0.42
26:Y4:53:GLU:H	26:Y4:53:GLU:CD	2.27	0.42
32:XA:406:G:O2'	35:XD:3:ARG:NH2	2.52	0.42
33:XB:32:ILE:HD13	33:XB:40:HIS:CD2	2.54	0.42
44:XM:20:THR:CG2	44:XM:27:LYS:NZ	2.78	0.42
32:QA:859:A:H2'	32:QA:860:A:O4'	2.19	0.42
32:QA:1075:C:OP1	33:QB:179:LYS:NZ	2.51	0.42
32:QA:1316:G:O2'	45:QN:18:VAL:HG11	2.19	0.42
32:QA:1411:C:H2'	32:QA:1412:C:C6	2.53	0.42
32:QA:1504:G:OP1	32:QA:1507:A:H4'	2.19	0.42
36:QE:148:VAL:O	36:QE:152:ARG:HG2	2.19	0.42
38:QG:48:LYS:O	38:QG:52:GLU:HG2	2.19	0.42
39:QH:41:ARG:NH1	39:QH:123:GLU:OE2	2.48	0.42
39:QH:51:VAL:HG11	39:QH:60:ARG:NH1	2.33	0.42
41:QJ:5:ARG:HE	41:QJ:73:ASP:CG	2.27	0.42
1:RA:2153:G:H2'	1:RA:2154:G:H8	1.84	0.42
7:RH:3:ARG:HB3	7:RH:6:ARG:HG2	2.01	0.42
9:RN:58:ASP:OD1	9:RN:58:ASP:N	2.51	0.42
12:RQ:110:THR:HG23	12:RQ:113:GLN:OE1	2.19	0.42
17:RV:62:LEU:HD11	17:RV:95:LEU:CB	2.49	0.42
21:RZ:40:ASP:HB3	21:RZ:43:GLU:HB2	2.01	0.42
23:R1:3:LYS:HG3	23:R1:4:VAL:N	2.32	0.42
30:R8:14:VAL:CG1	30:R8:22:VAL:HG13	2.47	0.42
54:QY:118:MET:HE1	54:QY:191:TRP:CZ2	2.54	0.42
54:QY:141:ALA:HA	54:QY:144:TRP:HB3	2.01	0.42
53:XV:58:A:O2'	53:XV:60:U:OP2	2.22	0.42
54:XY:100:VAL:HA	54:XY:103:LEU:HB3	2.01	0.42
1:YA:304:G:H2'	1:YA:305:U:C6	2.54	0.42
1:YA:588:U:H2'	1:YA:589:C:C6	2.54	0.42
1:YA:841:A:H2'	1:YA:842:G:C8	2.55	0.42
1:YA:2064:C:H2'	1:YA:2065:C:H6	1.82	0.42
1:YA:2784:C:H1'	4:YE:37:ARG:HH12	1.83	0.42
6:YG:145:THR:CG2	6:YG:148:MET:HG2	2.50	0.42
7:YH:27:LYS:HD3	7:YH:32:GLU:HB2	2.01	0.42
13:YR:95:THR:HG22	13:YR:116:LEU:HD23	1.99	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:YS:71:ARG:NH1	14:YS:107:GLU:OE1	2.52	0.42
18:YW:12:ILE:HD13	18:YW:17:VAL:CG1	2.49	0.42
32:XA:130:A:H5'	48:XQ:63:ARG:HE	1.83	0.42
32:XA:320:C:H2'	32:XA:321:A:C8	2.54	0.42
32:XA:677:U:H1'	42:XK:119:CYS:SG	2.59	0.42
33:XB:158:LEU:HA	33:XB:159:PRO:HD3	1.83	0.42
42:XK:84:VAL:CG1	42:XK:91:ARG:HD2	2.49	0.42
47:XP:3:LYS:O	47:XP:21:VAL:HA	2.19	0.42
51:XT:100:ILE:CG2	51:XT:101:GLY:H	2.30	0.42
32:QA:902:G:H2'	32:QA:903:G:H8	1.83	0.42
32:QA:1148:U:O4'	40:QI:16:ARG:HD2	2.18	0.42
32:QA:1285:A:H1'	32:QA:1286:A:OP2	2.19	0.42
35:QD:108:LEU:HB3	35:QD:110:PHE:CD1	2.55	0.42
42:QK:99:GLN:HG2	42:QK:105:VAL:HG21	2.01	0.42
46:QO:17:ARG:HH11	46:QO:17:ARG:HG3	1.84	0.42
48:QQ:58:GLU:OE2	48:QQ:75:ARG:NH2	2.52	0.42
51:QT:101:GLY:HA2	51:QT:102:GLY:HA2	1.72	0.42
1:RA:185:U:H4'	1:RA:218:A:H4'	2.02	0.42
1:RA:1025:G:C4	1:RA:1135:C:H1'	2.54	0.42
1:RA:1053:C:O2'	1:RA:1054:A:O5'	2.32	0.42
1:RA:1406:U:C2	1:RA:1407:C:C5	3.07	0.42
1:RA:2543:G:H2'	1:RA:2544:G:C8	2.54	0.42
4:RE:47:VAL:HG23	4:RE:84:PHE:O	2.19	0.42
54:XY:260:ALA:CB	54:XY:275:GLN:HG2	2.49	0.42
1:YA:84:A:H5''	20:YY:8:LYS:HE3	2.00	0.42
1:YA:1053:C:H2'	1:YA:1054:A:C8	2.54	0.42
1:YA:1357:U:H2'	1:YA:1358:G:O4'	2.18	0.42
1:YA:1667:G:O2'	1:YA:1991:U:O4	2.27	0.42
1:YA:2312:U:H5'	6:YG:88:ILE:HD11	1.99	0.42
2:YB:4:C:H2'	2:YB:5:C:H6	1.84	0.42
3:YD:276:LYS:H	3:YD:276:LYS:HG3	1.45	0.42
5:YF:53:THR:HG22	5:YF:56:GLU:OE2	2.18	0.42
6:YG:3:LEU:HD23	6:YG:97:ASP:OD2	2.20	0.42
10:YO:10:VAL:HG21	10:YO:16:ALA:O	2.15	0.42
11:YP:99:LEU:HD23	11:YP:99:LEU:C	2.44	0.42
32:XA:390:C:H4'	47:XP:28:ARG:NH2	2.31	0.42
32:XA:1226:C:H4'	50:XS:80:TYR:OH	2.20	0.42
33:XB:74:LYS:HD3	33:XB:165:VAL:HG12	2.02	0.42
34:XC:73:PRO:O	34:XC:77:ILE:HG12	2.20	0.42
35:XD:17:VAL:HG12	35:XD:18:LYS:N	2.34	0.42
32:QA:33:A:H2'	32:QA:34:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:719:C:O2'	49:QR:49:LYS:HB3	2.20	0.42
43:QL:97:ARG:HB2	43:QL:98:TYR:CE1	2.54	0.42
1:RA:702:G:C2	1:RA:731:C:C2	3.07	0.42
1:RA:2065:C:H2'	1:RA:2066:C:H6	1.84	0.42
1:RA:2643:G:H2'	1:RA:2644:G:O4'	2.18	0.42
14:RS:24:LEU:HD23	14:RS:24:LEU:HA	1.85	0.42
15:RT:95:ARG:CG	15:RT:95:ARG:NH1	2.82	0.42
17:RV:28:GLU:HG3	17:RV:29:PRO:HD2	2.00	0.42
27:R5:35:GLU:HG3	27:R5:51:TYR:CB	2.49	0.42
54:XY:134:ALA:O	54:XY:317:ILE:HD13	2.20	0.42
1:YA:272(P):C:H2'	1:YA:272(Q):G:C8	2.54	0.42
1:YA:300:A:O2'	1:YA:318:C:O2	2.34	0.42
1:YA:1427:A:H4'	1:YA:1428:C:O4'	2.19	0.42
1:YA:2342:C:O2'	1:YA:2374:C:H5''	2.19	0.42
1:YA:2352:A:N6	1:YA:2365:G:O2'	2.53	0.42
1:YA:2521:C:H2'	1:YA:2522:U:C6	2.55	0.42
5:YF:24:LEU:HD21	5:YF:114:VAL:HG12	2.01	0.42
6:YG:38:VAL:HB	6:YG:158:ALA:HB3	2.02	0.42
7:YH:86:GLU:OE2	7:YH:132:ARG:NH2	2.52	0.42
12:YQ:55:VAL:HG11	21:YZ:183:LEU:HD21	2.02	0.42
33:XB:127:ILE:C	33:XB:129:GLU:H	2.27	0.42
36:XE:12:LEU:O	36:XE:30:ALA:HA	2.19	0.42
41:XJ:57:LYS:HE2	41:XJ:60:ARG:HH21	1.83	0.42
41:XJ:80:LYS:O	41:XJ:84:GLN:HB2	2.20	0.42
32:QA:834:C:H2'	32:QA:835:U:C6	2.54	0.42
35:QD:23:GLY:HA3	35:QD:112:VAL:HB	2.01	0.42
38:QG:69:VAL:CG2	38:QG:104:LEU:HD21	2.48	0.42
39:QH:6:ILE:HB	39:QH:85:ARG:NH1	2.33	0.42
44:QM:84:ILE:HD12	50:QS:74:PHE:CE2	2.55	0.42
1:RA:218:A:C2	1:RA:235:U:H4'	2.54	0.42
1:RA:300:A:OP1	20:RY:86:ARG:NH2	2.52	0.42
1:RA:774:A:H2'	1:RA:774:A:N3	2.34	0.42
1:RA:1021:A:H3'	1:RA:1021:A:N3	2.35	0.42
1:RA:1379:A:H4'	1:RA:1380:G:OP2	2.20	0.42
1:RA:2117:A:H4'	1:RA:2148:G:OP1	2.20	0.42
1:RA:2250:G:O2'	1:RA:2496:C:OP1	2.31	0.42
6:RG:16:ARG:CZ	6:RG:31:VAL:HG21	2.49	0.42
6:RG:43:LEU:C	6:RG:45:GLU:H	2.25	0.42
54:QY:115:PHE:HB3	54:QY:119:PHE:CD2	2.46	0.42
54:QY:140:GLU:OE1	54:QY:206:PRO:HD2	2.19	0.42
54:QY:310:MET:O	54:QY:314:LYS:HG3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:XY:18:SER:O	54:XY:22:ARG:HG3	2.19	0.42
54:XY:326:TYR:HA	54:XY:333:ILE:HG12	2.02	0.42
1:YA:608:A:H2'	1:YA:609:A:C8	2.54	0.42
1:YA:616:G:OP2	5:YF:106:ARG:NH2	2.51	0.42
1:YA:652(C):A:H61	1:YA:655:A:H1'	1.84	0.42
1:YA:729:G:H5'	1:YA:730:C:H5''	2.01	0.42
1:YA:777:A:H2'	1:YA:778:G:C8	2.53	0.42
1:YA:1070:A:H2'	1:YA:1071:G:C8	2.54	0.42
1:YA:2692:C:H2'	1:YA:2693:A:H8	1.84	0.42
3:YD:12:SER:HB3	3:YD:208:LYS:HB3	2.01	0.42
4:YE:119:ARG:CG	4:YE:160:TYR:HB2	2.50	0.42
7:YH:90:LYS:NZ	7:YH:159:GLU:OE1	2.44	0.42
10:YO:97:ARG:HE	10:YO:97:ARG:HB2	1.57	0.42
11:YP:63:PRO:HB2	30:Y8:30:ARG:HH21	1.84	0.42
14:YS:49:VAL:HG21	14:YS:77:ALA:HA	2.01	0.42
15:YT:118:ARG:HG2	32:XA:1442(B):G:C8	2.54	0.42
20:YY:40:GLU:O	20:YY:42:VAL:HG23	2.19	0.42
21:YZ:14:LYS:HE2	21:YZ:14:LYS:HB3	1.81	0.42
26:Y4:62:ARG:O	26:Y4:63:TYR:C	2.62	0.42
32:XA:1429:C:H2'	32:XA:1430:C:H6	1.83	0.42
34:XC:18:TRP:NE1	45:XN:53:LEU:O	2.52	0.42
51:XT:38:LYS:HB3	51:XT:38:LYS:HE2	1.70	0.42
51:XT:43:LEU:HD13	51:XT:51:GLU:HB3	2.00	0.42
32:QA:922:G:H2'	32:QA:923:A:H8	1.80	0.42
32:QA:1030(A):C:N3	32:QA:1031:G:N2	2.68	0.42
51:QT:53:LEU:HD13	51:QT:100:ILE:HG13	2.00	0.42
1:RA:81:G:H2'	1:RA:82:G:O4'	2.19	0.42
1:RA:777:A:H2'	1:RA:778:G:H8	1.85	0.42
1:RA:839:U:H2'	1:RA:840:C:C6	2.54	0.42
1:RA:998:C:P	16:RU:92:ARG:HH22	2.43	0.42
1:RA:1188:U:H4'	17:RV:79:VAL:HG22	2.02	0.42
1:RA:1637:A:H4'	1:RA:2711:A:O2'	2.19	0.42
2:RB:16:G:N2	2:RB:69:G:H1'	2.34	0.42
14:RS:25:ARG:HD3	14:RS:42:ASP:OD2	2.19	0.42
53:QV:54:U:N3	53:QV:58:A:C8	2.88	0.42
54:XY:34:LEU:HD11	54:XY:64:GLU:HG3	2.01	0.42
54:XY:243:VAL:HG11	54:XY:280:GLN:NE2	2.35	0.42
1:YA:151:C:H2'	1:YA:152:G:C8	2.52	0.42
1:YA:303:U:H2'	1:YA:304:G:C8	2.54	0.42
1:YA:578:A:OP1	1:YA:1255:U:O2'	2.28	0.42
1:YA:1952:A:N3	10:YO:22:ILE:HD12	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:2812:G:H2'	1:YA:2813:A:C8	2.54	0.42
3:YD:70:TRP:HB3	3:YD:190:TYR:CE1	2.54	0.42
5:YF:129:PHE:O	5:YF:132:VAL:HG22	2.18	0.42
5:YF:157:VAL:HB	5:YF:194:MET:HG2	2.01	0.42
14:YS:19:LYS:HE3	14:YS:42:ASP:CG	2.44	0.42
17:YV:61:VAL:HG12	17:YV:94:LEU:CD2	2.50	0.42
26:Y4:59:PHE:HZ	50:XS:64:GLU:HB2	1.71	0.42
29:Y7:22:MET:SD	29:Y7:31:LEU:HD12	2.59	0.42
32:XA:403:C:OP1	35:XD:137:SER:OG	2.26	0.42
32:XA:624:C:H2'	32:XA:625:G:C8	2.51	0.42
32:XA:741:G:H2'	32:XA:742:G:O4'	2.20	0.42
32:XA:924:C:H2'	32:XA:925:G:H8	1.84	0.42
37:XF:97:PHE:HB3	49:XR:32:ARG:HD3	2.01	0.42
45:XN:37:PHE:HB3	45:XN:39:LEU:HD12	2.02	0.42
49:XR:65:ILE:O	49:XR:69:THR:HG23	2.19	0.42
32:QA:339:C:P	10:RO:97:ARG:HH11	2.43	0.42
40:QI:16:ARG:H	40:QI:64:THR:CG2	2.32	0.42
1:RA:538:G:H2'	1:RA:539:G:C8	2.51	0.42
1:RA:1141:U:P	9:RN:25:ARG:HH12	2.43	0.42
1:RA:1630:G:H2'	1:RA:1631(A):C:H6	1.85	0.42
1:RA:2080:G:H5'	23:R1:35:THR:HG23	2.01	0.42
1:RA:2122:U:H2'	1:RA:2123:G:H8	1.84	0.42
1:RA:2134:A:C5	1:RA:2157:G:H5'	2.54	0.42
1:RA:2591:C:H2'	1:RA:2592:G:H8	1.82	0.42
3:RD:133:LEU:HB3	3:RD:173:VAL:HG21	2.02	0.42
5:RF:125:LEU:CD1	5:RF:194:MET:HB2	2.50	0.42
20:RY:92:ASN:HB3	20:RY:94:LYS:HG2	2.00	0.42
28:R6:11:LEU:HB2	28:R6:21:TYR:HB2	2.01	0.42
1:YA:152:G:H2'	1:YA:153:C:H6	1.84	0.42
1:YA:1278:A:H2'	1:YA:1279:G:C8	2.55	0.42
1:YA:1479:G:H5''	1:YA:1560:G:H4'	2.01	0.42
1:YA:2224:G:H4'	1:YA:2226:C:C2	2.55	0.42
4:YE:28:ALA:HB3	4:YE:93:VAL:CG1	2.49	0.42
4:YE:119:ARG:HD3	4:YE:160:TYR:CB	2.20	0.42
6:YG:36:LYS:CE	6:YG:95:ARG:HH12	2.24	0.42
6:YG:110:ALA:O	6:YG:140:ILE:HG23	2.19	0.42
11:YP:120:ALA:HB1	11:YP:138:LEU:HD12	2.02	0.42
26:Y4:18:CYS:HB2	26:Y4:20:ASN:HB2	2.02	0.42
32:XA:953:G:N7	44:XM:104:ARG:NH2	2.53	0.42
32:XA:1002:G:C2	32:XA:1003:G:C8	3.08	0.42
32:XA:1032:G:H2'	32:XA:1033:G:H8	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:1068:G:H8	32:XA:1068:G:OP2	2.02	0.42
32:XA:1279:A:N3	32:XA:1279:A:H2'	2.35	0.42
33:XB:114:ARG:HH12	33:XB:118:LEU:CD2	2.33	0.42
41:XJ:33:GLN:O	41:XJ:74:ILE:HA	2.19	0.42
44:XM:17:VAL:HA	44:XM:27:LYS:HZ2	1.85	0.42
49:XR:61:LYS:O	49:XR:65:ILE:HG12	2.20	0.42
32:QA:124:G:H2'	32:QA:125:U:C6	2.55	0.42
32:QA:159:G:N2	32:QA:161:A:H3'	2.35	0.42
39:QH:12:ARG:CD	39:QH:26:VAL:HG12	2.49	0.42
43:QL:102:ARG:HA	43:QL:102:ARG:HD2	1.90	0.42
51:QT:77:ALA:O	51:QT:81:LYS:HG3	2.20	0.42
1:RA:570:G:H2'	1:RA:2030:A:C5	2.55	0.42
1:RA:1076:C:H1'	1:RA:1077:A:H5'	2.01	0.42
1:RA:1588:C:H2'	1:RA:1589:C:H6	1.83	0.42
1:RA:1798:U:OP2	3:RD:274:ARG:NH2	2.40	0.42
1:RA:2109:U:H2'	1:RA:2110:G:C8	2.54	0.42
1:RA:2285:C:OP1	28:R6:29:ASN:ND2	2.43	0.42
1:RA:2528:U:O2'	1:RA:2530:A:OP1	2.35	0.42
5:RF:33:LEU:HD13	5:RF:112:MET:HE3	1.98	0.42
10:RO:115:VAL:HG13	10:RO:121:VAL:HG21	2.02	0.42
20:RY:6:HIS:HE1	20:RY:72:VAL:O	2.02	0.42
23:R1:80:LEU:HB3	23:R1:82:LEU:HG	2.02	0.42
31:R9:2:LYS:HE2	31:R9:31:LYS:O	2.19	0.42
1:YA:658:C:H2'	1:YA:659:C:C6	2.55	0.42
1:YA:1231:G:H2'	1:YA:1232:G:C8	2.55	0.42
1:YA:1593:G:H2'	1:YA:1594:G:C8	2.55	0.42
2:YB:16:G:N2	2:YB:69:G:H1'	2.34	0.42
6:YG:126:ASP:HB2	6:YG:130:ASN:O	2.20	0.42
25:Y3:19:GLN:OE1	25:Y3:52:HIS:NE2	2.44	0.42
30:Y8:23:VAL:HG13	30:Y8:47:LYS:HB3	2.01	0.42
32:XA:33:A:H2'	32:XA:34:C:C6	2.54	0.42
32:XA:145:G:C2	32:XA:178:C:C2	3.07	0.42
32:XA:433:C:H2'	32:XA:434:U:H6	1.84	0.42
34:XC:112:SER:O	34:XC:116:VAL:HG23	2.19	0.42
38:XG:137:LYS:O	38:XG:137:LYS:HD3	2.20	0.42
40:XI:65:VAL:HG21	40:XI:73:GLN:HB3	2.00	0.42
41:XJ:49:VAL:HG22	41:XJ:50:ILE:O	2.19	0.42
45:XN:23:ARG:NH1	45:XN:30:ALA:HB2	2.35	0.42
32:QA:224:C:H2'	32:QA:225:C:C6	2.55	0.42
32:QA:950:U:H2'	32:QA:951:G:C8	2.55	0.42
32:QA:955:U:P	54:QY:154:ARG:HH21	2.43	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:1149:C:P	40:QI:9:ARG:HH21	2.42	0.42
32:QA:1289:A:OP1	52:QU:10:ARG:NH2	2.53	0.42
32:QA:1414:U:H2'	32:QA:1415:G:H8	1.84	0.42
33:QB:200:ILE:CG2	33:QB:202:PRO:HD3	2.44	0.42
34:QC:22:TRP:HA	41:QJ:93:GLY:HA2	2.01	0.42
38:QG:12:LEU:H	38:QG:12:LEU:HD12	1.84	0.42
42:QK:79:SER:HA	42:QK:104:GLN:HB2	2.01	0.42
47:QP:14:ASN:N	47:QP:15:PRO:HD3	2.35	0.42
1:RA:224:G:H2'	1:RA:225:A:O4'	2.19	0.42
1:RA:307:G:N2	1:RA:309:G:H3'	2.35	0.42
1:RA:1045:A:N3	1:RA:1045:A:H2'	2.35	0.42
1:RA:1709:U:H2'	1:RA:1710:C:H6	1.85	0.42
1:RA:2032:G:OP2	1:RA:2454:G:O2'	2.34	0.42
1:RA:2101:G:C5	1:RA:2102:U:C4	3.07	0.42
1:RA:2247:A:H2'	1:RA:2248:C:H6	1.85	0.42
4:RE:119:ARG:HG2	4:RE:120:TRP:CD1	2.54	0.42
21:RZ:202:GLU:OE2	53:QV:62:C:H1'	2.20	0.42
53:QV:76:A:H3'	54:QY:251:GLY:HA3	2.01	0.42
54:QY:36:GLU:HA	54:QY:39:ALA:HB3	2.01	0.42
54:XY:196:THR:HA	54:XY:220:ALA:O	2.20	0.42
1:YA:1050:A:H2'	1:YA:1051:G:C8	2.53	0.42
1:YA:1431:U:H2'	1:YA:1432:C:C6	2.55	0.42
1:YA:1721:G:H2'	1:YA:1740:G:O6	2.20	0.42
1:YA:1946:U:H2'	1:YA:1947:C:H6	1.85	0.42
1:YA:2077:A:H2'	1:YA:2078:C:C6	2.54	0.42
1:YA:2113:U:H2'	1:YA:2114:A:O4'	2.20	0.42
1:YA:2695:C:H2'	1:YA:2696:U:H6	1.85	0.42
2:YB:96:U:H2'	2:YB:97:G:H8	1.84	0.42
8:YI:83:ALA:CB	8:YI:123:LEU:HD21	2.50	0.42
26:Y4:64:GLY:C	26:Y4:66:SER:H	2.27	0.42
32:XA:1151:A:O4'	41:XJ:39:PRO:HB2	2.20	0.42
32:XA:1206:G:H2'	32:XA:1207:2MG:O4'	2.19	0.42
33:XB:24:TRP:HB3	33:XB:40:HIS:CE1	2.54	0.42
33:XB:73:THR:HG22	33:XB:95:GLN:O	2.20	0.42
34:XC:91:LEU:HD12	34:XC:91:LEU:HA	1.93	0.42
34:XC:181:ASN:N	34:XC:205:GLY:O	2.40	0.42
39:XH:37:ARG:NH2	39:XH:38:ILE:CD1	2.83	0.42
40:XI:7:THR:O	40:XI:83:ARG:HD2	2.20	0.42
49:XR:26:LEU:HD11	49:XR:42:ARG:CD	2.49	0.42
32:QA:601:C:H2'	32:QA:602:A:H8	1.85	0.42
32:QA:1333:A:H2'	32:QA:1334:G:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:QF:61:LEU:HD23	37:QF:63:TYR:OH	2.20	0.42
42:QK:38:ASN:HA	42:QK:39:PRO:HD3	1.88	0.42
50:QS:79:THR:HG21	50:QS:81:ARG:NH1	2.34	0.42
1:RA:9:U:O4	1:RA:2629:A:H2	2.02	0.42
1:RA:185:U:H2'	1:RA:186:G:H8	1.84	0.42
1:RA:1449:A:N3	1:RA:1529:G:H1'	2.35	0.42
1:RA:2182:G:H2'	1:RA:2183:C:C6	2.55	0.42
1:RA:2445:G:OP1	5:RF:74:ARG:NH2	2.41	0.42
5:RF:196:LEU:HD23	5:RF:196:LEU:HA	1.87	0.42
12:RQ:55:VAL:HG12	12:RQ:64:ILE:HD12	2.02	0.42
54:XY:126:ALA:O	54:XY:128:CYS:N	2.52	0.42
1:YA:78:A:H2'	1:YA:79:G:C8	2.54	0.42
1:YA:1412:A:H2'	1:YA:1413:G:H8	1.85	0.42
5:YF:165:ARG:HG2	5:YF:168:ARG:HH21	1.83	0.42
20:YY:7:VAL:CG1	20:YY:27:VAL:HG21	2.50	0.42
32:XA:391:G:P	47:XP:28:ARG:HH22	2.43	0.42
32:XA:500:G:H2'	32:XA:501:C:H6	1.85	0.42
32:XA:581:G:N1	32:XA:759:A:OP2	2.33	0.42
32:XA:582:U:H2'	32:XA:583:A:H8	1.85	0.42
32:XA:779:C:H2'	32:XA:780:A:O4'	2.20	0.42
33:XB:53:ARG:HG2	33:XB:56:ARG:HH21	1.85	0.42
34:XC:54:ARG:HB3	34:XC:54:ARG:HH11	1.85	0.42
37:XF:11:ASN:HB3	37:XF:14:LEU:HG	2.01	0.42
44:XM:20:THR:HG21	44:XM:27:LYS:HZ1	1.85	0.42
52:XU:6:ARG:C	52:XU:8:THR:H	2.27	0.42
33:QB:187:LEU:HA	33:QB:201:ILE:HB	2.02	0.42
36:QE:41:VAL:HG13	36:QE:113:ALA:CA	2.48	0.42
48:QQ:43:LEU:HD12	48:QQ:68:ARG:HG2	2.02	0.42
49:QR:58:LEU:HD23	49:QR:63:GLN:HA	2.01	0.42
51:QT:53:LEU:HD12	51:QT:100:ILE:HG13	2.02	0.42
1:RA:41:C:H2'	1:RA:42:G:H8	1.85	0.42
1:RA:233:A:H2'	1:RA:234:C:O4'	2.20	0.42
1:RA:479:A:O2'	1:RA:481:G:H5'	2.20	0.42
1:RA:796:C:H2'	1:RA:797:C:C6	2.54	0.42
1:RA:871:U:H2'	1:RA:872:A:C8	2.55	0.42
1:RA:996:A:H4'	16:RU:91:ASP:OD2	2.20	0.42
1:RA:1353:A:H62	1:RA:1377:G:H2'	1.85	0.42
1:RA:2389:G:H5''	1:RA:2390:U:O4'	2.19	0.42
1:RA:2748:A:H5'	7:RH:4:ILE:CD1	2.45	0.42
6:RG:16:ARG:HB2	6:RG:17:PRO:HD3	2.02	0.42
30:R8:31:HIS:CE1	30:R8:32:LEU:HD22	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:R9:13:LYS:HD3	31:R9:13:LYS:HA	1.87	0.42
54:QY:141:ALA:HB2	54:QY:216:SER:HB2	2.02	0.42
1:YA:39:C:H2'	1:YA:40:C:H6	1.85	0.41
1:YA:1449:A:N3	1:YA:1529:G:H1'	2.34	0.41
2:YB:14:U:OP2	2:YB:70:C:O2'	2.36	0.41
2:YB:87:G:N2	2:YB:89:G:H3'	2.35	0.41
4:YE:82:ARG:CG	4:YE:82:ARG:NH1	2.69	0.41
6:YG:41:GLN:HB3	6:YG:43:LEU:CD1	2.43	0.41
6:YG:170:ARG:HH21	6:YG:180:PHE:HB2	1.85	0.41
32:XA:64:G:H5'	32:XA:65:U:H3'	2.02	0.41
32:XA:523:A:N1	43:XL:92:OTD:H6	2.35	0.41
32:XA:1117:G:H5'	32:XA:1118:C:OP2	2.20	0.41
32:XA:1138:G:H2'	32:XA:1140:C:H5'	2.02	0.41
33:XB:196:LEU:HA	33:XB:196:LEU:HD12	1.81	0.41
34:XC:54:ARG:HB3	34:XC:54:ARG:NH1	2.34	0.41
35:XD:191:ARG:HD2	35:XD:191:ARG:HA	1.79	0.41
37:XF:15:ASP:OD2	35:QD:27:TYR:OH	2.33	0.41
44:XM:97:PRO:HA	44:XM:110:ARG:HH11	1.85	0.41
47:XP:4:ILE:HG23	47:XP:36:ILE:HD11	2.02	0.41
32:QA:515:G:H2'	32:QA:516:PSU:O4'	2.20	0.41
32:QA:1003:G:N2	32:QA:1004:A:H1'	2.35	0.41
34:QC:134:ILE:HG22	34:QC:168:ALA:HB3	2.02	0.41
38:QG:111:ARG:HB3	38:QG:113:GLU:OE2	2.20	0.41
39:QH:83:ILE:HG13	39:QH:137:VAL:HG22	2.02	0.41
47:QP:5:ARG:HH21	47:QP:24:ALA:HA	1.85	0.41
51:QT:43:LEU:HD22	51:QT:48:LYS:HD2	2.00	0.41
1:RA:194:G:H2'	1:RA:195:A:O4'	2.20	0.41
1:RA:582:G:H2'	1:RA:583:G:H8	1.84	0.41
1:RA:956:G:H2'	1:RA:957:A:H2'	2.03	0.41
1:RA:978:G:C2	1:RA:986:C:C2	3.08	0.41
1:RA:1198:U:C2	1:RA:1199:U:C5	3.08	0.41
1:RA:2328:A:H2'	1:RA:2329:G:H8	1.83	0.41
1:RA:2455:G:H2'	1:RA:2456:C:C6	2.55	0.41
4:RE:9:VAL:CG2	4:RE:25:VAL:HG12	2.50	0.41
8:RI:133:HIS:ND1	8:RI:134:PRO:O	2.49	0.41
12:RQ:21:THR:HG21	12:RQ:101:ARG:CB	2.49	0.41
20:RY:99:CYS:HB2	20:RY:106:LEU:HD21	2.02	0.41
23:R1:3:LYS:CG	23:R1:4:VAL:H	2.23	0.41
53:QV:55:U:O5'	53:QV:55:U:H6	2.03	0.41
54:XY:26:ASP:HB3	54:XY:29:ALA:HB3	2.02	0.41
1:YA:180:G:OP2	29:Y7:32:LYS:HE3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:411:G:C5	11:YP:72:PRO:HB3	2.55	0.41
1:YA:642:G:N2	1:YA:645:C:OP2	2.51	0.41
1:YA:807:U:OP2	11:YP:41:ARG:NH2	2.53	0.41
1:YA:1055:G:H2'	1:YA:1056:G:O4'	2.20	0.41
1:YA:1665:A:H4'	10:YO:67:LYS:HB2	2.02	0.41
1:YA:1800:C:OP2	3:YD:183:ARG:NH2	2.53	0.41
1:YA:2316:C:H2'	1:YA:2317:C:C6	2.55	0.41
1:YA:2469:A:H2'	1:YA:2470:G:O4'	2.20	0.41
6:YG:125:PHE:CE1	6:YG:131:TYR:HB2	2.56	0.41
7:YH:28:GLY:N	7:YH:31:GLY:O	2.53	0.41
7:YH:109:PHE:C	7:YH:111:HIS:H	2.27	0.41
8:YI:68:LEU:O	8:YI:68:LEU:HD13	2.20	0.41
11:YP:21:ARG:HH11	11:YP:21:ARG:HD2	1.66	0.41
28:Y6:40:CYS:HA	28:Y6:41:PRO:HD3	1.82	0.41
32:XA:439:A:C5	32:XA:441:A:H1'	2.55	0.41
32:XA:1084:G:H5'	32:XA:1102:A:OP2	2.20	0.41
39:XH:10:LEU:HD22	39:XH:83:ILE:HD11	2.02	0.41
41:XJ:85:LEU:HD23	41:XJ:85:LEU:HA	1.86	0.41
45:YN:53:LEU:HA	45:YN:54:PRO:HD2	1.90	0.41
32:QA:177:C:OP1	51:QT:65:LYS:NZ	2.44	0.41
32:QA:417:C:H2'	32:QA:418:C:C6	2.55	0.41
32:QA:513:C:H2'	32:QA:514:C:C6	2.55	0.41
32:QA:688:G:H2'	32:QA:689:C:C6	2.55	0.41
32:QA:913:A:H4'	32:QA:914:A:O5'	2.20	0.41
32:QA:1207:2MG:H2'	32:QA:1208:C:C6	2.55	0.41
34:QC:36:ASP:O	34:QC:40:ARG:HG3	2.20	0.41
46:QO:26:GLU:HG3	46:QO:81:LEU:HD22	2.03	0.41
50:QS:58:VAL:HA	50:QS:59:PRO:HD3	1.87	0.41
1:RA:2615:U:C2	27:R5:7:PRO:HA	2.55	0.41
12:RQ:7:MET:HE1	21:RZ:194:PRO:HB2	2.02	0.41
21:RZ:140:ASP:OD1	21:RZ:142:SER:OG	2.34	0.41
54:QY:128:CYS:HB3	54:QY:189:TYR:HB2	2.02	0.41
1:YA:918:A:H5''	2:YB:98:G:O2'	2.19	0.41
1:YA:1842:G:H2'	1:YA:1843:C:C6	2.56	0.41
1:YA:2742:C:OP1	31:Y9:1:MET:HE3	2.20	0.41
1:YA:2805:G:H2'	1:YA:2807:G:C8	2.54	0.41
4:YE:114:ALA:HB3	4:YE:119:ARG:HG3	2.02	0.41
5:YF:167:ALA:HA	5:YF:170:LEU:HD23	2.02	0.41
6:YG:46:ALA:O	6:YG:51:ARG:HA	2.21	0.41
6:YG:126:ASP:HB3	6:YG:128:ARG:H	1.86	0.41
11:YP:68:GLN:CD	30:Y8:12:LYS:HG2	2.45	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:YR:96:ARG:HH11	13:YR:96:ARG:HD2	1.62	0.41
14:YS:23:ARG:NH1	14:YS:85:VAL:O	2.53	0.41
21:YZ:100:VAL:HA	21:YZ:101:PRO:HD3	1.96	0.41
26:Y4:59:PHE:HZ	50:XS:64:GLU:CB	2.32	0.41
31:Y9:22:ARG:HB2	31:Y9:24:TYR:CE1	2.54	0.41
33:XB:122:PHE:CZ	33:XB:127:ILE:CD1	2.99	0.41
36:XE:152:ARG:NH1	39:XH:107:LEU:O	2.43	0.41
39:XH:13:ILE:O	39:XH:17:THR:HG23	2.20	0.41
42:XK:84:VAL:HG11	42:XK:91:ARG:HH11	1.85	0.41
50:XS:12:ASP:OD2	50:XS:35:SER:HB3	2.19	0.41
50:XS:20:LEU:HA	50:XS:23:ASN:HD22	1.86	0.41
32:QA:374:A:C6	32:QA:375:U:C4	3.07	0.41
32:QA:1347:G:N2	32:QA:1373:G:H2'	2.36	0.41
33:QB:146:GLN:O	33:QB:150:SER:HB3	2.20	0.41
33:QB:231:GLU:HG3	33:QB:232:PRO:HD3	2.03	0.41
36:QE:33:VAL:HG13	36:QE:112:LEU:HD12	2.03	0.41
37:QF:75:LEU:O	37:QF:79:LEU:HG	2.20	0.41
47:QP:43:LYS:HG2	47:QP:48:TRP:NE1	2.35	0.41
47:QP:60:LEU:HD13	47:QP:60:LEU:HA	1.90	0.41
1:RA:1070:A:H2'	1:RA:1071:G:C8	2.56	0.41
1:RA:1756:G:H4'	1:RA:1758:G:O4'	2.21	0.41
1:RA:2630:G:H2'	1:RA:2631:G:H8	1.85	0.41
1:RA:2704:C:H2'	1:RA:2705:A:O4'	2.21	0.41
1:RA:2819:G:H2'	1:RA:2821:A:N7	2.35	0.41
9:RN:30:ILE:HA	9:RN:33:LEU:HD23	2.01	0.41
10:RO:22:ILE:HD13	10:RO:22:ILE:HG21	1.83	0.41
1:YA:127:A:H5''	1:YA:128:C:C6	2.55	0.41
1:YA:709:U:H2'	1:YA:710:G:H8	1.85	0.41
1:YA:1027:A:C2	1:YA:2488:A:H5'	2.54	0.41
1:YA:1053:C:O2'	1:YA:1054:A:O5'	2.33	0.41
1:YA:1141:U:OP2	9:YN:63:THR:OG1	2.36	0.41
1:YA:1791:A:H5'	3:YD:206:LEU:HD12	2.01	0.41
1:YA:2065:C:C2	1:YA:2066:C:C5	3.09	0.41
1:YA:2525:G:H2'	1:YA:2526:G:H8	1.86	0.41
2:YB:30:C:OP2	14:YS:32:LEU:HD11	2.20	0.41
4:YE:34:VAL:HG12	4:YE:72:VAL:HG21	2.01	0.41
4:YE:111:ARG:HH11	4:YE:111:ARG:HD2	1.50	0.41
5:YF:53:THR:HG22	5:YF:56:GLU:CD	2.46	0.41
6:YG:16:ARG:O	6:YG:20:ILE:HG13	2.20	0.41
6:YG:96:ARG:H	6:YG:99:MET:HE2	1.85	0.41
9:YN:58:ASP:OD1	9:YN:58:ASP:N	2.52	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:YQ:56:ARG:HH11	21:YZ:183:LEU:HD12	1.85	0.41
13:YR:100:LEU:HD23	13:YR:112:ALA:CA	2.51	0.41
14:YS:46:VAL:HG12	14:YS:48:LEU:HD22	2.01	0.41
20:YY:23:ARG:NH1	20:YY:23:ARG:HB2	2.35	0.41
23:Y1:67:ILE:N	23:Y1:68:PRO:HD2	2.35	0.41
32:XA:1201:A:H4'	32:XA:1202:G:H5''	2.02	0.41
37:XF:91:VAL:HG12	37:XF:92:LYS:O	2.20	0.41
38:XG:23:VAL:O	38:XG:27:ILE:HG12	2.21	0.41
39:XH:86:ILE:HG12	39:XH:135:CYS:HA	2.03	0.41
40:XI:5:TYR:HH	40:XI:16:ARG:HG2	1.86	0.41
41:XJ:38:ILE:CG1	41:XJ:71:LEU:HD22	2.50	0.41
32:QA:257:G:H2'	32:QA:258:G:H8	1.86	0.41
32:QA:688:G:H2'	32:QA:689:C:H6	1.84	0.41
32:QA:1240:U:OP2	38:QG:116:ALA:N	2.39	0.41
41:QJ:64:GLU:HB3	45:QN:59:ALA:HB2	2.03	0.41
44:QM:3:ARG:HH21	44:QM:11:ARG:HG2	1.85	0.41
48:QQ:81:ARG:HD2	48:QQ:81:ARG:HA	1.79	0.41
1:RA:336:C:O2'	20:RY:35:TYR:OH	2.33	0.41
1:RA:407:G:H2'	1:RA:408:G:C8	2.55	0.41
1:RA:1084:A:H3'	1:RA:1085:A:H4'	2.02	0.41
1:RA:2127:G:H2'	1:RA:2128:C:O4'	2.20	0.41
1:RA:2134:A:H8	1:RA:2156:G:H21	1.66	0.41
3:RD:16:MET:HG2	3:RD:211:ARG:HH21	1.85	0.41
8:RI:1:MET:N	8:RI:21:VAL:O	2.48	0.41
1:YA:593:G:H2'	1:YA:594:U:C6	2.55	0.41
1:YA:954:G:H5''	12:YQ:13:GLN:HB3	2.02	0.41
1:YA:1197:G:H2'	1:YA:1198:U:H6	1.85	0.41
1:YA:1431:U:H2'	1:YA:1432:C:H6	1.85	0.41
1:YA:1656:C:H2'	1:YA:1657:C:H6	1.86	0.41
3:YD:69:ARG:C	3:YD:71:ASP:N	2.78	0.41
5:YF:34:TRP:N	11:YP:6:LEU:HD22	2.35	0.41
6:YG:101:ILE:CD1	26:Y4:25:TYR:HB2	2.46	0.41
8:YI:40:THR:C	8:YI:44:LEU:HD23	2.44	0.41
8:YI:48:GLU:HG3	8:YI:52:ARG:NH1	2.35	0.41
17:YV:14:VAL:HA	17:YV:18:LEU:HD12	2.03	0.41
18:YW:17:VAL:CG2	18:YW:76:VAL:HG11	2.51	0.41
22:Y0:11:ARG:HH22	53:XV:63:G:H4'	1.84	0.41
26:Y4:44:THR:C	26:Y4:46:GLN:N	2.78	0.41
32:XA:600:C:H2'	32:XA:601:C:C6	2.55	0.41
32:XA:985:C:H2'	32:XA:986:A:H8	1.85	0.41
32:XA:1126:U:O4'	32:XA:1281:U:H1'	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:XC:180:ALA:HA	34:XC:206:GLU:HA	2.01	0.41
51:XT:50:GLU:HB2	51:XT:99:LEU:CD2	2.50	0.41
32:QA:677:U:H2'	32:QA:678:U:C6	2.55	0.41
32:QA:1493:A:H4'	54:QY:138:GLY:H	1.85	0.41
35:QD:61:LYS:HD3	35:QD:206:PHE:CE2	2.55	0.41
40:QI:81:ILE:O	40:QI:85:LEU:HG	2.21	0.41
42:QK:34:ASP:OD2	42:QK:38:ASN:HB2	2.21	0.41
43:QL:27:LEU:HD23	43:QL:30:ALA:O	2.21	0.41
46:QO:84:LYS:HD3	46:QO:84:LYS:C	2.46	0.41
51:QT:42:GLN:O	51:QT:45:GLN:HB3	2.20	0.41
1:RA:143(A):G:H2'	1:RA:143(B):C:C6	2.56	0.41
1:RA:301:G:H1'	1:RA:302:C:C6	2.55	0.41
1:RA:441:U:H2'	1:RA:442:G:C8	2.54	0.41
1:RA:1139:G:OP1	9:RN:101:HIS:ND1	2.43	0.41
1:RA:1614:A:P	1:RA:1614:A:H8	2.43	0.41
1:RA:2277:G:OP2	22:R0:10:THR:HG21	2.21	0.41
6:RG:155:MET:HE2	6:RG:155:MET:HB3	1.88	0.41
14:RS:76:LYS:O	14:RS:80:LEU:HD22	2.20	0.41
1:YA:272(P):C:H5''	8:YI:45:LYS:CD	2.50	0.41
1:YA:1075:C:H2'	1:YA:1076:C:H3'	2.03	0.41
1:YA:2125:G:H22	1:YA:2172:U:H3'	1.85	0.41
1:YA:2314:C:H5''	6:YG:38:VAL:HG21	2.03	0.41
3:YD:16:MET:HG3	3:YD:206:LEU:O	2.21	0.41
3:YD:26:LYS:HZ1	3:YD:94:LEU:HD11	1.85	0.41
3:YD:217:ARG:HH11	3:YD:217:ARG:HD3	1.71	0.41
8:YI:27:ARG:HD2	23:Y1:71:TYR:CE1	2.56	0.41
8:YI:133:HIS:HD2	8:YI:136:VAL:HG23	1.86	0.41
9:YN:104:LYS:HE3	9:YN:117:PHE:CZ	2.56	0.41
11:YP:95:VAL:HG22	11:YP:125:VAL:HG12	2.03	0.41
16:YU:89:GLU:HB2	17:YV:50:PRO:HB3	2.03	0.41
17:YV:6:LYS:CD	17:YV:6:LYS:C	2.94	0.41
21:YZ:198:LYS:HD3	53:XV:53:G:H5'	2.02	0.41
25:Y3:6:VAL:HG12	25:Y3:54:VAL:HG21	2.02	0.41
26:Y4:28:LYS:HA	26:Y4:29:PRO:HD3	1.91	0.41
32:XA:375:U:OP1	47:XP:69:THR:HG21	2.21	0.41
35:XD:148:VAL:HG11	35:XD:158:ILE:HG21	2.01	0.41
36:XE:76:ILE:HB	36:XE:77:PRO:HD2	2.02	0.41
43:XL:124:LYS:HA	43:XL:125:PRO:HD3	1.98	0.41
32:QA:584:G:H2'	32:QA:585:G:C8	2.55	0.41
32:QA:858:G:O6	32:QA:869:G:H3'	2.20	0.41
32:QA:932:C:H5''	38:QG:4:ARG:CZ	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:QB:27:LYS:O	33:QB:30:ARG:NH1	2.54	0.41
33:QB:145:LEU:HD12	33:QB:149:LEU:HD12	2.03	0.41
1:RA:500:G:N1	1:RA:503:A:OP2	2.54	0.41
1:RA:644:A:H4'	1:RA:645:C:H5	1.85	0.41
1:RA:1057:A:H2'	1:RA:1058:G:H8	1.86	0.41
1:RA:1080:C:H2'	1:RA:1081:U:C6	2.55	0.41
1:RA:2390:U:P	30:R8:35:GLN:HE22	2.44	0.41
1:RA:2572:A:H62	4:RE:145:LYS:HD2	1.85	0.41
1:RA:2680:C:H5'	4:RE:189:PRO:HA	2.02	0.41
1:RA:2849:U:H4'	1:RA:2868:A:C2	2.55	0.41
1:RA:2854:G:H2'	1:RA:2855:C:C6	2.55	0.41
6:RG:5:VAL:CG2	6:RG:8:LYS:HB3	2.51	0.41
9:RN:67:LEU:C	9:RN:88:GLU:HG3	2.45	0.41
12:RQ:109:VAL:HG13	12:RQ:113:GLN:HB2	2.02	0.41
15:RT:37:GLY:HA2	15:RT:38:ASN:HA	1.75	0.41
15:RT:95:ARG:HG2	15:RT:95:ARG:NH1	2.25	0.41
17:RV:49:THR:O	17:RV:49:THR:HG22	2.19	0.41
26:R4:1:MET:HE2	26:R4:6:HIS:NE2	2.35	0.41
54:XY:37:VAL:HG11	54:XY:60:ARG:HB2	2.03	0.41
1:YA:610:G:H2'	1:YA:611:C:H6	1.86	0.41
1:YA:639:U:H2'	1:YA:640:C:H6	1.85	0.41
1:YA:662:G:H5'	11:YP:14:LYS:O	2.21	0.41
1:YA:1057:A:H2'	1:YA:1058:G:H8	1.85	0.41
1:YA:1069:A:H2'	1:YA:1073:A:N7	2.35	0.41
1:YA:1518:U:H2'	1:YA:1519:G:O4'	2.21	0.41
1:YA:2100:G:C6	1:YA:2190:G:C6	3.08	0.41
1:YA:2564:A:C2	1:YA:2647:U:H4'	2.55	0.41
5:YF:136:THR:HG22	5:YF:140:LEU:CD2	2.51	0.41
6:YG:164:GLU:N	6:YG:164:GLU:OE2	2.53	0.41
12:YQ:30:GLY:HA2	12:YQ:107:ALA:HB2	2.02	0.41
13:YR:2:ARG:HG2	13:YR:5:LYS:HB2	2.02	0.41
17:YV:6:LYS:C	17:YV:6:LYS:HD3	2.46	0.41
24:Y2:32:LEU:HD12	24:Y2:57:ILE:HD12	1.98	0.41
32:XA:238:G:OP1	48:XQ:25:ARG:NH2	2.53	0.41
32:XA:858:G:O6	32:XA:869:G:H3'	2.20	0.41
32:XA:1030(B):G:H2'	32:XA:1030(C):C:H5''	2.02	0.41
32:XA:1350:A:H2'	32:XA:1351:U:O4'	2.21	0.41
32:XA:1428:A:H2'	32:XA:1429:C:C6	2.56	0.41
34:XC:16:ARG:HG3	34:XC:17:ASP:N	2.36	0.41
36:XE:20:GLN:OE1	36:XE:25:ARG:HD2	2.21	0.41
38:XG:23:VAL:HG13	38:XG:43:PHE:CE2	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:XI:50:LEU:HD21	40:XI:81:ILE:HG12	2.01	0.41
50:XS:66:MET:HB2	50:XS:74:PHE:CZ	2.55	0.41
32:QA:42:G:H2'	32:QA:43:C:C6	2.56	0.41
32:QA:57:G:H2'	32:QA:58:C:H6	1.85	0.41
32:QA:92:C:H2'	32:QA:93:G:C8	2.55	0.41
32:QA:199:G:H2'	32:QA:200:G:H8	1.85	0.41
32:QA:1040:U:H2'	32:QA:1041:A:C8	2.56	0.41
34:QC:113:ALA:HB3	34:QC:114:PRO:HD3	2.03	0.41
35:QD:187:ARG:NH2	35:QD:193:ASP:OD2	2.53	0.41
36:QE:31:LEU:HD23	36:QE:31:LEU:HA	1.77	0.41
36:QE:41:VAL:CG1	36:QE:113:ALA:HB2	2.50	0.41
44:QM:15:VAL:HG13	44:QM:43:THR:O	2.20	0.41
47:QP:71:ARG:HH11	47:QP:71:ARG:HD2	1.63	0.41
1:RA:375:C:H2'	1:RA:376:C:C6	2.56	0.41
1:RA:407:G:H2'	1:RA:408:G:H8	1.86	0.41
1:RA:1096:A:H2'	1:RA:1097:U:H6	1.85	0.41
1:RA:2602:A:C5	54:QY:278:ARG:HG2	2.56	0.41
2:RB:60:C:H2'	2:RB:61:G:H8	1.86	0.41
4:RE:1:MET:O	4:RE:1:MET:HE3	2.20	0.41
4:RE:146:THR:HA	4:RE:147:PRO:HA	1.91	0.41
6:RG:138:GLN:HE22	6:RG:153:ARG:HD2	1.85	0.41
14:RS:3:ARG:HA	14:RS:3:ARG:HE	1.85	0.41
15:RT:18:ASP:OD1	15:RT:18:ASP:N	2.48	0.41
15:RT:127:ALA:O	15:RT:128:GLU:HB3	2.21	0.41
30:R8:4:MET:HE3	30:R8:63:PRO:HG3	2.02	0.41
31:R9:13:LYS:HG3	31:R9:28:GLU:OE2	2.19	0.41
1:YA:470:A:OP1	5:YF:59:TYR:HE1	2.03	0.41
1:YA:1441:G:H2'	1:YA:1442:G:H8	1.85	0.41
1:YA:2103:C:C2	1:YA:2104:G:N2	2.89	0.41
1:YA:2165:G:H2'	1:YA:2166:G:O4'	2.20	0.41
1:YA:2513:G:H2'	1:YA:2514:U:C6	2.56	0.41
1:YA:2646:C:H2'	1:YA:2647:U:O4'	2.20	0.41
6:YG:3:LEU:CD2	6:YG:97:ASP:OD2	2.69	0.41
6:YG:13:GLU:O	6:YG:17:PRO:HG2	2.20	0.41
9:YN:129:PRO:HA	9:YN:131:GLN:HE22	1.85	0.41
21:YZ:163:LEU:HA	21:YZ:163:LEU:HD12	1.86	0.41
24:Y2:9:GLN:HE22	24:Y2:56:GLN:HB3	1.85	0.41
32:XA:186:C:H2'	32:XA:187:C:C6	2.56	0.41
32:XA:512:U:H2'	32:XA:513:C:H6	1.85	0.41
32:XA:598:U:H2'	32:XA:599:C:H6	1.85	0.41
32:XA:978:A:C2	32:XA:1319:A:C4	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:1065:U:H1'	32:XA:1066:C:OP2	2.21	0.41
32:XA:1183:A:H1'	32:XA:1184:G:OP1	2.20	0.41
32:XA:1441:G:H5''	32:XA:1442(A):G:O5'	2.20	0.41
34:XC:64:VAL:O	34:XC:99:VAL:HA	2.20	0.41
35:XD:199:ASN:OD1	35:XD:201:GLN:HB2	2.21	0.41
37:XF:25:ILE:CD1	37:XF:82:ARG:HE	2.33	0.41
40:XI:27:THR:HG23	40:XI:31:GLN:O	2.21	0.41
40:XI:37:PHE:HB3	40:XI:43:ALA:CB	2.51	0.41
43:XL:52:LEU:HD21	54:XY:320:GLY:O	2.21	0.41
51:XT:39:LYS:HE3	51:XT:39:LYS:HB2	1.83	0.41
51:XT:57:ARG:HH22	51:XT:100:ILE:CD1	2.34	0.41
51:XT:77:ALA:O	51:XT:81:LYS:HG3	2.20	0.41
52:XU:7:ARG:HH11	52:XU:7:ARG:HD2	1.67	0.41
32:QA:184:G:H2'	32:QA:185:A:H8	1.85	0.41
32:QA:602:A:H2'	32:QA:603:U:C6	2.56	0.41
32:QA:828:A:H2'	32:QA:829:G:O4'	2.21	0.41
32:QA:890:G:O2'	32:QA:906:G:O6	2.23	0.41
32:QA:1131:G:OP1	40:QI:20:ARG:NH2	2.53	0.41
32:QA:1230:C:H2'	32:QA:1231:G:H8	1.86	0.41
33:QB:10:LEU:HA	33:QB:48:MET:HE1	2.02	0.41
39:QH:39:LEU:HD12	39:QH:39:LEU:HA	1.88	0.41
44:QM:65:LYS:CD	26:R4:51:ASP:CB	2.98	0.41
1:RA:181:A:H3'	1:RA:182:A:H8	1.85	0.41
1:RA:185:U:H2'	1:RA:186:G:C8	2.56	0.41
1:RA:1800:C:OP2	3:RD:183:ARG:NH2	2.54	0.41
1:RA:2626:C:H2'	1:RA:2627:G:O4'	2.20	0.41
6:RG:27:ASN:HB3	6:RG:30:GLU:HG3	2.02	0.41
7:RH:69:ARG:HH11	7:RH:69:ARG:HD3	1.65	0.41
9:RN:120:LEU:HD22	9:RN:122:VAL:CG2	2.32	0.41
11:RP:86:LYS:HB3	11:RP:118:GLY:HA3	2.03	0.41
16:RU:49:HIS:HA	16:RU:52:ARG:HB3	2.02	0.41
1:YA:595:C:H2'	1:YA:596:G:C8	2.56	0.41
1:YA:823:G:H2'	1:YA:824:A:H8	1.85	0.41
1:YA:1057:A:O2'	1:YA:1058:G:P	2.79	0.41
1:YA:1263:U:H1'	27:Y5:10:LYS:HG3	2.03	0.41
1:YA:1354:A:H3'	1:YA:1355:G:H8	1.86	0.41
1:YA:1853:A:H2'	1:YA:1854:A:C8	2.56	0.41
1:YA:2023:G:H5'	1:YA:2617:C:H4'	2.02	0.41
1:YA:2063:C:C4	1:YA:2064:C:C5	3.09	0.41
1:YA:2293:C:H2'	1:YA:2294:C:C6	2.56	0.41
1:YA:2397:G:H5'	23:Y1:28:GLY:O	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:YA:2443:C:H2'	1:YA:2444:G:C8	2.55	0.41
1:YA:2641:G:H2'	1:YA:2642:G:H8	1.85	0.41
4:YE:35:GLN:OE1	4:YE:66:HIS:HE1	2.03	0.41
5:YF:34:TRP:CA	11:YP:6:LEU:HD22	2.50	0.41
6:YG:56:ALA:CA	6:YG:153:ARG:HH22	2.09	0.41
6:YG:170:ARG:HH21	6:YG:180:PHE:CB	2.34	0.41
8:YI:62:LYS:HE2	8:YI:133:HIS:NE2	2.36	0.41
8:YI:81:VAL:HG11	8:YI:92:VAL:HG13	2.03	0.41
16:YU:8:VAL:HG11	16:YU:12:ARG:CZ	2.50	0.41
25:Y3:8:LEU:HD13	25:Y3:31:LEU:HA	2.00	0.41
26:Y4:58:ARG:NH2	44:XM:80:ARG:HH22	2.18	0.41
29:Y7:43:THR:HG23	29:Y7:44:PRO:HD2	2.03	0.41
32:XA:256:U:H2'	32:XA:257:G:H8	1.86	0.41
32:XA:261:U:OP2	51:XT:79:ARG:NH2	2.54	0.41
32:XA:452:A:HO2'	32:XA:453:A:H8	1.65	0.41
32:XA:612:C:H2'	32:XA:613:C:C6	2.55	0.41
32:XA:1030(B):G:H1'	32:XA:1030(D):G:C5	2.56	0.41
32:XA:1040:U:H2'	32:XA:1041:A:O4'	2.21	0.41
32:XA:1121:U:H2'	32:XA:1122:U:C6	2.56	0.41
32:XA:1314:C:H2'	32:XA:1315:U:C6	2.56	0.41
32:XA:1327:C:H2'	32:XA:1328:C:C6	2.56	0.41
32:XA:1437:C:H2'	32:XA:1438:G:H8	1.85	0.41
36:XE:41:VAL:HG23	36:XE:67:VAL:CG1	2.51	0.41
40:XI:20:ARG:HA	40:XI:21:PRO:HD3	1.95	0.41
41:XJ:6:ILE:HA	41:XJ:97:GLU:O	2.21	0.41
42:XK:48:ILE:HD13	42:XK:48:ILE:HA	1.85	0.41
42:XK:69:ALA:O	42:XK:73:MET:HG3	2.21	0.41
32:QA:186:C:H2'	32:QA:187:C:C6	2.56	0.41
32:QA:933:G:OP2	38:QG:3:ARG:HB2	2.20	0.41
32:QA:1201:A:H4'	32:QA:1202:G:O5'	2.21	0.41
32:QA:1225:A:H2'	32:QA:1226:C:C5	2.55	0.41
32:QA:1427:U:H2'	32:QA:1428:A:H8	1.86	0.41
32:QA:1428:A:H2'	32:QA:1429:C:C6	2.56	0.41
33:QB:30:ARG:HH22	33:QB:194:PRO:HB2	1.85	0.41
35:QD:166:LYS:HB2	35:QD:168:ARG:HH22	1.85	0.41
36:QE:41:VAL:HG23	36:QE:67:VAL:CG1	2.51	0.41
39:QH:18:ARG:HH11	39:QH:18:ARG:HD2	1.64	0.41
40:QI:56:LEU:HD13	40:QI:57:GLY:N	2.36	0.41
41:QJ:16:LEU:HD21	41:QJ:70:ARG:HG2	2.03	0.41
41:QJ:62:HIS:HB3	45:QN:59:ALA:HB3	2.02	0.41
42:QK:58:PRO:HA	42:QK:90:GLY:HA2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:11:G:C2'	1:RA:12:U:H5'	2.51	0.41
1:RA:415:A:H2'	1:RA:416:C:H6	1.86	0.41
1:RA:492:A:H2'	1:RA:493:G:O4'	2.20	0.41
1:RA:1057:A:H2'	1:RA:1058:G:C8	2.55	0.41
1:RA:1798:U:H5''	3:RD:260:ARG:HB3	2.03	0.41
1:RA:2077:A:H2'	1:RA:2078:C:H6	1.85	0.41
1:RA:2100:G:C6	1:RA:2190:G:C6	3.09	0.41
1:RA:2162:G:O3'	1:RA:2172:U:O2'	2.31	0.41
1:RA:2290:G:H2'	1:RA:2291:U:C6	2.56	0.41
1:RA:2462:U:H2'	1:RA:2463:C:H6	1.85	0.41
1:RA:2514:U:H2'	1:RA:2515:C:C6	2.56	0.41
1:RA:2532:G:O2'	1:RA:2657:A:N1	2.50	0.41
1:RA:2627:G:O2'	1:RA:2781:A:N1	2.43	0.41
1:RA:2802:G:H2'	1:RA:2803:C:O4'	2.21	0.41
1:RA:2805:G:H2'	1:RA:2807:G:C8	2.56	0.41
4:RE:170:LEU:HB3	4:RE:184:VAL:CG2	2.50	0.41
5:RF:9:ILE:CG2	5:RF:125:LEU:CD2	2.99	0.41
5:RF:33:LEU:HB3	11:RP:6:LEU:HD21	2.02	0.41
6:RG:18:GLU:CG	6:RG:175:LEU:HD21	2.51	0.41
19:RX:12:VAL:HG21	19:RX:27:THR:HG22	2.02	0.41
21:RZ:199:LYS:HG3	21:RZ:200:GLY:N	2.35	0.41
26:R4:28:LYS:HA	26:R4:29:PRO:HD3	1.89	0.41
30:R8:50:LEU:HD23	30:R8:50:LEU:HA	1.87	0.41
54:QY:215:THR:HG22	54:QY:217:PHE:CE1	2.54	0.41
1:YA:301:G:C6	1:YA:317:G:C6	3.09	0.41
1:YA:955:C:OP1	12:YQ:87:LYS:HE2	2.21	0.41
1:YA:1588:C:H2'	1:YA:1589:C:C6	2.56	0.41
1:YA:1668:A:H4'	1:YA:1669:A:O5'	2.20	0.41
1:YA:2018:G:C6	1:YA:2019:A:C6	3.09	0.41
1:YA:2689:U:P	1:YA:2719:G:H22	2.44	0.41
12:YQ:110:THR:HG23	12:YQ:113:GLN:OE1	2.20	0.41
32:XA:70:G:H2'	32:XA:71:C:H6	1.86	0.41
32:XA:518:C:N4	32:XA:530:G:O6	2.54	0.41
32:XA:1285:A:H4'	32:XA:1286:A:H5'	2.02	0.41
33:XB:97:TRP:HH2	33:XB:176:GLU:CD	2.29	0.41
35:XD:196:LEU:H	35:XD:196:LEU:HD12	1.86	0.41
40:XI:28:VAL:N	40:XI:31:GLN:O	2.52	0.41
51:XT:33:ILE:O	51:XT:37:SER:OG	2.19	0.41
32:QA:583:A:H2'	32:QA:584:G:O4'	2.21	0.41
32:QA:642:A:N3	39:QH:113:SER:OG	2.42	0.41
32:QA:687:A:C2	32:QA:704:A:C6	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:QA:1120:G:H2'	32:QA:1121:U:C6	2.55	0.41
32:QA:1207:2MG:O2'	32:QA:1208:C:OP1	2.35	0.41
32:QA:1236:A:H4'	32:QA:1304:G:H4'	2.02	0.41
32:QA:1442(A):G:H1'	32:QA:1442(B):G:OP1	2.20	0.41
34:QC:109:PRO:HB3	34:QC:115:LEU:HD23	2.02	0.41
38:QG:80:VAL:HB	38:QG:85:TYR:CD2	2.56	0.41
40:QI:20:ARG:HA	40:QI:21:PRO:HD3	1.96	0.41
1:RA:303:U:H2'	1:RA:304:G:C8	2.56	0.41
1:RA:415:A:H2'	1:RA:416:C:C6	2.57	0.41
1:RA:479:A:N3	1:RA:481:G:H5''	2.36	0.41
1:RA:506:G:O3'	1:RA:507:A:H8	2.03	0.41
1:RA:573:G:O2'	1:RA:574:C:H3'	2.21	0.41
1:RA:640:C:H2'	1:RA:641:C:C6	2.56	0.41
1:RA:863:A:H2'	1:RA:864:G:C8	2.56	0.41
1:RA:2077:A:H2'	1:RA:2078:C:C6	2.56	0.41
1:RA:2078:C:H2'	1:RA:2079:U:C6	2.56	0.41
1:RA:2317:C:H2'	1:RA:2318:G:H5'	2.03	0.41
1:RA:2593:U:H2'	1:RA:2594:C:C6	2.56	0.41
1:RA:2726:U:O2'	1:RA:2727:G:H8	2.04	0.41
1:RA:2867:G:OP2	15:RT:119:LYS:NZ	2.34	0.41
8:RI:102:SER:OG	8:RI:103:ARG:N	2.54	0.41
8:RI:134:PRO:C	8:RI:136:VAL:H	2.28	0.41
11:RP:135:LEU:HA	11:RP:135:LEU:HD23	1.73	0.41
12:RQ:16:ARG:HG3	12:RQ:17:LEU:H	1.85	0.41
15:RT:23:ARG:HH11	15:RT:23:ARG:HD3	1.69	0.41
21:RZ:31:ARG:H	21:RZ:31:ARG:HG2	1.49	0.41
22:R0:43:THR:HG23	22:R0:43:THR:O	2.21	0.41
25:R3:8:LEU:C	25:R3:8:LEU:HD13	2.46	0.41
54:QY:144:TRP:CE3	54:QY:201:LEU:HD22	2.56	0.41
1:YA:644:A:H4'	1:YA:645:C:H5	1.86	0.40
1:YA:708:C:H2'	1:YA:709:U:H6	1.84	0.40
1:YA:1068:G:H22	54:XY:58:LYS:HD2	1.86	0.40
1:YA:1084:A:N6	1:YA:1086:A:C8	2.89	0.40
1:YA:1388:G:H2'	1:YA:1389:G:C8	2.52	0.40
1:YA:1721:G:N1	1:YA:1739:U:OP2	2.54	0.40
4:YE:52:LEU:HB3	4:YE:53:PRO:CD	2.50	0.40
13:YR:67:LEU:HD12	13:YR:67:LEU:HA	1.97	0.40
18:YW:1:MET:HE2	18:YW:62:HIS:HB3	2.03	0.40
19:YX:94:GLY:HA3	19:YX:95:LEU:O	2.21	0.40
32:XA:253:U:H2'	32:XA:254:G:C8	2.55	0.40
32:XA:993:G:O2'	32:XA:994:A:N7	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:XA:1132:C:C2	32:XA:1133:G:C8	3.09	0.40
34:XC:12:LEU:CD1	45:XN:51:GLY:HA2	2.49	0.40
39:XH:91:ARG:HH11	39:XH:91:ARG:HD3	1.64	0.40
40:XI:5:TYR:HE1	40:XI:16:ARG:HB3	1.86	0.40
43:XL:10:LEU:HD23	43:XL:10:LEU:HA	1.97	0.40
47:XP:3:LYS:HD2	47:XP:24:ALA:HB2	2.03	0.40
47:XP:17:TYR:HE1	47:XP:41:PRO:HG3	1.85	0.40
47:XP:23:ASP:OD1	47:XP:25:ARG:HD3	2.21	0.40
47:XP:53:VAL:HG13	47:XP:79:VAL:HA	2.04	0.40
32:QA:653:A:OP1	39:QH:56:LYS:NZ	2.54	0.40
32:QA:953:G:C6	32:QA:1229:A:C6	3.09	0.40
32:QA:1090:U:H2'	32:QA:1091:U:C6	2.56	0.40
32:QA:1363(B):A:H4'	32:QA:1364:U:H2'	2.04	0.40
33:QB:133:LYS:HA	33:QB:133:LYS:HD2	1.95	0.40
34:QC:32:LEU:HD22	34:QC:59:ARG:HH11	1.86	0.40
35:QD:188:LEU:HA	35:QD:189:PRO:HD3	1.63	0.40
38:QG:45:ASP:O	38:QG:49:ILE:HG13	2.22	0.40
47:QP:25:ARG:HH11	47:QP:25:ARG:HG3	1.86	0.40
1:RA:1153:C:H2'	1:RA:1154:G:O4'	2.22	0.40
1:RA:1636:C:H2'	1:RA:1637:A:C8	2.56	0.40
3:RD:71:ASP:OD2	3:RD:103:ARG:NH1	2.53	0.40
3:RD:102:LYS:O	3:RD:103:ARG:HG2	2.20	0.40
5:RF:129:PHE:CD2	5:RF:163:VAL:HG21	2.56	0.40
18:RW:17:VAL:HG23	18:RW:76:VAL:HG11	2.02	0.40
54:QY:326:TYR:CD1	54:QY:326:TYR:N	2.87	0.40
54:XY:326:TYR:CD1	54:XY:326:TYR:N	2.89	0.40
1:YA:483:A:O4'	20:YY:48:ALA:HB1	2.21	0.40
1:YA:2182:G:H2'	1:YA:2183:C:C6	2.56	0.40
6:YG:5:VAL:CG2	6:YG:8:LYS:CB	2.99	0.40
6:YG:82:LEU:HA	6:YG:86:MET:SD	2.61	0.40
8:YI:114:LEU:HD11	8:YI:128:LEU:HD13	2.04	0.40
12:YQ:55:VAL:HG23	21:YZ:178:GLU:HB3	2.02	0.40
23:Y1:70:VAL:O	23:Y1:74:VAL:HG23	2.21	0.40
26:Y4:14:ILE:HB	26:Y4:22:ILE:HB	2.03	0.40
26:Y4:48:ARG:HB3	26:Y4:52:THR:HA	2.03	0.40
26:Y4:61:ARG:NH2	50:XS:9:VAL:HG11	2.37	0.40
32:XA:390:C:H2'	32:XA:391:G:C8	2.55	0.40
32:XA:407:G:H5''	35:XD:115:ARG:HB3	2.03	0.40
32:XA:1143:G:H2'	32:XA:1144:G:C8	2.55	0.40
32:XA:1516:G:H2'	32:XA:1518:MA6:OP2	2.21	0.40
33:XB:19:HIS:O	33:XB:20:GLU:HB2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:XB:33:TYR:HB3	33:XB:41:ILE:HG22	2.03	0.40
33:XB:118:LEU:HD23	33:XB:118:LEU:HA	1.89	0.40
34:XC:11:ARG:NH2	34:XC:177:THR:O	2.50	0.40
36:XE:31:LEU:HD23	36:XE:31:LEU:HA	1.93	0.40
36:XE:69:VAL:HA	36:XE:70:PRO:HD3	1.64	0.40
40:XI:48:GLU:CD	40:XI:51:ARG:HD2	2.47	0.40
40:XI:54:ASP:C	40:XI:56:LEU:H	2.29	0.40
47:XP:75:ARG:HG3	47:XP:80:PHE:HD2	1.86	0.40
50:XS:20:LEU:HA	50:XS:23:ASN:HB2	2.03	0.40
32:QA:152:A:H3'	32:QA:153:C:C6	2.56	0.40
32:QA:439:A:C5	32:QA:441:A:H1'	2.56	0.40
32:QA:513:C:H2'	32:QA:514:C:H6	1.86	0.40
32:QA:523:A:N1	43:QL:92:OTD:H6	2.36	0.40
32:QA:921:U:O2'	36:QE:19:MET:O	2.39	0.40
32:QA:1014:A:C2	32:QA:1219:U:H1'	2.55	0.40
33:QB:47:THR:HA	33:QB:202:PRO:HG2	2.02	0.40
33:QB:124:SER:HA	33:QB:125:PRO:HA	1.77	0.40
35:QD:116:GLN:NE2	35:QD:157:LEU:HD11	2.36	0.40
36:QE:90:VAL:O	36:QE:120:THR:HA	2.21	0.40
40:QI:65:VAL:HG22	40:QI:73:GLN:HG2	2.03	0.40
41:QJ:4:ILE:N	41:QJ:100:THR:HG22	2.37	0.40
43:QL:71:PRO:O	43:QL:102:ARG:NH1	2.54	0.40
1:RA:27:G:O2'	1:RA:28:A:OP2	2.35	0.40
1:RA:84:A:C2	1:RA:103:A:C5	3.09	0.40
1:RA:225:A:O2'	1:RA:257:A:H4'	2.22	0.40
1:RA:284:U:H2'	1:RA:285:C:H6	1.84	0.40
1:RA:898:C:H2'	1:RA:899:A:O4'	2.21	0.40
1:RA:1049:C:O2	1:RA:1113:U:H4'	2.21	0.40
1:RA:1092:C:OP2	1:RA:1092:C:H6	2.04	0.40
1:RA:1105:U:H2'	1:RA:1106:G:C8	2.56	0.40
1:RA:1201:C:H2'	1:RA:1202:C:C6	2.56	0.40
1:RA:1417:C:H2'	1:RA:1418:G:O4'	2.22	0.40
1:RA:2144:U:O2'	1:RA:2147:G:N1	2.49	0.40
6:RG:121:ASN:HA	6:RG:122:PRO:HD3	1.80	0.40
12:RQ:84:GLY:O	12:RQ:85:LYS:HB2	2.21	0.40
14:RS:3:ARG:HE	14:RS:3:ARG:CA	2.34	0.40
53:QV:4:G:O2'	53:QV:5:G:H8	2.03	0.40
1:YA:443:A:H1'	1:YA:1201:C:O4'	2.20	0.40
1:YA:533:G:H5'	16:YU:24:TYR:CE1	2.57	0.40
1:YA:872:A:H2'	1:YA:873:G:C8	2.56	0.40
1:YA:2243:U:H2'	1:YA:2244:U:H6	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:YF:28:ILE:O	5:YF:30:PRO:HD3	2.22	0.40
8:YI:117:GLU:HG3	8:YI:118:LYS:N	2.37	0.40
13:YR:21:TYR:OH	13:YR:43:GLU:HG2	2.21	0.40
17:YV:5:VAL:HG11	17:YV:57:VAL:HG21	2.04	0.40
26:Y4:58:ARG:NH1	50:XS:66:MET:HA	2.29	0.40
26:Y4:58:ARG:HH12	50:XS:66:MET:CA	2.30	0.40
32:XA:300:A:H1'	32:XA:565:U:O2	2.20	0.40
32:XA:476:G:H2'	32:XA:477:A:H8	1.86	0.40
32:XA:721:G:H4'	32:XA:722:A:O4'	2.22	0.40
44:XM:89:GLY:O	44:XM:93:ARG:HG3	2.22	0.40
51:XT:56:MET:HE3	51:XT:88:VAL:HG21	2.02	0.40
32:QA:1103:C:H2'	32:QA:1104:G:O4'	2.21	0.40
1:RA:151:C:H2'	1:RA:152:G:H8	1.87	0.40
1:RA:2144:U:H5''	1:RA:2145:C:C5	2.57	0.40
1:RA:2168:G:H2'	1:RA:2170:A:OP2	2.22	0.40
2:RB:31:C:H4'	6:RG:29:TRP:CH2	2.57	0.40
5:RF:13:SER:HG	5:RF:127:GLU:CD	2.29	0.40
6:RG:126:ASP:HB2	6:RG:130:ASN:H	1.86	0.40
15:RT:35:LYS:HE2	15:RT:35:LYS:O	2.22	0.40
16:RU:61:TRP:CH2	16:RU:93:LYS:HB2	2.57	0.40
54:QY:315:SER:HA	54:QY:316:ASP:HA	1.65	0.40
54:XY:217:PHE:CZ	54:XY:319:TRP:HA	2.57	0.40
1:YA:987:G:H2'	1:YA:988:A:O4'	2.22	0.40
1:YA:1939:5MU:OP1	1:YA:2604:U:O2'	2.38	0.40
1:YA:2193:G:H2'	1:YA:2194:G:C8	2.56	0.40
1:YA:2784:C:H1'	4:YE:37:ARG:NH1	2.35	0.40
6:YG:166:ASP:O	6:YG:170:ARG:N	2.45	0.40
14:YS:69:VAL:HG13	14:YS:101:LEU:HD12	2.03	0.40
32:XA:70:G:H2'	32:XA:71:C:C6	2.56	0.40
32:XA:250:A:H4'	32:XA:251:G:O5'	2.20	0.40
32:XA:1330:U:H4'	44:XM:23:TYR:CE1	2.57	0.40
42:XK:116:HIS:N	42:XK:117:ASN:HA	2.37	0.40
44:XM:16:ASP:OD1	44:XM:16:ASP:N	2.53	0.40
44:XM:35:GLU:O	44:XM:38:GLY:N	2.52	0.40
47:XP:2:VAL:HG13	47:XP:64:ALA:HA	2.03	0.40
32:QA:1158:C:H5	32:QA:1181:G:H22	1.69	0.40
32:QA:1441:G:H5''	32:QA:1442(A):G:H5'	2.03	0.40
38:QG:23:VAL:HG13	38:QG:43:PHE:CE2	2.57	0.40
38:QG:56:GLN:O	38:QG:58:PRO:HD3	2.21	0.40
50:QS:12:ASP:OD2	50:QS:35:SER:HB3	2.21	0.40
1:RA:55:G:C2	1:RA:116:C:C2	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:RA:476:G:N1	1:RA:479:A:OP2	2.51	0.40
1:RA:614(A):U:H2'	1:RA:614(B):U:O4'	2.22	0.40
1:RA:2065:C:C2	1:RA:2066:C:C5	3.10	0.40
1:RA:2071:A:H2'	1:RA:2072:G:H8	1.86	0.40
1:RA:2321:G:H2'	1:RA:2321:G:N3	2.36	0.40
1:RA:2649:U:H2'	1:RA:2650:U:C6	2.56	0.40
1:RA:2741:A:H2'	1:RA:2742:C:O4'	2.22	0.40
2:RB:29:A:H2'	2:RB:30:C:C6	2.56	0.40
5:RF:103:LYS:O	5:RF:106:ARG:HG2	2.22	0.40
5:RF:136:THR:O	5:RF:140:LEU:CD2	2.70	0.40
5:RF:170:LEU:HD23	5:RF:172:TRP:CE2	2.56	0.40
5:RF:172:TRP:CD1	5:RF:172:TRP:H	2.39	0.40
6:RG:59:GLU:CD	6:RG:138:GLN:HE21	2.28	0.40
10:RO:23:ARG:HG3	10:RO:24:VAL:N	2.35	0.40
10:RO:64:ARG:NH2	10:RO:99:PHE:O	2.55	0.40
12:RQ:32:TYR:OH	12:RQ:111:GLU:OE1	2.21	0.40
15:RT:105:LEU:HA	15:RT:105:LEU:HD23	1.85	0.40
19:RX:35:THR:HG22	19:RX:37:THR:H	1.85	0.40
1:YA:642:G:N2	1:YA:644:A:H3'	2.36	0.40
1:YA:1588:C:H2'	1:YA:1589:C:H6	1.86	0.40
1:YA:1629:U:H2'	1:YA:1630:G:C8	2.56	0.40
1:YA:2247:A:H2'	1:YA:2248:C:H6	1.85	0.40
1:YA:2262:U:H4'	1:YA:2328:A:C2	2.57	0.40
9:YN:138:LEU:HD23	9:YN:138:LEU:HA	1.97	0.40
15:YT:23:ARG:HG3	15:YT:120:ARG:NH1	2.37	0.40
21:YZ:5:LEU:HD23	21:YZ:47:VAL:HG21	2.04	0.40
21:YZ:25:PRO:O	21:YZ:85:HIS:HA	2.22	0.40
25:Y3:3:ARG:NH1	25:Y3:60:GLU:HA	2.36	0.40
32:XA:36:C:OP1	43:XL:123:LYS:HE2	2.21	0.40
32:XA:687:A:H1'	32:XA:688:G:OP2	2.22	0.40
33:XB:184:VAL:C	33:XB:185:ILE:HD13	2.47	0.40
35:XD:122:ARG:HH11	35:XD:122:ARG:HD2	1.67	0.40
39:XH:6:ILE:O	39:XH:10:LEU:HG	2.21	0.40
32:QA:1065:U:H1'	32:QA:1066:C:OP2	2.22	0.40
32:QA:1291:G:OP1	38:QG:37:ASN:ND2	2.55	0.40
32:QA:1498:UR3:H6	32:QA:1498:UR3:O5'	2.21	0.40
33:QB:211:ILE:H	33:QB:211:ILE:HG13	1.73	0.40
35:QD:121:VAL:O	35:QD:134:ASP:HA	2.22	0.40
38:QG:8:GLU:CD	38:QG:8:GLU:H	2.29	0.40
47:QP:40:ASP:HA	47:QP:41:PRO:HD2	1.91	0.40
50:QS:65:ASN:O	26:R4:58:ARG:CD	2.70	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:QS:71:LEU:HD23	50:QS:71:LEU:HA	1.83	0.40
51:QT:36:LEU:HD12	51:QT:62:LEU:HD12	2.04	0.40
51:QT:92:LEU:O	51:QT:96:GLY:N	2.45	0.40
1:RA:536:A:H2'	1:RA:537:C:H6	1.87	0.40
1:RA:719:C:H2'	1:RA:720:C:C6	2.57	0.40
1:RA:1033:U:O2'	1:RA:2750:A:N6	2.54	0.40
1:RA:1340:U:OP1	19:RX:16:LYS:NZ	2.46	0.40
1:RA:2024:G:H2'	1:RA:2025:C:H6	1.85	0.40
1:RA:2329:G:H2'	1:RA:2330:G:C8	2.56	0.40
1:RA:2630:G:H2'	1:RA:2631:G:C8	2.57	0.40
5:RF:116:ASP:OD1	5:RF:119:ARG:NH2	2.48	0.40
8:RI:29:TYR:O	8:RI:32:PRO:HD2	2.21	0.40
20:RY:19:LYS:HE2	20:RY:19:LYS:HB3	1.84	0.40
20:RY:56:PRO:C	20:RY:58:GLY:H	2.29	0.40
54:XY:129:TYR:HD1	54:XY:182:LYS:HA	1.87	0.40

All (17) symmetry-related close contacts are listed below. The label for Atom-2 includes the symmetry operator and encoded unit-cell translations to be applied.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:YH:46:GLU:OE1	20:YY:22:GLY:C[4_445]	0.78	1.42
7:YH:46:GLU:OE1	20:YY:22:GLY:O[4_445]	1.12	1.08
17:YV:53:GLU:OE2	27:Y5:59:GLU:CB[4_445]	1.14	1.06
17:YV:53:GLU:OE1	27:Y5:59:GLU:CG[4_445]	1.40	0.80
7:YH:46:GLU:CD	20:YY:22:GLY:O[4_445]	1.50	0.70
7:YH:46:GLU:OE1	20:YY:23:ARG:N[4_445]	1.56	0.64
17:YV:53:GLU:CD	27:Y5:59:GLU:CB[4_445]	1.60	0.60
17:YV:49:THR:O	27:Y5:60:VAL:O[4_445]	1.77	0.43
17:YV:53:GLU:OE2	27:Y5:59:GLU:CA[4_445]	1.88	0.32
20:YY:92:ASN:ND2	18:RW:59:VAL:O[3_545]	1.95	0.25
7:YH:46:GLU:CD	20:YY:22:GLY:C[4_445]	1.97	0.23
17:YV:53:GLU:CD	27:Y5:59:GLU:CG[4_445]	1.99	0.21
1:YA:277:C:O2'	24:R2:46:GLN:OE1[3_545]	2.00	0.20
7:YH:46:GLU:OE1	20:YY:22:GLY:CA[4_445]	2.00	0.20
7:YH:46:GLU:OE2	20:YY:23:ARG:CA[4_445]	2.02	0.18
17:YV:53:GLU:OE1	27:Y5:59:GLU:CB[4_445]	2.02	0.18
17:YV:53:GLU:OE2	27:Y5:59:GLU:C[4_445]	2.18	0.02

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	RD	273/276 (99%)	262 (96%)	11 (4%)	0	100	100
3	YD	273/276 (99%)	260 (95%)	13 (5%)	0	100	100
4	RE	202/206 (98%)	195 (96%)	6 (3%)	1 (0%)	24	55
4	YE	202/206 (98%)	196 (97%)	6 (3%)	0	100	100
5	RF	201/210 (96%)	197 (98%)	4 (2%)	0	100	100
5	YF	201/210 (96%)	196 (98%)	3 (2%)	2 (1%)	12	40
6	RG	179/182 (98%)	167 (93%)	11 (6%)	1 (1%)	21	52
6	YG	179/182 (98%)	170 (95%)	8 (4%)	1 (1%)	21	52
7	RH	172/180 (96%)	167 (97%)	5 (3%)	0	100	100
7	YH	171/180 (95%)	165 (96%)	6 (4%)	0	100	100
8	RI	145/148 (98%)	133 (92%)	11 (8%)	1 (1%)	18	49
8	YI	144/148 (97%)	135 (94%)	9 (6%)	0	100	100
9	RN	138/140 (99%)	136 (99%)	2 (1%)	0	100	100
9	YN	138/140 (99%)	136 (99%)	2 (1%)	0	100	100
10	RO	120/122 (98%)	114 (95%)	6 (5%)	0	100	100
10	YO	120/122 (98%)	115 (96%)	5 (4%)	0	100	100
11	RP	147/150 (98%)	141 (96%)	6 (4%)	0	100	100
11	YP	147/150 (98%)	141 (96%)	5 (3%)	1 (1%)	18	49
12	RQ	139/141 (99%)	134 (96%)	5 (4%)	0	100	100
12	YQ	139/141 (99%)	134 (96%)	5 (4%)	0	100	100
13	RR	116/118 (98%)	113 (97%)	3 (3%)	0	100	100
13	YR	116/118 (98%)	113 (97%)	3 (3%)	0	100	100
14	RS	108/112 (96%)	104 (96%)	3 (3%)	1 (1%)	14	43
14	YS	108/112 (96%)	105 (97%)	3 (3%)	0	100	100
15	RT	129/146 (88%)	124 (96%)	5 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
15	YT	129/146 (88%)	125 (97%)	4 (3%)	0	100	100
16	RU	114/118 (97%)	114 (100%)	0	0	100	100
16	YU	114/118 (97%)	114 (100%)	0	0	100	100
17	RV	99/101 (98%)	97 (98%)	2 (2%)	0	100	100
17	YV	99/101 (98%)	96 (97%)	3 (3%)	0	100	100
18	RW	110/113 (97%)	109 (99%)	1 (1%)	0	100	100
18	YW	110/113 (97%)	110 (100%)	0	0	100	100
19	RX	93/96 (97%)	92 (99%)	1 (1%)	0	100	100
19	YX	93/96 (97%)	91 (98%)	2 (2%)	0	100	100
20	RY	105/110 (96%)	99 (94%)	6 (6%)	0	100	100
20	YY	105/110 (96%)	101 (96%)	4 (4%)	0	100	100
21	RZ	201/206 (98%)	196 (98%)	5 (2%)	0	100	100
21	YZ	199/206 (97%)	194 (98%)	5 (2%)	0	100	100
22	R0	75/85 (88%)	73 (97%)	2 (3%)	0	100	100
22	Y0	75/85 (88%)	73 (97%)	2 (3%)	0	100	100
23	R1	95/98 (97%)	94 (99%)	0	1 (1%)	11	39
23	Y1	95/98 (97%)	93 (98%)	1 (1%)	1 (1%)	11	39
24	R2	68/72 (94%)	67 (98%)	1 (2%)	0	100	100
24	Y2	68/72 (94%)	67 (98%)	1 (2%)	0	100	100
25	R3	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
25	Y3	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
26	R4	67/71 (94%)	55 (82%)	6 (9%)	6 (9%)	0	4
26	Y4	67/71 (94%)	53 (79%)	11 (16%)	3 (4%)	2	13
27	R5	57/60 (95%)	55 (96%)	2 (4%)	0	100	100
27	Y5	57/60 (95%)	56 (98%)	1 (2%)	0	100	100
28	R6	51/54 (94%)	49 (96%)	2 (4%)	0	100	100
28	Y6	51/54 (94%)	49 (96%)	2 (4%)	0	100	100
29	R7	46/49 (94%)	46 (100%)	0	0	100	100
29	Y7	46/49 (94%)	46 (100%)	0	0	100	100
30	R8	62/65 (95%)	61 (98%)	1 (2%)	0	100	100
30	Y8	62/65 (95%)	61 (98%)	1 (2%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
31	R9	35/37 (95%)	35 (100%)	0	0	100	100
31	Y9	35/37 (95%)	35 (100%)	0	0	100	100
33	QB	229/256 (90%)	202 (88%)	20 (9%)	7 (3%)	3	20
33	XB	229/256 (90%)	205 (90%)	19 (8%)	5 (2%)	5	26
34	QC	204/239 (85%)	190 (93%)	14 (7%)	0	100	100
34	XC	204/239 (85%)	187 (92%)	17 (8%)	0	100	100
35	QD	206/209 (99%)	197 (96%)	9 (4%)	0	100	100
35	XD	206/209 (99%)	199 (97%)	7 (3%)	0	100	100
36	QE	146/162 (90%)	144 (99%)	2 (1%)	0	100	100
36	XE	146/162 (90%)	145 (99%)	1 (1%)	0	100	100
37	QF	98/101 (97%)	96 (98%)	2 (2%)	0	100	100
37	XF	98/101 (97%)	96 (98%)	2 (2%)	0	100	100
38	QG	153/156 (98%)	148 (97%)	5 (3%)	0	100	100
38	XG	153/156 (98%)	148 (97%)	4 (3%)	1 (1%)	18	49
39	QH	135/138 (98%)	133 (98%)	2 (2%)	0	100	100
39	XH	135/138 (98%)	131 (97%)	4 (3%)	0	100	100
40	QI	125/128 (98%)	115 (92%)	9 (7%)	1 (1%)	16	45
40	XI	124/128 (97%)	113 (91%)	8 (6%)	3 (2%)	4	24
41	QJ	95/105 (90%)	83 (87%)	8 (8%)	4 (4%)	2	14
41	XJ	94/105 (90%)	85 (90%)	7 (7%)	2 (2%)	5	26
42	QK	112/129 (87%)	103 (92%)	7 (6%)	2 (2%)	6	29
42	XK	112/129 (87%)	106 (95%)	5 (4%)	1 (1%)	14	43
43	QL	119/132 (90%)	117 (98%)	2 (2%)	0	100	100
43	XL	119/132 (90%)	116 (98%)	3 (2%)	0	100	100
44	QM	114/126 (90%)	105 (92%)	7 (6%)	2 (2%)	6	29
44	XM	112/126 (89%)	105 (94%)	6 (5%)	1 (1%)	14	43
45	QN	58/61 (95%)	56 (97%)	2 (3%)	0	100	100
45	XN	58/61 (95%)	56 (97%)	2 (3%)	0	100	100
46	QO	86/89 (97%)	82 (95%)	4 (5%)	0	100	100
46	XO	86/89 (97%)	82 (95%)	4 (5%)	0	100	100
47	QP	80/88 (91%)	77 (96%)	3 (4%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
47	XP	80/88 (91%)	76 (95%)	4 (5%)	0	100	100
48	QQ	97/105 (92%)	94 (97%)	2 (2%)	1 (1%)	12	40
48	XQ	97/105 (92%)	95 (98%)	2 (2%)	0	100	100
49	QR	66/88 (75%)	65 (98%)	1 (2%)	0	100	100
49	XR	66/88 (75%)	65 (98%)	1 (2%)	0	100	100
50	QS	81/93 (87%)	78 (96%)	3 (4%)	0	100	100
50	XS	81/93 (87%)	79 (98%)	2 (2%)	0	100	100
51	QT	94/106 (89%)	86 (92%)	6 (6%)	2 (2%)	5	26
51	XT	96/106 (91%)	88 (92%)	6 (6%)	2 (2%)	5	26
52	QU	21/27 (78%)	19 (90%)	2 (10%)	0	100	100
52	XU	21/27 (78%)	19 (90%)	1 (5%)	1 (5%)	2	12
54	QY	354/380 (93%)	309 (87%)	37 (10%)	8 (2%)	5	25
54	XY	354/380 (93%)	309 (87%)	36 (10%)	9 (2%)	4	23
All	All	12148/12888 (94%)	11573 (95%)	504 (4%)	71 (1%)	21	52

All (71) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
23	Y1	3	LYS
33	XB	17	PHE
33	XB	20	GLU
33	XB	124	SER
40	XI	44	VAL
40	XI	54	ASP
33	QB	16	HIS
33	QB	17	PHE
33	QB	22	LYS
51	QT	95	ALA
26	R4	49	PHE
54	QY	127	ASP
54	QY	139	THR
54	XY	127	ASP
54	XY	336	LEU
6	YG	81	LYS
26	Y4	60	GLN
33	XB	10	LEU
41	XJ	79	ARG

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Mol	Chain	Res	Type
44	XM	67	GLU
51	XT	95	ALA
40	QI	44	VAL
41	QJ	31	GLY
41	QJ	78	ASN
41	QJ	79	ARG
6	RG	51	ARG
14	RS	60	GLY
26	R4	45	GLY
26	R4	47	GLN
54	QY	122	GLU
54	QY	229	ASP
54	QY	336	LEU
54	XY	122	GLU
54	XY	134	ALA
5	YF	21	ALA
26	Y4	45	GLY
33	XB	125	PRO
41	XJ	78	ASN
44	QM	12	ASN
4	RE	52	LEU
54	XY	319	TRP
38	XG	7	ALA
33	QB	20	GLU
44	QM	67	GLU
26	R4	46	GLN
26	R4	55	ARG
54	QY	226	VAL
54	XY	137	GLY
54	XY	230	ILE
5	YF	130	ALA
26	Y4	55	ARG
51	XT	100	ILE
52	XU	7	ARG
33	QB	43	ASP
33	QB	127	ILE
42	QK	117	ASN
8	RI	73	GLU
23	R1	3	LYS
26	R4	60	GLN
54	XY	121	GLY
11	YP	29	LYS

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Mol	Chain	Res	Type
40	XI	11	LYS
48	QQ	68	ARG
51	QT	100	ILE
54	QY	121	GLY
54	QY	230	ILE
54	XY	320	GLY
42	XK	105	VAL
42	QK	105	VAL
33	QB	15	VAL
41	QJ	77	PRO

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	RD	214/218 (98%)	214 (100%)	0	100	100
3	YD	215/218 (99%)	215 (100%)	0	100	100
4	RE	164/166 (99%)	164 (100%)	0	100	100
4	YE	164/166 (99%)	163 (99%)	1 (1%)	78	81
5	RF	160/166 (96%)	159 (99%)	1 (1%)	78	81
5	YF	159/166 (96%)	159 (100%)	0	100	100
6	RG	144/156 (92%)	144 (100%)	0	100	100
6	YG	142/156 (91%)	142 (100%)	0	100	100
7	RH	144/148 (97%)	144 (100%)	0	100	100
7	YH	143/148 (97%)	143 (100%)	0	100	100
8	RI	111/124 (90%)	111 (100%)	0	100	100
8	YI	108/124 (87%)	108 (100%)	0	100	100
9	RN	119/119 (100%)	119 (100%)	0	100	100
9	YN	118/119 (99%)	117 (99%)	1 (1%)	73	79
10	RO	100/100 (100%)	100 (100%)	0	100	100
10	YO	100/100 (100%)	100 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
11	RP	115/116 (99%)	115 (100%)	0	100	100
11	YP	115/116 (99%)	115 (100%)	0	100	100
12	RQ	111/111 (100%)	110 (99%)	1 (1%)	70	78
12	YQ	111/111 (100%)	110 (99%)	1 (1%)	70	78
13	RR	101/101 (100%)	101 (100%)	0	100	100
13	YR	101/101 (100%)	101 (100%)	0	100	100
14	RS	87/88 (99%)	87 (100%)	0	100	100
14	YS	85/88 (97%)	85 (100%)	0	100	100
15	RT	115/127 (91%)	115 (100%)	0	100	100
15	YT	113/127 (89%)	113 (100%)	0	100	100
16	RU	93/94 (99%)	93 (100%)	0	100	100
16	YU	93/94 (99%)	93 (100%)	0	100	100
17	RV	81/82 (99%)	81 (100%)	0	100	100
17	YV	80/82 (98%)	80 (100%)	0	100	100
18	RW	90/92 (98%)	90 (100%)	0	100	100
18	YW	90/92 (98%)	90 (100%)	0	100	100
19	RX	77/78 (99%)	77 (100%)	0	100	100
19	YX	77/78 (99%)	77 (100%)	0	100	100
20	RY	86/91 (94%)	86 (100%)	0	100	100
20	YY	86/91 (94%)	86 (100%)	0	100	100
21	RZ	169/179 (94%)	169 (100%)	0	100	100
21	YZ	165/179 (92%)	164 (99%)	1 (1%)	78	81
22	R0	61/67 (91%)	61 (100%)	0	100	100
22	Y0	61/67 (91%)	61 (100%)	0	100	100
23	R1	79/83 (95%)	79 (100%)	0	100	100
23	Y1	81/83 (98%)	81 (100%)	0	100	100
24	R2	65/67 (97%)	65 (100%)	0	100	100
24	Y2	66/67 (98%)	66 (100%)	0	100	100
25	R3	51/52 (98%)	51 (100%)	0	100	100
25	Y3	50/52 (96%)	50 (100%)	0	100	100
26	R4	58/63 (92%)	58 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
26	Y4	54/63 (86%)	54 (100%)	0	100	100
27	R5	51/52 (98%)	51 (100%)	0	100	100
27	Y5	50/52 (96%)	50 (100%)	0	100	100
28	R6	51/52 (98%)	51 (100%)	0	100	100
28	Y6	50/52 (96%)	50 (100%)	0	100	100
29	R7	41/42 (98%)	40 (98%)	1 (2%)	43	65
29	Y7	41/42 (98%)	40 (98%)	1 (2%)	43	65
30	R8	54/55 (98%)	54 (100%)	0	100	100
30	Y8	54/55 (98%)	54 (100%)	0	100	100
31	R9	34/34 (100%)	34 (100%)	0	100	100
31	Y9	34/34 (100%)	34 (100%)	0	100	100
33	QB	191/220 (87%)	191 (100%)	0	100	100
33	XB	187/220 (85%)	186 (100%)	1 (0%)	81	83
34	QC	144/188 (77%)	144 (100%)	0	100	100
34	XC	140/188 (74%)	140 (100%)	0	100	100
35	QD	171/181 (94%)	171 (100%)	0	100	100
35	XD	172/181 (95%)	172 (100%)	0	100	100
36	QE	114/123 (93%)	114 (100%)	0	100	100
36	XE	114/123 (93%)	114 (100%)	0	100	100
37	QF	85/90 (94%)	85 (100%)	0	100	100
37	XF	85/90 (94%)	85 (100%)	0	100	100
38	QG	120/127 (94%)	120 (100%)	0	100	100
38	XG	119/127 (94%)	119 (100%)	0	100	100
39	QH	116/119 (98%)	116 (100%)	0	100	100
39	XH	114/119 (96%)	114 (100%)	0	100	100
40	QI	91/99 (92%)	90 (99%)	1 (1%)	65	76
40	XI	88/99 (89%)	88 (100%)	0	100	100
41	QJ	68/92 (74%)	68 (100%)	0	100	100
41	XJ	68/92 (74%)	68 (100%)	0	100	100
42	QK	83/99 (84%)	83 (100%)	0	100	100
42	XK	83/99 (84%)	83 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
43	QL	96/108 (89%)	96 (100%)	0	100	100
43	XL	96/108 (89%)	96 (100%)	0	100	100
44	QM	90/101 (89%)	90 (100%)	0	100	100
44	XM	87/101 (86%)	87 (100%)	0	100	100
45	QN	49/50 (98%)	49 (100%)	0	100	100
45	XN	49/50 (98%)	49 (100%)	0	100	100
46	QO	78/80 (98%)	78 (100%)	0	100	100
46	XO	78/80 (98%)	78 (100%)	0	100	100
47	QP	69/74 (93%)	69 (100%)	0	100	100
47	XP	68/74 (92%)	68 (100%)	0	100	100
48	QQ	94/97 (97%)	94 (100%)	0	100	100
48	XQ	94/97 (97%)	94 (100%)	0	100	100
49	QR	59/77 (77%)	59 (100%)	0	100	100
49	XR	59/77 (77%)	59 (100%)	0	100	100
50	QS	68/80 (85%)	68 (100%)	0	100	100
50	XS	67/80 (84%)	67 (100%)	0	100	100
51	QT	71/82 (87%)	71 (100%)	0	100	100
51	XT	70/82 (85%)	70 (100%)	0	100	100
52	QU	18/22 (82%)	18 (100%)	0	100	100
52	XU	18/22 (82%)	18 (100%)	0	100	100
54	QY	303/323 (94%)	301 (99%)	2 (1%)	76	80
54	XY	303/323 (94%)	301 (99%)	2 (1%)	76	80
All	All	9969/10710 (93%)	9955 (100%)	14 (0%)	88	90

All (14) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	YE	144	ARG
9	YN	137	LYS
12	YQ	75	THR
21	YZ	72	ARG
29	Y7	43	THR
33	XB	119	GLU
40	QI	27	THR

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Mol	Chain	Res	Type
5	RF	53	THR
12	RQ	75	THR
29	R7	43	THR
54	QY	217	PHE
54	QY	326	TYR
54	XY	217	PHE
54	XY	326	TYR

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (63) such sidechains are listed below:

Mol	Chain	Res	Type
6	YG	132	ASN
9	YN	56	ASN
9	YN	131	GLN
11	YP	70	GLN
12	YQ	141	GLN
15	YT	43	GLN
16	YU	94	ASN
19	YX	41	ASN
21	YZ	75	ASN
21	YZ	85	HIS
22	Y0	35	ASN
22	Y0	70	GLN
24	Y2	9	GLN
24	Y2	56	GLN
26	Y4	40	HIS
26	Y4	60	GLN
28	Y6	20	ASN
33	XB	16	HIS
33	XB	19	HIS
33	XB	45	GLN
34	XC	6	HIS
36	XE	127	ASN
37	XF	100	ASN
38	XG	64	GLN
38	XG	86	GLN
38	XG	148	ASN
42	XK	104	GLN
44	XM	92	HIS
48	XQ	16	GLN
48	XQ	45	HIS
50	XS	23	ASN

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Mol	Chain	Res	Type
51	XT	18	GLN
33	QB	76	GLN
34	QC	37	GLN
34	QC	123	GLN
35	QD	160	GLN
37	QF	94	GLN
38	QG	56	GLN
38	QG	106	GLN
40	QI	89	ASN
41	QJ	68	HIS
42	QK	38	ASN
42	QK	93	GLN
47	QP	13	HIS
50	QS	14	HIS
50	QS	57	HIS
51	QT	42	GLN
51	QT	75	ASN
9	RN	94	HIS
13	RR	50	HIS
13	RR	61	HIS
15	RT	84	GLN
22	R0	35	ASN
26	R4	47	GLN
28	R6	20	ASN
30	R8	35	GLN
54	QY	214	HIS
54	QY	255	ASN
54	QY	281	HIS
54	QY	290	GLN
54	QY	304	ASN
54	XY	276	ASN
54	XY	286	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	RA	2858/2915 (98%)	427 (14%)	21 (0%)
1	YA	2858/2915 (98%)	429 (15%)	24 (0%)
2	RB	119/122 (97%)	10 (8%)	0
2	YB	119/122 (97%)	12 (10%)	0
32	QA	1497/1521 (98%)	222 (14%)	14 (0%)

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Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
32	XA	1501/1521 (98%)	234 (15%)	18 (1%)
53	QV	76/77 (98%)	19 (25%)	1 (1%)
53	XV	76/77 (98%)	18 (23%)	1 (1%)
55	QX	5/25 (20%)	1 (20%)	0
55	XX	5/25 (20%)	1 (20%)	0
All	All	9114/9320 (97%)	1373 (15%)	79 (0%)

All (1373) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	YA	10	G
1	YA	11	G
1	YA	12	U
1	YA	15	G
1	YA	34	C
1	YA	45	C
1	YA	51	G
1	YA	71	A
1	YA	74	A
1	YA	75	G
1	YA	84	A
1	YA	95	G
1	YA	102	G
1	YA	118	A
1	YA	120	U
1	YA	131	G
1	YA	141	A
1	YA	157	U
1	YA	182	A
1	YA	196	A
1	YA	199	A
1	YA	205	G
1	YA	215	G
1	YA	216	A
1	YA	221	A
1	YA	222	A
1	YA	228	A
1	YA	229	A
1	YA	230	U
1	YA	248	G
1	YA	272(K)	U
1	YA	272(L)	U

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Mol	Chain	Res	Type
1	YA	272(M)	G
1	YA	272(N)	U
1	YA	273(B)	U
1	YA	273(C)	G
1	YA	273(K)	C
1	YA	277	C
1	YA	278	A
1	YA	279	C
1	YA	311	A
1	YA	324	A
1	YA	327	G
1	YA	329	G
1	YA	330	A
1	YA	342	G
1	YA	352	G
1	YA	362	U
1	YA	363(A)	G
1	YA	372	G
1	YA	386	G
1	YA	396	G
1	YA	405	U
1	YA	411	G
1	YA	412	A
1	YA	428	A
1	YA	444	C
1	YA	457	A
1	YA	464	U
1	YA	470	A
1	YA	481	G
1	YA	505	A
1	YA	508	G
1	YA	509	C
1	YA	530	G
1	YA	531	C
1	YA	532	A
1	YA	533	G
1	YA	545	G
1	YA	563	G
1	YA	568	U
1	YA	573	G
1	YA	575	A
1	YA	603	A

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Mol	Chain	Res	Type
1	YA	604	G
1	YA	607	U
1	YA	614(C)	G
1	YA	615	G
1	YA	620	G
1	YA	627	A
1	YA	637	A
1	YA	645	C
1	YA	646	A
1	YA	652(C)	A
1	YA	652(D)	G
1	YA	652(V)	G
1	YA	653	A
1	YA	669	G
1	YA	686	G
1	YA	730	C
1	YA	753	C
1	YA	775	G
1	YA	776	G
1	YA	782	A
1	YA	784	A
1	YA	785	G
1	YA	792	G
1	YA	805	G
1	YA	812	C
1	YA	827	U
1	YA	857	C
1	YA	859	G
1	YA	866	A
1	YA	877	U
1	YA	880	G
1	YA	886	C
1	YA	887	A
1	YA	888	C
1	YA	889	C
1	YA	890	A
1	YA	893	C
1	YA	895	U
1	YA	896	A
1	YA	897	C
1	YA	900	A
1	YA	901	A

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Mol	Chain	Res	Type
1	YA	907	U
1	YA	910	A
1	YA	917	A
1	YA	932	G
1	YA	941	A
1	YA	945	A
1	YA	946	G
1	YA	953	A
1	YA	959	A
1	YA	961	C
1	YA	965	C
1	YA	974	G
1	YA	975(A)	C
1	YA	983	A
1	YA	996	A
1	YA	1005	C
1	YA	1012	U
1	YA	1013	C
1	YA	1023	U
1	YA	1026	U
1	YA	1033	U
1	YA	1041	C
1	YA	1045	A
1	YA	1046	A
1	YA	1047	G
1	YA	1048	A
1	YA	1052	C
1	YA	1053	C
1	YA	1054	A
1	YA	1058	G
1	YA	1060	U
1	YA	1063	G
1	YA	1064	C
1	YA	1065	U
1	YA	1066	U
1	YA	1067	A
1	YA	1068	G
1	YA	1069	A
1	YA	1070	A
1	YA	1071	G
1	YA	1073	A
1	YA	1074	G

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Mol	Chain	Res	Type
1	YA	1076	C
1	YA	1077	A
1	YA	1078	U
1	YA	1079	C
1	YA	1082	U
1	YA	1083	U
1	YA	1084	A
1	YA	1085	A
1	YA	1086	A
1	YA	1088	A
1	YA	1090	U
1	YA	1091	G
1	YA	1092	C
1	YA	1094	U
1	YA	1098	A
1	YA	1109	C
1	YA	1110	G
1	YA	1111	A
1	YA	1112	G
1	YA	1129	A
1	YA	1130	U
1	YA	1135	C
1	YA	1136	G
1	YA	1142(B)	A
1	YA	1171	G
1	YA	1206	G
1	YA	1211	U
1	YA	1220	A
1	YA	1230	C
1	YA	1236	G
1	YA	1248	G
1	YA	1252	G
1	YA	1253	A
1	YA	1256	G
1	YA	1271	G
1	YA	1272	A
1	YA	1273	U
1	YA	1289	C
1	YA	1300	U
1	YA	1301	A
1	YA	1314	C
1	YA	1341	U

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Mol	Chain	Res	Type
1	YA	1352	U
1	YA	1359	A
1	YA	1365	A
1	YA	1368	G
1	YA	1380	G
1	YA	1384	A
1	YA	1385	G
1	YA	1416	G
1	YA	1417	C
1	YA	1420	U
1	YA	1421	G
1	YA	1428	C
1	YA	1445(A)	A
1	YA	1450(A)	G
1	YA	1455	G
1	YA	1459	G
1	YA	1467	C
1	YA	1471	A
1	YA	1482	G
1	YA	1493	C
1	YA	1497	U
1	YA	1508	A
1	YA	1509(A)	C
1	YA	1509(B)	A
1	YA	1531	C
1	YA	1542	A
1	YA	1543	C
1	YA	1558	A
1	YA	1566	A
1	YA	1569	A
1	YA	1578	U
1	YA	1580	A
1	YA	1584	C
1	YA	1586	A
1	YA	1608	A
1	YA	1609	A
1	YA	1610	A
1	YA	1640	C
1	YA	1648	C
1	YA	1651	G
1	YA	1674	G
1	YA	1696	G

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Mol	Chain	Res	Type
1	YA	1700	A
1	YA	1701	A
1	YA	1721	G
1	YA	1722	A
1	YA	1750	G
1	YA	1756	G
1	YA	1762	A
1	YA	1763	G
1	YA	1764	G
1	YA	1773	A
1	YA	1780	A
1	YA	1786	A
1	YA	1791	A
1	YA	1800	C
1	YA	1801	G
1	YA	1816	G
1	YA	1829	A
1	YA	1835	G
1	YA	1847	A
1	YA	1848	A
1	YA	1877	A
1	YA	1878	G
1	YA	1900	A
1	YA	1906	G
1	YA	1913	A
1	YA	1914	C
1	YA	1915	5MU
1	YA	1929	G
1	YA	1930	G
1	YA	1936	A
1	YA	1955	U
1	YA	1963	U
1	YA	1967	C
1	YA	1970	A
1	YA	1971	A
1	YA	1972	A
1	YA	1993	U
1	YA	1997	G
1	YA	2023	G
1	YA	2031	A
1	YA	2032	G
1	YA	2033	A

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Mol	Chain	Res	Type
1	YA	2043	C
1	YA	2055	C
1	YA	2056	G
1	YA	2060	A
1	YA	2061	G
1	YA	2062	A
1	YA	2069	G
1	YA	2096	U
1	YA	2099	U
1	YA	2103	C
1	YA	2104	G
1	YA	2105	C
1	YA	2107	C
1	YA	2108	C
1	YA	2109	U
1	YA	2110	G
1	YA	2111	C
1	YA	2112	G
1	YA	2115	G
1	YA	2116	G
1	YA	2117	A
1	YA	2118	U
1	YA	2119	A
1	YA	2121	G
1	YA	2123	G
1	YA	2126	A
1	YA	2127	G
1	YA	2129	C
1	YA	2131	G
1	YA	2132	U
1	YA	2133	G
1	YA	2134	A
1	YA	2136	C
1	YA	2138	C
1	YA	2145	C
1	YA	2146	C
1	YA	2147	G
1	YA	2148	G
1	YA	2151	G
1	YA	2158	A
1	YA	2159	G
1	YA	2161	C

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Mol	Chain	Res	Type
1	YA	2165	G
1	YA	2172	U
1	YA	2173	A
1	YA	2180	U
1	YA	2186	G
1	YA	2189	U
1	YA	2192	G
1	YA	2198	A
1	YA	2206	G
1	YA	2207	G
1	YA	2208	A
1	YA	2218	U
1	YA	2225	A
1	YA	2238	G
1	YA	2239	G
1	YA	2269	A
1	YA	2275	C
1	YA	2279	G
1	YA	2283	C
1	YA	2287	A
1	YA	2291	U
1	YA	2292	C
1	YA	2305	A
1	YA	2308	G
1	YA	2312	U
1	YA	2319	G
1	YA	2320	A
1	YA	2321	G
1	YA	2322	A
1	YA	2325	G
1	YA	2334	G
1	YA	2335	A
1	YA	2336	A
1	YA	2343	C
1	YA	2347	C
1	YA	2350	C
1	YA	2354	G
1	YA	2383	G
1	YA	2385	C
1	YA	2406	U
1	YA	2410	G
1	YA	2414	G

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Mol	Chain	Res	Type
1	YA	2422	A
1	YA	2424	C
1	YA	2425	A
1	YA	2429	G
1	YA	2430	A
1	YA	2435	A
1	YA	2439	A
1	YA	2441	C
1	YA	2446	G
1	YA	2448	A
1	YA	2474	C
1	YA	2476	A
1	YA	2478	A
1	YA	2502	G
1	YA	2505	G
1	YA	2506	U
1	YA	2518	A
1	YA	2529	G
1	YA	2554	U
1	YA	2566	A
1	YA	2567	G
1	YA	2573	C
1	YA	2574	G
1	YA	2585	U
1	YA	2586	C
1	YA	2602	A
1	YA	2611	U
1	YA	2612	C
1	YA	2615	U
1	YA	2629	A
1	YA	2630	G
1	YA	2654	A
1	YA	2663	G
1	YA	2689	U
1	YA	2690	C
1	YA	2702	U
1	YA	2703	C
1	YA	2712(B)	A
1	YA	2713	A
1	YA	2714	G
1	YA	2726	U
1	YA	2733	A

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Mol	Chain	Res	Type
1	YA	2751	G
1	YA	2757	A
1	YA	2758	A
1	YA	2764	A
1	YA	2765	A
1	YA	2769	C
1	YA	2778	A
1	YA	2811	G
1	YA	2818	G
1	YA	2820	A
1	YA	2821	A
1	YA	2833	G
1	YA	2835	A
1	YA	2872	G
1	YA	2876	G
1	YA	2880	C
1	YA	2892	A
1	YA	2894	G
1	YA	2897	U
2	YB	2	C
2	YB	8	U
2	YB	9	G
2	YB	13	A
2	YB	30	C
2	YB	33	G
2	YB	51	G
2	YB	52	A
2	YB	56	G
2	YB	73	A
2	YB	106	G
2	YB	110	G
32	XA	5	U
32	XA	7	G
32	XA	9	G
32	XA	31	G
32	XA	32	A
32	XA	39	G
32	XA	47	C
32	XA	48	C
32	XA	50	A
32	XA	51	A
32	XA	61	G

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Mol	Chain	Res	Type
32	XA	66	G
32	XA	68	G
32	XA	69	G
32	XA	70	G
32	XA	88	A
32	XA	89	C
32	XA	101	A
32	XA	116	A
32	XA	120	A
32	XA	121	C
32	XA	131	C
32	XA	151	A
32	XA	156	G
32	XA	163	C
32	XA	174	C
32	XA	182	U
32	XA	189(G)	U
32	XA	195	A
32	XA	197	A
32	XA	202	U
32	XA	203	U
32	XA	204	U
32	XA	216	G
32	XA	247	G
32	XA	251	G
32	XA	266	G
32	XA	267	C
32	XA	281	G
32	XA	289	G
32	XA	298	A
32	XA	321	A
32	XA	328	C
32	XA	332	G
32	XA	350	G
32	XA	351	G
32	XA	352	C
32	XA	353	A
32	XA	354	G
32	XA	356	A
32	XA	367	U
32	XA	372	C
32	XA	373	A

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Mol	Chain	Res	Type
32	XA	382	A
32	XA	384	G
32	XA	397	A
32	XA	398	C
32	XA	406	G
32	XA	412	A
32	XA	413	G
32	XA	424	G
32	XA	429	U
32	XA	439	A
32	XA	442	C
32	XA	452	A
32	XA	458	C
32	XA	470	C
32	XA	476	G
32	XA	482	A
32	XA	485	G
32	XA	496	A
32	XA	498	U
32	XA	505	G
32	XA	509	A
32	XA	510	A
32	XA	511	C
32	XA	518	C
32	XA	521	G
32	XA	527	7MG
32	XA	531	U
32	XA	532	A
32	XA	533	A
32	XA	547	A
32	XA	559	A
32	XA	560	U
32	XA	561	U
32	XA	564	C
32	XA	572	A
32	XA	573	A
32	XA	576	G
32	XA	577	G
32	XA	596	C
32	XA	630	G
32	XA	632	A
32	XA	653	A

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Mol	Chain	Res	Type
32	XA	661	G
32	XA	665	A
32	XA	687	A
32	XA	688	G
32	XA	695	A
32	XA	723	U
32	XA	731	G
32	XA	749	C
32	XA	753	A
32	XA	755	G
32	XA	774	G
32	XA	777	A
32	XA	792	A
32	XA	793	U
32	XA	794	A
32	XA	816	A
32	XA	817	C
32	XA	821	G
32	XA	828	A
32	XA	829	G
32	XA	836	G
32	XA	840	C
32	XA	841	U
32	XA	848	C
32	XA	851	G
32	XA	902	G
32	XA	914	A
32	XA	916	G
32	XA	926	G
32	XA	927	G
32	XA	931	C
32	XA	934	C
32	XA	935	A
32	XA	960	U
32	XA	961	U
32	XA	968	A
32	XA	969	A
32	XA	971	G
32	XA	974	A
32	XA	975	A
32	XA	976	G
32	XA	977	A

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Mol	Chain	Res	Type
32	XA	989	C
32	XA	992	U
32	XA	993	G
32	XA	994	A
32	XA	999	C
32	XA	1003	G
32	XA	1004	A
32	XA	1005	A
32	XA	1006	C
32	XA	1009	G
32	XA	1020	U
32	XA	1022	G
32	XA	1023	G
32	XA	1025	U
32	XA	1026	G
32	XA	1027	C
32	XA	1028	C
32	XA	1029	C
32	XA	1030(B)	G
32	XA	1030(C)	C
32	XA	1038	C
32	XA	1041	A
32	XA	1043	C
32	XA	1044	A
32	XA	1065	U
32	XA	1066	C
32	XA	1068	G
32	XA	1081	G
32	XA	1086	U
32	XA	1094	G
32	XA	1095	U
32	XA	1101	A
32	XA	1117	G
32	XA	1125	U
32	XA	1129	C
32	XA	1130	A
32	XA	1136	U
32	XA	1137	C
32	XA	1139	G
32	XA	1140	C
32	XA	1147	C
32	XA	1152	A

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Mol	Chain	Res	Type
32	XA	1159	U
32	XA	1160	G
32	XA	1183	A
32	XA	1184	G
32	XA	1196	U
32	XA	1197	G
32	XA	1211	U
32	XA	1213	A
32	XA	1224	G
32	XA	1227	A
32	XA	1228	C
32	XA	1238	A
32	XA	1250	A
32	XA	1256	A
32	XA	1257	U
32	XA	1258	G
32	XA	1260	C
32	XA	1270	C
32	XA	1278	U
32	XA	1279	A
32	XA	1280	A
32	XA	1281	U
32	XA	1282	C
32	XA	1286	A
32	XA	1287	A
32	XA	1300	G
32	XA	1305	G
32	XA	1320	C
32	XA	1346	A
32	XA	1347	G
32	XA	1353	G
32	XA	1363(A)	C
32	XA	1370	G
32	XA	1380	U
32	XA	1397	C
32	XA	1401	G
32	XA	1402	4OC
32	XA	1419	G
32	XA	1442(A)	G
32	XA	1442(B)	G
32	XA	1447	A
32	XA	1456	G

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Mol	Chain	Res	Type
32	XA	1487	G
32	XA	1491	G
32	XA	1492	A
32	XA	1493	A
32	XA	1497	G
32	XA	1503	A
32	XA	1504	G
32	XA	1506	U
32	XA	1517	G
32	XA	1519	MA6
32	XA	1520	G
32	XA	1529	G
32	XA	1530	G
32	QA	7	G
32	QA	9	G
32	QA	32	A
32	QA	39	G
32	QA	48	C
32	QA	51	A
32	QA	61	G
32	QA	78	G
32	QA	79	G
32	QA	101	A
32	QA	116	A
32	QA	121	C
32	QA	131	C
32	QA	163	C
32	QA	174	C
32	QA	182	U
32	QA	189(F)	U
32	QA	195	A
32	QA	197	A
32	QA	201	C
32	QA	203	U
32	QA	204	U
32	QA	216	G
32	QA	247	G
32	QA	251	G
32	QA	266	G
32	QA	267	C
32	QA	289	G
32	QA	321	A

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Mol	Chain	Res	Type
32	QA	328	C
32	QA	332	G
32	QA	340	U
32	QA	342	C
32	QA	343	U
32	QA	345	C
32	QA	346	G
32	QA	347	G
32	QA	348	G
32	QA	351	G
32	QA	352	C
32	QA	353	A
32	QA	354	G
32	QA	355	C
32	QA	367	U
32	QA	372	C
32	QA	397	A
32	QA	398	C
32	QA	406	G
32	QA	412	A
32	QA	413	G
32	QA	423	G
32	QA	424	G
32	QA	429	U
32	QA	439	A
32	QA	442	C
32	QA	452	A
32	QA	470	C
32	QA	485	G
32	QA	496	A
32	QA	498	U
32	QA	505	G
32	QA	509	A
32	QA	510	A
32	QA	511	C
32	QA	518	C
32	QA	521	G
32	QA	524	G
32	QA	527	7MG
32	QA	532	A
32	QA	547	A
32	QA	550	G

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Mol	Chain	Res	Type
32	QA	559	A
32	QA	561	U
32	QA	564	C
32	QA	572	A
32	QA	573	A
32	QA	575	G
32	QA	576	G
32	QA	577	G
32	QA	596	C
32	QA	619	U
32	QA	630	G
32	QA	632	A
32	QA	653	A
32	QA	661	G
32	QA	665	A
32	QA	687	A
32	QA	688	G
32	QA	721	G
32	QA	723	U
32	QA	731	G
32	QA	734	G
32	QA	755	G
32	QA	760	G
32	QA	774	G
32	QA	777	A
32	QA	792	A
32	QA	793	U
32	QA	794	A
32	QA	816	A
32	QA	817	C
32	QA	821	G
32	QA	828	A
32	QA	829	G
32	QA	839	U
32	QA	840	C
32	QA	841	U
32	QA	851	G
32	QA	902	G
32	QA	913	A
32	QA	914	A
32	QA	926	G
32	QA	927	G

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Mol	Chain	Res	Type
32	QA	934	C
32	QA	935	A
32	QA	960	U
32	QA	961	U
32	QA	968	A
32	QA	969	A
32	QA	971	G
32	QA	974	A
32	QA	975	A
32	QA	976	G
32	QA	977	A
32	QA	992	U
32	QA	993	G
32	QA	994	A
32	QA	998	G
32	QA	1002	G
32	QA	1006	C
32	QA	1022	G
32	QA	1023	G
32	QA	1024	G
32	QA	1025	U
32	QA	1026	G
32	QA	1027	C
32	QA	1028	C
32	QA	1029	C
32	QA	1030(A)	C
32	QA	1030(B)	G
32	QA	1030(C)	C
32	QA	1030(E)	A
32	QA	1032	G
32	QA	1033	G
32	QA	1034	G
32	QA	1037	C
32	QA	1042	G
32	QA	1044	A
32	QA	1065	U
32	QA	1066	C
32	QA	1068	G
32	QA	1070	U
32	QA	1081	G
32	QA	1094	G
32	QA	1095	U

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Mol	Chain	Res	Type
32	QA	1101	A
32	QA	1126	U
32	QA	1130	A
32	QA	1132	C
32	QA	1134	G
32	QA	1136	U
32	QA	1139	G
32	QA	1140	C
32	QA	1152	A
32	QA	1159	U
32	QA	1160	G
32	QA	1168	A
32	QA	1183	A
32	QA	1184	G
32	QA	1196	U
32	QA	1197	G
32	QA	1202	G
32	QA	1208	C
32	QA	1212	U
32	QA	1213	A
32	QA	1224	G
32	QA	1227	A
32	QA	1238	A
32	QA	1256	A
32	QA	1257	U
32	QA	1258	G
32	QA	1278	U
32	QA	1280	A
32	QA	1286	A
32	QA	1287	A
32	QA	1299	A
32	QA	1300	G
32	QA	1302	U
32	QA	1305	G
32	QA	1320	C
32	QA	1334	G
32	QA	1338	G
32	QA	1346	A
32	QA	1347	G
32	QA	1353	G
32	QA	1357	A
32	QA	1363(A)	C

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Mol	Chain	Res	Type
32	QA	1370	G
32	QA	1397	C
32	QA	1401	G
32	QA	1402	4OC
32	QA	1404	5MC
32	QA	1419	G
32	QA	1442(A)	G
32	QA	1442(B)	G
32	QA	1442(C)	A
32	QA	1446	U
32	QA	1447	A
32	QA	1452	C
32	QA	1492	A
32	QA	1494	G
32	QA	1497	G
32	QA	1499	A
32	QA	1503	A
32	QA	1504	G
32	QA	1505	G
32	QA	1506	U
32	QA	1517	G
32	QA	1519	MA6
32	QA	1520	G
32	QA	1529	G
32	QA	1530	G
1	RA	10	G
1	RA	11	G
1	RA	12	U
1	RA	14	A
1	RA	15	G
1	RA	34	C
1	RA	45	C
1	RA	71	A
1	RA	74	A
1	RA	75	G
1	RA	83	G
1	RA	84	A
1	RA	102	G
1	RA	118	A
1	RA	120	U
1	RA	131	G
1	RA	141	A

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Mol	Chain	Res	Type
1	RA	157	U
1	RA	181	A
1	RA	182	A
1	RA	196	A
1	RA	199	A
1	RA	205	G
1	RA	215	G
1	RA	216	A
1	RA	221	A
1	RA	222	A
1	RA	229	A
1	RA	230	U
1	RA	248	G
1	RA	272(K)	U
1	RA	272(L)	U
1	RA	272(M)	G
1	RA	272(N)	U
1	RA	272(O)	C
1	RA	273(B)	U
1	RA	273(C)	G
1	RA	277	C
1	RA	278	A
1	RA	311	A
1	RA	317	G
1	RA	324	A
1	RA	329	G
1	RA	330	A
1	RA	342	G
1	RA	352	G
1	RA	362	U
1	RA	363(A)	G
1	RA	386	G
1	RA	389	G
1	RA	396	G
1	RA	405	U
1	RA	411	G
1	RA	412	A
1	RA	428	A
1	RA	444	C
1	RA	455	C
1	RA	456	C
1	RA	457	A

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Mol	Chain	Res	Type
1	RA	470	A
1	RA	481	G
1	RA	505	A
1	RA	509	C
1	RA	530	G
1	RA	531	C
1	RA	532	A
1	RA	533	G
1	RA	545	G
1	RA	556	G
1	RA	563	G
1	RA	568	U
1	RA	573	G
1	RA	575	A
1	RA	603	A
1	RA	604	G
1	RA	607	U
1	RA	614(C)	G
1	RA	615	G
1	RA	627	A
1	RA	637	A
1	RA	645	C
1	RA	646	A
1	RA	652(C)	A
1	RA	652(D)	G
1	RA	652(V)	G
1	RA	653	A
1	RA	669	G
1	RA	686	G
1	RA	717	G
1	RA	730	C
1	RA	752	A
1	RA	753	C
1	RA	764	A
1	RA	775	G
1	RA	776	G
1	RA	782	A
1	RA	784	A
1	RA	785	G
1	RA	805	G
1	RA	812	C
1	RA	827	U

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Mol	Chain	Res	Type
1	RA	857	C
1	RA	859	G
1	RA	869	G
1	RA	877	U
1	RA	880	G
1	RA	886	C
1	RA	887	A
1	RA	888	C
1	RA	889	C
1	RA	890	A
1	RA	893	C
1	RA	896	A
1	RA	900	A
1	RA	901	A
1	RA	907	U
1	RA	910	A
1	RA	914	C
1	RA	915	C
1	RA	917	A
1	RA	932	G
1	RA	941	A
1	RA	945	A
1	RA	946	G
1	RA	953	A
1	RA	959	A
1	RA	961	C
1	RA	974	G
1	RA	975(A)	C
1	RA	982	C
1	RA	983	A
1	RA	996	A
1	RA	1012	U
1	RA	1013	C
1	RA	1017	G
1	RA	1026	U
1	RA	1033	U
1	RA	1045	A
1	RA	1046	A
1	RA	1047	G
1	RA	1048	A
1	RA	1052	C
1	RA	1053	C

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Mol	Chain	Res	Type
1	RA	1054	A
1	RA	1058	G
1	RA	1060	U
1	RA	1063	G
1	RA	1064	C
1	RA	1065	U
1	RA	1066	U
1	RA	1067	A
1	RA	1068	G
1	RA	1069	A
1	RA	1070	A
1	RA	1071	G
1	RA	1073	A
1	RA	1074	G
1	RA	1076	C
1	RA	1077	A
1	RA	1078	U
1	RA	1079	C
1	RA	1082	U
1	RA	1083	U
1	RA	1084	A
1	RA	1085	A
1	RA	1086	A
1	RA	1088	A
1	RA	1090	U
1	RA	1091	G
1	RA	1092	C
1	RA	1094	U
1	RA	1096	A
1	RA	1109	C
1	RA	1110	G
1	RA	1111	A
1	RA	1112	G
1	RA	1129	A
1	RA	1130	U
1	RA	1135	C
1	RA	1136	G
1	RA	1142(B)	A
1	RA	1171	G
1	RA	1206	G
1	RA	1211	U
1	RA	1212	G

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Mol	Chain	Res	Type
1	RA	1220	A
1	RA	1236	G
1	RA	1253	A
1	RA	1256	G
1	RA	1271	G
1	RA	1272	A
1	RA	1273	U
1	RA	1300	U
1	RA	1301	A
1	RA	1302	A
1	RA	1313	U
1	RA	1314	C
1	RA	1341	U
1	RA	1352	U
1	RA	1359	A
1	RA	1365	A
1	RA	1368	G
1	RA	1384	A
1	RA	1385	G
1	RA	1395	A
1	RA	1416	G
1	RA	1417	C
1	RA	1421	G
1	RA	1428	C
1	RA	1445(A)	A
1	RA	1450(A)	G
1	RA	1455	G
1	RA	1459	G
1	RA	1460	A
1	RA	1467	C
1	RA	1471	A
1	RA	1482	G
1	RA	1493	C
1	RA	1497	U
1	RA	1508	A
1	RA	1509(A)	C
1	RA	1509(B)	A
1	RA	1531	C
1	RA	1542	A
1	RA	1543	C
1	RA	1558	A
1	RA	1566	A

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Mol	Chain	Res	Type
1	RA	1569	A
1	RA	1578	U
1	RA	1580	A
1	RA	1584	C
1	RA	1586	A
1	RA	1608	A
1	RA	1609	A
1	RA	1610	A
1	RA	1640	C
1	RA	1647	G
1	RA	1648	C
1	RA	1674	G
1	RA	1696	G
1	RA	1700	A
1	RA	1701	A
1	RA	1721	G
1	RA	1722	A
1	RA	1756	G
1	RA	1762	A
1	RA	1763	G
1	RA	1764	G
1	RA	1773	A
1	RA	1780	A
1	RA	1782	C
1	RA	1786	A
1	RA	1791	A
1	RA	1800	C
1	RA	1801	G
1	RA	1811	G
1	RA	1812	A
1	RA	1816	G
1	RA	1829	A
1	RA	1835	G
1	RA	1847	A
1	RA	1848	A
1	RA	1877	A
1	RA	1878	G
1	RA	1889	A
1	RA	1900	A
1	RA	1906	G
1	RA	1914	C
1	RA	1916	A

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Mol	Chain	Res	Type
1	RA	1929	G
1	RA	1930	G
1	RA	1936	A
1	RA	1938	A
1	RA	1955	U
1	RA	1963	U
1	RA	1967	C
1	RA	1970	A
1	RA	1971	A
1	RA	1972	A
1	RA	1993	U
1	RA	1997	G
1	RA	2021	C
1	RA	2023	G
1	RA	2031	A
1	RA	2032	G
1	RA	2033	A
1	RA	2043	C
1	RA	2055	C
1	RA	2056	G
1	RA	2060	A
1	RA	2061	G
1	RA	2062	A
1	RA	2069	G
1	RA	2096	U
1	RA	2103	C
1	RA	2104	G
1	RA	2105	C
1	RA	2107	C
1	RA	2108	C
1	RA	2109	U
1	RA	2110	G
1	RA	2112	G
1	RA	2115	G
1	RA	2116	G
1	RA	2117	A
1	RA	2118	U
1	RA	2119	A
1	RA	2121	G
1	RA	2123	G
1	RA	2126	A
1	RA	2127	G

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Mol	Chain	Res	Type
1	RA	2129	C
1	RA	2131	G
1	RA	2132	U
1	RA	2133	G
1	RA	2134	A
1	RA	2136	C
1	RA	2145	C
1	RA	2146	C
1	RA	2147	G
1	RA	2148	G
1	RA	2151	G
1	RA	2158	A
1	RA	2159	G
1	RA	2161	C
1	RA	2163	C
1	RA	2165	G
1	RA	2172	U
1	RA	2173	A
1	RA	2174	C
1	RA	2180	U
1	RA	2186	G
1	RA	2189	U
1	RA	2192	G
1	RA	2198	A
1	RA	2206	G
1	RA	2207	G
1	RA	2208	A
1	RA	2218	U
1	RA	2225	A
1	RA	2239	G
1	RA	2269	A
1	RA	2275	C
1	RA	2279	G
1	RA	2283	C
1	RA	2287	A
1	RA	2291	U
1	RA	2292	C
1	RA	2305	A
1	RA	2308	G
1	RA	2311	A
1	RA	2312	U
1	RA	2320	A

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Mol	Chain	Res	Type
1	RA	2321	G
1	RA	2322	A
1	RA	2325	G
1	RA	2334	G
1	RA	2335	A
1	RA	2336	A
1	RA	2343	C
1	RA	2345	G
1	RA	2347	C
1	RA	2350	C
1	RA	2383	G
1	RA	2385	C
1	RA	2406	U
1	RA	2410	G
1	RA	2422	A
1	RA	2425	A
1	RA	2429	G
1	RA	2430	A
1	RA	2435	A
1	RA	2439	A
1	RA	2441	C
1	RA	2448	A
1	RA	2474	C
1	RA	2476	A
1	RA	2478	A
1	RA	2502	G
1	RA	2505	G
1	RA	2518	A
1	RA	2520	C
1	RA	2525	G
1	RA	2529	G
1	RA	2549	G
1	RA	2554	U
1	RA	2555	U
1	RA	2566	A
1	RA	2567	G
1	RA	2572	A
1	RA	2585	U
1	RA	2602	A
1	RA	2603	G
1	RA	2611	U
1	RA	2612	C

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Mol	Chain	Res	Type
1	RA	2615	U
1	RA	2629	A
1	RA	2630	G
1	RA	2654	A
1	RA	2663	G
1	RA	2689	U
1	RA	2690	C
1	RA	2691	C
1	RA	2703	C
1	RA	2712(B)	A
1	RA	2713	A
1	RA	2714	G
1	RA	2726	U
1	RA	2732	G
1	RA	2733	A
1	RA	2758	A
1	RA	2764	A
1	RA	2765	A
1	RA	2769	C
1	RA	2778	A
1	RA	2780	G
1	RA	2818	G
1	RA	2820	A
1	RA	2821	A
1	RA	2833	G
1	RA	2849	U
1	RA	2872	G
1	RA	2880	C
1	RA	2886	G
1	RA	2892	A
1	RA	2894	G
1	RA	2897	U
2	RB	2	C
2	RB	13	A
2	RB	24	G
2	RB	30	C
2	RB	45	A
2	RB	53	A
2	RB	56	G
2	RB	73	A
2	RB	85	G
2	RB	110	G

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Mol	Chain	Res	Type
53	QV	4	G
53	QV	5	G
53	QV	6	G
53	QV	9	G
53	QV	14	A
53	QV	16	C
53	QV	17(A)	U
53	QV	18	G
53	QV	19	G
53	QV	21	A
53	QV	31	G
53	QV	47	U
53	QV	48	C
53	QV	54	U
53	QV	55	U
53	QV	65	C
53	QV	67	C
53	QV	75	C
53	QV	76	A
53	XV	4	G
53	XV	5	G
53	XV	6	G
53	XV	9	G
53	XV	14	A
53	XV	16	C
53	XV	17(A)	U
53	XV	18	G
53	XV	19	G
53	XV	21	A
53	XV	31	G
53	XV	47	U
53	XV	48	C
53	XV	54	U
53	XV	65	C
53	XV	67	C
53	XV	75	C
53	XV	76	A
55	XX	21	A
55	QX	21	A

All (79) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	YA	9	U
1	YA	272(M)	G
1	YA	277	C
1	YA	752	A
1	YA	827	U
1	YA	856	C
1	YA	900	A
1	YA	1053	C
1	YA	1057	A
1	YA	1065	U
1	YA	1067	A
1	YA	1073	A
1	YA	1210	A
1	YA	1379	A
1	YA	1420	U
1	YA	1530	C
1	YA	1992	G
1	YA	2126	A
1	YA	2171	A
1	YA	2172	U
1	YA	2321	G
1	YA	2585	U
1	YA	2689	U
1	YA	2756	U
32	XA	60	A
32	XA	65	U
32	XA	69	G
32	XA	115	G
32	XA	266	G
32	XA	509	A
32	XA	560	U
32	XA	687	A
32	XA	748	C
32	XA	840	C
32	XA	913	A
32	XA	991	U
32	XA	992	U
32	XA	1065	U
32	XA	1067	A
32	XA	1183	A
32	XA	1256	A
32	XA	1442(A)	G
32	QA	115	G

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Mol	Chain	Res	Type
32	QA	266	G
32	QA	509	A
32	QA	560	U
32	QA	687	A
32	QA	839	U
32	QA	913	A
32	QA	991	U
32	QA	1065	U
32	QA	1067	A
32	QA	1201	A
32	QA	1207	2MG
32	QA	1285	A
32	QA	1442(A)	G
1	RA	9	U
1	RA	272(M)	G
1	RA	277	C
1	RA	752	A
1	RA	856	C
1	RA	900	A
1	RA	1053	C
1	RA	1057	A
1	RA	1065	U
1	RA	1067	A
1	RA	1073	A
1	RA	1076	C
1	RA	1210	A
1	RA	1420	U
1	RA	1530	C
1	RA	1992	G
1	RA	2126	A
1	RA	2171	A
1	RA	2172	U
1	RA	2321	G
1	RA	2689	U
53	QV	54	U
53	XV	53	G

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

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

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
32	MA6	QA	1519	32	23,26,27	1.56	4 (17%)	33,38,41	2.33	11 (33%)
32	UR3	QA	1498	32	19,22,23	1.02	1 (5%)	26,32,35	1.74	3 (11%)
54	MEQ	QY	252	54	8,9,10	0.92	0	5,10,12	0.65	0
32	5MC	QA	1407	32	19,22,23	1.65	3 (15%)	26,32,35	1.10	3 (11%)
43	0TD	XL	92	43	8,9,10	4.87	2 (25%)	6,11,13	2.37	2 (33%)
43	0TD	QL	92	43	8,9,10	8.02	6 (75%)	6,11,13	4.27	2 (33%)
32	PSU	XA	516	32	18,21,22	1.35	2 (11%)	21,30,33	2.02	5 (23%)
1	2MA	RA	2503	56,1	22,25,26	1.52	4 (18%)	32,37,40	2.29	8 (25%)
32	MA6	XA	1519	32	23,26,27	1.55	4 (17%)	33,38,41	2.39	13 (39%)
32	5MC	XA	967	32	19,22,23	1.75	3 (15%)	26,32,35	1.10	2 (7%)
1	OMG	RA	2251	56,1,53	23,26,27	1.20	3 (13%)	32,38,41	1.99	6 (18%)
1	2MU	YA	2552	56,1	19,22,24	1.26	3 (15%)	25,31,36	1.88	6 (24%)
1	OMG	YA	2251	56,1,53	23,26,27	1.22	3 (13%)	32,38,41	2.01	6 (18%)
32	7MG	QA	527	56,32	23,26,27	1.31	3 (13%)	27,39,42	2.66	7 (25%)
1	5MC	RA	1942	1	19,22,23	1.63	3 (15%)	26,32,35	1.19	3 (11%)
1	5MU	RA	1939	1	19,22,23	1.36	5 (26%)	27,32,35	2.15	6 (22%)
1	5MU	RA	1915	56,1	19,22,23	1.47	5 (26%)	27,32,35	2.17	8 (29%)
32	PSU	QA	516	56,32	18,21,22	1.35	2 (11%)	21,30,33	2.08	5 (23%)
1	5MU	YA	1915	1	19,22,23	1.40	4 (21%)	27,32,35	2.23	9 (33%)
1	4OC	YA	1920	1	19,22,24	0.78	0	25,31,35	0.87	0
32	2MG	QA	1207	32	23,26,27	1.25	3 (13%)	33,38,41	2.23	6 (18%)
1	5MC	YA	1942	1	19,22,23	1.61	3 (15%)	26,32,35	1.14	3 (11%)
32	4OC	XA	1402	32	20,23,24	0.76	0	25,32,35	0.93	1 (4%)
32	MA6	XA	1518	32	23,26,27	1.53	5 (21%)	33,38,41	2.36	14 (42%)
1	PSU	RA	1917	1	18,21,22	1.35	2 (11%)	21,30,33	1.97	4 (19%)
1	PSU	YA	2605	1	18,21,22	1.36	3 (16%)	21,30,33	1.96	3 (14%)
1	4OC	RA	1920	1	19,22,24	0.78	0	25,31,35	0.97	1 (4%)
1	2MU	RA	2552	56,1	19,22,24	1.27	4 (21%)	25,31,36	1.87	6 (24%)
1	PSU	RA	2605	1	18,21,22	1.38	2 (11%)	21,30,33	2.04	4 (19%)
1	PSU	YA	1917	1	18,21,22	1.37	2 (11%)	21,30,33	1.97	3 (14%)
54	MEQ	XY	252	54	8,9,10	0.88	0	5,10,12	0.67	0

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z > 2	Counts	RMSZ	# Z > 2
32	M2G	QA	966	32	24,27,28	1.29	4 (16%)	33,40,43	1.87	6 (18%)
32	4OC	QA	1402	32	20,23,24	0.76	0	25,32,35	0.93	1 (4%)
1	2MA	YA	2503	56,1	22,25,26	1.50	4 (18%)	32,37,40	2.33	8 (25%)
32	5MC	XA	1400	32	19,22,23	1.67	3 (15%)	26,32,35	1.13	2 (7%)
32	2MG	XA	1207	32	23,26,27	1.25	3 (13%)	33,38,41	2.22	8 (24%)
32	MA6	QA	1518	32	23,26,27	1.56	5 (21%)	33,38,41	2.29	13 (39%)
1	PSU	YA	1911	1	18,21,22	1.37	2 (11%)	21,30,33	1.98	3 (14%)
1	5MU	YA	1939	56,1	19,22,23	1.42	6 (31%)	27,32,35	2.13	6 (22%)
32	UR3	XA	1498	56,32	19,22,23	1.02	1 (5%)	26,32,35	1.73	2 (7%)
32	5MC	XA	1404	32	19,22,23	1.61	3 (15%)	26,32,35	1.11	2 (7%)
32	M2G	XA	966	32	24,27,28	1.29	3 (12%)	33,40,43	1.87	6 (18%)
32	5MC	XA	1407	32	19,22,23	1.58	3 (15%)	26,32,35	1.10	3 (11%)
32	5MC	QA	967	32	19,22,23	1.71	3 (15%)	26,32,35	1.10	2 (7%)
32	5MC	QA	1400	32	19,22,23	1.66	3 (15%)	26,32,35	1.09	2 (7%)
1	PSU	RA	1911	1	18,21,22	1.36	2 (11%)	21,30,33	2.03	4 (19%)
1	5MC	RA	1962	56,1	19,22,23	1.63	3 (15%)	26,32,35	1.14	2 (7%)
32	7MG	XA	527	56,32	23,26,27	1.31	3 (13%)	27,39,42	2.66	7 (25%)
1	5MC	YA	1962	56,1	19,22,23	1.62	3 (15%)	26,32,35	1.13	3 (11%)
32	5MC	QA	1404	32	19,22,23	1.67	3 (15%)	26,32,35	1.17	3 (11%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
32	MA6	QA	1519	32	-	3/11/29/30	0/3/3/3
32	UR3	QA	1498	32	-	0/7/25/26	0/2/2/2
54	MEQ	QY	252	54	-	4/8/9/11	-
32	5MC	QA	1407	32	-	0/7/25/26	0/2/2/2
43	0TD	XL	92	43	-	4/7/12/14	-
43	0TD	QL	92	43	-	2/7/12/14	-
32	PSU	XA	516	32	-	0/7/25/26	0/2/2/2
1	2MA	RA	2503	56,1	-	0/7/25/26	0/3/3/3
32	MA6	XA	1519	32	-	3/11/29/30	0/3/3/3
32	5MC	XA	967	32	-	0/7/25/26	0/2/2/2
1	OMG	RA	2251	56,1,53	-	0/9/27/28	0/3/3/3

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Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
1	2MU	YA	2552	56,1	-	0/9/27/28	0/2/2/2
1	OMG	YA	2251	56,1,53	-	0/9/27/28	0/3/3/3
32	7MG	QA	527	56,32	-	3/7/37/38	0/3/3/3
1	5MC	RA	1942	1	-	0/7/25/26	0/2/2/2
1	5MU	RA	1939	1	-	0/7/25/26	0/2/2/2
1	5MU	RA	1915	56,1	-	2/7/25/26	0/2/2/2
32	PSU	QA	516	56,32	-	0/7/25/26	0/2/2/2
1	5MU	YA	1915	1	-	2/7/25/26	0/2/2/2
1	4OC	YA	1920	1	-	0/9/27/30	0/2/2/2
32	2MG	QA	1207	32	-	0/9/27/28	0/3/3/3
1	5MC	YA	1942	1	-	0/7/25/26	0/2/2/2
32	4OC	XA	1402	32	-	2/9/29/30	0/2/2/2
32	MA6	XA	1518	32	-	1/11/29/30	0/3/3/3
1	PSU	RA	1917	1	-	0/7/25/26	0/2/2/2
1	PSU	YA	2605	1	-	0/7/25/26	0/2/2/2
1	4OC	RA	1920	1	-	0/9/27/30	0/2/2/2
1	2MU	RA	2552	56,1	-	0/9/27/28	0/2/2/2
1	PSU	RA	2605	1	-	0/7/25/26	0/2/2/2
1	PSU	YA	1917	1	-	0/7/25/26	0/2/2/2
54	MEQ	XY	252	54	-	2/8/9/11	-
32	M2G	QA	966	32	-	0/11/29/30	0/3/3/3
32	4OC	QA	1402	32	-	2/9/29/30	0/2/2/2
1	2MA	YA	2503	56,1	-	0/7/25/26	0/3/3/3
32	5MC	XA	1400	32	-	1/7/25/26	0/2/2/2
32	2MG	XA	1207	32	-	0/9/27/28	0/3/3/3
32	MA6	QA	1518	32	-	2/11/29/30	0/3/3/3
1	PSU	YA	1911	1	-	0/7/25/26	0/2/2/2
1	5MU	YA	1939	56,1	-	0/7/25/26	0/2/2/2
32	UR3	XA	1498	56,32	-	0/7/25/26	0/2/2/2
32	5MC	XA	1404	32	-	0/7/25/26	0/2/2/2
32	M2G	XA	966	32	-	0/11/29/30	0/3/3/3
32	5MC	XA	1407	32	-	0/7/25/26	0/2/2/2
32	5MC	QA	967	32	-	0/7/25/26	0/2/2/2
32	5MC	QA	1400	32	-	2/7/25/26	0/2/2/2
1	PSU	RA	1911	1	-	0/7/25/26	0/2/2/2
1	5MC	RA	1962	56,1	-	0/7/25/26	0/2/2/2
32	7MG	XA	527	56,32	-	3/7/37/38	0/3/3/3
1	5MC	YA	1962	56,1	-	0/7/25/26	0/2/2/2
32	5MC	QA	1404	32	-	1/7/25/26	0/2/2/2

All (141) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
43	QL	92	0TD	CB-SB	-17.21	1.64	1.82
43	QL	92	0TD	CB-CA	-13.61	1.50	1.54
43	XL	92	0TD	CB-SB	-12.65	1.69	1.82
32	XA	967	5MC	C5-C4	6.46	1.49	1.44
32	QA	967	5MC	C5-C4	6.30	1.48	1.44
32	XA	1400	5MC	C5-C4	6.08	1.48	1.44
32	QA	1404	5MC	C5-C4	6.07	1.48	1.44
32	QA	1400	5MC	C5-C4	6.01	1.48	1.44
32	QA	1407	5MC	C5-C4	5.96	1.48	1.44
1	RA	1962	5MC	C5-C4	5.88	1.48	1.44
1	RA	1942	5MC	C5-C4	5.86	1.48	1.44
1	YA	1962	5MC	C5-C4	5.82	1.48	1.44
32	XA	1404	5MC	C5-C4	5.76	1.48	1.44
1	YA	1942	5MC	C5-C4	5.66	1.48	1.44
32	XA	1407	5MC	C5-C4	5.58	1.48	1.44
32	QA	1518	MA6	C5-C4	4.92	1.47	1.39
32	QA	1519	MA6	C5-C4	4.91	1.47	1.39
32	XA	1519	MA6	C5-C4	4.83	1.47	1.39
32	XA	1518	MA6	C5-C4	4.76	1.47	1.39
1	RA	2503	2MA	C5-C4	4.64	1.47	1.39
1	YA	2503	2MA	C5-C4	4.64	1.47	1.39
43	XL	92	0TD	CB-CA	-4.48	1.53	1.54
32	XA	516	PSU	C6-C5	3.48	1.39	1.35
32	QA	516	PSU	C6-C5	3.43	1.39	1.35
43	QL	92	0TD	CA-N	-3.43	1.37	1.47
1	YA	1917	PSU	C6-C5	3.41	1.39	1.35
1	RA	1917	PSU	C6-C5	3.40	1.39	1.35
1	RA	1911	PSU	C6-C5	3.37	1.39	1.35
1	RA	2605	PSU	C6-C5	3.37	1.39	1.35
1	YA	1911	PSU	C6-C5	3.33	1.39	1.35
32	XA	527	7MG	C5-C4	3.29	1.47	1.37
32	QA	527	7MG	C5-C4	3.29	1.47	1.37
1	YA	2251	OMG	C5-C4	3.22	1.47	1.38
32	QA	966	M2G	C5-C4	3.20	1.47	1.38
32	XA	1207	2MG	C5-C4	3.17	1.47	1.38
32	XA	966	M2G	C5-C4	3.17	1.47	1.38
1	RA	2251	OMG	C5-C4	3.15	1.47	1.38
32	QA	1207	2MG	C5-C4	3.13	1.47	1.38
1	YA	2605	PSU	C6-C5	3.06	1.38	1.35
32	QA	1518	MA6	C5-C6	3.06	1.49	1.41
32	XA	966	M2G	C2-N2	3.02	1.40	1.35
32	XA	1519	MA6	C5-C6	3.01	1.49	1.41
1	RA	1915	5MU	C2-N1	3.00	1.43	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	XA	1518	MA6	C5-C6	2.96	1.49	1.41
1	YA	1942	5MC	C6-C5	2.96	1.39	1.34
1	YA	1915	5MU	C6-C5	2.95	1.39	1.34
32	XA	527	7MG	C4-N9	-2.94	1.34	1.37
32	XA	967	5MC	C6-C5	2.93	1.39	1.34
32	QA	1519	MA6	C5-C6	2.93	1.48	1.41
32	XA	1407	5MC	C6-C5	2.92	1.39	1.34
1	YA	1939	5MU	C6-C5	2.88	1.39	1.34
32	QA	966	M2G	C2-N2	2.86	1.40	1.35
1	YA	1962	5MC	C6-C5	2.86	1.39	1.34
32	QA	1407	5MC	C6-C5	2.85	1.39	1.34
1	RA	1962	5MC	C6-C5	2.83	1.39	1.34
32	QA	1400	5MC	C6-C5	2.83	1.39	1.34
32	XA	1404	5MC	C6-C5	2.82	1.39	1.34
43	QL	92	0TD	OD2-CG	-2.81	1.21	1.30
1	RA	1939	5MU	C6-C5	2.81	1.39	1.34
1	YA	1939	5MU	C4-N3	-2.78	1.33	1.38
1	RA	2552	2MU	C4-N3	-2.77	1.33	1.38
32	QA	1404	5MC	C6-C5	2.77	1.39	1.34
1	YA	2503	2MA	C5-C6	2.76	1.48	1.41
1	RA	2503	2MA	C5-C6	2.75	1.48	1.41
1	RA	1915	5MU	C6-C5	2.74	1.39	1.34
1	YA	2552	2MU	C4-N3	-2.74	1.33	1.38
1	YA	2605	PSU	C4-N3	-2.73	1.33	1.38
1	YA	1915	5MU	C2-N1	2.71	1.42	1.38
32	QA	527	7MG	C4-N9	-2.71	1.34	1.37
32	XA	1400	5MC	C6-C5	2.70	1.39	1.34
32	QA	967	5MC	C6-C5	2.69	1.39	1.34
1	RA	1939	5MU	C4-N3	-2.69	1.33	1.38
1	YA	1915	5MU	C4-N3	-2.69	1.33	1.38
1	RA	2605	PSU	C4-N3	-2.68	1.33	1.38
43	QL	92	0TD	CB-CG	-2.68	1.47	1.52
1	RA	1915	5MU	C4-N3	-2.64	1.33	1.38
1	YA	1911	PSU	C4-N3	-2.62	1.33	1.38
1	RA	1917	PSU	C4-N3	-2.61	1.34	1.38
1	YA	2251	OMG	C6-N1	-2.59	1.34	1.38
1	YA	1917	PSU	C4-N3	-2.58	1.34	1.38
43	QL	92	0TD	CSB-SB	-2.57	1.74	1.79
1	RA	1911	PSU	C4-N3	-2.57	1.34	1.38
32	QA	516	PSU	C4-N3	-2.54	1.34	1.38
1	RA	1942	5MC	C6-C5	2.53	1.38	1.34
1	RA	2251	OMG	C6-N1	-2.51	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	XA	516	PSU	C4-N3	-2.49	1.34	1.38
1	RA	1942	5MC	C6-N1	-2.39	1.33	1.38
32	XA	1207	2MG	C6-N1	-2.39	1.34	1.38
32	QA	966	M2G	C6-N1	-2.37	1.34	1.38
1	YA	2503	2MA	C8-N7	2.34	1.36	1.31
32	XA	1519	MA6	C8-N7	2.32	1.36	1.31
32	QA	1518	MA6	C8-N7	2.31	1.36	1.31
32	XA	1400	5MC	C6-N1	-2.31	1.34	1.38
1	RA	2503	2MA	C5-N7	-2.31	1.34	1.39
32	XA	966	M2G	C6-N1	-2.31	1.34	1.38
32	QA	1207	2MG	C6-N1	-2.31	1.34	1.38
32	QA	1207	2MG	C2-N3	2.30	1.36	1.32
1	RA	2503	2MA	C8-N7	2.29	1.36	1.31
1	RA	1915	5MU	C4-C5	2.29	1.48	1.44
1	YA	2552	2MU	C5-C4	2.28	1.48	1.43
1	YA	2251	OMG	C5-N7	-2.28	1.34	1.39
1	YA	1939	5MU	C6-N1	-2.28	1.34	1.38
32	XA	527	7MG	C6-N1	-2.27	1.34	1.38
32	QA	967	5MC	C6-N1	-2.27	1.34	1.38
1	RA	2552	2MU	C5-C4	2.27	1.48	1.43
32	XA	1404	5MC	C6-N1	-2.26	1.34	1.38
32	QA	1519	MA6	C5-N7	-2.25	1.35	1.39
1	YA	1939	5MU	C4-C5	2.25	1.48	1.44
32	QA	527	7MG	C6-N1	-2.24	1.34	1.38
1	YA	1962	5MC	C6-N1	-2.23	1.34	1.38
32	XA	1518	MA6	C8-N7	2.23	1.36	1.31
1	YA	2503	2MA	C5-N7	-2.21	1.35	1.39
1	RA	1939	5MU	C6-N1	-2.21	1.34	1.38
32	QA	1404	5MC	C6-N1	-2.21	1.34	1.38
32	QA	1498	UR3	C2-N1	2.21	1.41	1.38
32	XA	1519	MA6	C5-N7	-2.20	1.35	1.39
32	XA	1207	2MG	C2-N3	2.20	1.36	1.32
1	RA	1962	5MC	C6-N1	-2.19	1.34	1.38
32	XA	1518	MA6	C5-N7	-2.19	1.35	1.39
1	YA	1939	5MU	C2-N3	-2.18	1.34	1.38
1	RA	2251	OMG	C5-N7	-2.17	1.34	1.39
32	XA	1498	UR3	C2-N1	2.17	1.41	1.38
32	QA	1519	MA6	C8-N7	2.16	1.35	1.31
1	RA	1939	5MU	C4-C5	2.16	1.48	1.44
1	RA	1915	5MU	C6-N1	-2.15	1.34	1.38
1	YA	1915	5MU	C4-C5	2.14	1.48	1.44
32	XA	1407	5MC	C6-N1	-2.11	1.34	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	YA	1942	5MC	C6-N1	-2.09	1.34	1.38
32	QA	1400	5MC	C6-N1	-2.09	1.34	1.38
32	QA	966	M2G	C5-N7	-2.08	1.34	1.39
1	RA	1939	5MU	C2-N3	-2.08	1.34	1.38
32	XA	967	5MC	C6-N1	-2.06	1.34	1.38
32	QA	1407	5MC	C6-N1	-2.04	1.34	1.38
32	QA	1518	MA6	C5-N7	-2.04	1.35	1.39
1	YA	2552	2MU	C2-N3	-2.04	1.34	1.38
1	RA	2552	2MU	C2-N3	-2.03	1.34	1.38
32	QA	1518	MA6	C4-N9	-2.01	1.33	1.37
32	XA	1518	MA6	C4-N9	-2.01	1.33	1.37
1	RA	2552	2MU	C2-N1	2.01	1.41	1.38
1	YA	1939	5MU	C2-N1	2.01	1.41	1.38
1	YA	2605	PSU	C2-N3	-2.00	1.34	1.37

All (233) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	QA	527	7MG	N9-C4-N3	9.16	138.88	125.46
32	XA	527	7MG	N9-C4-N3	9.10	138.79	125.46
1	YA	2503	2MA	C5-C4-N3	-8.45	118.28	127.18
1	RA	2503	2MA	C5-C4-N3	-8.18	118.57	127.18
43	QL	92	0TD	CB-CA-N	-7.90	93.10	109.10
32	XA	1207	2MG	C2-N3-C4	7.17	120.97	112.00
32	QA	1207	2MG	C2-N3-C4	7.06	120.83	112.00
32	XA	1498	UR3	C4-N3-C2	-6.99	118.96	124.58
32	QA	1498	UR3	C4-N3-C2	-6.87	119.05	124.58
1	YA	2251	OMG	C5-C4-N3	-6.55	117.97	128.39
1	YA	2503	2MA	N3-C4-N9	6.48	135.21	126.99
32	QA	516	PSU	N1-C2-N3	6.40	121.92	115.17
1	RA	2605	PSU	N1-C2-N3	6.40	121.92	115.17
1	RA	2251	OMG	C5-C4-N3	-6.38	118.24	128.39
1	RA	1911	PSU	N1-C2-N3	6.36	121.88	115.17
1	RA	2503	2MA	N3-C4-N9	6.33	135.02	126.99
43	QL	92	0TD	CSB-SB-CB	6.32	113.73	102.36
1	YA	1911	PSU	N1-C2-N3	6.21	121.72	115.17
1	YA	1917	PSU	N1-C2-N3	6.16	121.67	115.17
32	XA	516	PSU	N1-C2-N3	6.15	121.66	115.17
1	RA	1917	PSU	N1-C2-N3	6.13	121.63	115.17
32	XA	1207	2MG	C5-C4-N3	-6.11	118.67	128.39
32	QA	966	M2G	C5-C4-N3	-6.09	118.70	128.39
1	YA	2605	PSU	N1-C2-N3	6.06	121.56	115.17

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	XA	966	M2G	C5-C4-N3	-6.04	118.78	128.39
32	QA	1207	2MG	C5-C4-N3	-5.97	118.89	128.39
32	QA	1519	MA6	C5-C4-N3	-5.81	118.72	126.72
32	XA	1519	MA6	C5-C4-N3	-5.64	118.95	126.72
32	QA	527	7MG	C5-C4-N3	-5.59	117.64	128.13
32	XA	1518	MA6	C5-C4-N3	-5.47	119.18	126.72
1	YA	1915	5MU	N3-C2-N1	5.47	122.01	114.89
32	XA	527	7MG	C5-C4-N3	-5.46	117.88	128.13
1	YA	1939	5MU	N3-C2-N1	5.46	122.00	114.89
1	YA	2552	2MU	N3-C2-N1	5.33	121.83	114.89
32	XA	527	7MG	N9-C8-N7	-5.30	95.87	103.37
1	RA	1939	5MU	N3-C2-N1	5.29	121.77	114.89
1	RA	1939	5MU	C4-N3-C2	-5.28	120.42	127.34
32	QA	1518	MA6	C5-C4-N3	-5.24	119.50	126.72
32	QA	527	7MG	N9-C8-N7	-5.23	95.96	103.37
1	YA	1939	5MU	C4-N3-C2	-5.23	120.49	127.34
1	RA	2552	2MU	N3-C2-N1	5.18	121.64	114.89
1	YA	2251	OMG	C2-N3-C4	5.12	121.11	112.30
1	RA	2251	OMG	C2-N3-C4	5.10	121.09	112.30
1	RA	1915	5MU	N3-C2-N1	4.88	121.25	114.89
1	YA	2251	OMG	N9-C4-N3	4.87	135.69	125.95
1	RA	2251	OMG	N9-C4-N3	4.79	135.53	125.95
1	YA	2552	2MU	C4-N3-C2	-4.68	120.80	126.61
1	RA	2552	2MU	C4-N3-C2	-4.65	120.83	126.61
32	QA	966	M2G	N9-C4-N3	4.61	135.16	125.95
32	XA	966	M2G	C2-N3-C4	4.59	121.00	112.51
1	YA	1915	5MU	C4-N3-C2	-4.55	121.38	127.34
32	QA	527	7MG	C2-N3-C4	4.54	120.12	112.30
32	XA	966	M2G	N9-C4-N3	4.54	135.03	125.95
32	QA	1519	MA6	N3-C4-N9	4.51	134.84	127.17
1	RA	1915	5MU	C4-N3-C2	-4.50	121.44	127.34
32	QA	966	M2G	C2-N3-C4	4.50	120.83	112.51
32	XA	527	7MG	C2-N3-C4	4.47	119.99	112.30
32	QA	1207	2MG	N9-C4-N3	4.46	134.87	125.95
32	QA	1518	MA6	C2-N1-C6	4.46	122.71	111.83
32	QA	1518	MA6	C9-N6-C6	-4.42	109.27	120.52
32	XA	1519	MA6	C10-N6-C6	-4.40	109.33	120.52
32	XA	1518	MA6	C9-N6-C6	-4.36	109.43	120.52
32	XA	1207	2MG	N9-C4-N3	4.33	134.62	125.95
1	YA	1915	5MU	C1'-N1-C2	4.32	125.34	117.59
32	XA	1519	MA6	C2-N1-C6	4.31	122.36	111.83
32	XA	1518	MA6	C2-N1-C6	4.29	122.32	111.83

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
43	XL	92	0TD	CSB-SB-CB	4.24	109.99	102.36
1	RA	1939	5MU	C5-C4-N3	4.23	119.00	115.32
32	QA	516	PSU	C4-N3-C2	-4.23	120.55	126.37
32	QA	1519	MA6	C2-N1-C6	4.19	122.06	111.83
1	RA	1939	5MU	O4-C4-C5	-4.17	120.14	124.92
32	QA	1518	MA6	C4-C5-N7	-4.17	105.81	110.58
32	XA	1519	MA6	N3-C4-N9	4.16	134.24	127.17
32	XA	1518	MA6	N3-C4-N9	4.15	134.23	127.17
1	RA	1915	5MU	C1'-N1-C2	4.15	125.04	117.59
1	YA	1939	5MU	C5-C4-N3	4.12	118.90	115.32
32	XA	516	PSU	C4-N3-C2	-4.11	120.71	126.37
1	RA	1911	PSU	C4-N3-C2	-4.11	120.71	126.37
1	RA	2605	PSU	C4-N3-C2	-4.09	120.74	126.37
32	XA	1518	MA6	C4-C5-N7	-4.07	105.93	110.58
32	XA	1519	MA6	C4-C5-N7	-4.06	105.94	110.58
1	RA	1917	PSU	C4-N3-C2	-4.06	120.78	126.37
32	QA	1519	MA6	C9-N6-C6	-4.02	110.29	120.52
1	YA	1939	5MU	O4-C4-C5	-3.97	120.37	124.92
1	YA	1911	PSU	C4-N3-C2	-3.97	120.90	126.37
1	YA	2605	PSU	C4-N3-C2	-3.96	120.91	126.37
1	YA	1917	PSU	C4-N3-C2	-3.95	120.93	126.37
32	XA	1519	MA6	C9-N6-C6	-3.94	110.50	120.52
1	RA	1939	5MU	C5-C6-N1	-3.93	119.05	123.31
32	QA	1518	MA6	N3-C4-N9	3.89	133.78	127.17
32	QA	1519	MA6	C4-C5-N7	-3.88	106.14	110.58
1	RA	1915	5MU	C5-C4-N3	3.81	118.64	115.32
1	YA	1939	5MU	C5-C6-N1	-3.76	119.23	123.31
32	XA	1519	MA6	C2-N3-C4	3.62	120.68	111.83
1	RA	1915	5MU	O4-C4-C5	-3.62	120.78	124.92
1	YA	1915	5MU	C5-C4-N3	3.57	118.43	115.32
32	QA	1519	MA6	C2-N3-C4	3.57	120.55	111.83
1	YA	2503	2MA	C4-C5-N7	-3.57	106.50	110.58
1	RA	2503	2MA	C4-C5-N7	-3.56	106.51	110.58
32	QA	516	PSU	O2-C2-N1	-3.56	119.12	122.79
1	RA	1911	PSU	O2-C2-N1	-3.55	119.13	122.79
32	XA	1518	MA6	C2-N3-C4	3.54	120.47	111.83
32	XA	516	PSU	O2-C2-N1	-3.53	119.14	122.79
32	QA	1518	MA6	C2-N3-C4	3.53	120.45	111.83
1	YA	1917	PSU	O2-C2-N1	-3.48	119.20	122.79
1	RA	2605	PSU	O2-C2-N1	-3.47	119.21	122.79
1	YA	1915	5MU	O4-C4-C5	-3.46	120.96	124.92
32	QA	1404	5MC	C5-C6-N1	-3.45	119.56	123.31

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	RA	1915	5MU	C1'-N1-C6	-3.45	115.47	121.15
1	YA	1911	PSU	O2-C2-N1	-3.44	119.24	122.79
1	RA	1962	5MC	C5-C6-N1	-3.44	119.57	123.31
32	XA	1207	2MG	C6-C5-N7	3.44	136.55	130.29
32	XA	1518	MA6	C10-N6-C6	-3.39	111.89	120.52
1	YA	2605	PSU	O2-C2-N1	-3.39	119.29	122.79
32	QA	1518	MA6	N1-C2-N3	-3.35	123.51	128.58
32	QA	967	5MC	C5-C6-N1	-3.30	119.73	123.31
1	RA	1917	PSU	O2-C2-N1	-3.30	119.39	122.79
32	XA	1404	5MC	C5-C6-N1	-3.26	119.77	123.31
32	QA	1207	2MG	C6-C5-N7	3.25	136.21	130.29
32	XA	1498	UR3	C5-C4-N3	3.25	119.32	115.04
32	XA	966	M2G	C6-C5-N7	3.24	136.19	130.29
32	XA	1519	MA6	N1-C2-N3	-3.23	123.69	128.58
1	YA	1962	5MC	C5-C6-N1	-3.21	119.83	123.31
1	RA	1939	5MU	O2-C2-N1	-3.21	118.62	122.80
32	QA	1498	UR3	C5-C4-N3	3.21	119.26	115.04
32	XA	1518	MA6	N1-C2-N3	-3.18	123.77	128.58
1	RA	1942	5MC	C5-C6-N1	-3.18	119.86	123.31
32	QA	1400	5MC	C5-C6-N1	-3.16	119.88	123.31
32	QA	1407	5MC	C5-C6-N1	-3.12	119.92	123.31
1	YA	1915	5MU	C1'-N1-C6	-3.12	116.02	121.15
32	XA	1400	5MC	C5-C6-N1	-3.11	119.94	123.31
32	XA	967	5MC	C5-C6-N1	-3.10	119.94	123.31
32	QA	966	M2G	C6-C5-N7	3.09	135.91	130.29
32	QA	1519	MA6	N1-C6-N6	3.08	120.61	116.86
32	QA	1519	MA6	N1-C2-N3	-3.05	123.97	128.58
1	RA	2552	2MU	C5-C4-N3	3.02	119.03	114.80
32	XA	1407	5MC	C5-C4-N3	-3.01	118.67	121.75
32	QA	1519	MA6	C10-N6-C6	-2.96	112.98	120.52
32	XA	1519	MA6	C10-N6-C9	-2.96	106.67	116.18
1	YA	1942	5MC	C5-C4-N3	-2.94	118.74	121.75
32	XA	967	5MC	C5-C4-N3	-2.94	118.75	121.75
1	RA	2251	OMG	C6-C5-N7	2.93	135.62	130.29
32	XA	1518	MA6	C5-N7-C8	2.89	108.00	103.45
1	YA	1939	5MU	O2-C2-N1	-2.89	119.03	122.80
43	XL	92	0TD	OD2-CG-CB	2.89	119.39	113.15
1	YA	2251	OMG	C6-C5-N7	2.88	135.53	130.29
32	QA	1518	MA6	C5-N7-C8	2.87	107.97	103.45
1	YA	2552	2MU	O2-C2-N1	-2.85	119.09	122.80
32	XA	1404	5MC	C5-C4-N3	-2.85	118.84	121.75
32	XA	527	7MG	C5-C6-N1	2.84	115.94	110.94

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	QA	1518	MA6	C10-N6-C6	-2.84	113.30	120.52
1	YA	1942	5MC	C5-C6-N1	-2.83	120.24	123.31
1	YA	2552	2MU	C5-C4-N3	2.82	118.75	114.80
32	XA	1518	MA6	C4-N9-C8	2.82	108.70	105.74
32	XA	1400	5MC	C5-C4-N3	-2.81	118.88	121.75
32	XA	1407	5MC	C5-C6-N1	-2.78	120.29	123.31
32	QA	1400	5MC	C5-C4-N3	-2.78	118.90	121.75
32	XA	1519	MA6	C5-N7-C8	2.77	107.80	103.45
32	QA	527	7MG	C5-C6-N1	2.76	115.80	110.94
32	QA	1407	5MC	C5-C4-N3	-2.75	118.93	121.75
32	XA	1207	2MG	C4-C5-N7	-2.75	106.31	110.67
32	QA	1519	MA6	C5-N7-C8	2.75	107.77	103.45
32	QA	1518	MA6	C4-N9-C8	2.74	108.62	105.74
1	RA	1942	5MC	C5-C4-N3	-2.74	118.95	121.75
32	XA	1518	MA6	N1-C6-N6	2.73	120.18	116.86
1	RA	2552	2MU	O4-C4-C5	-2.72	120.47	125.16
32	QA	1404	5MC	C5-C4-N3	-2.72	118.97	121.75
1	RA	2503	2MA	C2-N1-C6	2.72	122.28	118.10
1	YA	2503	2MA	C2-N1-C6	2.71	122.26	118.10
32	XA	1519	MA6	N1-C6-N6	2.71	120.15	116.86
1	YA	1962	5MC	C5-C4-N3	-2.70	118.98	121.75
1	YA	1915	5MU	C6-N1-C2	-2.68	118.63	121.30
1	RA	2503	2MA	N6-C6-N1	2.67	120.63	117.03
1	RA	1962	5MC	C5-C4-N3	-2.67	119.02	121.75
1	YA	2552	2MU	O4-C4-C5	-2.66	120.57	125.16
1	RA	2552	2MU	O2-C2-N1	-2.65	119.34	122.80
32	XA	1518	MA6	C10-N6-C9	-2.62	107.77	116.18
32	QA	967	5MC	C5-C4-N3	-2.61	119.08	121.75
1	YA	2503	2MA	N6-C6-N1	2.59	120.52	117.03
32	QA	1519	MA6	C4-N9-C8	2.59	108.45	105.74
1	RA	1915	5MU	O2-C2-N3	-2.56	116.77	121.49
1	RA	2503	2MA	C5-N7-C8	2.55	107.45	103.45
32	XA	966	M2G	C4-C5-N7	-2.55	106.63	110.67
1	YA	2503	2MA	C5-N7-C8	2.54	107.44	103.45
1	RA	2503	2MA	C4-N9-C8	2.53	108.39	105.74
32	QA	1207	2MG	C4-C5-N7	-2.50	106.71	110.67
1	YA	2251	OMG	C4-C5-N7	-2.49	106.72	110.67
1	RA	1920	4OC	O2-C2-N3	-2.47	118.44	122.33
32	QA	966	M2G	C4-C5-N7	-2.46	106.77	110.67
32	XA	1207	2MG	N1-C2-N2	2.45	119.06	116.56
1	RA	2251	OMG	C4-C5-N7	-2.45	106.79	110.67
1	YA	1915	5MU	O2-C2-N3	-2.45	116.98	121.49

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	QA	1518	MA6	C10-N6-C9	-2.44	108.35	116.18
32	QA	1518	MA6	C6-C5-N7	2.43	137.32	133.43
1	RA	1915	5MU	C5-C6-N1	-2.43	120.67	123.31
32	XA	1519	MA6	C4-N9-C8	2.42	108.28	105.74
1	YA	1942	5MC	O2-C2-N3	-2.42	118.51	122.33
1	YA	2503	2MA	C4-N9-C8	2.40	108.26	105.74
32	XA	527	7MG	C5-C4-N9	-2.35	103.32	106.33
32	XA	527	7MG	O6-C6-C5	-2.26	122.07	127.62
32	QA	527	7MG	C5-C4-N9	-2.23	103.48	106.33
32	QA	516	PSU	O4'-C1'-C2'	2.22	108.22	105.15
32	XA	1518	MA6	N9-C8-N7	-2.22	110.78	113.94
32	QA	527	7MG	O6-C6-C5	-2.21	122.18	127.62
32	QA	966	M2G	O6-C6-C5	-2.21	120.69	126.53
32	QA	1402	4OC	C6-C5-C4	2.21	119.66	117.00
32	QA	516	PSU	C5-C6-N1	-2.20	119.09	122.14
1	RA	2503	2MA	C6-C5-N7	2.19	136.32	132.09
1	YA	1915	5MU	C5-C6-N1	-2.18	120.94	123.31
32	QA	1207	2MG	O6-C6-C5	-2.18	120.78	126.53
1	YA	2503	2MA	C6-C5-N7	2.17	136.27	132.09
32	XA	1402	4OC	C6-C5-C4	2.16	119.61	117.00
32	QA	1518	MA6	N9-C8-N7	-2.16	110.87	113.94
1	RA	1942	5MC	O2-C2-N3	-2.14	118.95	122.33
1	RA	2251	OMG	O6-C6-C5	-2.14	120.88	126.53
32	XA	966	M2G	O6-C6-C5	-2.13	120.91	126.53
32	XA	1518	MA6	C6-C5-N7	2.12	136.81	133.43
1	RA	2552	2MU	C2'-C1'-N1	-2.12	110.22	114.24
1	YA	2552	2MU	C2'-C1'-N1	-2.11	110.23	114.24
32	XA	1207	2MG	N2-C2-N3	-2.10	117.84	120.51
1	RA	1911	PSU	C5-C6-N1	-2.08	119.26	122.14
32	XA	516	PSU	O4'-C1'-C2'	2.08	108.03	105.15
32	QA	1407	5MC	O2-C2-N3	-2.07	119.06	122.33
1	RA	2605	PSU	C5-C6-N1	-2.07	119.26	122.14
1	YA	2251	OMG	O6-C6-C5	-2.07	121.08	126.53
32	XA	1207	2MG	CM2-N2-C2	-2.06	119.22	123.65
1	YA	1962	5MC	O2-C2-N3	-2.06	119.08	122.33
32	QA	1404	5MC	O2-C2-N3	-2.05	119.10	122.33
32	XA	1519	MA6	C6-C5-N7	2.04	136.69	133.43
1	RA	1917	PSU	C5-C6-N1	-2.03	119.32	122.14
32	XA	516	PSU	C5-C6-N1	-2.03	119.32	122.14
32	XA	1407	5MC	O2-C2-N3	-2.00	119.17	122.33
32	QA	1498	UR3	C3U-N3-C2	2.00	120.82	117.33

There are no chirality outliers.

All (39) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
1	YA	1915	5MU	O4'-C1'-N1-C2
1	YA	1915	5MU	O4'-C1'-N1-C6
32	XA	1402	4OC	O4'-C4'-C5'-O5'
32	XA	1519	MA6	O4'-C4'-C5'-O5'
43	XL	92	0TD	O-C-CA-CB
32	QA	1402	4OC	O4'-C4'-C5'-O5'
32	QA	1519	MA6	O4'-C4'-C5'-O5'
43	QL	92	0TD	SB-CB-CG-OD2
1	RA	1915	5MU	O4'-C1'-N1-C2
1	RA	1915	5MU	O4'-C1'-N1-C6
54	QY	252	MEQ	N-CA-CB-CG
54	QY	252	MEQ	C-CA-CB-CG
54	XY	252	MEQ	N-CA-CB-CG
54	XY	252	MEQ	C-CA-CB-CG
32	XA	527	7MG	C3'-C4'-C5'-O5'
32	QA	1402	4OC	C3'-C4'-C5'-O5'
32	QA	527	7MG	C3'-C4'-C5'-O5'
32	QA	1519	MA6	C3'-C4'-C5'-O5'
54	QY	252	MEQ	NE2-CD-CG-CB
32	XA	1402	4OC	C3'-C4'-C5'-O5'
32	XA	1519	MA6	C3'-C4'-C5'-O5'
54	QY	252	MEQ	OE1-CD-CG-CB
32	QA	527	7MG	O4'-C4'-C5'-O5'
32	QA	1400	5MC	O4'-C4'-C5'-O5'
32	QA	1518	MA6	C5-C6-N6-C9
32	QA	1518	MA6	C5-C6-N6-C10
32	XA	527	7MG	O4'-C4'-C5'-O5'
32	XA	1518	MA6	C5-C6-N6-C10
32	QA	1519	MA6	C5-C6-N6-C10
43	XL	92	0TD	CG-CB-SB-CSB
43	QL	92	0TD	CG-CB-SB-CSB
32	XA	1400	5MC	O4'-C4'-C5'-O5'
32	QA	1400	5MC	C3'-C4'-C5'-O5'
32	XA	1519	MA6	C5-C6-N6-C9
32	QA	527	7MG	C4'-C5'-O5'-P
32	XA	527	7MG	C4'-C5'-O5'-P
43	XL	92	0TD	CA-CB-SB-CSB
43	XL	92	0TD	SB-CB-CG-OD2
32	QA	1404	5MC	C3'-C4'-C5'-O5'

There are no ring outliers.

22 monomers are involved in 23 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
32	QA	1519	MA6	1	0
32	QA	1498	UR3	1	0
43	XL	92	0TD	1	0
43	QL	92	0TD	1	0
1	RA	2503	2MA	1	0
1	YA	2251	OMG	1	0
1	RA	1942	5MC	1	0
1	RA	1939	5MU	2	0
32	QA	516	PSU	1	0
1	YA	1920	4OC	2	0
32	QA	1207	2MG	2	0
32	XA	1402	4OC	1	0
32	XA	1518	MA6	1	0
32	QA	966	M2G	1	0
32	QA	1402	4OC	1	0
1	YA	2503	2MA	1	0
32	XA	1207	2MG	1	0
32	QA	1518	MA6	1	0
1	YA	1939	5MU	1	0
32	QA	967	5MC	1	0
1	RA	1962	5MC	1	0
1	YA	1962	5MC	1	0

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

Of 2534 ligands modelled in this entry, 2532 are monoatomic - leaving 2 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
58	SF4	XD	301	35	0,12,12	-	-	-		
58	SF4	QD	302	35	0,12,12	-	-	-		

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

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

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2			OWAB(Å ²)	Q<0.9
1	RA	2856/2915 (97%)	0.29	156 (5%)	30	21	76, 86, 96, 102	0
1	YA	2856/2915 (97%)	0.58	190 (6%)	24	16	71, 83, 96, 100	0
2	RB	120/122 (98%)	0.09	2 (1%)	69	50	84, 90, 93, 96	0
2	YB	120/122 (98%)	-0.13	2 (1%)	69	50	80, 87, 91, 94	0
3	RD	275/276 (99%)	1.22	56 (20%)	3	2	77, 85, 89, 96	0
3	YD	275/276 (99%)	1.44	77 (28%)	1	1	76, 83, 89, 90	0
4	RE	204/206 (99%)	1.00	29 (14%)	6	5	78, 86, 91, 93	0
4	YE	204/206 (99%)	1.11	40 (19%)	3	3	77, 86, 90, 94	0
5	RF	203/210 (96%)	0.76	16 (7%)	18	14	81, 87, 92, 95	0
5	YF	203/210 (96%)	1.08	31 (15%)	5	5	76, 85, 91, 94	0
6	RG	181/182 (99%)	0.72	10 (5%)	30	21	87, 91, 94, 97	0
6	YG	181/182 (99%)	0.55	7 (3%)	43	29	85, 89, 93, 95	0
7	RH	174/180 (96%)	0.87	11 (6%)	26	17	86, 92, 95, 97	0
7	YH	173/180 (96%)	0.82	15 (8%)	16	12	82, 88, 92, 95	0
8	RI	147/148 (99%)	1.03	19 (12%)	7	6	85, 91, 94, 97	0
8	YI	146/148 (98%)	0.81	11 (7%)	20	15	84, 90, 94, 96	0
9	RN	140/140 (100%)	0.71	14 (10%)	12	10	83, 88, 92, 96	0
9	YN	140/140 (100%)	0.89	12 (8%)	16	12	80, 86, 91, 94	0
10	RO	122/122 (100%)	1.01	14 (11%)	9	8	79, 85, 90, 91	0
10	YO	122/122 (100%)	1.06	16 (13%)	7	6	78, 85, 89, 92	0
11	RP	149/150 (99%)	1.06	25 (16%)	4	4	78, 88, 92, 95	0
11	YP	149/150 (99%)	1.34	44 (29%)	1	1	77, 85, 90, 94	0
12	RQ	141/141 (100%)	0.76	9 (6%)	25	17	82, 87, 91, 93	0
12	YQ	141/141 (100%)	1.11	15 (10%)	11	9	77, 85, 89, 91	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
13	RR	118/118 (100%)	1.14	13 (11%) 10 9	81, 86, 89, 91	0
13	YR	118/118 (100%)	1.26	15 (12%) 8 6	80, 85, 89, 92	0
14	RS	110/112 (98%)	0.82	8 (7%) 21 15	84, 89, 93, 95	0
14	YS	110/112 (98%)	0.64	10 (9%) 15 11	82, 88, 91, 94	0
15	RT	131/146 (89%)	0.70	6 (4%) 37 25	82, 87, 91, 95	0
15	YT	131/146 (89%)	0.79	5 (3%) 44 30	82, 86, 92, 95	0
16	RU	116/118 (98%)	0.90	8 (6%) 23 16	82, 87, 92, 93	0
16	YU	116/118 (98%)	1.32	28 (24%) 2 1	78, 84, 90, 91	0
17	RV	101/101 (100%)	0.45	7 (6%) 23 16	81, 89, 92, 95	0
17	YV	101/101 (100%)	0.61	5 (4%) 34 23	80, 86, 91, 93	0
18	RW	112/113 (99%)	0.98	13 (11%) 9 8	80, 85, 90, 95	0
18	YW	112/113 (99%)	1.28	20 (17%) 3 3	78, 84, 90, 95	0
19	RX	95/96 (98%)	1.13	16 (16%) 4 4	83, 87, 90, 93	0
19	YX	95/96 (98%)	1.15	15 (15%) 5 4	79, 84, 89, 94	0
20	RY	107/110 (97%)	1.33	23 (21%) 2 2	85, 90, 93, 100	0
20	YY	107/110 (97%)	0.96	6 (5%) 30 20	82, 88, 92, 98	0
21	RZ	203/206 (98%)	0.85	13 (6%) 25 17	87, 90, 94, 99	0
21	YZ	201/206 (97%)	0.70	16 (7%) 18 14	83, 89, 94, 96	0
22	R0	77/85 (90%)	0.91	5 (6%) 25 17	83, 87, 90, 95	0
22	Y0	77/85 (90%)	1.35	15 (19%) 3 3	80, 85, 90, 95	0
23	R1	97/98 (98%)	1.23	18 (18%) 3 3	82, 86, 92, 94	0
23	Y1	97/98 (98%)	1.14	14 (14%) 6 5	78, 85, 91, 94	0
24	R2	70/72 (97%)	0.74	5 (7%) 22 15	83, 89, 92, 94	0
24	Y2	70/72 (97%)	1.30	13 (18%) 3 3	79, 86, 90, 97	0
25	R3	59/60 (98%)	0.89	3 (5%) 33 22	82, 88, 93, 98	0
25	Y3	59/60 (98%)	1.05	9 (15%) 5 5	79, 85, 91, 95	0
26	R4	69/71 (97%)	1.09	10 (14%) 6 5	89, 93, 96, 97	0
26	Y4	69/71 (97%)	1.01	4 (5%) 29 19	87, 92, 96, 97	0
27	R5	59/60 (98%)	0.94	11 (18%) 3 3	78, 86, 92, 95	0
27	Y5	59/60 (98%)	0.98	9 (15%) 5 5	78, 85, 92, 97	0
28	R6	53/54 (98%)	1.22	10 (18%) 3 3	89, 93, 96, 100	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
28	Y6	53/54 (98%)	1.12	6 (11%) 10 8	88, 92, 95, 97	0
29	R7	48/49 (97%)	1.57	11 (22%) 2 2	79, 84, 91, 93	0
29	Y7	48/49 (97%)	2.02	18 (37%) 1 1	76, 81, 88, 93	0
30	R8	64/65 (98%)	1.33	10 (15%) 5 4	81, 86, 90, 91	0
30	Y8	64/65 (98%)	1.64	16 (25%) 2 1	76, 83, 89, 90	0
31	R9	37/37 (100%)	1.35	8 (21%) 2 2	88, 90, 94, 97	0
31	Y9	37/37 (100%)	1.30	6 (16%) 4 4	84, 89, 91, 91	0
32	QA	1488/1521 (97%)	0.26	45 (3%) 52 35	83, 90, 96, 103	0
32	XA	1492/1521 (98%)	0.21	32 (2%) 63 44	78, 90, 96, 101	0
33	QB	231/256 (90%)	0.98	23 (9%) 12 10	88, 92, 95, 97	0
33	XB	231/256 (90%)	0.76	16 (6%) 23 16	87, 91, 95, 98	0
34	QC	206/239 (86%)	0.69	8 (3%) 43 29	88, 91, 94, 96	0
34	XC	206/239 (86%)	0.63	14 (6%) 23 16	87, 90, 93, 96	0
35	QD	208/209 (99%)	0.73	11 (5%) 32 22	85, 89, 93, 97	0
35	XD	208/209 (99%)	1.00	30 (14%) 6 5	85, 90, 94, 97	0
36	QE	148/162 (91%)	0.52	3 (2%) 65 46	85, 90, 93, 95	0
36	XE	148/162 (91%)	0.38	4 (2%) 56 37	85, 88, 92, 94	0
37	QF	100/101 (99%)	0.51	1 (1%) 79 63	87, 90, 93, 95	0
37	XF	100/101 (99%)	0.44	2 (2%) 65 46	83, 89, 93, 95	0
38	QG	155/156 (99%)	0.73	9 (5%) 29 19	88, 91, 94, 96	0
38	XG	155/156 (99%)	0.64	10 (6%) 25 17	87, 91, 95, 96	0
39	QH	137/138 (99%)	0.75	12 (8%) 15 12	86, 89, 92, 94	0
39	XH	137/138 (99%)	0.73	5 (3%) 46 31	82, 89, 92, 94	0
40	QI	127/128 (99%)	1.61	40 (31%) 1 1	86, 92, 95, 96	0
40	XI	126/128 (98%)	1.20	18 (14%) 6 5	85, 92, 95, 98	0
41	QJ	97/105 (92%)	1.54	22 (22%) 2 2	86, 92, 95, 97	0
41	XJ	96/105 (91%)	1.15	21 (21%) 2 2	87, 91, 94, 96	0
42	QK	114/129 (88%)	0.52	11 (9%) 13 11	86, 90, 93, 94	0
42	XK	114/129 (88%)	0.59	9 (7%) 18 14	82, 88, 92, 95	0
43	QL	121/132 (91%)	1.01	17 (14%) 6 5	81, 87, 90, 92	0
43	XL	121/132 (91%)	1.00	17 (14%) 6 5	83, 87, 91, 93	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
44	QM	116/126 (92%)	1.08	12 (10%) 12 10	88, 92, 95, 97	0
44	XM	114/126 (90%)	0.88	11 (9%) 13 11	87, 91, 94, 95	0
45	QN	60/61 (98%)	1.54	18 (30%) 1 1	87, 91, 94, 95	0
45	XN	60/61 (98%)	1.21	11 (18%) 3 3	88, 90, 93, 95	0
46	QO	88/89 (98%)	0.69	5 (5%) 29 20	86, 89, 93, 94	0
46	XO	88/89 (98%)	0.83	9 (10%) 12 10	84, 89, 92, 94	0
47	QP	82/88 (93%)	0.84	8 (9%) 13 10	84, 89, 91, 93	0
47	XP	82/88 (93%)	1.02	10 (12%) 8 7	86, 90, 92, 95	0
48	QQ	99/105 (94%)	0.62	5 (5%) 33 22	85, 89, 93, 95	0
48	XQ	99/105 (94%)	0.80	9 (9%) 15 11	85, 88, 91, 93	0
49	QR	68/88 (77%)	0.63	3 (4%) 39 25	86, 90, 94, 96	0
49	XR	68/88 (77%)	0.40	0 100 100	83, 89, 92, 93	0
50	QS	83/93 (89%)	1.27	15 (18%) 3 3	88, 92, 95, 97	0
50	XS	83/93 (89%)	1.25	15 (18%) 3 3	89, 92, 94, 96	0
51	QT	96/106 (90%)	1.27	22 (22%) 2 2	84, 89, 91, 93	0
51	XT	98/106 (92%)	1.31	24 (24%) 2 1	86, 90, 93, 94	0
52	QU	23/27 (85%)	2.14	10 (43%) 0 0	88, 92, 94, 95	0
52	XU	23/27 (85%)	2.08	13 (56%) 0 0	89, 91, 93, 93	0
53	QV	77/77 (100%)	0.04	3 (3%) 43 29	85, 91, 96, 98	0
53	XV	77/77 (100%)	-0.05	2 (2%) 57 38	83, 90, 96, 100	0
54	QY	356/380 (93%)	0.90	36 (10%) 12 10	86, 92, 96, 99	0
54	XY	356/380 (93%)	0.88	38 (10%) 11 9	84, 91, 96, 99	0
55	QX	6/25 (24%)	0.84	1 (16%) 4 4	87, 90, 91, 92	0
55	XX	6/25 (24%)	0.38	0 100 100	85, 88, 91, 91	0
All	All	21446/22208 (96%)	0.69	1909 (8%) 15 12	71, 88, 95, 103	0

All (1909) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
3	RD	276	LYS	11.0
22	Y0	8	GLY	9.7
20	YY	1	MET	9.1
1	YA	2141	G	7.8
1	YA	2140	C	7.4

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Mol	Chain	Res	Type	RSRZ
21	YZ	192	ALA	7.1
51	XT	11	SER	6.8
21	RZ	199	LYS	6.8
4	RE	151	TYR	6.7
1	YA	1091	G	6.3
13	YR	69	ASP	6.3
1	RA	1064	C	6.3
43	QL	64	TYR	6.2
1	YA	2154	G	6.2
1	YA	2139	C	6.2
1	YA	2153	G	6.2
10	RO	74	GLY	6.2
4	RE	159	HIS	6.1
21	YZ	193	GLU	6.0
11	YP	15	ARG	5.9
29	Y7	48	LYS	5.8
43	XL	28	LYS	5.8
1	YA	2108	C	5.8
18	YW	13	SER	5.7
22	R0	8	GLY	5.7
1	YA	2142	C	5.7
21	RZ	195	GLU	5.7
20	RY	1	MET	5.6
1	YA	2151	G	5.6
1	YA	1083	U	5.5
32	QA	1036	G	5.5
23	R1	2	SER	5.5
21	RZ	192	ALA	5.5
40	QI	127	LYS	5.5
21	YZ	196	VAL	5.5
31	Y9	28	GLU	5.4
1	RA	229	A	5.4
29	Y7	1	MET	5.4
42	XK	117	ASN	5.4
1	RA	1067	A	5.4
21	RZ	191	VAL	5.3
51	QT	9	ASN	5.3
25	R3	60	GLU	5.3
1	YA	2116	G	5.3
1	YA	2147	G	5.3
23	Y1	2	SER	5.3
1	YA	653	A	5.3

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Mol	Chain	Res	Type	RSRZ
1	YA	2155	G	5.3
21	YZ	197	ILE	5.3
1	YA	1095	A	5.2
1	YA	1509(A)	C	5.2
1	YA	2804	C	5.2
18	YW	94	ASP	5.2
3	YD	39	LYS	5.2
1	RA	1090	U	5.2
45	QN	2	ALA	5.2
24	R2	1	MET	5.1
1	YA	2143	C	5.1
44	QM	117	VAL	5.1
1	RA	2110	G	5.1
21	RZ	202	GLU	5.0
24	Y2	11	GLU	5.0
6	YG	35	GLU	5.0
10	YO	108	GLU	5.0
1	YA	2152	G	4.9
1	RA	2896	C	4.9
21	RZ	196	VAL	4.9
20	RY	29	GLU	4.9
1	YA	1026	U	4.9
1	RA	2142	C	4.9
1	YA	2162	G	4.9
43	QL	23	LYS	4.8
11	RP	35	HIS	4.8
7	YH	57	ASP	4.8
7	YH	47	GLU	4.8
29	Y7	23	ARG	4.8
1	YA	2173	A	4.8
1	YA	2805	G	4.8
1	RA	2125	G	4.8
20	RY	44	ILE	4.8
1	RA	2138	C	4.7
10	YO	91	LEU	4.7
4	YE	151	TYR	4.7
29	R7	1	MET	4.7
1	YA	2807	G	4.6
40	QI	109	VAL	4.6
6	RG	76	SER	4.6
1	YA	1090	U	4.6
18	YW	92	ARG	4.6

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Mol	Chain	Res	Type	RSRZ
1	YA	1076	C	4.6
35	XD	163	GLU	4.6
1	YA	1075	C	4.6
1	YA	2793	G	4.6
1	RA	2144	U	4.5
1	RA	1046	A	4.5
32	XA	88	A	4.5
1	RA	2146	C	4.5
21	YZ	200	GLY	4.5
1	RA	2804	C	4.5
3	RD	52	ARG	4.5
1	RA	2124	G	4.5
45	XN	2	ALA	4.5
51	XT	103	GLY	4.5
32	QA	345	C	4.5
23	R1	27	GLU	4.5
1	RA	2116	G	4.5
24	Y2	66	GLU	4.5
16	YU	28	ARG	4.5
1	RA	2174	C	4.4
1	YA	2172	U	4.4
1	RA	2162	G	4.4
3	YD	235	GLY	4.4
1	YA	2062	A	4.4
1	YA	277	C	4.4
32	QA	1030(C)	C	4.4
1	YA	1067	A	4.4
1	YA	1103	A	4.4
1	RA	2143	C	4.4
50	QS	9	VAL	4.4
1	YA	1087	G	4.3
12	YQ	85	LYS	4.3
14	RS	3	ARG	4.3
29	Y7	47	ARG	4.3
40	QI	105	ASP	4.3
1	YA	1081	U	4.3
1	YA	2144	U	4.3
3	YD	239	ARG	4.3
1	YA	2160	G	4.3
1	RA	2159	G	4.3
1	YA	1089	G	4.3
1	RA	2120	G	4.3

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Mol	Chain	Res	Type	RSRZ
20	RY	62	GLU	4.3
52	QU	17	THR	4.3
1	RA	1085	A	4.2
1	RA	2153	G	4.2
1	RA	2793	G	4.2
1	YA	2174	C	4.2
32	XA	1030(C)	C	4.2
30	Y8	65	GLU	4.2
32	QA	1286	A	4.2
1	YA	1080	C	4.2
1	YA	2125	G	4.2
1	RA	2141	G	4.2
48	XQ	100	LYS	4.2
3	RD	275	LYS	4.2
21	RZ	200	GLY	4.2
12	YQ	13	GLN	4.1
51	XT	6	PRO	4.1
52	QU	14	TRP	4.1
1	YA	1065	U	4.1
1	YA	1536	C	4.1
1	YA	2135	A	4.1
41	QJ	4	ILE	4.1
11	YP	3	LEU	4.1
10	YO	1	MET	4.1
35	QD	73	ARG	4.1
43	QL	5	PRO	4.1
1	RA	2139	C	4.1
10	RO	1	MET	4.1
10	YO	5	GLN	4.1
54	XY	50	PRO	4.0
34	XC	2	GLY	4.0
1	YA	2130	U	4.0
1	RA	1065	U	4.0
45	QN	20	ALA	4.0
4	RE	163	GLU	4.0
21	YZ	187	ALA	4.0
3	YD	38	LYS	4.0
1	RA	1076	C	4.0
22	R0	71	ASP	4.0
1	YA	1093	G	4.0
51	QT	22	ARG	4.0
1	RA	653	A	4.0

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Mol	Chain	Res	Type	RSRZ
1	RA	2111	C	4.0
1	RA	2140	C	4.0
8	YI	20	ASP	4.0
1	RA	2894	G	3.9
30	Y8	56	GLU	3.9
45	QN	18	VAL	3.9
1	RA	1083	U	3.9
40	QI	106	ALA	3.9
40	QI	126	SER	3.9
1	RA	2169	A	3.9
1	YA	2161	C	3.9
1	YA	2803	C	3.9
45	QN	5	ALA	3.9
35	XD	69	GLY	3.9
19	YX	33	LYS	3.9
1	RA	2170	A	3.9
32	QA	1531	A	3.9
1	YA	2145	C	3.9
1	RA	2147	G	3.9
1	RA	2154	G	3.9
1	YA	2167	U	3.9
4	RE	149	ARG	3.8
1	YA	1070	A	3.8
21	RZ	194	PRO	3.8
1	YA	2132	U	3.8
3	RD	53	PHE	3.8
1	YA	2165	G	3.8
1	YA	2168	G	3.8
1	RA	2165	G	3.8
3	YD	225	ALA	3.8
40	XI	13	ALA	3.8
30	Y8	46	ARG	3.8
51	QT	25	ARG	3.8
1	YA	1063	G	3.8
1	RA	1087	G	3.8
21	RZ	198	LYS	3.8
40	QI	128	ARG	3.8
10	RO	5	GLN	3.8
1	RA	2145	C	3.8
12	RQ	16	ARG	3.8
42	QK	126	ARG	3.8
54	QY	278	ARG	3.8

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Mol	Chain	Res	Type	RSRZ
1	YA	2123	G	3.8
43	XL	91	LYS	3.8
44	QM	102	ARG	3.8
32	QA	160	A	3.8
1	YA	2137	C	3.7
28	Y6	2	ALA	3.7
1	RA	1062	G	3.7
1	RA	2131	G	3.7
15	YT	87	ASP	3.7
23	R1	22	GLY	3.7
3	RD	181	GLU	3.7
13	YR	41	ALA	3.7
1	RA	2172	U	3.7
54	QY	66	VAL	3.7
4	YE	159	HIS	3.7
1	RA	1509(A)	C	3.7
19	RX	1	MET	3.7
30	R8	65	GLU	3.7
1	RA	2805	G	3.7
5	RF	53	THR	3.7
51	XT	30	LYS	3.7
1	RA	2126	A	3.7
7	YH	7	LEU	3.7
30	Y8	28	GLY	3.7
54	QY	6	PRO	3.7
48	QQ	24	GLU	3.7
33	XB	136	VAL	3.7
5	YF	72	ARG	3.7
1	RA	2106	G	3.7
54	QY	81	SER	3.7
12	YQ	9	TYR	3.7
43	XL	64	TYR	3.7
1	RA	34	C	3.7
1	RA	2136	C	3.7
6	RG	75	LYS	3.7
45	QN	14	PRO	3.6
3	YD	144	ALA	3.6
33	QB	71	VAL	3.6
54	XY	80	VAL	3.6
1	YA	1082	U	3.6
1	YA	2150	U	3.6
1	RA	1026	U	3.6

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Mol	Chain	Res	Type	RSRZ
1	RA	2119	A	3.6
1	RA	2173	A	3.6
41	QJ	63	PHE	3.6
20	RY	43	ASN	3.6
26	Y4	66	SER	3.6
51	QT	11	SER	3.6
39	XH	2	LEU	3.6
1	YA	2118	U	3.6
1	RA	2122	U	3.6
32	QA	1532	U	3.6
1	RA	1089	G	3.6
1	RA	2155	G	3.6
1	YA	1077	A	3.6
1	YA	1085	A	3.6
5	YF	95	ARG	3.6
13	YR	68	ARG	3.6
1	YA	1072	C	3.6
1	YA	2138	C	3.6
1	RA	2137	C	3.6
3	RD	39	LYS	3.6
15	RT	35	LYS	3.6
19	YX	78	LYS	3.6
42	QK	117	ASN	3.6
1	YA	2133	G	3.6
1	YA	280	C	3.6
16	YU	56	ASP	3.6
40	XI	105	ASP	3.6
43	QL	89	ARG	3.6
50	XS	2	PRO	3.6
21	YZ	199	LYS	3.6
21	RZ	201	LYS	3.6
51	XT	21	LYS	3.6
24	Y2	70	GLN	3.5
16	YU	35	ALA	3.5
54	QY	174	ALA	3.5
51	XT	7	LYS	3.5
16	YU	27	LEU	3.5
24	Y2	12	GLU	3.5
51	QT	103	GLY	3.5
3	YD	185	VAL	3.5
29	R7	45	ALA	3.5
40	XI	11	LYS	3.5

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Mol	Chain	Res	Type	RSRZ
18	RW	86	LEU	3.5
1	RA	2123	G	3.5
1	RA	2152	G	3.5
1	YA	2146	C	3.5
52	QU	6	ARG	3.5
11	YP	34	GLY	3.5
52	XU	3	LYS	3.5
11	YP	12	ALA	3.5
11	YP	1	MET	3.5
19	RX	60	ARG	3.5
40	QI	12	GLU	3.5
1	YA	1088	A	3.5
1	RA	1095	A	3.5
32	QA	344	A	3.5
1	RA	2107	C	3.5
1	YA	2149	G	3.5
1	YA	2166	G	3.5
1	RA	2127	G	3.5
20	YY	63	LYS	3.5
41	XJ	55	LYS	3.5
3	YD	234	GLY	3.5
52	QU	11	GLY	3.5
13	RR	107	ASP	3.5
11	YP	52	GLU	3.5
3	YD	53	PHE	3.5
29	R7	48	LYS	3.5
1	RA	1086	A	3.5
32	QA	1001(A)	A	3.5
22	Y0	75	LEU	3.5
1	YA	614(C)	G	3.5
1	YA	669	G	3.5
14	YS	17	ARG	3.5
35	QD	67	ILE	3.4
1	YA	2107	C	3.4
1	RA	1091	G	3.4
4	YE	143	ASN	3.4
11	YP	44	GLY	3.4
35	QD	2	GLY	3.4
44	QM	100	GLY	3.4
5	YF	64	ILE	3.4
41	QJ	40	LEU	3.4
1	YA	1092	C	3.4

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Mol	Chain	Res	Type	RSRZ
4	YE	153	GLY	3.4
52	XU	2	GLY	3.4
44	XM	116	THR	3.4
16	RU	2	PRO	3.4
1	RA	888	C	3.4
2	YB	88	C	3.4
32	XA	1030(A)	C	3.4
4	YE	123	ALA	3.4
1	YA	1078	U	3.3
13	RR	72	ASP	3.3
4	YE	114	ALA	3.3
54	QY	211	GLY	3.3
17	YV	80	GLN	3.3
1	YA	2894	G	3.3
1	RA	2168	G	3.3
28	R6	10	LEU	3.3
43	QL	96	VAL	3.3
30	Y8	40	GLU	3.3
1	YA	529	A	3.3
51	QT	74	LYS	3.3
45	XN	5	ALA	3.3
24	R2	9	GLN	3.3
51	XT	10	LEU	3.3
31	R9	13	LYS	3.3
40	XI	110	GLU	3.3
1	YA	2319	G	3.3
1	RA	652(D)	G	3.3
1	RA	2156	G	3.3
19	YX	1	MET	3.3
20	RY	5	MET	3.3
54	QY	330	ASP	3.3
1	RA	2176	A	3.3
41	QJ	39	PRO	3.3
1	YA	2897	U	3.3
9	YN	115	ARG	3.3
11	RP	15	ARG	3.3
37	XF	9	VAL	3.3
33	QB	97	TRP	3.3
11	YP	74	GLU	3.3
43	XL	26	ALA	3.3
22	Y0	42	GLY	3.3
50	XS	84	GLY	3.3

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Mol	Chain	Res	Type	RSRZ
52	QU	5	ASP	3.3
54	QY	50	PRO	3.3
1	YA	275	G	3.3
1	YA	2124	G	3.3
1	RA	11	G	3.3
1	RA	2133	G	3.3
3	RD	51	VAL	3.3
11	YP	39	LYS	3.3
16	RU	34	LYS	3.3
18	YW	85	VAL	3.3
33	QB	93	VAL	3.3
34	XC	207	VAL	3.3
1	RA	1075	C	3.3
7	RH	105	LEU	3.2
8	RI	38	LEU	3.2
8	RI	39	ALA	3.2
16	YU	44	ASN	3.2
47	QP	19	ILE	3.2
1	YA	652(D)	G	3.2
1	YA	1074	G	3.2
1	RA	2180	U	3.2
20	RY	40	GLU	3.2
32	XA	1257	U	3.2
52	XU	11	GLY	3.2
1	RA	2105	C	3.2
13	RR	14	SER	3.2
33	QB	70	PHE	3.2
50	XS	9	VAL	3.2
8	RI	1	MET	3.2
46	XO	3	ILE	3.2
3	YD	48	ARG	3.2
13	RR	22	ARG	3.2
23	Y1	21	ARG	3.2
31	R9	37	GLY	3.2
35	XD	145	GLU	3.2
11	RP	29	LYS	3.2
30	Y8	52	LYS	3.2
39	QH	89	PRO	3.2
1	RA	2807	G	3.2
16	YU	90	VAL	3.2
43	QL	32	PHE	3.2
50	XS	56	GLN	3.2

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Mol	Chain	Res	Type	RSRZ
1	YA	888	C	3.2
5	YF	70	THR	3.2
39	XH	25	ASP	3.2
54	XY	174	ALA	3.2
30	R8	45	GLY	3.2
54	QY	248	GLY	3.2
3	RD	169	GLU	3.2
5	YF	27	GLU	3.2
14	RS	8	GLU	3.2
19	RX	33	LYS	3.2
41	QJ	37	PRO	3.2
54	QY	253	HIS	3.2
1	RA	2109	U	3.2
32	XA	1040	U	3.2
24	Y2	1	MET	3.2
11	YP	87	ASP	3.2
25	Y3	13	ILE	3.2
19	YX	57	LEU	3.2
40	QI	110	GLU	3.2
47	XP	1	MET	3.2
3	YD	2	ALA	3.2
8	RI	94	ALA	3.2
6	RG	54	GLU	3.1
1	YA	1046	A	3.1
1	YA	2169	A	3.1
45	QN	34	TYR	3.1
54	XY	66	VAL	3.1
1	YA	2148	G	3.1
3	YD	222	ARG	3.1
8	RI	138	ILE	3.1
30	R8	25	MET	3.1
21	YZ	118	GLN	3.1
40	QI	119	ALA	3.1
50	XS	4	SER	3.1
51	QT	70	SER	3.1
13	YR	72	ASP	3.1
40	XI	2	GLU	3.1
4	YE	173	VAL	3.1
7	YH	52	VAL	3.1
1	RA	2135	A	3.1
3	YD	275	LYS	3.1
11	RP	68	GLN	3.1

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Mol	Chain	Res	Type	RSRZ
27	R5	24	ALA	3.1
30	R8	35	GLN	3.1
1	YA	1064	C	3.1
1	YA	2129	C	3.1
11	YP	40	SER	3.1
11	YP	105	LEU	3.1
41	QJ	65	LEU	3.1
32	QA	1030(B)	G	3.1
12	YQ	25	ASP	3.1
16	YU	37	GLU	3.1
34	XC	206	GLU	3.1
54	XY	140	GLU	3.1
3	RD	232	PRO	3.1
33	QB	94	ASN	3.1
3	RD	182	LEU	3.1
1	YA	2171	A	3.1
11	RP	34	GLY	3.1
32	XA	532	A	3.1
1	YA	1079	C	3.1
1	YA	2128	C	3.1
3	YD	221	VAL	3.1
22	Y0	41	ARG	3.1
54	XY	256	ARG	3.1
3	RD	38	LYS	3.1
9	YN	104	LYS	3.1
23	R1	23	LYS	3.1
30	Y8	3	LYS	3.1
1	YA	1099	G	3.1
1	YA	2115	G	3.1
44	QM	9	ILE	3.1
18	YW	86	LEU	3.1
3	RD	41	GLY	3.1
18	YW	90	ARG	3.1
3	YD	237	GLU	3.1
39	QH	99	GLU	3.1
1	RA	652(C)	A	3.1
1	RA	2117	A	3.1
8	RI	109	ILE	3.1
36	XE	118	ILE	3.1
41	XJ	38	ILE	3.1
54	XY	44	PRO	3.1
54	XY	241	ILE	3.1

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Mol	Chain	Res	Type	RSRZ
8	RI	83	ALA	3.0
16	YU	43	GLY	3.0
43	XL	89	ARG	3.0
53	QV	53	G	3.0
44	XM	98	VAL	3.0
54	XY	46	VAL	3.0
22	Y0	46	LYS	3.0
40	QI	113	LYS	3.0
42	XK	123	LYS	3.0
13	YR	14	SER	3.0
54	QY	47	TRP	3.0
54	XY	232	ILE	3.0
38	XG	85	TYR	3.0
28	R6	34	LEU	3.0
1	YA	1057	A	3.0
1	RA	2062	A	3.0
8	RI	147	GLN	3.0
18	RW	92	ARG	3.0
35	QD	49	ARG	3.0
1	YA	34	C	3.0
1	YA	1100	C	3.0
1	RA	2163	C	3.0
3	YD	254	THR	3.0
42	XK	124	LYS	3.0
8	YI	85	GLU	3.0
1	RA	1081	U	3.0
1	RA	2808	U	3.0
5	YF	81	PRO	3.0
1	YA	1062	G	3.0
3	RD	37	LEU	3.0
30	R8	61	LEU	3.0
5	YF	73	ALA	3.0
39	QH	4	ASP	3.0
42	QK	123	LYS	3.0
13	YR	1	MET	3.0
20	YY	96	ILE	3.0
41	QJ	38	ILE	3.0
3	RD	247	ALA	3.0
29	Y7	41	ARG	3.0
40	QI	11	LYS	3.0
51	XT	73	HIS	3.0
4	YE	124	GLY	3.0

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Mol	Chain	Res	Type	RSRZ
16	YU	26	GLY	3.0
40	QI	115	GLY	3.0
3	RD	50	THR	3.0
40	QI	102	LEU	3.0
48	XQ	24	GLU	3.0
32	QA	978	A	3.0
3	YD	156	ALA	3.0
32	QA	1027	C	3.0
41	QJ	58	ASP	3.0
4	RE	59	VAL	3.0
33	QB	72	GLY	3.0
36	QE	85	GLY	3.0
43	QL	29	GLY	3.0
48	QQ	11	VAL	3.0
51	XT	18	GLN	3.0
54	QY	176	ILE	3.0
11	YP	6	LEU	2.9
27	Y5	7	PRO	2.9
35	XD	150	GLU	2.9
43	XL	16	GLU	2.9
1	YA	1058	G	2.9
32	QA	346	G	2.9
44	XM	97	PRO	2.9
3	YD	276	LYS	2.9
51	XT	14	LYS	2.9
51	QT	14	LYS	2.9
17	YV	73	SER	2.9
35	XD	99	SER	2.9
38	QG	21	VAL	2.9
39	QH	90	GLY	2.9
43	XL	29	GLY	2.9
1	YA	2164	C	2.9
3	YD	176	ARG	2.9
9	RN	74	ARG	2.9
33	XB	137	ARG	2.9
3	RD	219	PRO	2.9
12	RQ	22	LYS	2.9
16	RU	19	LYS	2.9
23	R1	10	LYS	2.9
41	XJ	64	GLU	2.9
11	YP	71	VAL	2.9
11	YP	53	GLY	2.9

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Mol	Chain	Res	Type	RSRZ
1	YA	363(A)	G	2.9
1	YA	944	G	2.9
1	YA	652(C)	A	2.9
19	RX	66	LEU	2.9
51	QT	10	LEU	2.9
54	XY	103	LEU	2.9
11	RP	39	LYS	2.9
44	XM	27	LYS	2.9
48	XQ	37	LYS	2.9
51	QT	21	LYS	2.9
21	YZ	194	PRO	2.9
25	R3	2	PRO	2.9
32	QA	1533	C	2.9
40	QI	123	PRO	2.9
3	YD	209	ALA	2.9
3	YD	250	TRP	2.9
17	YV	77	ALA	2.9
29	Y7	18	PHE	2.9
51	XT	70	SER	2.9
3	YD	273	ARG	2.9
39	XH	84	ARG	2.9
51	QT	41	ILE	2.9
4	YE	154	LYS	2.9
4	RE	127	ASP	2.9
15	YT	107	ASP	2.9
47	XP	69	THR	2.9
38	XG	83	ALA	2.9
1	RA	2171	A	2.9
53	QV	76	A	2.9
50	QS	51	VAL	2.9
54	QY	80	VAL	2.9
3	RD	48	ARG	2.9
22	Y0	74	ARG	2.9
5	RF	64	ILE	2.9
11	YP	42	SER	2.9
22	Y0	9	SER	2.9
41	XJ	56	HIS	2.9
30	R8	52	LYS	2.9
12	YQ	12	GLN	2.9
48	XQ	26	GLN	2.9
43	XL	61	THR	2.9
10	YO	45	GLU	2.9

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Mol	Chain	Res	Type	RSRZ
30	R8	40	GLU	2.9
29	R7	30	VAL	2.9
3	YD	207	GLY	2.9
3	YD	218	ARG	2.9
14	YS	7	TYR	2.9
23	R1	28	GLY	2.9
35	QD	4	TYR	2.9
42	XK	126	ARG	2.9
3	YD	184	LYS	2.9
32	QA	630	G	2.9
33	QB	172	ILE	2.9
8	RI	91	SER	2.8
1	YA	652(W)	C	2.8
1	YA	976	C	2.8
1	YA	1104	C	2.8
1	RA	2118	U	2.8
44	QM	103	THR	2.8
12	RQ	91	GLU	2.8
3	YD	229	VAL	2.8
11	YP	18	ARG	2.8
52	QU	15	ARG	2.8
12	RQ	8	LYS	2.8
19	RX	28	PHE	2.8
54	XY	204	LYS	2.8
4	YE	141	ILE	2.8
5	YF	75	HIS	2.8
1	YA	1096	A	2.8
4	RE	128	SER	2.8
7	RH	2	SER	2.8
16	YU	31	SER	2.8
23	Y1	19	GLN	2.8
30	Y8	43	GLN	2.8
3	YD	224	ALA	2.8
54	XY	55	ALA	2.8
19	YX	38	GLU	2.8
47	XP	22	THR	2.8
51	QT	71	THR	2.8
1	RA	1079	C	2.8
1	RA	2164	C	2.8
28	R6	42	TRP	2.8
4	YE	155	LYS	2.8
4	RE	152	LYS	2.8

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Mol	Chain	Res	Type	RSRZ
4	RE	155	LYS	2.8
28	R6	54	ILE	2.8
33	XB	196	LEU	2.8
33	QB	163	PHE	2.8
39	QH	107	LEU	2.8
28	R6	43	CYS	2.8
11	RP	38	GLN	2.8
46	XO	62	GLN	2.8
10	RO	28	SER	2.8
43	QL	22	SER	2.8
44	XM	107	ALA	2.8
19	RX	65	ARG	2.8
33	QB	131	PRO	2.8
41	QJ	53	PRO	2.8
7	YH	46	GLU	2.8
9	RN	7	LYS	2.8
11	YP	36	LYS	2.8
19	RX	63	LYS	2.8
27	Y5	59	GLU	2.8
30	Y8	44	LYS	2.8
1	YA	2117	A	2.8
1	RA	529	A	2.8
3	YD	147	LEU	2.8
3	YD	227	ASN	2.8
11	RP	20	GLY	2.8
19	RX	67	GLY	2.8
36	QE	13	ILE	2.8
50	XS	68	GLY	2.8
1	YA	2131	G	2.8
1	YA	2156	G	2.8
1	RA	1080	C	2.8
1	RA	2104	G	2.8
20	RY	35	TYR	2.8
32	XA	1029	C	2.8
32	XA	1036	G	2.8
32	QA	78	G	2.8
4	YE	137	HIS	2.8
5	RF	75	HIS	2.8
24	Y2	13	ALA	2.8
36	XE	20	GLN	2.8
22	R0	72	ARG	2.8
24	Y2	69	ARG	2.8

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Mol	Chain	Res	Type	RSRZ
5	YF	89	VAL	2.8
13	RR	73	VAL	2.8
33	XB	71	VAL	2.8
40	QI	28	VAL	2.8
33	QB	12	GLU	2.8
11	YP	37	GLY	2.8
1	YA	272(K)	U	2.8
1	RA	1070	A	2.8
1	RA	1078	U	2.8
1	RA	1082	U	2.8
14	YS	3	ARG	2.8
38	QG	5	ARG	2.8
3	RD	46	GLN	2.8
4	RE	154	LYS	2.8
1	RA	2166	G	2.8
23	Y1	14	VAL	2.8
40	QI	17	VAL	2.8
52	XU	23	PRO	2.8
4	RE	182	LEU	2.8
23	R1	38	SER	2.8
35	XD	157	LEU	2.8
43	XL	22	SER	2.8
54	XY	239	LEU	2.8
45	QN	13	THR	2.8
3	YD	55	GLY	2.7
4	RE	124	GLY	2.7
8	YI	34	GLY	2.7
11	YP	47	ASP	2.7
11	YP	54	GLY	2.7
40	QI	114	TYR	2.7
22	R0	74	ARG	2.7
3	RD	225	ALA	2.7
8	YI	146	ALA	2.7
12	RQ	114	ALA	2.7
1	YA	1101	U	2.7
10	YO	48	PRO	2.7
43	XL	5	PRO	2.7
44	QM	34	LEU	2.7
1	YA	1830	C	2.7
1	RA	2108	C	2.7
1	RA	2161	C	2.7
7	YH	4	ILE	2.7

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Mol	Chain	Res	Type	RSRZ
15	RT	22	PHE	2.7
21	RZ	193	GLU	2.7
33	XB	134	GLU	2.7
39	QH	134	ILE	2.7
50	QS	13	ASP	2.7
7	YH	51	ARG	2.7
51	QT	23	ARG	2.7
4	RE	121	ASN	2.7
41	QJ	57	LYS	2.7
5	YF	49	ALA	2.7
7	RH	45	VAL	2.7
9	RN	8	GLN	2.7
29	Y7	46	VAL	2.7
10	YO	21	CYS	2.7
43	QL	31	PRO	2.7
4	YE	122	PHE	2.7
9	RN	85	ILE	2.7
45	XN	7	ILE	2.7
47	QP	1	MET	2.7
21	RZ	190	GLU	2.7
1	YA	2693	A	2.7
1	RA	1077	A	2.7
11	YP	22	GLY	2.7
11	YP	118	GLY	2.7
11	YP	16	ARG	2.7
52	XU	9	ARG	2.7
40	XI	127	LYS	2.7
1	YA	766	C	2.7
53	XV	1	C	2.7
4	YE	28	ALA	2.7
34	QC	160	ALA	2.7
40	QI	15	ALA	2.7
54	QY	101	ALA	2.7
54	XY	281	HIS	2.7
11	YP	19	VAL	2.7
3	YD	257	LEU	2.7
9	YN	112	LEU	2.7
51	QT	24	LEU	2.7
20	RY	57	GLN	2.7
4	RE	141	ILE	2.7
9	RN	68	GLU	2.7
1	RA	2167	U	2.7

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Mol	Chain	Res	Type	RSRZ
1	RA	2801(B)	A	2.7
1	RA	2892	A	2.7
4	YE	187	ALA	2.7
17	RV	81	TYR	2.7
26	Y4	65	ASP	2.7
40	XI	15	ALA	2.7
5	YF	173	VAL	2.7
7	YH	67	LEU	2.7
10	RO	91	LEU	2.7
40	QI	65	VAL	2.7
1	YA	2175	C	2.7
54	XY	6	PRO	2.7
3	YD	269	PHE	2.7
14	RS	20	ARG	2.7
35	QD	122	ARG	2.7
31	Y9	13	LYS	2.7
43	QL	91	LYS	2.7
1	RA	652(V)	G	2.7
1	RA	2148	G	2.7
32	XA	69	G	2.7
1	YA	2109	U	2.7
20	RY	31	LEU	2.7
54	QY	70	LEU	2.7
1	RA	6	A	2.6
6	RG	20	ILE	2.6
7	RH	55	PRO	2.6
21	RZ	197	ILE	2.6
34	XC	28	GLN	2.6
46	XO	87	ILE	2.6
40	QI	33	PHE	2.6
51	XT	74	LYS	2.6
1	YA	652(U)	C	2.6
1	RA	2179	C	2.6
54	XY	257	THR	2.6
3	YD	111	LEU	2.6
3	YD	206	LEU	2.6
14	RS	7	TYR	2.6
26	Y4	63	TYR	2.6
34	XC	29	TYR	2.6
38	QG	154	TYR	2.6
5	YF	69	HIS	2.6
1	YA	2157	G	2.6

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Mol	Chain	Res	Type	RSRZ
1	YA	2187	G	2.6
1	YA	2792	G	2.6
29	Y7	7	PRO	2.6
32	QA	79	G	2.6
32	QA	1220	G	2.6
44	QM	4	ILE	2.6
3	RD	261	LYS	2.6
4	YE	121	ASN	2.6
10	YO	4	PRO	2.6
22	Y0	76	GLY	2.6
41	XJ	36	GLY	2.6
51	XT	102	GLY	2.6
40	QI	35	GLU	2.6
18	RW	39	THR	2.6
34	XC	192	THR	2.6
5	YF	88	VAL	2.6
34	XC	175	LEU	2.6
54	QY	53	ALA	2.6
54	QY	103	LEU	2.6
1	YA	2111	C	2.6
1	YA	2136	C	2.6
1	RA	652(U)	C	2.6
32	XA	1037	C	2.6
16	YU	24	TYR	2.6
12	RQ	6	ARG	2.6
23	R1	3	LYS	2.6
43	QL	47	LYS	2.6
45	XN	12	ARG	2.6
51	QT	8	ARG	2.6
3	YD	228	PRO	2.6
45	XN	37	PHE	2.6
46	QO	59	MET	2.6
23	Y1	16	ASN	2.6
23	R1	42	GLN	2.6
4	YE	125	GLY	2.6
1	YA	2120	G	2.6
1	RA	1063	G	2.6
1	RA	2115	G	2.6
2	YB	87	G	2.6
32	QA	1001(B)	G	2.6
3	YD	155	LEU	2.6
41	QJ	42	THR	2.6

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Mol	Chain	Res	Type	RSRZ
51	QT	72	LEU	2.6
54	XY	77	LEU	2.6
50	XS	45	VAL	2.6
11	YP	33	ARG	2.6
11	YP	50	ARG	2.6
11	RP	18	ARG	2.6
32	QA	60	A	2.6
3	RD	106	ILE	2.6
48	QQ	100	LYS	2.6
19	RX	69	TYR	2.6
8	RI	111	PRO	2.6
16	YU	2	PRO	2.6
18	YW	63	ASP	2.6
24	R2	52	ASP	2.6
35	XD	2	GLY	2.6
7	RH	103	LEU	2.6
8	YI	35	LEU	2.6
12	YQ	17	LEU	2.6
13	YR	4	LEU	2.6
24	R2	5	GLU	2.6
11	RP	71	VAL	2.6
23	R1	14	VAL	2.6
31	Y9	25	VAL	2.6
19	RX	35	THR	2.6
40	QI	13	ALA	2.6
1	YA	272(N)	U	2.6
1	YA	1372	U	2.6
3	RD	35	LYS	2.6
12	YQ	5	ARG	2.6
12	YQ	41	TRP	2.6
54	XY	181	ILE	2.6
54	XY	209	SER	2.6
1	YA	2801(B)	A	2.6
1	RA	1088	A	2.6
17	RV	80	GLN	2.6
32	XA	1286	A	2.6
32	QA	161	A	2.6
47	QP	82	GLN	2.6
11	YP	43	GLY	2.6
16	YU	7	GLY	2.6
3	YD	44	ASN	2.6
14	YS	61	ASN	2.6

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Mol	Chain	Res	Type	RSRZ
22	Y0	12	ASN	2.6
35	QD	135	LEU	2.6
1	YA	2794(A)	C	2.6
3	RD	144	ALA	2.6
7	RH	114	VAL	2.6
21	YZ	191	VAL	2.6
33	QB	136	VAL	2.6
8	RI	95	LYS	2.6
24	Y2	15	LYS	2.6
40	XI	10	ARG	2.6
51	QT	29	LYS	2.6
44	QM	116	THR	2.6
33	XB	214	ILE	2.5
1	RA	2150	U	2.5
5	YF	97	TYR	2.5
6	YG	68	PRO	2.5
5	YF	60	SER	2.5
22	Y0	16	SER	2.5
3	YD	47	GLY	2.5
11	YP	38	GLN	2.5
11	RP	44	GLY	2.5
11	RP	105	LEU	2.5
16	RU	83	LEU	2.5
24	Y2	53	LEU	2.5
39	QH	2	LEU	2.5
54	XY	192	LEU	2.5
1	YA	2159	G	2.5
4	RE	143	ASN	2.5
9	RN	84	LYS	2.5
35	XD	3	ARG	2.5
40	XI	109	VAL	2.5
40	QI	66	ARG	2.5
43	XL	23	LYS	2.5
47	QP	25	ARG	2.5
21	YZ	186	GLU	2.5
32	XA	1531	A	2.5
54	QY	102	GLU	2.5
18	YW	95	ILE	2.5
52	XU	14	TRP	2.5
1	RA	1536	C	2.5
1	RA	2128	C	2.5
32	XA	811	C	2.5

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Mol	Chain	Res	Type	RSRZ
11	RP	63	PRO	2.5
4	YE	128	SER	2.5
1	RA	2897	U	2.5
5	RF	148	LEU	2.5
32	QA	1348	U	2.5
34	XC	12	LEU	2.5
4	YE	111	ARG	2.5
18	RW	4	LYS	2.5
41	XJ	66	ARG	2.5
46	QO	54	ARG	2.5
6	YG	159	VAL	2.5
9	YN	53	VAL	2.5
38	QG	80	VAL	2.5
39	XH	15	ASN	2.5
41	XJ	76	ASN	2.5
54	XY	99	ALA	2.5
54	XY	255	ASN	2.5
3	YD	106	ILE	2.5
18	RW	95	ILE	2.5
40	XI	7	THR	2.5
41	QJ	100	THR	2.5
54	QY	257	THR	2.5
3	RD	15	PHE	2.5
1	YA	1073	A	2.5
32	XA	1001(A)	A	2.5
1	RA	1816	G	2.5
1	RA	2100	G	2.5
32	XA	1001(B)	G	2.5
4	YE	147	PRO	2.5
41	QJ	68	HIS	2.5
12	YQ	34	LEU	2.5
1	YA	1052	C	2.5
1	RA	1104	C	2.5
3	YD	223	GLY	2.5
12	RQ	92	GLY	2.5
13	YR	22	ARG	2.5
38	QG	59	LEU	2.5
50	QS	71	LEU	2.5
32	QA	1320	C	2.5
11	RP	25	SER	2.5
4	YE	116	VAL	2.5
18	RW	85	VAL	2.5

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Mol	Chain	Res	Type	RSRZ
54	QY	67	VAL	2.5
10	RO	76	ALA	2.5
40	XI	106	ALA	2.5
18	YW	78	GLU	2.5
10	YO	22	ILE	2.5
8	YI	1	MET	2.5
3	YD	50	THR	2.5
19	RX	18	TYR	2.5
27	Y5	5	PRO	2.5
42	QK	121	PRO	2.5
50	QS	2	PRO	2.5
4	YE	152	LYS	2.5
48	XQ	87	LYS	2.5
54	QY	106	LEU	2.5
1	YA	276	A	2.5
1	RA	1103	A	2.5
41	QJ	52	GLY	2.5
50	QS	68	GLY	2.5
4	YE	167	VAL	2.5
11	YP	70	GLN	2.5
1	YA	729	G	2.5
1	RA	1093	G	2.5
1	RA	2792	G	2.5
10	YO	42	SER	2.5
1	YA	2163	C	2.5
1	RA	652(W)	C	2.5
9	YN	10	GLU	2.5
9	YN	88	GLU	2.5
20	YY	5	MET	2.5
32	QA	1028	C	2.5
35	XD	179	GLU	2.5
47	XP	4	ILE	2.5
52	QU	13	ILE	2.5
54	QY	172	GLU	2.5
3	YD	226	MET	2.5
4	RE	168	MET	2.5
1	YA	1340	U	2.5
3	RD	40	THR	2.5
32	QA	1150	U	2.5
3	YD	168	ARG	2.5
11	YP	137	LYS	2.5
51	XT	27	LYS	2.5

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Mol	Chain	Res	Type	RSRZ
54	QY	206	PRO	2.5
34	XC	193	TYR	2.5
35	XD	4	TYR	2.5
40	XI	114	TYR	2.5
22	Y0	73	GLY	2.5
34	XC	158	GLY	2.5
34	QC	158	GLY	2.5
3	YD	51	VAL	2.5
18	RW	93	ALA	2.4
20	RY	65	ALA	2.4
10	YO	2	ILE	2.4
11	RP	40	SER	2.4
35	XD	83	SER	2.4
44	QM	78	ILE	2.4
51	XT	55	ILE	2.4
8	YI	10	GLU	2.4
12	YQ	7	MET	2.4
20	RY	64	GLU	2.4
18	YW	11	ARG	2.4
20	RY	2	ARG	2.4
27	Y5	17	ASP	2.4
35	XD	76	ARG	2.4
41	XJ	60	ARG	2.4
45	QN	4	LYS	2.4
1	RA	2151	G	2.4
3	RD	177	LEU	2.4
16	YU	38	THR	2.4
18	YW	100	THR	2.4
38	XG	16	LEU	2.4
39	QH	112	LEU	2.4
27	R5	22	HIS	2.4
32	QA	90	U	2.4
34	XC	201	TYR	2.4
44	XM	87	TYR	2.4
27	Y5	14	ALA	2.4
28	R6	22	ALA	2.4
5	YF	50	SER	2.4
5	YF	152	GLU	2.4
23	R1	57	GLU	2.4
25	Y3	11	SER	2.4
40	XI	126	SER	2.4
54	XY	61	SER	2.4

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Mol	Chain	Res	Type	RSRZ
5	YF	83	PHE	2.4
16	RU	40	PHE	2.4
5	YF	106	ARG	2.4
6	YG	67	LYS	2.4
6	RG	84	LYS	2.4
33	XB	133	LYS	2.4
40	QI	18	PHE	2.4
54	XY	96	PHE	2.4
7	YH	3	ARG	2.4
11	RP	16	ARG	2.4
19	RX	95	LEU	2.4
29	Y7	42	LEU	2.4
35	XD	96	LEU	2.4
41	QJ	90	LEU	2.4
38	XG	84	ASN	2.4
1	YA	6	A	2.4
1	RA	1096	A	2.4
32	QA	1492	A	2.4
48	XQ	7	THR	2.4
52	XU	17	THR	2.4
18	YW	87	PRO	2.4
46	XO	2	PRO	2.4
4	RE	139	GLY	2.4
5	RF	88	VAL	2.4
10	RO	38	VAL	2.4
11	RP	26	GLY	2.4
40	QI	5	TYR	2.4
2	RB	12	C	2.4
13	RR	41	ALA	2.4
44	QM	2	ALA	2.4
53	QV	1	C	2.4
1	YA	1071	G	2.4
1	RA	2121	G	2.4
32	XA	78	G	2.4
30	R8	15	LYS	2.4
3	YD	181	GLU	2.4
4	YE	163	GLU	2.4
23	Y1	27	GLU	2.4
39	QH	136	GLU	2.4
40	XI	9	ARG	2.4
10	RO	21	CYS	2.4
18	RW	51	LEU	2.4

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Mol	Chain	Res	Type	RSRZ
23	R1	46	LEU	2.4
33	QB	138	LEU	2.4
54	QY	77	LEU	2.4
29	Y7	40	TRP	2.4
42	XK	87	THR	2.4
45	QN	61	TRP	2.4
3	RD	122	ASP	2.4
5	RF	89	VAL	2.4
7	RH	43	VAL	2.4
33	QB	112	VAL	2.4
46	XO	49	ASP	2.4
14	YS	22	GLY	2.4
1	YA	1789	A	2.4
1	YA	2114	A	2.4
1	RA	2134	A	2.4
33	XB	172	ILE	2.4
13	YR	42	LYS	2.4
26	R4	2	LYS	2.4
1	YA	1779	U	2.4
1	YA	1983	C	2.4
1	YA	2896	C	2.4
1	RA	1040	C	2.4
1	RA	2803	C	2.4
7	YH	53	GLU	2.4
12	RQ	112	GLU	2.4
16	YU	39	LEU	2.4
25	Y3	60	GLU	2.4
32	XA	89	C	2.4
35	XD	78	LEU	2.4
40	XI	102	LEU	2.4
1	YA	2447	G	2.4
1	RA	2112	G	2.4
32	XA	1456	G	2.4
3	YD	10	THR	2.4
3	RD	265	PRO	2.4
3	RD	56	GLY	2.4
47	XP	17	TYR	2.4
47	XP	68	ASP	2.4
4	RE	114	ALA	2.4
33	XB	58	ILE	2.4
11	YP	46	LYS	2.4
52	XU	20	LYS	2.4

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Mol	Chain	Res	Type	RSRZ
11	RP	49	ARG	2.4
19	YX	65	ARG	2.4
23	Y1	26	ARG	2.4
48	QQ	91	ARG	2.4
51	XT	80	ARG	2.4
43	XL	32	PHE	2.4
1	YA	2119	A	2.4
4	RE	73	GLU	2.4
6	RG	35	GLU	2.4
12	YQ	80	GLU	2.4
26	R4	26	SER	2.4
41	XJ	59	SER	2.4
5	YF	66	PRO	2.4
25	R3	59	VAL	2.4
35	QD	7	PRO	2.4
40	QI	14	VAL	2.4
42	QK	114	VAL	2.4
51	QT	98	PRO	2.4
1	RA	1092	C	2.3
1	RA	2175	C	2.3
18	YW	112	GLY	2.3
3	RD	220	HIS	2.3
4	RE	60	ASN	2.3
16	YU	30	LYS	2.3
16	YU	34	LYS	2.3
5	RF	97	TYR	2.3
5	RF	164	ARG	2.3
18	YW	96	ILE	2.3
35	XD	209	ARG	2.3
36	QE	17	ALA	2.3
46	XO	88	ARG	2.3
52	XU	5	ASP	2.3
1	YA	2127	G	2.3
1	YA	2588	G	2.3
1	YA	2802	G	2.3
1	RA	1056	G	2.3
1	RA	1099	G	2.3
1	RA	1171	G	2.3
1	RA	2181	G	2.3
32	QA	1030(D)	G	2.3
6	YG	53	LEU	2.3
19	RX	57	LEU	2.3

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Mol	Chain	Res	Type	RSRZ
40	QI	96	LEU	2.3
43	XL	60	LEU	2.3
4	RE	150	VAL	2.3
7	YH	45	VAL	2.3
12	YQ	106	VAL	2.3
35	XD	133	VAL	2.3
4	YE	126	PRO	2.3
44	XM	113	PRO	2.3
9	YN	65	LYS	2.3
16	YU	51	LYS	2.3
3	YD	52	ARG	2.3
4	YE	119	ARG	2.3
22	Y0	36	ILE	2.3
36	XE	25	ARG	2.3
39	QH	84	ARG	2.3
52	XU	7	ARG	2.3
52	XU	15	ARG	2.3
54	QY	57	GLY	2.3
15	RT	52	ILE	2.3
40	QI	74	ILE	2.3
30	Y8	25	MET	2.3
32	XA	1532	U	2.3
41	XJ	78	ASN	2.3
2	RB	88	C	2.3
29	R7	42	LEU	2.3
5	RF	67	GLN	2.3
24	R2	56	GLN	2.3
6	YG	164	GLU	2.3
24	Y2	27	GLU	2.3
1	YA	2110	G	2.3
3	RD	221	VAL	2.3
3	RD	229	VAL	2.3
8	YI	3	VAL	2.3
23	Y1	70	VAL	2.3
27	R5	60	VAL	2.3
32	XA	77	G	2.3
32	QA	347	G	2.3
14	RS	11	LYS	2.3
17	RV	74	LYS	2.3
45	QN	9	LYS	2.3
5	YF	62	ARG	2.3
38	XG	5	ARG	2.3

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Mol	Chain	Res	Type	RSRZ
42	XK	121	PRO	2.3
46	QO	64	ARG	2.3
52	XU	10	ARG	2.3
3	YD	180	GLY	2.3
3	RD	49	ILE	2.3
3	YD	153	ALA	2.3
3	RD	224	ALA	2.3
8	YI	91	SER	2.3
15	RT	37	GLY	2.3
17	RV	70	ILE	2.3
23	Y1	18	ILE	2.3
33	XB	228	GLY	2.3
34	QC	157	ILE	2.3
27	R5	26	THR	2.3
35	XD	152	SER	2.3
35	XD	167	GLY	2.3
41	QJ	59	SER	2.3
54	XY	250	GLY	2.3
33	QB	148	TYR	2.3
10	RO	82	ASN	2.3
13	RR	100	LEU	2.3
28	Y6	36	LEU	2.3
33	QB	196	LEU	2.3
50	QS	16	LEU	2.3
1	YA	2134	A	2.3
1	RA	2158	A	2.3
1	RA	2320	A	2.3
5	RF	83	PHE	2.3
33	QB	152	PHE	2.3
1	YA	362	U	2.3
11	YP	68	GLN	2.3
16	RU	108	GLU	2.3
1	YA	2452	C	2.3
19	YX	52	VAL	2.3
19	YX	54	VAL	2.3
28	R6	8	LYS	2.3
29	R7	46	VAL	2.3
47	QP	2	VAL	2.3
54	XY	7	VAL	2.3
3	YD	274	ARG	2.3
13	RR	103	ARG	2.3
40	QI	42	ARG	2.3

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Mol	Chain	Res	Type	RSRZ
51	XT	15	ARG	2.3
51	XT	79	ARG	2.3
3	YD	11	PRO	2.3
3	YD	232	PRO	2.3
3	YD	249	PRO	2.3
38	XG	58	PRO	2.3
3	YD	56	GLY	2.3
25	Y3	14	GLY	2.3
34	QC	9	GLY	2.3
12	YQ	136	ALA	2.3
19	YX	34	ALA	2.3
25	Y3	42	ALA	2.3
54	XY	144	TRP	2.3
5	RF	41	LEU	2.3
14	YS	4	LEU	2.3
30	Y8	7	HIS	2.3
50	QS	14	HIS	2.3
19	RX	5	TYR	2.3
32	QA	1033	G	2.3
40	QI	125	TYR	2.3
28	R6	20	ASN	2.3
25	Y3	32	GLN	2.3
3	RD	264	LYS	2.3
1	YA	2170	A	2.3
3	RD	28	GLU	2.3
9	RN	9	VAL	2.3
11	YP	55	ARG	2.3
23	Y1	40	ARG	2.3
23	R1	21	ARG	2.3
33	XB	21	ARG	2.3
34	QC	207	VAL	2.3
35	XD	80	GLU	2.3
1	YA	12	U	2.3
1	RA	2895	U	2.3
6	RG	52	ILE	2.3
26	R4	5	ILE	2.3
41	XJ	74	ILE	2.3
3	YD	42	GLY	2.3
3	RD	42	GLY	2.3
3	RD	153	ALA	2.3
45	XN	30	ALA	2.3
1	YA	1053	C	2.3

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Mol	Chain	Res	Type	RSRZ
9	RN	73	THR	2.3
14	YS	21	THR	2.3
20	YY	14	LEU	2.3
34	QC	175	LEU	2.3
35	XD	89	THR	2.3
36	XE	119	LEU	2.3
54	XY	84	LEU	2.3
10	YO	28	SER	2.3
11	YP	56	SER	2.3
17	RV	73	SER	2.3
26	R4	67	TYR	2.3
47	QP	9	PHE	2.3
3	YD	126	GLN	2.3
9	YN	109	LYS	2.3
21	YZ	198	LYS	2.3
21	YZ	201	LYS	2.3
54	XY	344	ASN	2.3
41	XJ	46	ARG	2.3
7	RH	169	VAL	2.3
8	RI	92	VAL	2.3
18	YW	17	VAL	2.3
38	XG	33	ASP	2.3
54	QY	140	GLU	2.2
1	YA	2112	G	2.2
1	YA	2182	G	2.2
1	RA	956	G	2.2
32	QA	159	G	2.2
32	QA	1031	G	2.2
49	QR	65	ILE	2.2
50	XS	49	ILE	2.2
6	RG	87	PRO	2.2
26	R4	64	GLY	2.2
33	QB	237	ALA	2.2
51	QT	66	ALA	2.2
1	YA	1762	A	2.2
3	YD	231	HIS	2.2
5	YF	48	THR	2.2
13	RR	50	HIS	2.2
16	YU	40	PHE	2.2
20	RY	68	HIS	2.2
31	Y9	20	HIS	2.2
34	QC	95	THR	2.2

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Mol	Chain	Res	Type	RSRZ
42	QK	125	PHE	2.2
13	RR	15	SER	2.2
23	Y1	17	SER	2.2
30	Y8	21	LYS	2.2
54	XY	362	LYS	2.2
1	YA	2774	C	2.2
1	RA	806	C	2.2
3	RD	263	ARG	2.2
22	Y0	55	ARG	2.2
29	Y7	9	ARG	2.2
32	XA	1039	C	2.2
45	QN	3	ARG	2.2
18	RW	76	VAL	2.2
20	RY	45	VAL	2.2
29	R7	36	GLN	2.2
51	QT	26	ASN	2.2
3	YD	109	ASP	2.2
10	RO	81	ASP	2.2
33	QB	162	ILE	2.2
41	QJ	82	ILE	2.2
48	QQ	59	ILE	2.2
50	XS	31	ILE	2.2
3	YD	167	GLY	2.2
3	YD	177	LEU	2.2
7	RH	71	LEU	2.2
11	RP	45	LEU	2.2
11	RP	103	ALA	2.2
26	R4	7	PRO	2.2
27	R5	58	LEU	2.2
28	Y6	10	LEU	2.2
34	QC	159	GLY	2.2
47	QP	24	ALA	2.2
50	XS	71	LEU	2.2
28	Y6	42	TRP	2.2
1	YA	1828	G	2.2
3	YD	35	LYS	2.2
3	RD	259	THR	2.2
4	YE	129	HIS	2.2
4	YE	132	HIS	2.2
32	XA	631	G	2.2
32	XA	1030(B)	G	2.2
32	XA	1030(D)	G	2.2

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Mol	Chain	Res	Type	RSRZ
32	QA	1032	G	2.2
44	XM	115	LYS	2.2
3	RD	60	ARG	2.2
40	QI	111	ARG	2.2
44	XM	102	ARG	2.2
45	QN	21	TYR	2.2
50	QS	52	TYR	2.2
1	YA	2126	A	2.2
1	RA	2629	A	2.2
32	QA	1035	A	2.2
12	YQ	96	VAL	2.2
43	XL	18	VAL	2.2
47	XP	82	GLN	2.2
8	RI	43	ASN	2.2
15	YT	52	ILE	2.2
24	Y2	50	ILE	2.2
26	R4	39	CYS	2.2
32	QA	1019	C	2.2
32	QA	1397	C	2.2
35	XD	102	ASP	2.2
51	QT	64	ASP	2.2
3	RD	223	GLY	2.2
4	YE	131	ALA	2.2
4	RE	162	ALA	2.2
13	YR	32	GLY	2.2
18	YW	91	GLY	2.2
18	RW	3	ALA	2.2
27	R5	7	PRO	2.2
40	QI	122	ALA	2.2
41	QJ	77	PRO	2.2
42	QK	115	PRO	2.2
45	QN	30	ALA	2.2
5	YF	93	LYS	2.2
16	YU	13	LYS	2.2
20	RY	4	LYS	2.2
18	RW	46	PHE	2.2
42	XK	125	PHE	2.2
19	YX	35	THR	2.2
4	YE	160	TYR	2.2
54	XY	187	TYR	2.2
14	RS	85	VAL	2.2
24	Y2	6	VAL	2.2

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Mol	Chain	Res	Type	RSRZ
25	Y3	56	VAL	2.2
27	Y5	60	VAL	2.2
48	XQ	35	VAL	2.2
8	YI	42	SER	2.2
26	Y4	26	SER	2.2
41	XJ	35	SER	2.2
5	YF	67	GLN	2.2
32	QA	1000	U	2.2
16	YU	17	ILE	2.2
3	YD	45	ASN	2.2
1	YA	278	A	2.2
1	YA	2587	A	2.2
1	RA	1073	A	2.2
3	YD	16	MET	2.2
9	RN	82	LEU	2.2
13	RR	70	LEU	2.2
32	XA	1256	A	2.2
35	XD	162	LEU	2.2
45	QN	8	GLU	2.2
54	QY	25	LEU	2.2
54	XY	153	LEU	2.2
3	RD	249	PRO	2.2
4	YE	139	GLY	2.2
15	RT	131	ALA	2.2
27	R5	41	PRO	2.2
29	Y7	25	PRO	2.2
33	XB	159	PRO	2.2
40	QI	8	GLY	2.2
47	XP	63	GLY	2.2
54	QY	250	GLY	2.2
20	RY	34	LYS	2.2
38	QG	36	LYS	2.2
43	QL	21	LYS	2.2
16	YU	33	ARG	2.2
40	QI	101	PHE	2.2
1	YA	1102	C	2.2
1	YA	2105	C	2.2
1	RA	1072	C	2.2
5	YF	199	TRP	2.2
32	QA	526	C	2.2
8	RI	108	THR	2.2
11	YP	35	HIS	2.2

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Mol	Chain	Res	Type	RSRZ
45	XN	13	THR	2.2
4	YE	165	VAL	2.2
35	XD	178	VAL	2.2
9	YN	8	GLN	2.2
12	YQ	64	ILE	2.2
29	Y7	36	GLN	2.2
35	QD	5	ILE	2.2
38	QG	27	ILE	2.2
49	QR	63	GLN	2.2
3	RD	215	LEU	2.2
9	RN	34	LEU	2.2
16	YU	18	LEU	2.2
18	YW	82	LEU	2.2
46	XO	56	LEU	2.2
51	XT	72	LEU	2.2
27	R5	2	ALA	2.2
35	QD	154	ASN	2.2
41	XJ	27	ALA	2.2
46	XO	83	GLU	2.2
3	YD	59	LYS	2.2
3	YD	246	PRO	2.2
4	YE	142	GLY	2.2
4	RE	148	GLY	2.2
8	RI	119	PRO	2.2
11	YP	76	LYS	2.2
11	RP	72	PRO	2.2
33	QB	159	PRO	2.2
42	XK	122	LYS	2.2
50	XS	76	PRO	2.2
52	QU	12	LYS	2.2
54	XY	57	GLY	2.2
4	RE	58	ARG	2.2
23	R1	41	ARG	2.2
25	Y3	55	ARG	2.2
27	Y5	16	ARG	2.2
28	R6	19	ARG	2.2
46	XO	68	ARG	2.2
5	YF	195	ASP	2.2
5	RF	90	PHE	2.2
11	YP	51	PHE	2.2
1	YA	229	A	2.2
1	YA	586	A	2.2

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Mol	Chain	Res	Type	RSRZ
1	YA	988	A	2.2
1	YA	1783	A	2.2
1	RA	1045	A	2.2
1	RA	2157	G	2.2
50	QS	34	TRP	2.2
19	RX	58	HIS	2.2
27	Y5	11	THR	2.1
29	Y7	15	THR	2.1
33	QB	7	VAL	2.1
38	XG	80	VAL	2.1
40	QI	108	VAL	2.1
54	QY	163	THR	2.1
20	RY	55	TYR	2.1
1	RA	2177	C	2.1
32	QA	1037	C	2.1
50	XS	40	ILE	2.1
4	YE	195	LEU	2.1
4	YE	133	LYS	2.1
13	YR	5	LYS	2.1
20	YY	34	LYS	2.1
41	XJ	57	LYS	2.1
3	YD	163	ALA	2.1
4	RE	131	ALA	2.1
3	RD	216	GLY	2.1
3	RD	44	ASN	2.1
4	YE	189	PRO	2.1
4	RE	106	GLY	2.1
11	YP	28	GLY	2.1
14	YS	10	ARG	2.1
23	R1	93	GLU	2.1
18	YW	80	PRO	2.1
18	RW	43	GLY	2.1
47	XP	25	ARG	2.1
23	R1	16	ASN	2.1
35	XD	77	ASN	2.1
51	XT	9	ASN	2.1
48	XQ	27	PHE	2.1
1	RA	2132	U	2.1
50	QS	12	ASP	2.1
16	YU	25	TRP	2.1
30	Y8	23	VAL	2.1
50	XS	67	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
54	XY	47	TRP	2.1
30	Y8	27	THR	2.1
50	XS	77	THR	2.1
32	XA	1005	A	2.1
42	QK	25	TYR	2.1
45	XN	21	TYR	2.1
3	RD	255	LYS	2.1
15	YT	19	LEU	2.1
20	RY	28	LYS	2.1
33	QB	155	LEU	2.1
40	QI	19	LEU	2.1
40	QI	95	LYS	2.1
41	XJ	71	LEU	2.1
54	QY	21	LEU	2.1
1	YA	652(V)	G	2.1
22	Y0	72	ARG	2.1
32	XA	1003	G	2.1
46	QO	58	MET	2.1
3	YD	199	ALA	2.1
9	RN	115	ARG	2.1
34	XC	11	ARG	2.1
45	QN	59	ALA	2.1
54	QY	213	ARG	2.1
3	YD	8	PRO	2.1
3	RD	245	PRO	2.1
4	YE	140	SER	2.1
31	R9	28	GLU	2.1
31	R9	30	PRO	2.1
35	XD	137	SER	2.1
45	QN	38	GLY	2.1
51	XT	69	GLY	2.1
32	QA	110	C	2.1
31	Y9	29	ASN	2.1
4	YE	127	ASP	2.1
5	RF	84	VAL	2.1
31	R9	11	CYS	2.1
41	XJ	44	VAL	2.1
41	XJ	58	ASP	2.1
50	XS	19	VAL	2.1
3	RD	254	THR	2.1
6	RG	161	THR	2.1
19	YX	37	THR	2.1

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Mol	Chain	Res	Type	RSRZ
23	Y1	33	LYS	2.1
27	R5	25	LEU	2.1
30	Y8	11	LYS	2.1
35	XD	21	LEU	2.1
41	XJ	40	LEU	2.1
41	QJ	48	THR	2.1
44	QM	27	LYS	2.1
52	QU	21	TYR	2.1
53	XV	47	U	2.1
54	QY	148	LEU	2.1
5	YF	188	ARG	2.1
14	RS	97	ARG	2.1
15	RT	108	ARG	2.1
24	Y2	68	ARG	2.1
31	R9	18	ARG	2.1
41	QJ	45	ARG	2.1
47	XP	26	ARG	2.1
5	YF	166	ALA	2.1
7	YH	156	ALA	2.1
16	YU	117	GLN	2.1
18	YW	93	ALA	2.1
33	QB	177	ALA	2.1
38	XG	2	ALA	2.1
38	QG	2	ALA	2.1
1	YA	654	A	2.1
1	YA	2158	A	2.1
1	RA	1098	A	2.1
1	RA	1787	A	2.1
4	RE	112	GLY	2.1
8	RI	8	PRO	2.1
11	YP	23	PRO	2.1
11	RP	43	GLY	2.1
17	RV	67	GLY	2.1
29	Y7	44	PRO	2.1
39	XH	5	PRO	2.1
40	XI	67	GLY	2.1
50	QS	84	GLY	2.1
3	RD	248	SER	2.1
45	XN	36	PHE	2.1
1	YA	10	G	2.1
1	YA	989	G	2.1
1	YA	1678	G	2.1

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Mol	Chain	Res	Type	RSRZ
1	RA	1059	G	2.1
9	YN	140	VAL	2.1
23	R1	62	VAL	2.1
32	QA	1034	G	2.1
32	QA	1144	G	2.1
42	QK	14	VAL	2.1
45	QN	25	VAL	2.1
1	YA	2065	C	2.1
1	RA	2129	C	2.1
32	XA	1137	C	2.1
32	QA	1006	C	2.1
8	YI	95	LYS	2.1
10	YO	31	LYS	2.1
19	YX	16	LYS	2.1
29	R7	2	LYS	2.1
43	XL	111	LYS	2.1
8	RI	88	ILE	2.1
13	YR	60	LEU	2.1
28	Y6	34	LEU	2.1
29	Y7	31	LEU	2.1
31	R9	17	ILE	2.1
33	XB	138	LEU	2.1
38	QG	16	LEU	2.1
41	QJ	50	ILE	2.1
44	XM	9	ILE	2.1
44	XM	22	ILE	2.1
3	YD	268	ARG	2.1
3	RD	218	ARG	2.1
13	YR	8	ARG	2.1
14	RS	17	ARG	2.1
17	RV	83	ARG	2.1
23	R1	35	THR	2.1
27	Y5	26	THR	2.1
28	R6	23	THR	2.1
34	XC	15	THR	2.1
7	YH	20	ALA	2.1
16	YU	48	ALA	2.1
29	R7	20	ALA	2.1
1	YA	1094	U	2.1
1	YA	1629	U	2.1
20	RY	58	GLY	2.1
3	YD	67	PHE	2.1

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Mol	Chain	Res	Type	RSRZ
3	YD	245	PRO	2.1
35	XD	136	PRO	2.1
11	RP	42	SER	2.1
22	R0	16	SER	2.1
26	R4	66	SER	2.1
7	RH	24	VAL	2.1
10	RO	24	VAL	2.1
19	YX	30	VAL	2.1
21	YZ	71	VAL	2.1
33	XB	93	VAL	2.1
41	XJ	49	VAL	2.1
1	RA	1057	A	2.1
8	RI	11	ASN	2.1
9	YN	118	LYS	2.1
16	YU	19	LYS	2.1
21	YZ	78	LYS	2.1
29	Y7	8	ASN	2.1
40	XI	118	LYS	2.1
55	QX	21	A	2.1
3	YD	271	ILE	2.1
3	RD	244	ARG	2.1
9	RN	99	LEU	2.1
10	YO	114	ILE	2.1
11	RP	65	ARG	2.1
13	YR	67	LEU	2.1
13	RR	68	ARG	2.1
19	RX	89	ILE	2.1
26	R4	9	LEU	2.1
30	Y8	42	ARG	2.1
34	XC	42	LEU	2.1
43	QL	60	LEU	2.1
43	QL	93	LEU	2.1
45	XN	6	LEU	2.1
52	QU	10	ARG	2.1
20	RY	107	ASP	2.1
31	Y9	12	ASP	2.1
54	XY	73	MET	2.1
25	Y3	15	TYR	2.1
1	YA	753	C	2.1
1	YA	2188	C	2.1
1	YA	2501	C	2.1
1	YA	1271	G	2.1

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Mol	Chain	Res	Type	RSRZ
1	YA	1630	G	2.1
1	YA	2104	G	2.1
1	YA	2106	G	2.1
1	YA	2318	G	2.1
1	YA	2581	G	2.1
1	RA	1068	G	2.1
1	RA	2160	G	2.1
7	RH	102	ALA	2.1
18	RW	89	ALA	2.1
32	QA	1202	G	2.1
38	XG	127	ALA	2.1
51	XT	12	ALA	2.1
3	RD	115	GLN	2.1
5	RF	76	GLY	2.1
10	RO	110	GLY	2.1
17	YV	101	GLY	2.1
37	QF	27	GLN	2.1
40	QI	67	GLY	2.1
42	QK	13	GLN	2.1
45	QN	55	GLY	2.1
48	XQ	54	GLY	2.1
3	YD	219	PRO	2.1
6	YG	32	PRO	2.1
11	RP	74	GLU	2.1
26	R4	49	PHE	2.1
35	QD	150	GLU	2.1
39	QH	77	GLU	2.1
41	XJ	54	PHE	2.1
49	QR	43	PHE	2.1
9	RN	5	VAL	2.0
23	Y1	48	LYS	2.0
27	R5	13	LYS	2.0
32	XA	1025	U	2.0
32	QA	1257	U	2.0
35	XD	140	VAL	2.0
43	XL	17	LYS	2.0
43	QL	24	VAL	2.0
51	XT	29	LYS	2.0
13	RR	6	SER	2.0
3	RD	65	ILE	2.0
4	YE	16	ARG	2.0
4	YE	55	ASN	2.0

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Mol	Chain	Res	Type	RSRZ
9	YN	114	ARG	2.0
10	YO	29	ASN	2.0
10	RO	25	LEU	2.0
11	YP	59	LEU	2.0
11	YP	75	ILE	2.0
14	YS	89	ARG	2.0
19	YX	76	ARG	2.0
20	RY	14	LEU	2.0
22	Y0	21	LEU	2.0
28	Y6	54	ILE	2.0
35	XD	154	ASN	2.0
50	QS	15	LEU	2.0
1	YA	2892	A	2.0
1	RA	887	A	2.0
1	RA	1786	A	2.0
1	RA	1969	A	2.0
1	RA	2114	A	2.0
3	YD	40	THR	2.0
3	YD	107	ALA	2.0
6	RG	50	ALA	2.0
16	RU	86	ALA	2.0
21	YZ	113	ALA	2.0
33	QB	88	ALA	2.0
40	QI	27	THR	2.0
42	XK	25	TYR	2.0
44	QM	59	TYR	2.0
54	QY	71	ASP	2.0
54	XY	53	ALA	2.0
4	RE	122	PHE	2.0
23	Y1	42	GLN	2.0
20	RY	74	PRO	2.0
29	R7	18	PHE	2.0
35	XD	23	GLY	2.0
11	YP	78	PRO	2.0
43	XL	48	PRO	2.0
1	RA	2183	C	2.0
19	YX	64	LYS	2.0
5	YF	105	VAL	2.0
7	YH	169	VAL	2.0
16	YU	8	VAL	2.0
33	XB	7	VAL	2.0
1	YA	2061	G	2.0

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Mol	Chain	Res	Type	RSRZ
1	YA	2694	G	2.0
1	YA	2697	G	2.0
3	RD	257	LEU	2.0
5	YF	12	LEU	2.0
29	R7	47	ARG	2.0
32	XA	1002	G	2.0
41	QJ	70	ARG	2.0
43	QL	15	ARG	2.0
46	QO	57	LEU	2.0
16	RU	80	ILE	2.0
50	QS	4	SER	2.0
54	XY	247	SER	2.0
43	QL	8	ASN	2.0
51	XT	56	MET	2.0
5	YF	167	ALA	2.0
5	RF	175	THR	2.0
52	XU	21	TYR	2.0
10	YO	81	ASP	2.0
33	XB	189	ASP	2.0
39	QH	54	ASP	2.0
47	QP	29	ASP	2.0
7	YH	174	GLY	2.0
9	RN	49	GLY	2.0
10	RO	111	PHE	2.0
29	Y7	17	GLY	2.0
40	XI	18	PHE	2.0
51	QT	69	GLY	2.0
3	YD	68	LYS	2.0
11	YP	10	PRO	2.0
27	R5	5	PRO	2.0
45	XN	15	LYS	2.0
50	QS	70	LYS	2.0
54	QY	204	LYS	2.0
1	RA	2587	A	2.0
8	RI	7	GLU	2.0
12	RQ	80	GLU	2.0
13	YR	102	GLU	2.0
15	YT	11	GLU	2.0
3	RD	273	ARG	2.0
4	RE	104	VAL	2.0
32	XA	790	A	2.0
14	YS	9	ARG	2.0

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Mol	Chain	Res	Type	RSRZ
18	YW	37	ARG	2.0
30	R8	46	ARG	2.0
37	XF	6	VAL	2.0
54	QY	37	VAL	2.0
3	YD	215	LEU	2.0
17	YV	35	LEU	2.0
30	R8	50	LEU	2.0
40	QI	79	LEU	2.0
54	QY	295	LEU	2.0
5	RF	82	ILE	2.0
31	R9	26	ILE	2.0
42	QK	95	ILE	2.0
1	RA	790	C	2.0
32	XA	1038	C	2.0

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

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
1	5MU	RA	1915	21/22	0.81	0.11	84,89,93,97	0
32	PSU	XA	516	20/21	0.83	0.10	89,90,93,94	0
32	PSU	QA	516	20/21	0.84	0.10	87,89,91,91	0
32	2MG	XA	1207	24/25	0.84	0.12	88,90,95,97	0
1	5MU	YA	1915	21/22	0.86	0.12	85,89,92,95	0
32	2MG	QA	1207	24/25	0.87	0.11	89,91,96,97	0
1	PSU	YA	1917	20/21	0.87	0.11	81,86,88,89	0
1	PSU	RA	1917	20/21	0.88	0.10	84,87,91,91	0
1	PSU	YA	1911	20/21	0.89	0.12	79,85,88,90	0
32	UR3	QA	1498	21/22	0.90	0.14	80,84,87,92	0
32	M2G	XA	966	25/26	0.90	0.13	83,87,94,94	0
32	4OC	QA	1402	22/23	0.90	0.12	84,87,89,90	0
32	7MG	QA	527	24/25	0.91	0.12	85,87,87,88	0
32	5MC	XA	967	21/22	0.91	0.12	87,88,89,89	0
32	5MC	QA	1400	21/22	0.92	0.12	85,89,90,90	0
43	0TD	XL	92	10/11	0.92	0.12	85,89,93,95	0
32	M2G	QA	966	25/26	0.92	0.11	85,87,91,93	0
1	PSU	RA	1911	20/21	0.92	0.08	82,85,88,89	0
32	5MC	QA	967	21/22	0.92	0.12	83,87,90,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
32	4OC	XA	1402	22/23	0.92	0.12	83,85,87,89	0
1	4OC	RA	1920	21/23	0.92	0.09	83,85,89,92	0
1	5MC	RA	1942	21/22	0.92	0.10	81,85,88,90	0
54	MEQ	QY	252	10/11	0.92	0.18	85,87,90,90	0
1	5MC	YA	1942	21/22	0.93	0.12	76,81,87,88	0
32	5MC	XA	1400	21/22	0.94	0.11	78,85,86,88	0
32	7MG	XA	527	24/25	0.94	0.11	83,86,87,88	0
32	5MC	XA	1404	21/22	0.94	0.11	79,84,85,87	0
32	5MC	QA	1407	21/22	0.94	0.08	80,83,85,86	0
1	4OC	YA	1920	21/23	0.94	0.14	81,83,85,87	0
43	0TD	QL	92	10/11	0.94	0.13	87,90,94,95	0
54	MEQ	XY	252	10/11	0.94	0.19	86,87,91,91	0
1	2MA	YA	2503	23/24	0.95	0.17	72,78,79,81	0
1	2MU	YA	2552	21/23	0.95	0.15	74,78,86,87	0
32	5MC	QA	1404	21/22	0.95	0.09	83,86,88,88	0
32	5MC	XA	1407	21/22	0.95	0.10	81,84,89,91	0
1	5MU	RA	1939	21/22	0.95	0.13	76,82,84,85	0
32	UR3	XA	1498	21/22	0.95	0.10	74,83,87,88	0
1	OMG	RA	2251	24/25	0.95	0.14	80,83,85,85	0
1	2MA	RA	2503	23/24	0.95	0.14	75,81,83,84	0
1	2MU	RA	2552	21/23	0.95	0.11	75,82,84,87	0
32	MA6	QA	1518	24/25	0.95	0.12	82,86,88,89	0
1	PSU	YA	2605	20/21	0.95	0.15	69,77,81,83	0
32	MA6	QA	1519	24/25	0.96	0.11	82,85,85,87	0
1	OMG	YA	2251	24/25	0.96	0.16	72,78,83,84	0
1	PSU	RA	2605	20/21	0.96	0.11	72,79,84,84	0
1	5MC	RA	1962	21/22	0.96	0.11	76,84,87,87	0
32	MA6	XA	1519	24/25	0.96	0.12	76,83,84,86	0
1	5MC	YA	1962	21/22	0.97	0.10	73,81,85,85	0
32	MA6	XA	1518	24/25	0.97	0.13	70,82,82,83	0
1	5MU	YA	1939	21/22	0.97	0.15	72,77,82,84	0

6.3 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

6.4 Ligands [i](#)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3312	1/1	-0.32	0.18	96,96,96,96	0
56	MG	QA	1733	1/1	-0.30	0.29	94,94,94,94	0
56	MG	RA	3440	1/1	-0.27	0.19	89,89,89,89	0
56	MG	XA	1728	1/1	-0.26	0.27	84,84,84,84	0
56	MG	QA	1840	1/1	-0.16	0.21	88,88,88,88	0
56	MG	RA	3491	1/1	-0.16	0.28	85,85,85,85	0
56	MG	RA	3670	1/1	-0.16	0.21	103,103,103,103	0
56	MG	YA	3534	1/1	-0.12	0.31	85,85,85,85	0
56	MG	YA	3487	1/1	-0.12	0.40	84,84,84,84	0
56	MG	QD	304	1/1	-0.11	0.20	97,97,97,97	0
56	MG	QA	1647	1/1	-0.10	0.19	101,101,101,101	0
56	MG	YA	3690	1/1	-0.10	0.32	78,78,78,78	0
56	MG	QA	1640	1/1	-0.07	0.39	99,99,99,99	0
56	MG	XA	1623	1/1	-0.07	0.25	83,83,83,83	0
56	MG	RA	3400	1/1	-0.07	0.18	101,101,101,101	0
56	MG	RA	3036	1/1	-0.05	0.29	94,94,94,94	0
56	MG	RA	3332	1/1	-0.04	0.29	93,93,93,93	0
56	MG	YA	3201	1/1	-0.01	0.17	90,90,90,90	0
56	MG	RA	3067	1/1	-0.01	0.20	100,100,100,100	0
56	MG	YF	301	1/1	-0.01	0.43	94,94,94,94	0
56	MG	YA	3461	1/1	-0.01	0.35	87,87,87,87	0
56	MG	RB	217	1/1	-0.01	0.25	87,87,87,87	0
56	MG	RA	3498	1/1	0.00	0.29	83,83,83,83	0
56	MG	RA	3482	1/1	0.00	0.25	100,100,100,100	0
56	MG	XA	1779	1/1	-0.00	0.62	92,92,92,92	0
56	MG	RH	201	1/1	-0.00	0.16	89,89,89,89	0
56	MG	XA	1609	1/1	0.01	0.28	87,87,87,87	0
56	MG	RA	3648	1/1	0.02	0.59	97,97,97,97	0
56	MG	QA	1741	1/1	0.02	0.23	97,97,97,97	0
56	MG	QA	1814	1/1	0.03	0.30	89,89,89,89	0
56	MG	RA	3944	1/1	0.03	0.36	97,97,97,97	0
56	MG	QA	1769	1/1	0.04	0.28	99,99,99,99	0
56	MG	RG	203	1/1	0.04	0.31	83,83,83,83	0
56	MG	YA	3195	1/1	0.04	0.25	89,89,89,89	0
56	MG	QA	1698	1/1	0.05	0.27	97,97,97,97	0
56	MG	R5	105	1/1	0.05	0.20	95,95,95,95	0
56	MG	RA	3635	1/1	0.06	0.22	96,96,96,96	0
56	MG	YA	3076	1/1	0.06	0.39	92,92,92,92	0
56	MG	YA	3658	1/1	0.07	0.45	87,87,87,87	0
56	MG	XA	1657	1/1	0.07	0.40	91,91,91,91	0
56	MG	RA	3876	1/1	0.08	0.31	92,92,92,92	0
56	MG	RA	3564	1/1	0.08	0.36	91,91,91,91	0
56	MG	QA	1739	1/1	0.08	0.30	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3430	1/1	0.09	0.16	93,93,93,93	0
56	MG	XA	1786	1/1	0.09	0.47	89,89,89,89	0
56	MG	RA	3573	1/1	0.09	0.34	88,88,88,88	0
56	MG	XA	1611	1/1	0.10	0.27	81,81,81,81	0
56	MG	XE	201	1/1	0.10	0.34	93,93,93,93	0
56	MG	XA	1723	1/1	0.10	0.16	91,91,91,91	0
56	MG	YA	3174	1/1	0.11	0.30	78,78,78,78	0
56	MG	RA	3411	1/1	0.11	0.17	93,93,93,93	0
56	MG	RA	3464	1/1	0.12	0.34	90,90,90,90	0
56	MG	RA	3962	1/1	0.12	0.19	95,95,95,95	0
56	MG	YA	3320	1/1	0.12	0.41	87,87,87,87	0
56	MG	RA	3952	1/1	0.13	0.29	96,96,96,96	0
56	MG	RA	3499	1/1	0.13	0.37	80,80,80,80	0
56	MG	RA	3999	1/1	0.13	0.17	98,98,98,98	0
56	MG	XA	1694	1/1	0.13	0.30	77,77,77,77	0
56	MG	RA	3783	1/1	0.13	0.68	96,96,96,96	0
56	MG	QA	1727	1/1	0.13	0.48	86,86,86,86	0
56	MG	R4	102	1/1	0.13	0.18	97,97,97,97	0
56	MG	YA	3035	1/1	0.13	0.24	93,93,93,93	0
56	MG	YA	3484	1/1	0.14	0.16	99,99,99,99	0
56	MG	YA	3411	1/1	0.14	0.38	90,90,90,90	0
56	MG	QA	1842	1/1	0.15	0.48	95,95,95,95	0
56	MG	XA	1712	1/1	0.15	0.25	96,96,96,96	0
56	MG	QN	102	1/1	0.15	0.29	90,90,90,90	0
56	MG	XA	1704	1/1	0.15	0.35	90,90,90,90	0
56	MG	QA	1834	1/1	0.16	0.20	97,97,97,97	0
56	MG	XA	1620	1/1	0.16	0.23	93,93,93,93	0
56	MG	QA	1685	1/1	0.16	0.20	89,89,89,89	0
56	MG	RQ	201	1/1	0.16	0.34	87,87,87,87	0
56	MG	YA	3525	1/1	0.16	0.37	88,88,88,88	0
56	MG	RA	3802	1/1	0.16	0.19	85,85,85,85	0
56	MG	YA	3696	1/1	0.17	0.37	91,91,91,91	0
56	MG	RA	3782	1/1	0.17	0.42	99,99,99,99	0
56	MG	XA	1674	1/1	0.17	0.17	94,94,94,94	0
56	MG	RA	3804	1/1	0.18	0.17	92,92,92,92	0
56	MG	XA	1755	1/1	0.18	0.30	87,87,87,87	0
56	MG	YA	3628	1/1	0.18	0.22	87,87,87,87	0
56	MG	RA	3371	1/1	0.18	0.39	97,97,97,97	0
56	MG	RT	203	1/1	0.18	0.26	100,100,100,100	0
56	MG	YA	3556	1/1	0.18	0.43	73,73,73,73	0
56	MG	RA	3112	1/1	0.18	0.16	96,96,96,96	0
56	MG	YA	3603	1/1	0.19	0.29	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	QR	101	1/1	0.19	0.25	93,93,93,93	0
56	MG	QA	1764	1/1	0.19	0.48	83,83,83,83	0
56	MG	XF	203	1/1	0.19	0.42	103,103,103,103	0
56	MG	QA	1869	1/1	0.19	0.24	105,105,105,105	0
56	MG	RA	3118	1/1	0.19	0.37	96,96,96,96	0
56	MG	RA	3123	1/1	0.19	0.20	80,80,80,80	0
56	MG	XA	1653	1/1	0.19	0.28	89,89,89,89	0
56	MG	XA	1749	1/1	0.20	0.25	98,98,98,98	0
56	MG	RA	3171	1/1	0.20	0.25	92,92,92,92	0
56	MG	YA	3450	1/1	0.20	0.41	79,79,79,79	0
56	MG	YA	3474	1/1	0.20	0.24	78,78,78,78	0
56	MG	YA	3670	1/1	0.20	0.30	85,85,85,85	0
56	MG	YA	3055	1/1	0.21	0.24	88,88,88,88	0
56	MG	YA	3361	1/1	0.21	0.33	88,88,88,88	0
56	MG	QA	1841	1/1	0.21	0.14	94,94,94,94	0
56	MG	RA	3058	1/1	0.21	0.48	89,89,89,89	0
56	MG	XA	1693	1/1	0.21	0.51	95,95,95,95	0
56	MG	YA	3269	1/1	0.21	0.29	75,75,75,75	0
56	MG	YA	3686	1/1	0.21	0.25	77,77,77,77	0
56	MG	QA	1683	1/1	0.22	0.24	95,95,95,95	0
56	MG	YA	3709	1/1	0.22	0.29	71,71,71,71	0
56	MG	XA	1722	1/1	0.23	0.33	88,88,88,88	0
56	MG	YA	3291	1/1	0.23	0.25	88,88,88,88	0
56	MG	R5	104	1/1	0.23	0.35	97,97,97,97	0
56	MG	YA	3182	1/1	0.23	0.25	103,103,103,103	0
56	MG	YA	3358	1/1	0.24	0.19	90,90,90,90	0
56	MG	QD	305	1/1	0.24	0.25	99,99,99,99	0
56	MG	YA	3561	1/1	0.24	0.14	89,89,89,89	0
56	MG	YN	201	1/1	0.25	0.25	90,90,90,90	0
56	MG	YA	3028	1/1	0.25	0.34	85,85,85,85	0
56	MG	YA	3267	1/1	0.25	0.26	102,102,102,102	0
56	MG	RB	204	1/1	0.25	0.20	85,85,85,85	0
56	MG	YA	3101	1/1	0.26	0.20	92,92,92,92	0
56	MG	QA	1664	1/1	0.26	0.40	91,91,91,91	0
56	MG	XA	1715	1/1	0.26	0.25	94,94,94,94	0
56	MG	RA	3198	1/1	0.26	0.20	98,98,98,98	0
56	MG	RA	3524	1/1	0.26	0.32	85,85,85,85	0
56	MG	YA	3161	1/1	0.26	0.28	91,91,91,91	0
56	MG	YA	3225	1/1	0.26	0.20	96,96,96,96	0
56	MG	YA	3402	1/1	0.27	0.30	86,86,86,86	0
56	MG	YA	3227	1/1	0.27	0.45	87,87,87,87	0
56	MG	RA	3630	1/1	0.27	0.43	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	QA	1759	1/1	0.27	0.35	77,77,77,77	0
56	MG	RA	3636	1/1	0.27	0.14	94,94,94,94	0
56	MG	RA	3727	1/1	0.28	0.40	78,78,78,78	0
56	MG	RA	3751	1/1	0.28	0.41	83,83,83,83	0
56	MG	RA	3840	1/1	0.28	0.34	97,97,97,97	0
56	MG	RA	3860	1/1	0.28	0.35	85,85,85,85	0
56	MG	YA	3455	1/1	0.28	0.23	86,86,86,86	0
56	MG	RA	3684	1/1	0.28	0.25	93,93,93,93	0
56	MG	XA	1612	1/1	0.29	0.22	84,84,84,84	0
56	MG	YA	3278	1/1	0.29	0.53	72,72,72,72	0
56	MG	QA	1699	1/1	0.29	0.21	89,89,89,89	0
56	MG	XA	1774	1/1	0.29	0.51	80,80,80,80	0
56	MG	QA	1819	1/1	0.29	0.22	83,83,83,83	0
56	MG	XA	1778	1/1	0.29	0.36	70,70,70,70	0
56	MG	XA	1670	1/1	0.29	0.14	89,89,89,89	0
56	MG	RA	3974	1/1	0.29	0.41	88,88,88,88	0
56	MG	YA	3442	1/1	0.29	0.21	90,90,90,90	0
56	MG	YA	3483	1/1	0.30	0.37	88,88,88,88	0
56	MG	YA	3633	1/1	0.30	0.40	95,95,95,95	0
56	MG	RA	3367	1/1	0.30	0.34	80,80,80,80	0
56	MG	RA	4069	1/1	0.30	0.29	86,86,86,86	0
56	MG	QA	1746	1/1	0.30	0.25	80,80,80,80	0
56	MG	RA	3397	1/1	0.30	0.38	76,76,76,76	0
56	MG	QA	1608	1/1	0.30	0.27	107,107,107,107	0
56	MG	QA	1728	1/1	0.30	0.27	80,80,80,80	0
56	MG	RA	3150	1/1	0.30	0.15	84,84,84,84	0
56	MG	RA	3008	1/1	0.30	0.16	83,83,83,83	0
56	MG	RA	3640	1/1	0.30	0.52	84,84,84,84	0
56	MG	RA	3197	1/1	0.30	0.19	100,100,100,100	0
56	MG	YA	3258	1/1	0.30	0.23	86,86,86,86	0
56	MG	RA	3787	1/1	0.31	0.20	88,88,88,88	0
56	MG	XA	1698	1/1	0.31	0.33	87,87,87,87	0
56	MG	YA	3058	1/1	0.31	0.16	93,93,93,93	0
56	MG	RA	3547	1/1	0.31	0.25	99,99,99,99	0
56	MG	RA	3111	1/1	0.31	1.05	100,100,100,100	0
56	MG	RA	3872	1/1	0.31	0.33	83,83,83,83	0
56	MG	RA	3369	1/1	0.31	0.47	79,79,79,79	0
56	MG	RA	3734	1/1	0.31	0.33	85,85,85,85	0
56	MG	RA	3019	1/1	0.31	0.67	108,108,108,108	0
56	MG	YA	3030	1/1	0.31	0.39	88,88,88,88	0
56	MG	RA	3225	1/1	0.31	0.42	111,111,111,111	0
56	MG	QA	1657	1/1	0.32	0.30	101,101,101,101	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3031	1/1	0.32	0.32	96,96,96,96	0
56	MG	RA	3546	1/1	0.32	0.27	95,95,95,95	0
56	MG	YE	303	1/1	0.32	0.74	93,93,93,93	0
56	MG	QA	1713	1/1	0.32	0.23	95,95,95,95	0
56	MG	YA	3563	1/1	0.33	0.25	72,72,72,72	0
56	MG	YA	3183	1/1	0.33	0.35	88,88,88,88	0
56	MG	RA	3672	1/1	0.33	0.24	89,89,89,89	0
56	MG	RA	3176	1/1	0.33	0.30	102,102,102,102	0
56	MG	RA	3450	1/1	0.33	0.29	79,79,79,79	0
56	MG	RA	3964	1/1	0.33	0.20	104,104,104,104	0
56	MG	RA	3828	1/1	0.33	0.36	84,84,84,84	0
56	MG	QA	1636	1/1	0.33	0.27	90,90,90,90	0
56	MG	RA	3359	1/1	0.33	0.18	89,89,89,89	0
56	MG	RA	3526	1/1	0.34	0.32	89,89,89,89	0
56	MG	RA	3536	1/1	0.34	0.28	86,86,86,86	0
56	MG	RA	3826	1/1	0.34	0.16	95,95,95,95	0
56	MG	QA	1682	1/1	0.34	0.24	87,87,87,87	0
56	MG	RA	3677	1/1	0.34	0.22	86,86,86,86	0
56	MG	RB	226	1/1	0.34	0.16	98,98,98,98	0
56	MG	QA	1745	1/1	0.34	0.25	82,82,82,82	0
56	MG	YA	3463	1/1	0.34	0.37	86,86,86,86	0
56	MG	RA	3293	1/1	0.34	0.20	87,87,87,87	0
56	MG	XA	1642	1/1	0.34	0.31	84,84,84,84	0
56	MG	XA	1651	1/1	0.34	0.18	96,96,96,96	0
56	MG	QA	1681	1/1	0.34	0.26	92,92,92,92	0
56	MG	RA	3434	1/1	0.34	0.26	85,85,85,85	0
56	MG	XA	1789	1/1	0.35	0.39	81,81,81,81	0
56	MG	RA	3843	1/1	0.35	0.23	88,88,88,88	0
56	MG	QA	1705	1/1	0.35	0.52	95,95,95,95	0
56	MG	QA	1610	1/1	0.35	0.19	93,93,93,93	0
56	MG	RA	3132	1/1	0.35	0.11	95,95,95,95	0
56	MG	RG	204	1/1	0.35	0.22	84,84,84,84	0
56	MG	QA	1855	1/1	0.35	0.33	106,106,106,106	0
56	MG	QA	1775	1/1	0.35	0.31	91,91,91,91	0
56	MG	XA	1701	1/1	0.35	0.31	74,74,74,74	0
56	MG	RW	202	1/1	0.35	0.48	99,99,99,99	0
56	MG	RX	101	1/1	0.35	0.37	78,78,78,78	0
56	MG	XA	1787	1/1	0.35	0.35	78,78,78,78	0
56	MG	QA	1751	1/1	0.35	0.42	78,78,78,78	0
56	MG	RA	3687	1/1	0.35	0.31	86,86,86,86	0
56	MG	YA	3016	1/1	0.36	0.30	89,89,89,89	0
56	MG	RA	3512	1/1	0.36	0.38	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3660	1/1	0.36	0.34	77,77,77,77	0
56	MG	RB	207	1/1	0.36	0.19	93,93,93,93	0
56	MG	RB	208	1/1	0.36	0.30	95,95,95,95	0
56	MG	RA	3315	1/1	0.36	0.31	82,82,82,82	0
56	MG	YA	3558	1/1	0.36	0.65	87,87,87,87	0
56	MG	XA	1672	1/1	0.36	0.21	95,95,95,95	0
56	MG	QA	1753	1/1	0.36	0.19	87,87,87,87	0
56	MG	QA	1818	1/1	0.36	0.54	93,93,93,93	0
56	MG	YA	3471	1/1	0.36	0.29	99,99,99,99	0
56	MG	RA	3937	1/1	0.36	0.38	80,80,80,80	0
56	MG	RA	3485	1/1	0.36	0.40	70,70,70,70	0
56	MG	RA	3603	1/1	0.36	0.70	90,90,90,90	0
56	MG	RA	3250	1/1	0.36	0.30	84,84,84,84	0
56	MG	RA	3492	1/1	0.36	0.30	78,78,78,78	0
56	MG	QA	1820	1/1	0.36	0.24	76,76,76,76	0
56	MG	RA	3247	1/1	0.37	0.25	89,89,89,89	0
56	MG	QA	1828	1/1	0.37	0.16	86,86,86,86	0
56	MG	YA	3132	1/1	0.37	0.27	93,93,93,93	0
56	MG	RF	302	1/1	0.37	0.25	80,80,80,80	0
56	MG	YA	3425	1/1	0.37	0.39	88,88,88,88	0
56	MG	YA	3027	1/1	0.37	0.28	83,83,83,83	0
56	MG	RA	3658	1/1	0.37	0.37	90,90,90,90	0
56	MG	YA	3102	1/1	0.37	0.37	101,101,101,101	0
56	MG	RA	3035	1/1	0.37	0.20	95,95,95,95	0
56	MG	RA	3811	1/1	0.37	0.17	85,85,85,85	0
56	MG	QA	1816	1/1	0.37	0.22	98,98,98,98	0
56	MG	QA	1690	1/1	0.37	0.21	68,68,68,68	0
56	MG	YA	3451	1/1	0.37	0.42	94,94,94,94	0
56	MG	QA	1734	1/1	0.37	0.26	84,84,84,84	0
56	MG	RA	3567	1/1	0.38	0.26	90,90,90,90	0
56	MG	QA	1867	1/1	0.38	0.31	96,96,96,96	0
56	MG	RA	3590	1/1	0.38	0.19	100,100,100,100	0
56	MG	RA	3723	1/1	0.38	0.18	79,79,79,79	0
56	MG	RA	3864	1/1	0.38	0.25	93,93,93,93	0
56	MG	QA	1653	1/1	0.38	0.23	84,84,84,84	0
56	MG	QA	1771	1/1	0.38	0.15	93,93,93,93	0
56	MG	RA	3908	1/1	0.38	0.39	92,92,92,92	0
56	MG	RA	3423	1/1	0.38	0.21	92,92,92,92	0
56	MG	YA	3341	1/1	0.38	0.26	91,91,91,91	0
56	MG	QA	1630	1/1	0.38	0.57	79,79,79,79	0
56	MG	YA	3522	1/1	0.38	0.30	75,75,75,75	0
56	MG	XA	1690	1/1	0.38	0.18	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	R0	102	1/1	0.38	0.22	88,88,88,88	0
56	MG	RA	3368	1/1	0.38	0.31	90,90,90,90	0
56	MG	RA	3115	1/1	0.38	0.28	78,78,78,78	0
56	MG	YA	3297	1/1	0.38	0.28	70,70,70,70	0
56	MG	QY	402	1/1	0.38	0.23	92,92,92,92	0
56	MG	QA	1677	1/1	0.39	0.29	89,89,89,89	0
56	MG	RA	3495	1/1	0.39	0.41	83,83,83,83	0
56	MG	QN	103	1/1	0.39	0.52	81,81,81,81	0
56	MG	RA	3747	1/1	0.39	0.17	93,93,93,93	0
56	MG	RA	3273	1/1	0.39	0.17	99,99,99,99	0
56	MG	YA	3089	1/1	0.39	0.18	80,80,80,80	0
56	MG	YA	3218	1/1	0.39	0.26	82,82,82,82	0
56	MG	RA	3525	1/1	0.39	0.24	92,92,92,92	0
56	MG	RR	202	1/1	0.39	0.42	87,87,87,87	0
56	MG	RA	3953	1/1	0.39	0.32	81,81,81,81	0
56	MG	YA	3376	1/1	0.39	0.28	84,84,84,84	0
56	MG	YA	3631	1/1	0.39	0.19	76,76,76,76	0
56	MG	YB	218	1/1	0.39	0.26	85,85,85,85	0
56	MG	YA	3059	1/1	0.39	0.32	86,86,86,86	0
56	MG	YA	3408	1/1	0.39	0.34	90,90,90,90	0
56	MG	XA	1743	1/1	0.39	0.26	89,89,89,89	0
56	MG	YA	3050	1/1	0.39	0.30	92,92,92,92	0
56	MG	YQ	202	1/1	0.40	0.33	89,89,89,89	0
56	MG	XA	1681	1/1	0.40	0.17	100,100,100,100	0
56	MG	YA	3244	1/1	0.40	0.20	97,97,97,97	0
56	MG	QA	1825	1/1	0.40	0.29	86,86,86,86	0
56	MG	QA	1603	1/1	0.40	0.27	86,86,86,86	0
56	MG	XA	1732	1/1	0.40	0.29	87,87,87,87	0
56	MG	YA	3090	1/1	0.40	0.14	100,100,100,100	0
56	MG	QA	1612	1/1	0.40	0.32	89,89,89,89	0
56	MG	RA	3977	1/1	0.40	0.23	89,89,89,89	0
56	MG	RA	3725	1/1	0.40	0.29	86,86,86,86	0
56	MG	YA	3120	1/1	0.40	0.26	86,86,86,86	0
56	MG	QA	1854	1/1	0.40	0.26	94,94,94,94	0
56	MG	RA	3745	1/1	0.40	0.49	73,73,73,73	0
56	MG	RA	3033	1/1	0.40	0.36	100,100,100,100	0
56	MG	QA	1749	1/1	0.40	0.29	83,83,83,83	0
56	MG	QA	1823	1/1	0.41	0.23	94,94,94,94	0
56	MG	QA	1812	1/1	0.41	0.21	69,69,69,69	0
56	MG	QA	1763	1/1	0.41	0.41	84,84,84,84	0
56	MG	RA	4065	1/1	0.41	0.34	91,91,91,91	0
56	MG	YA	3548	1/1	0.41	0.41	66,66,66,66	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RV	201	1/1	0.41	0.20	100,100,100,100	0
56	MG	RA	3926	1/1	0.41	0.33	78,78,78,78	0
56	MG	XA	1726	1/1	0.41	0.46	96,96,96,96	0
56	MG	RA	3295	1/1	0.41	0.31	92,92,92,92	0
56	MG	R3	101	1/1	0.41	0.75	87,87,87,87	0
56	MG	RA	3453	1/1	0.41	0.25	82,82,82,82	0
56	MG	QA	1709	1/1	0.41	0.26	90,90,90,90	0
56	MG	YA	3308	1/1	0.41	0.42	92,92,92,92	0
56	MG	RA	3629	1/1	0.41	0.21	88,88,88,88	0
56	MG	RA	3461	1/1	0.42	0.40	84,84,84,84	0
56	MG	RA	3316	1/1	0.42	0.34	93,93,93,93	0
56	MG	RA	3148	1/1	0.42	0.20	81,81,81,81	0
56	MG	QM	201	1/1	0.42	0.41	91,91,91,91	0
56	MG	RA	3676	1/1	0.42	0.29	84,84,84,84	0
56	MG	QA	1785	1/1	0.42	0.16	95,95,95,95	0
56	MG	RA	3898	1/1	0.42	0.27	85,85,85,85	0
56	MG	RA	3899	1/1	0.42	0.27	93,93,93,93	0
56	MG	RA	3681	1/1	0.42	0.30	72,72,72,72	0
56	MG	QA	1706	1/1	0.42	0.34	76,76,76,76	0
56	MG	YA	3082	1/1	0.42	0.40	108,108,108,108	0
56	MG	XA	1792	1/1	0.42	0.16	95,95,95,95	0
56	MG	YA	3144	1/1	0.42	0.20	82,82,82,82	0
56	MG	RA	3655	1/1	0.42	0.27	94,94,94,94	0
56	MG	XA	1649	1/1	0.43	0.33	94,94,94,94	0
56	MG	YB	205	1/1	0.43	0.31	93,93,93,93	0
56	MG	RA	3413	1/1	0.43	0.32	83,83,83,83	0
56	MG	RA	3262	1/1	0.43	0.22	83,83,83,83	0
56	MG	RA	3272	1/1	0.43	0.23	90,90,90,90	0
56	MG	XA	1711	1/1	0.43	0.30	94,94,94,94	0
56	MG	RB	223	1/1	0.43	0.38	96,96,96,96	0
56	MG	YA	3393	1/1	0.43	0.23	89,89,89,89	0
56	MG	QA	1795	1/1	0.43	0.36	97,97,97,97	0
56	MG	RA	3888	1/1	0.43	0.41	89,89,89,89	0
56	MG	QA	1801	1/1	0.43	0.15	76,76,76,76	0
56	MG	YA	3444	1/1	0.43	0.29	97,97,97,97	0
56	MG	RA	3600	1/1	0.43	0.20	94,94,94,94	0
56	MG	QA	1714	1/1	0.43	0.31	82,82,82,82	0
56	MG	RA	3619	1/1	0.43	0.49	67,67,67,67	0
56	MG	RA	3329	1/1	0.43	0.29	94,94,94,94	0
56	MG	RA	3949	1/1	0.43	0.35	95,95,95,95	0
56	MG	RA	3154	1/1	0.43	0.25	85,85,85,85	0
56	MG	XA	1720	1/1	0.43	0.21	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	QA	1642	1/1	0.43	0.38	101,101,101,101	0
56	MG	XA	1639	1/1	0.43	0.18	86,86,86,86	0
56	MG	QA	1879	1/1	0.43	0.24	105,105,105,105	0
56	MG	RA	3206	1/1	0.43	0.35	86,86,86,86	0
56	MG	YA	3722	1/1	0.43	0.28	93,93,93,93	0
56	MG	YG	201	1/1	0.44	0.23	103,103,103,103	0
56	MG	RA	3338	1/1	0.44	0.46	62,62,62,62	0
56	MG	RB	211	1/1	0.44	0.18	89,89,89,89	0
56	MG	YA	3510	1/1	0.44	0.43	77,77,77,77	0
56	MG	RA	3486	1/1	0.44	0.51	83,83,83,83	0
56	MG	QA	1873	1/1	0.44	0.20	91,91,91,91	0
56	MG	YA	3084	1/1	0.44	0.44	101,101,101,101	0
56	MG	RA	3208	1/1	0.44	0.18	89,89,89,89	0
56	MG	RA	3933	1/1	0.44	0.30	84,84,84,84	0
56	MG	RA	3061	1/1	0.44	0.12	89,89,89,89	0
56	MG	RN	202	1/1	0.44	0.12	102,102,102,102	0
56	MG	QA	1782	1/1	0.44	0.25	98,98,98,98	0
56	MG	QA	1784	1/1	0.44	0.21	96,96,96,96	0
56	MG	YA	3732	1/1	0.44	0.25	86,86,86,86	0
56	MG	QA	1787	1/1	0.44	0.33	89,89,89,89	0
56	MG	YA	3125	1/1	0.44	0.19	81,81,81,81	0
56	MG	RA	3663	1/1	0.44	0.36	103,103,103,103	0
56	MG	YA	3096	1/1	0.44	0.21	87,87,87,87	0
56	MG	QA	1606	1/1	0.44	0.20	88,88,88,88	0
56	MG	RA	3011	1/1	0.44	0.23	93,93,93,93	0
56	MG	YA	3333	1/1	0.44	0.30	85,85,85,85	0
56	MG	YA	3264	1/1	0.44	0.24	93,93,93,93	0
56	MG	R9	101	1/1	0.44	0.45	100,100,100,100	0
56	MG	RA	3032	1/1	0.44	0.16	92,92,92,92	0
56	MG	RA	3975	1/1	0.45	0.55	98,98,98,98	0
56	MG	RA	3386	1/1	0.45	0.42	76,76,76,76	0
56	MG	YA	3699	1/1	0.45	0.22	77,77,77,77	0
56	MG	QA	1710	1/1	0.45	0.42	74,74,74,74	0
56	MG	RA	3473	1/1	0.45	0.19	80,80,80,80	0
56	MG	RA	3535	1/1	0.45	0.32	97,97,97,97	0
56	MG	YA	3464	1/1	0.45	0.52	79,79,79,79	0
56	MG	RA	3051	1/1	0.45	0.59	97,97,97,97	0
56	MG	QA	1821	1/1	0.45	0.30	89,89,89,89	0
56	MG	RA	3294	1/1	0.45	0.16	108,108,108,108	0
56	MG	YA	3721	1/1	0.45	0.34	74,74,74,74	0
56	MG	YA	3501	1/1	0.45	0.26	74,74,74,74	0
56	MG	RA	3445	1/1	0.45	0.64	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	QA	1687	1/1	0.45	0.42	94,94,94,94	0
56	MG	RA	3764	1/1	0.45	0.24	77,77,77,77	0
56	MG	QA	1852	1/1	0.46	0.48	84,84,84,84	0
56	MG	XA	1782	1/1	0.46	0.47	79,79,79,79	0
56	MG	RA	3955	1/1	0.46	0.44	90,90,90,90	0
56	MG	QQ	202	1/1	0.46	0.18	92,92,92,92	0
56	MG	QA	1604	1/1	0.46	0.16	96,96,96,96	0
56	MG	RA	3642	1/1	0.46	0.27	92,92,92,92	0
56	MG	YA	3592	1/1	0.46	0.21	78,78,78,78	0
56	MG	RA	3177	1/1	0.46	0.28	83,83,83,83	0
56	MG	YA	3695	1/1	0.46	0.42	88,88,88,88	0
56	MG	QA	1770	1/1	0.46	0.17	91,91,91,91	0
56	MG	YA	3513	1/1	0.46	0.22	81,81,81,81	0
56	MG	XA	1650	1/1	0.46	0.33	87,87,87,87	0
56	MG	RA	3919	1/1	0.46	0.41	83,83,83,83	0
56	MG	XA	1714	1/1	0.46	0.27	76,76,76,76	0
56	MG	YA	3627	1/1	0.46	0.19	82,82,82,82	0
56	MG	RA	3145	1/1	0.46	0.28	71,71,71,71	0
56	MG	RA	3365	1/1	0.46	0.22	88,88,88,88	0
56	MG	QY	401	1/1	0.46	0.36	90,90,90,90	0
56	MG	RA	3521	1/1	0.46	0.30	69,69,69,69	0
56	MG	RA	3134	1/1	0.47	0.32	96,96,96,96	0
56	MG	QA	1786	1/1	0.47	0.22	80,80,80,80	0
56	MG	XA	1710	1/1	0.47	0.31	78,78,78,78	0
56	MG	QA	1831	1/1	0.47	0.22	99,99,99,99	0
56	MG	QA	1729	1/1	0.47	0.19	87,87,87,87	0
56	MG	RA	3728	1/1	0.47	0.31	99,99,99,99	0
56	MG	XA	1610	1/1	0.47	0.56	88,88,88,88	0
56	MG	RD	304	1/1	0.47	0.13	75,75,75,75	0
56	MG	YA	3205	1/1	0.47	0.51	86,86,86,86	0
56	MG	RA	3062	1/1	0.47	0.22	84,84,84,84	0
56	MG	RA	3317	1/1	0.47	0.33	82,82,82,82	0
56	MG	RA	3643	1/1	0.47	0.18	88,88,88,88	0
56	MG	YA	3418	1/1	0.47	0.49	90,90,90,90	0
56	MG	YA	3094	1/1	0.47	0.23	77,77,77,77	0
56	MG	YA	3441	1/1	0.47	0.20	80,80,80,80	0
56	MG	XA	1661	1/1	0.47	0.12	95,95,95,95	0
56	MG	RA	3364	1/1	0.47	0.29	74,74,74,74	0
56	MG	RA	3664	1/1	0.47	0.32	91,91,91,91	0
56	MG	YA	3468	1/1	0.47	0.42	62,62,62,62	0
56	MG	YA	3493	1/1	0.47	0.26	86,86,86,86	0
56	MG	RA	3476	1/1	0.47	0.50	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3131	1/1	0.47	0.16	88,88,88,88	0
56	MG	RA	3848	1/1	0.47	0.16	91,91,91,91	0
56	MG	RA	4019	1/1	0.47	0.62	103,103,103,103	0
56	MG	RA	3852	1/1	0.47	0.27	90,90,90,90	0
56	MG	QA	1752	1/1	0.47	0.27	94,94,94,94	0
56	MG	RB	203	1/1	0.47	0.27	102,102,102,102	0
56	MG	YA	3099	1/1	0.48	0.34	82,82,82,82	0
56	MG	XA	1703	1/1	0.48	0.17	82,82,82,82	0
56	MG	RA	3362	1/1	0.48	0.18	91,91,91,91	0
56	MG	YA	3257	1/1	0.48	0.33	89,89,89,89	0
56	MG	YA	3495	1/1	0.48	0.34	77,77,77,77	0
56	MG	YA	3752	1/1	0.48	0.45	100,100,100,100	0
56	MG	RA	3274	1/1	0.48	0.21	88,88,88,88	0
56	MG	QA	1615	1/1	0.48	0.13	93,93,93,93	0
56	MG	RA	3066	1/1	0.48	0.35	104,104,104,104	0
56	MG	YA	3705	1/1	0.48	0.40	78,78,78,78	0
56	MG	RA	3388	1/1	0.48	0.31	96,96,96,96	0
56	MG	RA	3904	1/1	0.48	0.21	80,80,80,80	0
56	MG	XA	1656	1/1	0.48	0.40	85,85,85,85	0
56	MG	XA	1637	1/1	0.48	0.13	86,86,86,86	0
56	MG	RA	3924	1/1	0.48	0.32	89,89,89,89	0
56	MG	XA	1769	1/1	0.48	0.44	77,77,77,77	0
56	MG	XH	201	1/1	0.48	0.29	99,99,99,99	0
56	MG	RA	3609	1/1	0.48	0.20	90,90,90,90	0
56	MG	XJ	201	1/1	0.48	0.20	97,97,97,97	0
56	MG	YA	3106	1/1	0.48	0.33	92,92,92,92	0
56	MG	QA	1796	1/1	0.49	0.17	90,90,90,90	0
56	MG	YA	3233	1/1	0.49	0.56	96,96,96,96	0
56	MG	RA	3199	1/1	0.49	0.19	81,81,81,81	0
56	MG	QA	1807	1/1	0.49	0.20	95,95,95,95	0
56	MG	RF	310	1/1	0.49	0.33	78,78,78,78	0
56	MG	RA	3052	1/1	0.49	0.30	95,95,95,95	0
56	MG	YA	3581	1/1	0.49	0.17	80,80,80,80	0
56	MG	RA	3537	1/1	0.49	0.38	84,84,84,84	0
56	MG	XA	1686	1/1	0.49	0.28	96,96,96,96	0
56	MG	RA	3968	1/1	0.49	0.43	84,84,84,84	0
56	MG	QA	1768	1/1	0.49	0.32	89,89,89,89	0
56	MG	RA	3551	1/1	0.49	0.26	79,79,79,79	0
56	MG	RA	3879	1/1	0.49	0.41	93,93,93,93	0
56	MG	RA	3553	1/1	0.49	0.21	100,100,100,100	0
56	MG	RA	3251	1/1	0.49	0.46	82,82,82,82	0
56	MG	QA	1874	1/1	0.49	0.21	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	QA	1718	1/1	0.49	0.26	94,94,94,94	0
56	MG	RA	3786	1/1	0.49	0.20	89,89,89,89	0
56	MG	RA	3433	1/1	0.49	0.21	90,90,90,90	0
56	MG	QA	1722	1/1	0.49	0.48	93,93,93,93	0
56	MG	RA	3925	1/1	0.49	0.26	95,95,95,95	0
56	MG	YA	3624	1/1	0.49	0.23	92,92,92,92	0
56	MG	QG	202	1/1	0.49	0.25	87,87,87,87	0
56	MG	QA	1735	1/1	0.50	0.31	93,93,93,93	0
56	MG	XA	1785	1/1	0.50	0.36	82,82,82,82	0
56	MG	XA	1652	1/1	0.50	0.19	92,92,92,92	0
56	MG	XA	1717	1/1	0.50	0.35	82,82,82,82	0
56	MG	RA	3098	1/1	0.50	0.23	68,68,68,68	0
56	MG	RA	3184	1/1	0.50	0.33	92,92,92,92	0
56	MG	RA	3105	1/1	0.50	0.20	92,92,92,92	0
56	MG	XA	1788	1/1	0.50	0.25	95,95,95,95	0
56	MG	RA	3800	1/1	0.50	0.31	93,93,93,93	0
56	MG	YA	3457	1/1	0.50	0.49	87,87,87,87	0
56	MG	RA	3204	1/1	0.50	0.29	103,103,103,103	0
56	MG	XA	1766	1/1	0.50	0.41	88,88,88,88	0
56	MG	YA	3259	1/1	0.50	0.57	98,98,98,98	0
56	MG	RA	3122	1/1	0.50	0.34	102,102,102,102	0
56	MG	RA	3559	1/1	0.50	0.25	84,84,84,84	0
56	MG	RA	3242	1/1	0.50	0.71	99,99,99,99	0
56	MG	XF	202	1/1	0.50	0.18	96,96,96,96	0
56	MG	RA	3125	1/1	0.50	0.34	93,93,93,93	0
56	MG	RA	3578	1/1	0.50	0.34	90,90,90,90	0
56	MG	YA	3469	1/1	0.50	0.27	91,91,91,91	0
56	MG	YA	3638	1/1	0.50	0.54	64,64,64,64	0
56	MG	RA	3379	1/1	0.50	0.40	62,62,62,62	0
56	MG	QA	1799	1/1	0.50	0.26	99,99,99,99	0
56	MG	YA	3527	1/1	0.50	0.23	74,74,74,74	0
56	MG	YA	3292	1/1	0.50	0.31	74,74,74,74	0
56	MG	RA	3736	1/1	0.50	0.24	85,85,85,85	0
56	MG	YA	3230	1/1	0.51	0.18	92,92,92,92	0
56	MG	QA	1850	1/1	0.51	0.30	78,78,78,78	0
56	MG	RA	3448	1/1	0.51	0.20	87,87,87,87	0
56	MG	RA	3182	1/1	0.51	0.22	97,97,97,97	0
56	MG	XA	1643	1/1	0.51	0.25	81,81,81,81	0
56	MG	YA	3006	1/1	0.51	0.36	82,82,82,82	0
56	MG	YA	3051	1/1	0.51	0.27	82,82,82,82	0
56	MG	QA	1736	1/1	0.51	0.29	82,82,82,82	0
56	MG	RA	3146	1/1	0.51	0.18	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3938	1/1	0.51	0.16	78,78,78,78	0
56	MG	RA	3942	1/1	0.51	0.25	95,95,95,95	0
56	MG	YA	3735	1/1	0.51	0.20	85,85,85,85	0
56	MG	RA	3615	1/1	0.51	0.51	62,62,62,62	0
56	MG	RA	3618	1/1	0.51	0.29	88,88,88,88	0
56	MG	YA	3026	1/1	0.51	0.27	84,84,84,84	0
56	MG	YA	3618	1/1	0.51	0.52	82,82,82,82	0
56	MG	YB	206	1/1	0.51	0.26	89,89,89,89	0
56	MG	RF	301	1/1	0.51	1.24	99,99,99,99	0
56	MG	RA	3438	1/1	0.51	0.20	91,91,91,91	0
56	MG	QA	1837	1/1	0.52	0.26	87,87,87,87	0
56	MG	QA	1691	1/1	0.52	0.25	96,96,96,96	0
56	MG	QE	201	1/1	0.52	0.22	95,95,95,95	0
56	MG	RA	3813	1/1	0.52	0.26	107,107,107,107	0
56	MG	YE	307	1/1	0.52	0.15	85,85,85,85	0
56	MG	YA	3198	1/1	0.52	0.14	88,88,88,88	0
56	MG	XA	1682	1/1	0.52	0.26	83,83,83,83	0
56	MG	YA	3707	1/1	0.52	0.23	82,82,82,82	0
56	MG	RU	202	1/1	0.52	0.19	94,94,94,94	0
56	MG	YA	3332	1/1	0.52	0.27	62,62,62,62	0
56	MG	QA	1789	1/1	0.52	0.30	85,85,85,85	0
56	MG	QA	1637	1/1	0.52	0.23	85,85,85,85	0
56	MG	XA	1775	1/1	0.52	0.58	98,98,98,98	0
56	MG	XA	1735	1/1	0.52	0.19	83,83,83,83	0
56	MG	QA	1644	1/1	0.52	0.22	95,95,95,95	0
56	MG	RA	3877	1/1	0.52	0.56	74,74,74,74	0
56	MG	QA	1876	1/1	0.52	0.27	80,80,80,80	0
56	MG	RA	3960	1/1	0.52	0.31	92,92,92,92	0
56	MG	RA	3633	1/1	0.52	0.29	93,93,93,93	0
56	MG	YA	3355	1/1	0.52	0.54	62,62,62,62	0
56	MG	YA	3428	1/1	0.53	0.33	104,104,104,104	0
56	MG	RA	3885	1/1	0.53	0.51	98,98,98,98	0
56	MG	RA	3284	1/1	0.53	0.26	87,87,87,87	0
56	MG	RA	3401	1/1	0.53	0.53	62,62,62,62	0
56	MG	QA	1843	1/1	0.53	0.39	68,68,68,68	0
56	MG	XA	1638	1/1	0.53	0.34	98,98,98,98	0
56	MG	RA	3763	1/1	0.53	0.14	77,77,77,77	0
56	MG	YI	201	1/1	0.53	0.11	94,94,94,94	0
56	MG	YA	3486	1/1	0.53	0.26	105,105,105,105	0
56	MG	RA	3527	1/1	0.53	0.32	73,73,73,73	0
56	MG	YA	3092	1/1	0.53	0.21	85,85,85,85	0
56	MG	QA	1858	1/1	0.53	0.28	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3792	1/1	0.53	0.29	87,87,87,87	0
56	MG	QA	1860	1/1	0.53	0.39	92,92,92,92	0
56	MG	QA	1863	1/1	0.53	0.31	81,81,81,81	0
56	MG	YB	210	1/1	0.53	0.29	88,88,88,88	0
56	MG	RP	201	1/1	0.53	0.72	86,86,86,86	0
56	MG	YB	214	1/1	0.53	0.23	78,78,78,78	0
56	MG	RA	3812	1/1	0.53	0.20	76,76,76,76	0
56	MG	YA	3160	1/1	0.53	0.31	88,88,88,88	0
56	MG	RA	3823	1/1	0.53	0.27	73,73,73,73	0
56	MG	RA	3218	1/1	0.53	0.12	88,88,88,88	0
56	MG	YA	3481	1/1	0.53	0.46	79,79,79,79	0
56	MG	YA	3300	1/1	0.53	0.15	91,91,91,91	0
56	MG	RA	3133	1/1	0.53	0.18	85,85,85,85	0
56	MG	RA	3248	1/1	0.53	0.26	89,89,89,89	0
56	MG	RA	3039	1/1	0.53	0.29	97,97,97,97	0
56	MG	YA	3507	1/1	0.53	0.40	80,80,80,80	0
56	MG	QA	1805	1/1	0.53	0.30	76,76,76,76	0
56	MG	RA	3380	1/1	0.53	0.45	64,64,64,64	0
56	MG	XA	1624	1/1	0.53	0.30	85,85,85,85	0
56	MG	XA	1625	1/1	0.53	0.17	90,90,90,90	0
56	MG	YA	3688	1/1	0.54	0.28	72,72,72,72	0
56	MG	RA	3141	1/1	0.54	0.70	92,92,92,92	0
56	MG	YA	3346	1/1	0.54	0.28	79,79,79,79	0
56	MG	YA	3405	1/1	0.54	0.28	71,71,71,71	0
56	MG	RA	3873	1/1	0.54	0.31	77,77,77,77	0
56	MG	YA	3295	1/1	0.54	0.38	62,62,62,62	0
56	MG	RA	3337	1/1	0.54	0.29	92,92,92,92	0
56	MG	YA	3465	1/1	0.54	0.43	85,85,85,85	0
56	MG	YA	3033	1/1	0.54	0.86	99,99,99,99	0
56	MG	QA	1679	1/1	0.54	0.20	87,87,87,87	0
56	MG	RA	3253	1/1	0.54	0.34	81,81,81,81	0
56	MG	QA	1774	1/1	0.54	0.37	84,84,84,84	0
56	MG	RA	4012	1/1	0.54	0.36	103,103,103,103	0
56	MG	RA	3808	1/1	0.54	0.67	85,85,85,85	0
56	MG	YA	3086	1/1	0.54	0.38	92,92,92,92	0
56	MG	YA	3656	1/1	0.54	0.30	78,78,78,78	0
56	MG	QA	1846	1/1	0.54	0.20	92,92,92,92	0
56	MG	YA	3335	1/1	0.54	0.64	62,62,62,62	0
56	MG	YA	3613	1/1	0.54	0.23	75,75,75,75	0
56	MG	YA	3122	1/1	0.54	0.33	82,82,82,82	0
56	MG	RA	3838	1/1	0.54	0.17	77,77,77,77	0
56	MG	RA	3054	1/1	0.54	0.36	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	QV	103	1/1	0.54	0.27	86,86,86,86	0
56	MG	RA	3305	1/1	0.54	0.25	73,73,73,73	0
56	MG	XA	1632	1/1	0.54	0.24	84,84,84,84	0
56	MG	XV	103	1/1	0.54	0.27	84,84,84,84	0
56	MG	YA	3365	1/1	0.55	0.46	86,86,86,86	0
56	MG	XE	202	1/1	0.55	0.10	94,94,94,94	0
56	MG	RA	4042	1/1	0.55	0.26	81,81,81,81	0
56	MG	RA	3691	1/1	0.55	0.90	93,93,93,93	0
56	MG	RA	3716	1/1	0.55	0.14	91,91,91,91	0
56	MG	RA	3717	1/1	0.55	0.20	65,65,65,65	0
56	MG	QA	1651	1/1	0.55	0.22	90,90,90,90	0
56	MG	RA	3238	1/1	0.55	0.62	109,109,109,109	0
56	MG	YA	3348	1/1	0.55	0.43	88,88,88,88	0
56	MG	XA	1667	1/1	0.55	0.33	83,83,83,83	0
56	MG	RB	212	1/1	0.55	0.19	85,85,85,85	0
56	MG	RA	3479	1/1	0.55	0.29	80,80,80,80	0
56	MG	RA	3481	1/1	0.55	0.47	71,71,71,71	0
56	MG	YA	3692	1/1	0.55	0.34	84,84,84,84	0
56	MG	YB	201	1/1	0.55	0.22	103,103,103,103	0
56	MG	YA	3322	1/1	0.55	0.29	64,64,64,64	0
56	MG	RA	3628	1/1	0.55	0.27	89,89,89,89	0
56	MG	YA	3475	1/1	0.55	0.23	65,65,65,65	0
56	MG	YA	3634	1/1	0.55	0.29	86,86,86,86	0
56	MG	RA	3384	1/1	0.55	0.44	67,67,67,67	0
56	MG	RA	3050	1/1	0.55	0.75	89,89,89,89	0
56	MG	YA	3419	1/1	0.55	0.43	77,77,77,77	0
56	MG	RA	3391	1/1	0.55	0.41	74,74,74,74	0
56	MG	QA	1877	1/1	0.55	0.13	92,92,92,92	0
56	MG	XA	1780	1/1	0.55	0.46	74,74,74,74	0
56	MG	QB	301	1/1	0.55	0.21	81,81,81,81	0
56	MG	YA	3506	1/1	0.55	0.27	95,95,95,95	0
56	MG	XA	1691	1/1	0.55	0.29	84,84,84,84	0
56	MG	QA	1629	1/1	0.55	0.42	83,83,83,83	0
56	MG	RA	3183	1/1	0.55	0.28	97,97,97,97	0
56	MG	RA	3814	1/1	0.55	0.38	73,73,73,73	0
56	MG	XA	1692	1/1	0.55	0.30	69,69,69,69	0
56	MG	RA	3963	1/1	0.55	0.20	88,88,88,88	0
56	MG	QG	203	1/1	0.55	0.17	97,97,97,97	0
56	MG	RA	3827	1/1	0.55	0.20	81,81,81,81	0
56	MG	YA	3615	1/1	0.55	0.28	65,65,65,65	0
56	MG	YA	3074	1/1	0.55	0.41	68,68,68,68	0
56	MG	XA	1697	1/1	0.55	0.25	87,87,87,87	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3347	1/1	0.55	0.27	79,79,79,79	0
56	MG	RA	4006	1/1	0.55	0.24	74,74,74,74	0
56	MG	RA	3375	1/1	0.56	0.60	98,98,98,98	0
56	MG	RA	3166	1/1	0.56	0.24	83,83,83,83	0
56	MG	RA	3169	1/1	0.56	0.20	90,90,90,90	0
56	MG	RA	3969	1/1	0.56	0.58	97,97,97,97	0
56	MG	RA	3451	1/1	0.56	0.41	74,74,74,74	0
56	MG	QA	1761	1/1	0.56	0.17	88,88,88,88	0
56	MG	YA	3432	1/1	0.56	0.26	76,76,76,76	0
56	MG	RA	3124	1/1	0.56	0.19	73,73,73,73	0
56	MG	QA	1694	1/1	0.56	0.23	91,91,91,91	0
56	MG	YA	3070	1/1	0.56	0.42	99,99,99,99	0
56	MG	RA	4016	1/1	0.56	0.20	87,87,87,87	0
56	MG	QA	1724	1/1	0.56	0.52	85,85,85,85	0
56	MG	RA	3340	1/1	0.56	0.33	82,82,82,82	0
56	MG	RA	3410	1/1	0.56	0.32	70,70,70,70	0
56	MG	YA	3403	1/1	0.56	0.28	81,81,81,81	0
56	MG	QA	1748	1/1	0.56	0.33	98,98,98,98	0
56	MG	XA	1675	1/1	0.56	0.17	90,90,90,90	0
56	MG	YA	3395	1/1	0.56	0.27	63,63,63,63	0
56	MG	QA	1835	1/1	0.56	0.41	72,72,72,72	0
56	MG	RA	3581	1/1	0.56	0.28	97,97,97,97	0
56	MG	RA	3776	1/1	0.56	0.40	86,86,86,86	0
56	MG	XA	1601	1/1	0.56	0.40	93,93,93,93	0
56	MG	YA	3477	1/1	0.56	0.26	77,77,77,77	0
56	MG	RA	3601	1/1	0.56	0.24	83,83,83,83	0
56	MG	YA	3460	1/1	0.56	0.39	85,85,85,85	0
56	MG	YA	3064	1/1	0.57	0.21	86,86,86,86	0
56	MG	QA	1839	1/1	0.57	0.29	79,79,79,79	0
56	MG	YA	3117	1/1	0.57	0.21	87,87,87,87	0
56	MG	QA	1773	1/1	0.57	0.21	78,78,78,78	0
56	MG	YA	3730	1/1	0.57	0.31	80,80,80,80	0
56	MG	YA	3284	1/1	0.57	0.51	63,63,63,63	0
56	MG	QA	1686	1/1	0.57	0.14	89,89,89,89	0
56	MG	YA	3636	1/1	0.57	0.45	72,72,72,72	0
56	MG	RA	3907	1/1	0.57	0.34	70,70,70,70	0
56	MG	XA	1684	1/1	0.57	0.34	70,70,70,70	0
56	MG	RA	3047	1/1	0.57	0.15	66,66,66,66	0
56	MG	YA	3143	1/1	0.57	0.52	106,106,106,106	0
56	MG	RA	3259	1/1	0.57	0.19	86,86,86,86	0
56	MG	RA	3729	1/1	0.57	0.47	82,82,82,82	0
56	MG	RA	3346	1/1	0.57	0.40	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3354	1/1	0.57	0.20	70,70,70,70	0
56	MG	R1	102	1/1	0.57	0.38	83,83,83,83	0
56	MG	RA	3565	1/1	0.57	0.24	103,103,103,103	0
56	MG	YA	3433	1/1	0.57	0.21	97,97,97,97	0
56	MG	R5	102	1/1	0.57	0.43	97,97,97,97	0
56	MG	RA	3748	1/1	0.57	0.35	86,86,86,86	0
56	MG	YA	3701	1/1	0.57	0.51	62,62,62,62	0
56	MG	RA	3429	1/1	0.57	0.23	98,98,98,98	0
56	MG	YA	3204	1/1	0.57	0.40	89,89,89,89	0
56	MG	YA	3472	1/1	0.57	0.40	82,82,82,82	0
56	MG	XA	1793	1/1	0.57	0.28	94,94,94,94	0
56	MG	YA	3397	1/1	0.57	0.22	75,75,75,75	0
56	MG	YA	3497	1/1	0.58	0.19	95,95,95,95	0
56	MG	YA	3524	1/1	0.58	0.39	85,85,85,85	0
56	MG	YA	3586	1/1	0.58	0.26	76,76,76,76	0
56	MG	QA	1692	1/1	0.58	0.62	98,98,98,98	0
56	MG	QA	1693	1/1	0.58	0.31	87,87,87,87	0
56	MG	YA	3498	1/1	0.58	0.20	89,89,89,89	0
56	MG	RA	3576	1/1	0.58	0.25	92,92,92,92	0
56	MG	XA	1619	1/1	0.58	0.41	76,76,76,76	0
56	MG	RA	3352	1/1	0.58	0.35	97,97,97,97	0
56	MG	YA	3703	1/1	0.58	0.25	90,90,90,90	0
56	MG	QA	1847	1/1	0.58	0.29	94,94,94,94	0
56	MG	YA	3593	1/1	0.58	0.22	87,87,87,87	0
56	MG	RA	3897	1/1	0.58	0.34	72,72,72,72	0
56	MG	XA	1662	1/1	0.58	0.19	97,97,97,97	0
56	MG	YA	3013	1/1	0.58	0.27	72,72,72,72	0
56	MG	YA	3025	1/1	0.58	0.26	74,74,74,74	0
56	MG	YA	3480	1/1	0.58	0.31	62,62,62,62	0
56	MG	YA	3104	1/1	0.58	0.17	69,69,69,69	0
56	MG	RA	3620	1/1	0.58	0.35	81,81,81,81	0
56	MG	QA	1672	1/1	0.58	0.47	85,85,85,85	0
56	MG	RA	3781	1/1	0.58	0.36	90,90,90,90	0
56	MG	RA	3142	1/1	0.58	0.12	85,85,85,85	0
56	MG	RA	3376	1/1	0.58	0.29	78,78,78,78	0
56	MG	QA	1866	1/1	0.58	0.28	90,90,90,90	0
56	MG	QA	1765	1/1	0.58	0.23	80,80,80,80	0
56	MG	RA	3941	1/1	0.58	0.17	87,87,87,87	0
56	MG	RA	3791	1/1	0.58	0.14	84,84,84,84	0
56	MG	YA	3557	1/1	0.58	0.28	66,66,66,66	0
56	MG	YA	3370	1/1	0.58	0.28	66,66,66,66	0
56	MG	RA	3505	1/1	0.58	0.36	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	YA	3521	1/1	0.58	0.34	97,97,97,97	0
56	MG	YA	3694	1/1	0.58	0.47	82,82,82,82	0
56	MG	XA	1605	1/1	0.58	0.39	96,96,96,96	0
56	MG	RA	3170	1/1	0.58	0.21	86,86,86,86	0
56	MG	XA	1687	1/1	0.58	0.16	90,90,90,90	0
56	MG	RA	3402	1/1	0.58	0.17	80,80,80,80	0
56	MG	RA	3296	1/1	0.58	0.13	91,91,91,91	0
56	MG	RA	3299	1/1	0.58	0.19	68,68,68,68	0
56	MG	RA	3175	1/1	0.58	0.31	78,78,78,78	0
56	MG	QA	1880	1/1	0.58	0.15	102,102,102,102	0
56	MG	QA	1619	1/1	0.58	0.20	95,95,95,95	0
56	MG	RA	3996	1/1	0.58	0.25	89,89,89,89	0
56	MG	QA	1780	1/1	0.58	0.45	80,80,80,80	0
56	MG	RA	4002	1/1	0.58	0.40	74,74,74,74	0
56	MG	RA	3460	1/1	0.59	0.38	79,79,79,79	0
56	MG	QA	1809	1/1	0.59	0.32	86,86,86,86	0
56	MG	YA	3245	1/1	0.59	0.15	88,88,88,88	0
56	MG	RA	3466	1/1	0.59	0.36	62,62,62,62	0
56	MG	RA	3085	1/1	0.59	0.35	91,91,91,91	0
56	MG	RA	4058	1/1	0.59	0.79	96,96,96,96	0
56	MG	XA	1648	1/1	0.59	0.22	89,89,89,89	0
56	MG	RA	3477	1/1	0.59	0.40	63,63,63,63	0
56	MG	RA	3281	1/1	0.59	0.24	90,90,90,90	0
56	MG	YA	3562	1/1	0.59	0.23	82,82,82,82	0
56	MG	RA	3740	1/1	0.59	0.32	85,85,85,85	0
56	MG	RA	3285	1/1	0.59	1.17	108,108,108,108	0
56	MG	RA	3612	1/1	0.59	0.18	80,80,80,80	0
56	MG	YA	3247	1/1	0.59	0.25	80,80,80,80	0
56	MG	YA	3276	1/1	0.59	0.25	77,77,77,77	0
56	MG	RB	220	1/1	0.59	0.46	75,75,75,75	0
56	MG	RA	3487	1/1	0.59	0.43	83,83,83,83	0
56	MG	YA	3344	1/1	0.59	0.23	90,90,90,90	0
56	MG	XA	1618	1/1	0.59	0.23	81,81,81,81	0
56	MG	RD	308	1/1	0.59	0.31	83,83,83,83	0
56	MG	RA	3028	1/1	0.59	0.21	84,84,84,84	0
56	MG	YA	3500	1/1	0.59	0.17	84,84,84,84	0
56	MG	YA	3373	1/1	0.59	0.25	71,71,71,71	0
56	MG	XA	1740	1/1	0.59	0.40	70,70,70,70	0
56	MG	XA	1659	1/1	0.59	0.22	88,88,88,88	0
56	MG	RA	3520	1/1	0.59	0.25	91,91,91,91	0
56	MG	YA	3649	1/1	0.59	0.41	79,79,79,79	0
56	MG	RA	3324	1/1	0.59	0.57	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3231	1/1	0.59	0.19	93,93,93,93	0
56	MG	RA	3219	1/1	0.59	0.52	88,88,88,88	0
56	MG	RA	3042	1/1	0.59	0.21	92,92,92,92	0
56	MG	RA	3951	1/1	0.59	0.30	85,85,85,85	0
56	MG	RA	3810	1/1	0.59	0.22	79,79,79,79	0
56	MG	XA	1702	1/1	0.59	0.33	75,75,75,75	0
56	MG	YA	3177	1/1	0.59	0.35	95,95,95,95	0
56	MG	RA	3343	1/1	0.59	0.25	80,80,80,80	0
56	MG	RA	3541	1/1	0.59	0.27	87,87,87,87	0
56	MG	RA	3245	1/1	0.59	0.16	86,86,86,86	0
56	MG	YA	3668	1/1	0.59	0.44	62,62,62,62	0
56	MG	YA	3236	1/1	0.59	0.21	80,80,80,80	0
56	MG	YA	3056	1/1	0.59	0.34	86,86,86,86	0
56	MG	RA	3829	1/1	0.59	0.10	96,96,96,96	0
56	MG	RA	3832	1/1	0.59	0.30	84,84,84,84	0
56	MG	YA	3623	1/1	0.59	0.25	65,65,65,65	0
56	MG	YA	3559	1/1	0.59	0.41	80,80,80,80	0
56	MG	QA	1808	1/1	0.59	0.13	74,74,74,74	0
56	MG	RA	3844	1/1	0.59	0.20	100,100,100,100	0
56	MG	QE	202	1/1	0.60	0.12	88,88,88,88	0
56	MG	YA	3017	1/1	0.60	0.27	91,91,91,91	0
56	MG	QA	1711	1/1	0.60	0.35	78,78,78,78	0
56	MG	RA	3703	1/1	0.60	0.36	95,95,95,95	0
56	MG	YA	3645	1/1	0.60	0.33	88,88,88,88	0
56	MG	YA	3286	1/1	0.60	0.29	80,80,80,80	0
56	MG	RA	3718	1/1	0.60	0.45	65,65,65,65	0
56	MG	RA	3319	1/1	0.60	0.34	69,69,69,69	0
56	MG	RA	3563	1/1	0.60	0.23	87,87,87,87	0
56	MG	RA	3191	1/1	0.60	0.32	90,90,90,90	0
56	MG	RA	3497	1/1	0.60	0.41	62,62,62,62	0
56	MG	YA	3424	1/1	0.60	0.33	70,70,70,70	0
56	MG	RP	202	1/1	0.60	0.11	98,98,98,98	0
56	MG	YA	3100	1/1	0.60	0.24	78,78,78,78	0
56	MG	YA	3508	1/1	0.60	0.32	83,83,83,83	0
56	MG	RA	3653	1/1	0.60	0.35	100,100,100,100	0
56	MG	RA	3200	1/1	0.60	0.26	85,85,85,85	0
56	MG	YA	3040	1/1	0.60	0.29	88,88,88,88	0
56	MG	RA	4020	1/1	0.60	0.24	91,91,91,91	0
56	MG	RA	3158	1/1	0.60	0.29	81,81,81,81	0
56	MG	RA	4053	1/1	0.60	0.34	103,103,103,103	0
56	MG	RA	3164	1/1	0.60	0.22	100,100,100,100	0
56	MG	RA	3754	1/1	0.60	0.44	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3313	1/1	0.60	0.35	89,89,89,89	0
56	MG	YA	3576	1/1	0.60	0.38	74,74,74,74	0
56	MG	XA	1750	1/1	0.60	0.36	85,85,85,85	0
56	MG	RA	3226	1/1	0.60	0.84	113,113,113,113	0
56	MG	RA	3946	1/1	0.60	0.35	67,67,67,67	0
56	MG	QV	101	1/1	0.60	0.11	86,86,86,86	0
56	MG	RA	3849	1/1	0.60	0.48	85,85,85,85	0
56	MG	XA	1754	1/1	0.60	0.31	88,88,88,88	0
56	MG	RA	3859	1/1	0.60	0.45	89,89,89,89	0
56	MG	YG	202	1/1	0.60	0.12	92,92,92,92	0
56	MG	RA	3881	1/1	0.61	0.16	80,80,80,80	0
56	MG	Y6	102	1/1	0.61	0.25	102,102,102,102	0
56	MG	YA	3007	1/1	0.61	0.31	69,69,69,69	0
56	MG	RA	3778	1/1	0.61	0.92	105,105,105,105	0
56	MG	RA	3458	1/1	0.61	0.31	84,84,84,84	0
56	MG	RA	3224	1/1	0.61	0.15	93,93,93,93	0
56	MG	YA	3176	1/1	0.61	0.25	78,78,78,78	0
56	MG	YA	3654	1/1	0.61	0.28	91,91,91,91	0
56	MG	RB	209	1/1	0.61	0.10	76,76,76,76	0
56	MG	RA	3236	1/1	0.61	0.37	97,97,97,97	0
56	MG	YA	3423	1/1	0.61	0.20	83,83,83,83	0
56	MG	RA	3662	1/1	0.61	0.27	94,94,94,94	0
56	MG	RB	219	1/1	0.61	0.21	73,73,73,73	0
56	MG	RA	3475	1/1	0.61	0.19	82,82,82,82	0
56	MG	RA	3560	1/1	0.61	0.33	97,97,97,97	0
56	MG	YA	3229	1/1	0.61	0.39	83,83,83,83	0
56	MG	QA	1868	1/1	0.61	0.43	82,82,82,82	0
56	MG	RD	306	1/1	0.61	0.15	84,84,84,84	0
56	MG	YA	3134	1/1	0.61	0.14	73,73,73,73	0
56	MG	RA	3399	1/1	0.61	0.57	62,62,62,62	0
56	MG	XA	1685	1/1	0.61	0.37	62,62,62,62	0
56	MG	YA	3535	1/1	0.61	0.31	69,69,69,69	0
56	MG	YA	3719	1/1	0.61	0.21	89,89,89,89	0
56	MG	RA	3404	1/1	0.61	0.38	71,71,71,71	0
56	MG	YA	3583	1/1	0.61	0.25	74,74,74,74	0
56	MG	RA	3592	1/1	0.61	0.32	93,93,93,93	0
56	MG	YA	3306	1/1	0.61	0.25	87,87,87,87	0
56	MG	YA	3179	1/1	0.61	0.31	102,102,102,102	0
56	MG	RA	3417	1/1	0.61	0.25	89,89,89,89	0
56	MG	RA	3129	1/1	0.61	0.24	91,91,91,91	0
56	MG	QA	1613	1/1	0.61	0.15	98,98,98,98	0
56	MG	YA	3113	1/1	0.61	0.25	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3361	1/1	0.61	0.42	82,82,82,82	0
56	MG	RA	3513	1/1	0.61	0.40	87,87,87,87	0
56	MG	YA	3602	1/1	0.61	0.56	75,75,75,75	0
56	MG	QA	1626	1/1	0.61	0.15	87,87,87,87	0
56	MG	RA	3523	1/1	0.61	0.25	94,94,94,94	0
56	MG	XA	1636	1/1	0.61	0.26	68,68,68,68	0
56	MG	RA	3862	1/1	0.61	0.20	75,75,75,75	0
56	MG	YA	3173	1/1	0.61	0.28	99,99,99,99	0
56	MG	XA	1669	1/1	0.61	0.32	106,106,106,106	0
56	MG	RA	4010	1/1	0.61	0.19	79,79,79,79	0
56	MG	QA	1772	1/1	0.61	0.23	96,96,96,96	0
56	MG	RA	3875	1/1	0.61	0.53	62,62,62,62	0
56	MG	RA	3758	1/1	0.61	0.27	93,93,93,93	0
56	MG	RA	3759	1/1	0.61	0.27	73,73,73,73	0
56	MG	RA	4024	1/1	0.61	0.26	98,98,98,98	0
56	MG	RA	3639	1/1	0.61	0.35	82,82,82,82	0
56	MG	RA	3533	1/1	0.62	0.17	89,89,89,89	0
56	MG	YA	3589	1/1	0.62	0.38	62,62,62,62	0
56	MG	RA	3835	1/1	0.62	0.20	89,89,89,89	0
56	MG	XA	1683	1/1	0.62	0.21	76,76,76,76	0
56	MG	RA	3742	1/1	0.62	0.21	88,88,88,88	0
56	MG	YA	3248	1/1	0.62	0.27	88,88,88,88	0
56	MG	YA	3163	1/1	0.62	0.23	99,99,99,99	0
56	MG	YA	3642	1/1	0.62	0.24	69,69,69,69	0
56	MG	YA	3382	1/1	0.62	0.46	62,62,62,62	0
56	MG	YA	3010	1/1	0.62	0.34	84,84,84,84	0
56	MG	RA	3055	1/1	0.62	0.70	112,112,112,112	0
56	MG	YA	3604	1/1	0.62	0.37	66,66,66,66	0
56	MG	YA	3519	1/1	0.62	0.20	72,72,72,72	0
56	MG	YA	3049	1/1	0.62	0.22	85,85,85,85	0
56	MG	XA	1660	1/1	0.62	0.13	91,91,91,91	0
56	MG	RA	3409	1/1	0.62	0.24	65,65,65,65	0
56	MG	RA	3779	1/1	0.62	0.51	71,71,71,71	0
56	MG	RA	3989	1/1	0.62	0.27	84,84,84,84	0
56	MG	QA	1697	1/1	0.62	0.14	88,88,88,88	0
56	MG	YA	3454	1/1	0.62	0.39	94,94,94,94	0
56	MG	RQ	203	1/1	0.62	0.44	96,96,96,96	0
56	MG	XA	1746	1/1	0.62	0.39	62,62,62,62	0
56	MG	YA	3336	1/1	0.62	0.54	62,62,62,62	0
56	MG	XA	1635	1/1	0.62	0.18	70,70,70,70	0
56	MG	RA	3583	1/1	0.62	0.29	79,79,79,79	0
56	MG	YA	3401	1/1	0.62	0.50	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	QA	1655	1/1	0.62	0.25	93,93,93,93	0
56	MG	RA	3432	1/1	0.62	0.27	77,77,77,77	0
56	MG	QA	1810	1/1	0.62	0.45	81,81,81,81	0
56	MG	RA	4029	1/1	0.62	0.39	62,62,62,62	0
56	MG	YA	3579	1/1	0.62	0.36	62,62,62,62	0
56	MG	QA	1661	1/1	0.62	0.47	85,85,85,85	0
56	MG	RA	3194	1/1	0.62	0.43	99,99,99,99	0
56	MG	YX	101	1/1	0.62	0.35	69,69,69,69	0
56	MG	QA	1668	1/1	0.62	0.15	92,92,92,92	0
56	MG	YA	3338	1/1	0.62	0.33	85,85,85,85	0
56	MG	RA	3726	1/1	0.62	0.21	74,74,74,74	0
56	MG	YA	3119	1/1	0.62	0.30	68,68,68,68	0
56	MG	YA	3321	1/1	0.62	0.40	62,62,62,62	0
56	MG	RA	3455	1/1	0.62	0.26	81,81,81,81	0
56	MG	YA	3202	1/1	0.63	0.31	82,82,82,82	0
56	MG	YA	3271	1/1	0.63	0.40	67,67,67,67	0
56	MG	YA	3503	1/1	0.63	0.30	67,67,67,67	0
56	MG	YA	3710	1/1	0.63	0.41	80,80,80,80	0
56	MG	RA	3741	1/1	0.63	0.27	92,92,92,92	0
56	MG	YA	3716	1/1	0.63	0.28	87,87,87,87	0
56	MG	YA	3529	1/1	0.63	0.21	72,72,72,72	0
56	MG	RA	3548	1/1	0.63	0.33	109,109,109,109	0
56	MG	YA	3677	1/1	0.63	0.48	79,79,79,79	0
56	MG	XA	1757	1/1	0.63	0.34	76,76,76,76	0
56	MG	RA	3342	1/1	0.63	0.34	79,79,79,79	0
56	MG	RB	228	1/1	0.63	0.10	92,92,92,92	0
56	MG	RA	3958	1/1	0.63	0.18	80,80,80,80	0
56	MG	YA	3504	1/1	0.63	0.26	93,93,93,93	0
56	MG	XA	1673	1/1	0.63	0.13	89,89,89,89	0
56	MG	YA	3723	1/1	0.63	0.38	89,89,89,89	0
56	MG	YW	201	1/1	0.63	0.58	98,98,98,98	0
56	MG	XA	1776	1/1	0.63	0.28	80,80,80,80	0
56	MG	RA	3568	1/1	0.63	0.21	89,89,89,89	0
56	MG	YA	3293	1/1	0.63	0.38	65,65,65,65	0
56	MG	RA	3189	1/1	0.63	0.93	109,109,109,109	0
56	MG	YA	3193	1/1	0.63	0.17	85,85,85,85	0
56	MG	RA	3984	1/1	0.63	0.18	87,87,87,87	0
56	MG	YA	3552	1/1	0.63	0.27	65,65,65,65	0
56	MG	RA	3994	1/1	0.63	0.17	91,91,91,91	0
56	MG	YA	3741	1/1	0.63	0.66	96,96,96,96	0
56	MG	YA	3473	1/1	0.63	0.36	82,82,82,82	0
56	MG	YA	3488	1/1	0.63	0.26	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	4004	1/1	0.63	0.35	64,64,64,64	0
56	MG	RA	3516	1/1	0.63	0.40	84,84,84,84	0
56	MG	QA	1829	1/1	0.63	0.27	81,81,81,81	0
56	MG	RA	3602	1/1	0.63	1.00	97,97,97,97	0
56	MG	RA	3707	1/1	0.63	0.26	73,73,73,73	0
56	MG	QA	1635	1/1	0.63	0.14	77,77,77,77	0
56	MG	QA	1833	1/1	0.63	0.61	106,106,106,106	0
56	MG	RA	4022	1/1	0.63	0.43	77,77,77,77	0
56	MG	YA	3171	1/1	0.63	0.25	90,90,90,90	0
56	MG	YA	3366	1/1	0.63	0.20	95,95,95,95	0
56	MG	RA	4037	1/1	0.63	0.85	95,95,95,95	0
56	MG	RA	3921	1/1	0.63	0.41	63,63,63,63	0
56	MG	YA	3023	1/1	0.63	0.18	80,80,80,80	0
56	MG	RA	3221	1/1	0.63	0.27	92,92,92,92	0
56	MG	RA	3531	1/1	0.63	0.19	90,90,90,90	0
56	MG	RA	3927	1/1	0.63	0.34	91,91,91,91	0
56	MG	YA	3188	1/1	0.63	0.21	92,92,92,92	0
56	MG	XA	1751	1/1	0.64	0.37	87,87,87,87	0
56	MG	YA	3108	1/1	0.64	0.24	90,90,90,90	0
56	MG	RA	3948	1/1	0.64	0.23	64,64,64,64	0
56	MG	YA	3652	1/1	0.64	0.30	79,79,79,79	0
56	MG	RA	3471	1/1	0.64	0.38	74,74,74,74	0
56	MG	RA	3228	1/1	0.64	0.25	104,104,104,104	0
56	MG	RA	3318	1/1	0.64	0.29	71,71,71,71	0
56	MG	RA	3068	1/1	0.64	0.23	91,91,91,91	0
56	MG	RA	3322	1/1	0.64	0.10	93,93,93,93	0
56	MG	YB	208	1/1	0.64	0.16	93,93,93,93	0
56	MG	RA	3003	1/1	0.64	0.17	91,91,91,91	0
56	MG	RA	3861	1/1	0.64	0.41	62,62,62,62	0
56	MG	QA	1824	1/1	0.64	0.38	69,69,69,69	0
56	MG	XA	1763	1/1	0.64	0.26	70,70,70,70	0
56	MG	RA	3869	1/1	0.64	0.32	88,88,88,88	0
56	MG	RA	3971	1/1	0.64	0.41	63,63,63,63	0
56	MG	YB	209	1/1	0.64	0.39	102,102,102,102	0
56	MG	YA	3693	1/1	0.64	0.29	70,70,70,70	0
56	MG	YA	3629	1/1	0.64	0.37	80,80,80,80	0
56	MG	RA	3983	1/1	0.64	0.23	91,91,91,91	0
56	MG	YA	3349	1/1	0.64	0.34	62,62,62,62	0
56	MG	YA	3178	1/1	0.64	0.30	78,78,78,78	0
56	MG	RA	3574	1/1	0.64	0.74	90,90,90,90	0
56	MG	RA	3034	1/1	0.64	0.22	97,97,97,97	0
56	MG	XA	1646	1/1	0.64	0.20	104,104,104,104	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	QA	1804	1/1	0.64	0.21	85,85,85,85	0
56	MG	RA	3504	1/1	0.64	0.27	62,62,62,62	0
56	MG	YA	3145	1/1	0.64	0.18	88,88,88,88	0
56	MG	YA	3289	1/1	0.64	0.58	92,92,92,92	0
56	MG	RA	3599	1/1	0.64	0.42	99,99,99,99	0
56	MG	RA	3806	1/1	0.64	0.25	90,90,90,90	0
56	MG	RA	3435	1/1	0.64	0.30	75,75,75,75	0
56	MG	YA	3676	1/1	0.64	0.48	63,63,63,63	0
56	MG	RA	3920	1/1	0.64	0.47	80,80,80,80	0
56	MG	RA	3519	1/1	0.64	0.38	86,86,86,86	0
56	MG	YA	3328	1/1	0.64	0.63	62,62,62,62	0
56	MG	RA	3291	1/1	0.64	0.33	81,81,81,81	0
56	MG	QA	1737	1/1	0.64	0.20	88,88,88,88	0
56	MG	YA	3742	1/1	0.64	0.34	85,85,85,85	0
56	MG	YA	3003	1/1	0.64	0.28	70,70,70,70	0
56	MG	QA	1849	1/1	0.64	0.44	76,76,76,76	0
56	MG	QV	104	1/1	0.64	0.38	79,79,79,79	0
56	MG	YA	3197	1/1	0.64	0.48	93,93,93,93	0
56	MG	RA	3300	1/1	0.64	0.41	100,100,100,100	0
56	MG	QA	1778	1/1	0.64	0.33	88,88,88,88	0
56	MG	RA	3075	1/1	0.65	0.23	76,76,76,76	0
56	MG	RA	3077	1/1	0.65	0.19	80,80,80,80	0
56	MG	RA	3079	1/1	0.65	0.56	111,111,111,111	0
56	MG	YG	203	1/1	0.65	0.14	91,91,91,91	0
56	MG	RA	3089	1/1	0.65	0.16	91,91,91,91	0
56	MG	QA	1813	1/1	0.65	0.10	90,90,90,90	0
56	MG	RA	3002	1/1	0.65	0.29	67,67,67,67	0
56	MG	RA	3188	1/1	0.65	0.35	104,104,104,104	0
56	MG	YA	3505	1/1	0.65	0.31	88,88,88,88	0
56	MG	RA	3739	1/1	0.65	0.25	69,69,69,69	0
56	MG	RA	3621	1/1	0.65	0.13	95,95,95,95	0
56	MG	YA	3239	1/1	0.65	0.66	98,98,98,98	0
56	MG	YA	3310	1/1	0.65	0.51	80,80,80,80	0
56	MG	YA	3235	1/1	0.65	0.23	93,93,93,93	0
56	MG	RA	3746	1/1	0.65	0.28	62,62,62,62	0
56	MG	XT	201	1/1	0.65	0.40	93,93,93,93	0
56	MG	YA	3372	1/1	0.65	0.41	69,69,69,69	0
56	MG	YA	3250	1/1	0.65	0.20	103,103,103,103	0
56	MG	RA	3545	1/1	0.65	0.28	85,85,85,85	0
56	MG	QA	1783	1/1	0.65	0.23	63,63,63,63	0
56	MG	QA	1704	1/1	0.65	0.16	89,89,89,89	0
56	MG	RA	3309	1/1	0.65	0.23	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3978	1/1	0.65	0.26	75,75,75,75	0
56	MG	RA	3310	1/1	0.65	0.12	93,93,93,93	0
56	MG	RA	3652	1/1	0.65	0.14	81,81,81,81	0
56	MG	QA	1605	1/1	0.65	0.28	90,90,90,90	0
56	MG	YA	3083	1/1	0.65	0.12	90,90,90,90	0
56	MG	RA	3480	1/1	0.65	0.34	62,62,62,62	0
56	MG	RT	202	1/1	0.65	0.23	87,87,87,87	0
56	MG	YA	3555	1/1	0.65	0.24	64,64,64,64	0
56	MG	XA	1608	1/1	0.65	0.26	76,76,76,76	0
56	MG	QA	1792	1/1	0.65	0.39	84,84,84,84	0
56	MG	XA	1783	1/1	0.65	0.24	97,97,97,97	0
56	MG	YA	3655	1/1	0.65	0.34	62,62,62,62	0
56	MG	RA	3903	1/1	0.65	0.23	79,79,79,79	0
56	MG	YA	3520	1/1	0.65	0.25	100,100,100,100	0
56	MG	YA	3431	1/1	0.65	0.45	84,84,84,84	0
56	MG	RA	3801	1/1	0.65	0.22	92,92,92,92	0
56	MG	YA	3302	1/1	0.65	0.24	89,89,89,89	0
56	MG	XA	1616	1/1	0.65	0.12	81,81,81,81	0
56	MG	QA	1767	1/1	0.65	0.33	88,88,88,88	0
56	MG	RA	3426	1/1	0.65	0.23	79,79,79,79	0
56	MG	QA	1845	1/1	0.65	0.15	79,79,79,79	0
56	MG	XA	1617	1/1	0.65	0.11	100,100,100,100	0
56	MG	RA	3596	1/1	0.65	0.20	98,98,98,98	0
56	MG	RA	4061	1/1	0.65	0.51	105,105,105,105	0
56	MG	YA	3279	1/1	0.65	0.57	62,62,62,62	0
56	MG	XV	102	1/1	0.65	0.15	84,84,84,84	0
56	MG	YA	3704	1/1	0.65	0.25	66,66,66,66	0
56	MG	XY	401	1/1	0.65	0.40	97,97,97,97	0
56	MG	RA	3943	1/1	0.66	0.19	91,91,91,91	0
56	MG	YA	3275	1/1	0.66	0.35	89,89,89,89	0
56	MG	YA	3691	1/1	0.66	0.38	82,82,82,82	0
56	MG	QD	301	1/1	0.66	0.35	94,94,94,94	0
56	MG	RA	3738	1/1	0.66	0.20	93,93,93,93	0
56	MG	RB	215	1/1	0.66	0.19	81,81,81,81	0
56	MG	RA	3468	1/1	0.66	0.30	63,63,63,63	0
56	MG	XA	1641	1/1	0.66	0.20	77,77,77,77	0
56	MG	YA	3643	1/1	0.66	0.26	79,79,79,79	0
56	MG	RA	3634	1/1	0.66	0.51	79,79,79,79	0
56	MG	XA	1745	1/1	0.66	0.29	71,71,71,71	0
56	MG	RB	227	1/1	0.66	0.28	88,88,88,88	0
56	MG	QA	1622	1/1	0.66	0.19	89,89,89,89	0
56	MG	RA	3057	1/1	0.66	0.21	96,96,96,96	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3301	1/1	0.66	0.27	74,74,74,74	0
56	MG	RA	3059	1/1	0.66	0.28	84,84,84,84	0
56	MG	RA	3556	1/1	0.66	0.60	83,83,83,83	0
56	MG	YA	3553	1/1	0.66	0.32	73,73,73,73	0
56	MG	YA	3172	1/1	0.66	0.11	101,101,101,101	0
56	MG	RA	3065	1/1	0.66	0.21	92,92,92,92	0
56	MG	RA	3330	1/1	0.66	0.30	68,68,68,68	0
56	MG	YA	3584	1/1	0.66	0.28	77,77,77,77	0
56	MG	YA	3324	1/1	0.66	0.47	62,62,62,62	0
56	MG	YA	3587	1/1	0.66	0.33	68,68,68,68	0
56	MG	YA	3031	1/1	0.66	0.28	63,63,63,63	0
56	MG	YA	3208	1/1	0.66	0.31	102,102,102,102	0
56	MG	QA	1643	1/1	0.66	0.34	86,86,86,86	0
56	MG	QA	1740	1/1	0.66	0.49	69,69,69,69	0
56	MG	RA	3264	1/1	0.66	0.21	84,84,84,84	0
56	MG	RA	4000	1/1	0.66	0.27	95,95,95,95	0
56	MG	YA	3407	1/1	0.66	0.33	62,62,62,62	0
56	MG	RA	3586	1/1	0.66	0.32	76,76,76,76	0
56	MG	RA	3900	1/1	0.66	0.43	92,92,92,92	0
56	MG	RA	3902	1/1	0.66	0.34	62,62,62,62	0
56	MG	XA	1718	1/1	0.66	0.34	78,78,78,78	0
56	MG	RA	3027	1/1	0.66	1.00	112,112,112,112	0
56	MG	RA	3688	1/1	0.66	0.28	79,79,79,79	0
56	MG	YA	3139	1/1	0.66	0.30	63,63,63,63	0
56	MG	RA	3029	1/1	0.66	0.76	104,104,104,104	0
56	MG	Y5	101	1/1	0.66	0.26	91,91,91,91	0
56	MG	YA	3097	1/1	0.66	0.16	96,96,96,96	0
56	MG	RA	3522	1/1	0.66	0.36	84,84,84,84	0
56	MG	XA	1724	1/1	0.66	0.24	75,75,75,75	0
56	MG	RA	3720	1/1	0.66	0.23	73,73,73,73	0
56	MG	YA	3316	1/1	0.66	0.40	62,62,62,62	0
56	MG	QA	1791	1/1	0.66	0.43	89,89,89,89	0
56	MG	RA	3824	1/1	0.66	0.22	92,92,92,92	0
56	MG	YA	3641	1/1	0.66	0.33	83,83,83,83	0
56	MG	QA	1756	1/1	0.66	0.22	80,80,80,80	0
56	MG	RA	3378	1/1	0.66	0.35	66,66,66,66	0
56	MG	RD	310	1/1	0.67	0.20	86,86,86,86	0
56	MG	YA	3399	1/1	0.67	0.52	76,76,76,76	0
56	MG	Y1	102	1/1	0.67	0.09	87,87,87,87	0
56	MG	RA	3278	1/1	0.67	0.17	89,89,89,89	0
56	MG	RA	3140	1/1	0.67	0.49	97,97,97,97	0
56	MG	RA	3096	1/1	0.67	0.14	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3866	1/1	0.67	0.28	76,76,76,76	0
56	MG	YA	3184	1/1	0.67	0.32	78,78,78,78	0
56	MG	RA	3617	1/1	0.67	0.29	62,62,62,62	0
56	MG	QA	1758	1/1	0.67	0.31	93,93,93,93	0
56	MG	QA	1632	1/1	0.67	0.24	91,91,91,91	0
56	MG	YA	3041	1/1	0.67	0.31	96,96,96,96	0
56	MG	YB	211	1/1	0.67	0.29	80,80,80,80	0
56	MG	QA	1665	1/1	0.67	0.18	95,95,95,95	0
56	MG	RA	3298	1/1	0.67	0.16	79,79,79,79	0
56	MG	RA	3444	1/1	0.67	0.69	62,62,62,62	0
56	MG	RA	3157	1/1	0.67	0.20	84,84,84,84	0
56	MG	RA	3896	1/1	0.67	0.37	72,72,72,72	0
56	MG	RA	3755	1/1	0.67	0.66	100,100,100,100	0
56	MG	RA	3756	1/1	0.67	0.21	73,73,73,73	0
56	MG	YA	3509	1/1	0.67	0.48	97,97,97,97	0
56	MG	RA	3579	1/1	0.67	0.19	63,63,63,63	0
56	MG	YA	3032	1/1	0.67	0.37	93,93,93,93	0
56	MG	YA	3243	1/1	0.67	0.18	90,90,90,90	0
56	MG	RA	3833	1/1	0.67	0.16	92,92,92,92	0
56	MG	RA	3770	1/1	0.67	0.38	66,66,66,66	0
56	MG	XA	1676	1/1	0.67	0.30	98,98,98,98	0
56	MG	QA	1853	1/1	0.67	0.18	89,89,89,89	0
56	MG	RA	3543	1/1	0.67	0.20	83,83,83,83	0
56	MG	RA	3724	1/1	0.67	0.23	82,82,82,82	0
56	MG	RA	3847	1/1	0.67	0.87	103,103,103,103	0
56	MG	YA	3199	1/1	0.67	0.27	71,71,71,71	0
56	MG	RA	3266	1/1	0.67	0.08	106,106,106,106	0
56	MG	RA	3850	1/1	0.67	0.18	72,72,72,72	0
56	MG	YW	202	1/1	0.67	0.19	81,81,81,81	0
56	MG	YA	3662	1/1	0.68	0.28	68,68,68,68	0
56	MG	RA	3106	1/1	0.68	0.74	107,107,107,107	0
56	MG	RA	3108	1/1	0.68	0.33	89,89,89,89	0
56	MG	RA	3939	1/1	0.68	0.19	95,95,95,95	0
56	MG	RA	3454	1/1	0.68	0.37	87,87,87,87	0
56	MG	RA	3735	1/1	0.68	0.27	77,77,77,77	0
56	MG	XA	1633	1/1	0.68	0.32	66,66,66,66	0
56	MG	RA	3624	1/1	0.68	0.34	75,75,75,75	0
56	MG	YA	3666	1/1	0.68	0.32	63,63,63,63	0
56	MG	XA	1663	1/1	0.68	0.18	83,83,83,83	0
56	MG	YA	3421	1/1	0.68	0.25	82,82,82,82	0
56	MG	RA	3120	1/1	0.68	0.14	83,83,83,83	0
56	MG	YA	3190	1/1	0.68	0.18	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3367	1/1	0.68	0.29	76,76,76,76	0
56	MG	YA	3599	1/1	0.68	0.44	83,83,83,83	0
56	MG	YA	3001	1/1	0.68	0.30	96,96,96,96	0
56	MG	XA	1707	1/1	0.68	0.17	80,80,80,80	0
56	MG	RA	3641	1/1	0.68	0.24	79,79,79,79	0
56	MG	RA	3552	1/1	0.68	0.40	93,93,93,93	0
56	MG	RE	304	1/1	0.68	0.42	62,62,62,62	0
56	MG	YA	3111	1/1	0.68	0.18	88,88,88,88	0
56	MG	QA	1645	1/1	0.68	0.23	76,76,76,76	0
56	MG	YA	3689	1/1	0.68	0.27	78,78,78,78	0
56	MG	RA	3314	1/1	0.68	0.34	77,77,77,77	0
56	MG	RA	3561	1/1	0.68	0.51	62,62,62,62	0
56	MG	YA	3352	1/1	0.68	0.22	88,88,88,88	0
56	MG	RH	202	1/1	0.68	0.15	95,95,95,95	0
56	MG	XA	1713	1/1	0.68	0.25	74,74,74,74	0
56	MG	QA	1654	1/1	0.68	0.29	77,77,77,77	0
56	MG	XA	1765	1/1	0.68	0.59	77,77,77,77	0
56	MG	YA	3374	1/1	0.68	0.47	75,75,75,75	0
56	MG	YA	3724	1/1	0.68	0.28	71,71,71,71	0
56	MG	XA	1716	1/1	0.68	0.27	79,79,79,79	0
56	MG	YA	3309	1/1	0.68	0.36	90,90,90,90	0
56	MG	YA	3253	1/1	0.68	0.37	87,87,87,87	0
56	MG	QA	1723	1/1	0.68	0.23	86,86,86,86	0
56	MG	QA	1851	1/1	0.68	0.38	78,78,78,78	0
56	MG	RA	3799	1/1	0.68	0.21	82,82,82,82	0
56	MG	YA	3541	1/1	0.68	0.25	94,94,94,94	0
56	MG	YA	3388	1/1	0.68	0.38	62,62,62,62	0
56	MG	RA	3510	1/1	0.68	0.30	71,71,71,71	0
56	MG	RA	3007	1/1	0.68	0.21	75,75,75,75	0
56	MG	YA	3417	1/1	0.68	0.29	69,69,69,69	0
56	MG	RA	3009	1/1	0.68	0.15	73,73,73,73	0
56	MG	YA	3311	1/1	0.68	0.28	73,73,73,73	0
56	MG	QA	1817	1/1	0.68	0.25	85,85,85,85	0
56	MG	RA	3358	1/1	0.68	0.22	81,81,81,81	0
56	MG	RA	4032	1/1	0.68	0.37	89,89,89,89	0
56	MG	YA	3128	1/1	0.68	0.33	82,82,82,82	0
56	MG	RA	3922	1/1	0.68	0.30	80,80,80,80	0
56	MG	RA	3179	1/1	0.68	0.58	105,105,105,105	0
56	MG	RA	3820	1/1	0.68	0.27	76,76,76,76	0
56	MG	RA	3180	1/1	0.68	0.27	80,80,80,80	0
56	MG	RA	3449	1/1	0.68	0.19	83,83,83,83	0
56	MG	RA	3929	1/1	0.68	0.43	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3945	1/1	0.69	0.16	63,63,63,63	0
56	MG	RA	3333	1/1	0.69	0.44	64,64,64,64	0
56	MG	RA	3947	1/1	0.69	0.27	63,63,63,63	0
56	MG	QA	1859	1/1	0.69	0.44	85,85,85,85	0
56	MG	QA	1702	1/1	0.69	0.35	86,86,86,86	0
56	MG	RA	3853	1/1	0.69	0.23	90,90,90,90	0
56	MG	YA	3024	1/1	0.69	0.38	91,91,91,91	0
56	MG	RA	3013	1/1	0.69	0.26	83,83,83,83	0
56	MG	RA	3668	1/1	0.69	0.21	80,80,80,80	0
56	MG	RB	225	1/1	0.69	0.08	80,80,80,80	0
56	MG	RA	3018	1/1	0.69	0.21	95,95,95,95	0
56	MG	YA	3750	1/1	0.69	0.17	92,92,92,92	0
56	MG	RA	3023	1/1	0.69	0.21	78,78,78,78	0
56	MG	YA	3350	1/1	0.69	0.41	76,76,76,76	0
56	MG	RA	3356	1/1	0.69	0.45	78,78,78,78	0
56	MG	QA	1827	1/1	0.69	0.24	74,74,74,74	0
56	MG	QA	1708	1/1	0.69	0.34	69,69,69,69	0
56	MG	RA	3970	1/1	0.69	0.36	96,96,96,96	0
56	MG	YA	3252	1/1	0.69	0.09	96,96,96,96	0
56	MG	YA	3046	1/1	0.69	0.28	82,82,82,82	0
56	MG	RA	3701	1/1	0.69	0.21	64,64,64,64	0
56	MG	QA	1875	1/1	0.69	0.21	78,78,78,78	0
56	MG	QA	1754	1/1	0.69	0.25	85,85,85,85	0
56	MG	QA	1755	1/1	0.69	0.29	81,81,81,81	0
56	MG	RA	3890	1/1	0.69	0.40	77,77,77,77	0
56	MG	XA	1790	1/1	0.69	0.48	87,87,87,87	0
56	MG	YR	201	1/1	0.69	0.24	82,82,82,82	0
56	MG	RA	3370	1/1	0.69	0.30	78,78,78,78	0
56	MG	YA	3254	1/1	0.69	0.52	87,87,87,87	0
56	MG	RA	3044	1/1	0.69	0.27	82,82,82,82	0
56	MG	YA	3381	1/1	0.69	0.32	70,70,70,70	0
56	MG	YA	3595	1/1	0.69	0.23	83,83,83,83	0
56	MG	YA	3186	1/1	0.69	0.43	106,106,106,106	0
56	MG	RA	4007	1/1	0.69	0.18	76,76,76,76	0
56	MG	RA	3542	1/1	0.69	0.17	79,79,79,79	0
56	MG	RA	3819	1/1	0.69	0.36	90,90,90,90	0
56	MG	YA	3364	1/1	0.69	0.15	81,81,81,81	0
56	MG	RZ	301	1/1	0.69	0.16	87,87,87,87	0
56	MG	YB	213	1/1	0.69	0.34	81,81,81,81	0
56	MG	YA	3246	1/1	0.69	0.25	81,81,81,81	0
56	MG	YA	3129	1/1	0.69	0.27	77,77,77,77	0
56	MG	XA	1668	1/1	0.69	0.27	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YD	305	1/1	0.69	0.40	92,92,92,92	0
56	MG	RA	3478	1/1	0.69	0.36	78,78,78,78	0
56	MG	YA	3667	1/1	0.69	0.37	65,65,65,65	0
56	MG	YA	3609	1/1	0.69	0.31	75,75,75,75	0
56	MG	RA	3063	1/1	0.69	0.19	83,83,83,83	0
56	MG	RA	3836	1/1	0.69	0.30	73,73,73,73	0
56	MG	QA	1607	1/1	0.69	0.21	91,91,91,91	0
56	MG	YA	3153	1/1	0.69	0.29	68,68,68,68	0
56	MG	RA	3244	1/1	0.69	0.49	98,98,98,98	0
56	MG	YA	3674	1/1	0.69	0.30	77,77,77,77	0
56	MG	RA	3161	1/1	0.69	0.18	83,83,83,83	0
56	MG	QA	1700	1/1	0.69	0.19	94,94,94,94	0
56	MG	YA	3598	1/1	0.70	0.35	62,62,62,62	0
56	MG	QA	1666	1/1	0.70	0.16	96,96,96,96	0
56	MG	RB	206	1/1	0.70	0.16	80,80,80,80	0
56	MG	YA	3062	1/1	0.70	0.12	84,84,84,84	0
56	MG	YA	3427	1/1	0.70	0.51	88,88,88,88	0
56	MG	RA	3113	1/1	0.70	0.44	90,90,90,90	0
56	MG	QA	1675	1/1	0.70	0.15	91,91,91,91	0
56	MG	YA	3095	1/1	0.70	0.19	64,64,64,64	0
56	MG	RA	3760	1/1	0.70	0.24	98,98,98,98	0
56	MG	YA	3515	1/1	0.70	0.41	69,69,69,69	0
56	MG	YA	3043	1/1	0.70	0.21	63,63,63,63	0
56	MG	RA	3768	1/1	0.70	0.39	74,74,74,74	0
56	MG	RB	221	1/1	0.70	0.22	84,84,84,84	0
56	MG	RA	3858	1/1	0.70	0.33	70,70,70,70	0
56	MG	RA	3437	1/1	0.70	0.34	77,77,77,77	0
56	MG	RA	3775	1/1	0.70	0.23	94,94,94,94	0
56	MG	YA	3356	1/1	0.70	0.31	85,85,85,85	0
56	MG	YA	3378	1/1	0.70	0.45	62,62,62,62	0
56	MG	QA	1633	1/1	0.70	0.09	84,84,84,84	0
56	MG	RA	3865	1/1	0.70	0.21	93,93,93,93	0
56	MG	RA	3290	1/1	0.70	0.19	99,99,99,99	0
56	MG	RA	3867	1/1	0.70	0.14	81,81,81,81	0
56	MG	RD	312	1/1	0.70	0.43	90,90,90,90	0
56	MG	RA	3966	1/1	0.70	0.21	71,71,71,71	0
56	MG	YA	3440	1/1	0.70	0.41	64,64,64,64	0
56	MG	QA	1730	1/1	0.70	0.15	73,73,73,73	0
56	MG	QO	101	1/1	0.70	0.19	86,86,86,86	0
56	MG	RA	3698	1/1	0.70	0.30	87,87,87,87	0
56	MG	RA	3789	1/1	0.70	0.24	80,80,80,80	0
56	MG	YA	3018	1/1	0.70	0.25	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3157	1/1	0.70	0.28	66,66,66,66	0
56	MG	RA	3794	1/1	0.70	0.38	72,72,72,72	0
56	MG	YA	3098	1/1	0.70	0.20	95,95,95,95	0
56	MG	YA	3447	1/1	0.70	0.23	80,80,80,80	0
56	MG	RA	3456	1/1	0.70	0.23	71,71,71,71	0
56	MG	RA	3892	1/1	0.70	0.12	78,78,78,78	0
56	MG	RA	3995	1/1	0.70	0.21	91,91,91,91	0
56	MG	YA	3192	1/1	0.70	0.20	74,74,74,74	0
56	MG	RA	3143	1/1	0.70	0.20	77,77,77,77	0
56	MG	YA	3327	1/1	0.70	0.35	85,85,85,85	0
56	MG	RA	3223	1/1	0.70	0.20	77,77,77,77	0
56	MG	YA	3720	1/1	0.70	0.32	75,75,75,75	0
56	MG	QA	1864	1/1	0.70	0.26	97,97,97,97	0
56	MG	RA	3469	1/1	0.70	0.28	68,68,68,68	0
56	MG	XA	1770	1/1	0.70	0.18	87,87,87,87	0
56	MG	RA	3152	1/1	0.70	0.14	93,93,93,93	0
56	MG	RA	3392	1/1	0.70	0.61	62,62,62,62	0
56	MG	RA	3229	1/1	0.70	0.49	104,104,104,104	0
56	MG	RA	3822	1/1	0.70	0.32	73,73,73,73	0
56	MG	QA	1742	1/1	0.70	0.19	92,92,92,92	0
56	MG	YE	301	1/1	0.70	0.24	66,66,66,66	0
56	MG	RA	3923	1/1	0.70	0.19	74,74,74,74	0
56	MG	YA	3540	1/1	0.70	0.29	82,82,82,82	0
56	MG	YA	3396	1/1	0.70	0.38	67,67,67,67	0
56	MG	YA	3547	1/1	0.70	0.26	88,88,88,88	0
56	MG	YA	3038	1/1	0.70	0.29	77,77,77,77	0
56	MG	YA	3551	1/1	0.70	0.27	73,73,73,73	0
56	MG	RA	3100	1/1	0.70	0.13	102,102,102,102	0
56	MG	RA	3935	1/1	0.70	0.10	90,90,90,90	0
56	MG	YA	3142	1/1	0.70	0.24	76,76,76,76	0
56	MG	YA	3112	1/1	0.71	0.61	85,85,85,85	0
56	MG	YA	3162	1/1	0.71	0.48	96,96,96,96	0
56	MG	YA	3637	1/1	0.71	0.45	85,85,85,85	0
56	MG	QA	1611	1/1	0.71	0.46	80,80,80,80	0
56	MG	RA	3419	1/1	0.71	0.50	62,62,62,62	0
56	MG	RA	3608	1/1	0.71	0.15	83,83,83,83	0
56	MG	RA	3328	1/1	0.71	0.25	73,73,73,73	0
56	MG	RA	3425	1/1	0.71	0.33	91,91,91,91	0
56	MG	YA	3326	1/1	0.71	0.35	65,65,65,65	0
56	MG	RA	3237	1/1	0.71	0.95	96,96,96,96	0
56	MG	YA	3426	1/1	0.71	0.21	72,72,72,72	0
56	MG	YA	3287	1/1	0.71	0.39	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3334	1/1	0.71	0.31	82,82,82,82	0
56	MG	RA	3335	1/1	0.71	0.29	75,75,75,75	0
56	MG	YA	3756	1/1	0.71	0.27	96,96,96,96	0
56	MG	XA	1781	1/1	0.71	0.41	79,79,79,79	0
56	MG	YA	3288	1/1	0.71	0.39	62,62,62,62	0
56	MG	YA	3351	1/1	0.71	0.28	68,68,68,68	0
56	MG	RA	3632	1/1	0.71	1.42	88,88,88,88	0
56	MG	RA	3529	1/1	0.71	0.36	90,90,90,90	0
56	MG	RA	3167	1/1	0.71	0.14	84,84,84,84	0
56	MG	RA	3168	1/1	0.71	0.22	91,91,91,91	0
56	MG	YA	3600	1/1	0.71	0.49	65,65,65,65	0
56	MG	RA	3757	1/1	0.71	0.18	98,98,98,98	0
56	MG	RA	3637	1/1	0.71	0.44	85,85,85,85	0
56	MG	RA	3257	1/1	0.71	0.49	100,100,100,100	0
56	MG	YA	3249	1/1	0.71	0.36	94,94,94,94	0
56	MG	YA	3238	1/1	0.71	0.30	100,100,100,100	0
56	MG	RA	3174	1/1	0.71	0.18	85,85,85,85	0
56	MG	RA	3103	1/1	0.71	0.46	101,101,101,101	0
56	MG	QA	1871	1/1	0.71	0.13	77,77,77,77	0
56	MG	RA	3651	1/1	0.71	0.25	80,80,80,80	0
56	MG	RA	3030	1/1	0.71	0.35	94,94,94,94	0
56	MG	RA	3777	1/1	0.71	0.24	84,84,84,84	0
56	MG	QA	1779	1/1	0.71	0.11	91,91,91,91	0
56	MG	RA	3109	1/1	0.71	0.29	97,97,97,97	0
56	MG	YA	3435	1/1	0.71	0.22	87,87,87,87	0
56	MG	RQ	204	1/1	0.71	0.43	89,89,89,89	0
56	MG	YA	3499	1/1	0.71	0.24	65,65,65,65	0
56	MG	YA	3066	1/1	0.71	0.46	78,78,78,78	0
56	MG	RA	3286	1/1	0.71	0.28	100,100,100,100	0
56	MG	XA	1655	1/1	0.71	0.23	82,82,82,82	0
56	MG	YA	3708	1/1	0.71	0.46	66,66,66,66	0
56	MG	YA	3574	1/1	0.71	0.19	86,86,86,86	0
56	MG	YA	3116	1/1	0.71	0.20	95,95,95,95	0
56	MG	XA	1699	1/1	0.71	0.32	82,82,82,82	0
56	MG	RA	4009	1/1	0.71	0.19	84,84,84,84	0
56	MG	QA	1701	1/1	0.71	0.19	77,77,77,77	0
56	MG	RA	3049	1/1	0.71	0.17	80,80,80,80	0
56	MG	YA	3577	1/1	0.71	0.39	62,62,62,62	0
56	MG	YA	3387	1/1	0.71	0.42	62,62,62,62	0
56	MG	YA	3625	1/1	0.71	0.30	86,86,86,86	0
56	MG	RA	3396	1/1	0.71	0.26	67,67,67,67	0
56	MG	YA	3156	1/1	0.71	0.33	103,103,103,103	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3213	1/1	0.71	0.52	112,112,112,112	0
56	MG	YA	3582	1/1	0.71	0.51	74,74,74,74	0
56	MG	RA	3489	1/1	0.71	0.23	67,67,67,67	0
56	MG	RA	3711	1/1	0.71	0.50	88,88,88,88	0
56	MG	YA	3034	1/1	0.71	0.17	74,74,74,74	0
56	MG	YA	3008	1/1	0.71	0.19	66,66,66,66	0
56	MG	QA	1806	1/1	0.71	0.27	79,79,79,79	0
56	MG	YA	3422	1/1	0.71	0.29	90,90,90,90	0
56	MG	XA	1615	1/1	0.72	0.18	89,89,89,89	0
56	MG	YA	3516	1/1	0.72	0.43	85,85,85,85	0
56	MG	YA	3222	1/1	0.72	0.19	88,88,88,88	0
56	MG	RA	3930	1/1	0.72	0.33	73,73,73,73	0
56	MG	RA	3566	1/1	0.72	0.27	67,67,67,67	0
56	MG	QA	1616	1/1	0.72	0.14	101,101,101,101	0
56	MG	YA	3164	1/1	0.72	0.28	98,98,98,98	0
56	MG	RA	3515	1/1	0.72	0.22	90,90,90,90	0
56	MG	YA	3391	1/1	0.72	0.34	62,62,62,62	0
56	MG	RA	3732	1/1	0.72	0.17	85,85,85,85	0
56	MG	YA	3494	1/1	0.72	0.26	64,64,64,64	0
56	MG	RA	3644	1/1	0.72	0.23	91,91,91,91	0
56	MG	QA	1628	1/1	0.72	0.39	77,77,77,77	0
56	MG	RA	3353	1/1	0.72	0.35	84,84,84,84	0
56	MG	RA	3462	1/1	0.72	0.43	86,86,86,86	0
56	MG	QA	1865	1/1	0.72	0.19	98,98,98,98	0
56	MG	YA	3170	1/1	0.72	0.25	92,92,92,92	0
56	MG	RA	3246	1/1	0.72	0.19	84,84,84,84	0
56	MG	RA	3412	1/1	0.72	0.33	62,62,62,62	0
56	MG	RA	3307	1/1	0.72	0.73	99,99,99,99	0
56	MG	RA	4054	1/1	0.72	0.58	91,91,91,91	0
56	MG	RA	3414	1/1	0.72	0.28	62,62,62,62	0
56	MG	YA	3042	1/1	0.72	0.15	76,76,76,76	0
56	MG	RA	4062	1/1	0.72	0.57	98,98,98,98	0
56	MG	RA	3038	1/1	0.72	0.25	86,86,86,86	0
56	MG	YA	3091	1/1	0.72	0.18	76,76,76,76	0
56	MG	RB	202	1/1	0.72	0.15	80,80,80,80	0
56	MG	YA	3307	1/1	0.72	0.30	71,71,71,71	0
56	MG	QT	201	1/1	0.72	0.44	77,77,77,77	0
56	MG	QA	1757	1/1	0.72	0.27	102,102,102,102	0
56	MG	R1	104	1/1	0.72	0.28	88,88,88,88	0
56	MG	XA	1756	1/1	0.72	0.66	81,81,81,81	0
56	MG	XA	1706	1/1	0.72	0.16	78,78,78,78	0
56	MG	XA	1758	1/1	0.72	0.38	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3372	1/1	0.72	0.33	87,87,87,87	0
56	MG	RA	3690	1/1	0.72	0.93	90,90,90,90	0
56	MG	YA	3219	1/1	0.72	0.32	95,95,95,95	0
56	MG	YA	3669	1/1	0.72	0.32	65,65,65,65	0
56	MG	YA	3458	1/1	0.72	0.38	88,88,88,88	0
56	MG	RA	3114	1/1	0.72	0.42	95,95,95,95	0
56	MG	RA	3493	1/1	0.72	0.32	70,70,70,70	0
56	MG	RA	3015	1/1	0.72	0.21	84,84,84,84	0
56	MG	QA	1766	1/1	0.72	0.13	96,96,96,96	0
56	MG	XA	1767	1/1	0.72	0.53	78,78,78,78	0
56	MG	RA	3022	1/1	0.72	0.32	98,98,98,98	0
56	MG	RA	3588	1/1	0.73	0.35	76,76,76,76	0
56	MG	YA	3323	1/1	0.73	0.40	62,62,62,62	0
56	MG	YA	3412	1/1	0.73	0.42	90,90,90,90	0
56	MG	YA	3414	1/1	0.73	0.70	92,92,92,92	0
56	MG	RA	3327	1/1	0.73	0.31	69,69,69,69	0
56	MG	RD	311	1/1	0.73	0.11	101,101,101,101	0
56	MG	YA	3635	1/1	0.73	0.22	83,83,83,83	0
56	MG	RA	3279	1/1	0.73	0.23	98,98,98,98	0
56	MG	RA	3280	1/1	0.73	0.29	95,95,95,95	0
56	MG	RA	3382	1/1	0.73	0.28	76,76,76,76	0
56	MG	RF	304	1/1	0.73	0.30	74,74,74,74	0
56	MG	YA	3154	1/1	0.73	0.11	81,81,81,81	0
56	MG	RA	3743	1/1	0.73	0.10	89,89,89,89	0
56	MG	YA	3610	1/1	0.73	0.40	64,64,64,64	0
56	MG	XA	1695	1/1	0.73	0.41	73,73,73,73	0
56	MG	QA	1671	1/1	0.73	0.19	85,85,85,85	0
56	MG	XA	1768	1/1	0.73	0.48	62,62,62,62	0
56	MG	RA	3749	1/1	0.73	0.23	70,70,70,70	0
56	MG	YA	3085	1/1	0.73	0.21	85,85,85,85	0
56	MG	YA	3262	1/1	0.73	0.22	88,88,88,88	0
56	MG	RA	4050	1/1	0.73	0.10	98,98,98,98	0
56	MG	RA	3500	1/1	0.73	0.20	94,94,94,94	0
56	MG	YA	3103	1/1	0.73	0.25	67,67,67,67	0
56	MG	YA	3331	1/1	0.73	0.57	62,62,62,62	0
56	MG	RA	3144	1/1	0.73	0.36	86,86,86,86	0
56	MG	RU	201	1/1	0.73	0.29	85,85,85,85	0
56	MG	RA	3959	1/1	0.73	0.35	97,97,97,97	0
56	MG	QA	1776	1/1	0.73	0.28	83,83,83,83	0
56	MG	YA	3706	1/1	0.73	0.22	75,75,75,75	0
56	MG	RA	3761	1/1	0.73	0.20	70,70,70,70	0
56	MG	RA	3762	1/1	0.73	0.32	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3543	1/1	0.73	0.12	80,80,80,80	0
56	MG	RA	3303	1/1	0.73	0.15	92,92,92,92	0
56	MG	YA	3646	1/1	0.73	0.24	68,68,68,68	0
56	MG	RA	3196	1/1	0.73	0.37	114,114,114,114	0
56	MG	RA	3837	1/1	0.73	0.35	90,90,90,90	0
56	MG	RB	210	1/1	0.73	0.13	96,96,96,96	0
56	MG	RA	3570	1/1	0.73	0.30	71,71,71,71	0
56	MG	RA	3918	1/1	0.73	0.42	93,93,93,93	0
56	MG	YA	3318	1/1	0.73	0.36	62,62,62,62	0
56	MG	YA	3146	1/1	0.73	0.32	83,83,83,83	0
56	MG	RA	3981	1/1	0.73	0.18	78,78,78,78	0
56	MG	YA	3713	1/1	0.73	0.36	83,83,83,83	0
56	MG	YA	3217	1/1	0.73	0.15	98,98,98,98	0
56	MG	YA	3718	1/1	0.73	0.09	94,94,94,94	0
56	MG	RA	3205	1/1	0.73	0.28	87,87,87,87	0
56	MG	YA	3135	1/1	0.73	0.26	63,63,63,63	0
56	MG	XA	1626	1/1	0.73	0.20	78,78,78,78	0
56	MG	RA	3936	1/1	0.74	0.20	82,82,82,82	0
56	MG	YA	3141	1/1	0.74	0.29	79,79,79,79	0
56	MG	XA	1640	1/1	0.74	0.19	92,92,92,92	0
56	MG	RA	3744	1/1	0.74	0.27	73,73,73,73	0
56	MG	RE	303	1/1	0.74	0.40	102,102,102,102	0
56	MG	RA	3940	1/1	0.74	0.48	90,90,90,90	0
56	MG	RA	3868	1/1	0.74	0.15	83,83,83,83	0
56	MG	QA	1670	1/1	0.74	0.23	84,84,84,84	0
56	MG	RA	3490	1/1	0.74	0.49	67,67,67,67	0
56	MG	RA	3442	1/1	0.74	0.21	82,82,82,82	0
56	MG	YA	3005	1/1	0.74	0.13	85,85,85,85	0
56	MG	RA	3614	1/1	0.74	0.22	68,68,68,68	0
56	MG	RA	3172	1/1	0.74	0.47	105,105,105,105	0
56	MG	QA	1844	1/1	0.74	0.13	100,100,100,100	0
56	MG	YA	3681	1/1	0.74	0.55	62,62,62,62	0
56	MG	RA	3394	1/1	0.74	0.46	62,62,62,62	0
56	MG	YA	3011	1/1	0.74	0.27	70,70,70,70	0
56	MG	RA	3558	1/1	0.74	0.27	76,76,76,76	0
56	MG	YA	3340	1/1	0.74	0.34	62,62,62,62	0
56	MG	RA	3501	1/1	0.74	0.41	63,63,63,63	0
56	MG	YA	3663	1/1	0.74	0.13	98,98,98,98	0
56	MG	RR	203	1/1	0.74	0.27	81,81,81,81	0
56	MG	YP	201	1/1	0.74	0.28	89,89,89,89	0
56	MG	RA	3961	1/1	0.74	0.35	87,87,87,87	0
56	MG	QA	1639	1/1	0.74	0.20	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3727	1/1	0.74	0.34	62,62,62,62	0
56	MG	RA	3301	1/1	0.74	0.24	93,93,93,93	0
56	MG	RA	3965	1/1	0.74	0.18	73,73,73,73	0
56	MG	QA	1719	1/1	0.74	0.51	73,73,73,73	0
56	MG	XA	1680	1/1	0.74	0.30	80,80,80,80	0
56	MG	RA	3721	1/1	0.74	0.17	67,67,67,67	0
56	MG	YA	3729	1/1	0.74	0.36	69,69,69,69	0
56	MG	RA	3909	1/1	0.74	0.35	62,62,62,62	0
56	MG	YA	3664	1/1	0.74	0.27	72,72,72,72	0
56	MG	YA	3283	1/1	0.74	0.15	74,74,74,74	0
56	MG	YA	3489	1/1	0.74	0.15	77,77,77,77	0
56	MG	YD	301	1/1	0.74	0.22	66,66,66,66	0
56	MG	YD	302	1/1	0.74	0.29	81,81,81,81	0
56	MG	YA	3445	1/1	0.74	0.22	94,94,94,94	0
56	MG	RA	3048	1/1	0.74	0.17	88,88,88,88	0
56	MG	RA	3155	1/1	0.74	0.28	95,95,95,95	0
56	MG	QA	1832	1/1	0.74	0.17	84,84,84,84	0
56	MG	YA	3526	1/1	0.74	0.41	65,65,65,65	0
56	MG	YA	3620	1/1	0.74	0.43	75,75,75,75	0
56	MG	XA	1762	1/1	0.74	0.27	70,70,70,70	0
56	MG	YE	306	1/1	0.74	0.48	62,62,62,62	0
56	MG	YA	3294	1/1	0.74	0.37	62,62,62,62	0
56	MG	YA	3107	1/1	0.75	0.25	74,74,74,74	0
56	MG	RA	3408	1/1	0.75	0.58	62,62,62,62	0
56	MG	QA	1788	1/1	0.75	0.18	93,93,93,93	0
56	MG	YA	3573	1/1	0.75	0.40	64,64,64,64	0
56	MG	XA	1629	1/1	0.75	0.29	68,68,68,68	0
56	MG	YA	3429	1/1	0.75	0.30	73,73,73,73	0
56	MG	QA	1793	1/1	0.75	0.24	93,93,93,93	0
56	MG	RA	3606	1/1	0.75	0.17	87,87,87,87	0
56	MG	YA	3118	1/1	0.75	0.13	74,74,74,74	0
56	MG	RA	3415	1/1	0.75	0.32	62,62,62,62	0
56	MG	QA	1732	1/1	0.75	0.33	72,72,72,72	0
56	MG	QA	1870	1/1	0.75	0.47	81,81,81,81	0
56	MG	QA	1617	1/1	0.75	0.12	98,98,98,98	0
56	MG	YA	3166	1/1	0.75	0.64	109,109,109,109	0
56	MG	RA	3544	1/1	0.75	0.21	65,65,65,65	0
56	MG	RG	201	1/1	0.75	0.09	89,89,89,89	0
56	MG	RA	3181	1/1	0.75	0.27	86,86,86,86	0
56	MG	RA	3484	1/1	0.75	0.57	62,62,62,62	0
56	MG	RA	3427	1/1	0.75	0.27	90,90,90,90	0
56	MG	RA	3623	1/1	0.75	0.36	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3470	1/1	0.75	0.21	74,74,74,74	0
56	MG	RA	4025	1/1	0.75	0.84	97,97,97,97	0
56	MG	YA	3394	1/1	0.75	0.30	75,75,75,75	0
56	MG	YA	3305	1/1	0.75	0.25	69,69,69,69	0
56	MG	RA	3025	1/1	0.75	0.14	69,69,69,69	0
56	MG	YF	302	1/1	0.75	0.15	75,75,75,75	0
56	MG	RA	4046	1/1	0.75	0.38	91,91,91,91	0
56	MG	RA	3793	1/1	0.75	0.24	71,71,71,71	0
56	MG	RA	3072	1/1	0.75	0.61	110,110,110,110	0
56	MG	YB	203	1/1	0.75	0.17	72,72,72,72	0
56	MG	YA	3437	1/1	0.75	0.27	62,62,62,62	0
56	MG	YA	3315	1/1	0.75	0.37	64,64,64,64	0
56	MG	YA	3105	1/1	0.75	0.20	81,81,81,81	0
56	MG	RA	3381	1/1	0.75	0.28	64,64,64,64	0
56	MG	XA	1644	1/1	0.75	0.14	94,94,94,94	0
56	MG	QA	1747	1/1	0.75	0.43	81,81,81,81	0
56	MG	RA	3809	1/1	0.75	0.09	89,89,89,89	0
56	MG	YA	3496	1/1	0.75	0.40	85,85,85,85	0
56	MG	RB	205	1/1	0.75	0.10	92,92,92,92	0
56	MG	RA	3153	1/1	0.75	0.11	90,90,90,90	0
56	MG	RA	3508	1/1	0.75	0.14	89,89,89,89	0
56	MG	YA	3075	1/1	0.75	0.41	89,89,89,89	0
56	MG	YA	3621	1/1	0.75	0.26	62,62,62,62	0
56	MG	RA	3816	1/1	0.75	0.21	79,79,79,79	0
56	MG	R8	101	1/1	0.75	0.28	90,90,90,90	0
56	MG	XA	1679	1/1	0.75	0.38	102,102,102,102	0
56	MG	YA	3672	1/1	0.75	0.42	76,76,76,76	0
56	MG	YA	3536	1/1	0.75	0.28	63,63,63,63	0
56	MG	RA	3457	1/1	0.75	0.15	89,89,89,89	0
56	MG	QA	1856	1/1	0.75	0.40	94,94,94,94	0
56	MG	RA	3341	1/1	0.75	0.46	73,73,73,73	0
56	MG	YA	3155	1/1	0.75	0.42	85,85,85,85	0
56	MG	QA	1688	1/1	0.75	0.31	81,81,81,81	0
56	MG	RA	3591	1/1	0.75	0.14	92,92,92,92	0
57	ZN	Y4	101	1/1	0.75	0.25	176,176,176,176	0
56	MG	RA	3233	1/1	0.76	0.51	96,96,96,96	0
56	MG	RA	3680	1/1	0.76	0.33	69,69,69,69	0
56	MG	YA	3679	1/1	0.76	0.28	65,65,65,65	0
56	MG	RA	3683	1/1	0.76	0.22	85,85,85,85	0
56	MG	RA	3377	1/1	0.76	0.13	69,69,69,69	0
56	MG	YA	3067	1/1	0.76	0.11	76,76,76,76	0
56	MG	RF	303	1/1	0.76	0.31	98,98,98,98	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3514	1/1	0.76	0.25	63,63,63,63	0
56	MG	YA	3538	1/1	0.76	0.32	64,64,64,64	0
56	MG	YA	3698	1/1	0.76	0.57	76,76,76,76	0
56	MG	RA	4038	1/1	0.76	0.19	75,75,75,75	0
56	MG	RA	3474	1/1	0.76	0.24	70,70,70,70	0
56	MG	XA	1734	1/1	0.76	0.20	89,89,89,89	0
56	MG	RA	3156	1/1	0.76	0.37	105,105,105,105	0
56	MG	YA	3343	1/1	0.76	0.64	62,62,62,62	0
56	MG	QA	1726	1/1	0.76	0.23	88,88,88,88	0
56	MG	QA	1673	1/1	0.76	0.33	75,75,75,75	0
56	MG	QA	1674	1/1	0.76	0.21	94,94,94,94	0
56	MG	YA	3265	1/1	0.76	0.32	77,77,77,77	0
56	MG	RA	4063	1/1	0.76	0.80	100,100,100,100	0
56	MG	RA	3830	1/1	0.76	0.58	78,78,78,78	0
56	MG	RA	3831	1/1	0.76	0.17	90,90,90,90	0
56	MG	RR	204	1/1	0.76	0.19	75,75,75,75	0
56	MG	RA	3076	1/1	0.76	0.47	96,96,96,96	0
56	MG	RA	3773	1/1	0.76	0.30	70,70,70,70	0
56	MG	YA	3605	1/1	0.76	0.18	84,84,84,84	0
56	MG	QA	1678	1/1	0.76	0.20	93,93,93,93	0
56	MG	YA	3168	1/1	0.76	0.50	100,100,100,100	0
56	MG	RW	201	1/1	0.76	0.24	83,83,83,83	0
56	MG	RA	3534	1/1	0.76	0.24	75,75,75,75	0
56	MG	RA	3589	1/1	0.76	0.20	94,94,94,94	0
56	MG	YA	3737	1/1	0.76	0.49	63,63,63,63	0
56	MG	RA	3091	1/1	0.76	0.24	102,102,102,102	0
56	MG	QD	303	1/1	0.76	0.15	94,94,94,94	0
56	MG	RA	3730	1/1	0.76	0.17	89,89,89,89	0
56	MG	RB	213	1/1	0.76	0.54	71,71,71,71	0
56	MG	YA	3739	1/1	0.76	0.28	75,75,75,75	0
56	MG	R5	101	1/1	0.76	0.51	105,105,105,105	0
56	MG	RB	216	1/1	0.76	0.10	88,88,88,88	0
56	MG	RA	3407	1/1	0.76	0.17	95,95,95,95	0
56	MG	Y1	101	1/1	0.76	0.20	62,62,62,62	0
56	MG	XA	1773	1/1	0.76	0.51	79,79,79,79	0
56	MG	QA	1658	1/1	0.76	0.21	88,88,88,88	0
56	MG	YA	3224	1/1	0.76	0.21	71,71,71,71	0
56	MG	RA	3797	1/1	0.76	0.62	109,109,109,109	0
56	MG	RA	3227	1/1	0.76	1.17	103,103,103,103	0
56	MG	RA	3282	1/1	0.76	0.23	102,102,102,102	0
56	MG	YA	3255	1/1	0.76	0.34	81,81,81,81	0
56	MG	RA	3503	1/1	0.76	0.37	65,65,65,65	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å ²)	Q<0.9
56	MG	RA	3803	1/1	0.76	0.59	101,101,101,101	0
56	MG	QL	201	1/1	0.76	0.20	87,87,87,87	0
56	MG	RA	3416	1/1	0.76	0.39	75,75,75,75	0
56	MG	YA	3319	1/1	0.77	0.33	62,62,62,62	0
56	MG	RA	3562	1/1	0.77	0.23	82,82,82,82	0
56	MG	RA	3360	1/1	0.77	0.39	68,68,68,68	0
56	MG	YA	3661	1/1	0.77	0.39	73,73,73,73	0
56	MG	YA	3715	1/1	0.77	0.15	83,83,83,83	0
56	MG	YA	3452	1/1	0.77	0.37	84,84,84,84	0
56	MG	YB	202	1/1	0.77	0.08	72,72,72,72	0
56	MG	RA	3857	1/1	0.77	0.40	76,76,76,76	0
56	MG	YA	3439	1/1	0.77	0.23	88,88,88,88	0
56	MG	XK	201	1/1	0.77	0.13	87,87,87,87	0
56	MG	RA	3765	1/1	0.77	0.22	91,91,91,91	0
56	MG	RA	3572	1/1	0.77	0.27	81,81,81,81	0
56	MG	YA	3588	1/1	0.77	0.41	64,64,64,64	0
56	MG	QA	1646	1/1	0.77	0.26	71,71,71,71	0
56	MG	YO	202	1/1	0.77	0.21	81,81,81,81	0
56	MG	RA	3306	1/1	0.77	0.23	97,97,97,97	0
56	MG	RA	3679	1/1	0.77	0.23	72,72,72,72	0
56	MG	YA	3022	1/1	0.77	0.63	91,91,91,91	0
56	MG	RA	3506	1/1	0.77	0.17	70,70,70,70	0
56	MG	RA	3780	1/1	0.77	0.34	89,89,89,89	0
56	MG	RA	3443	1/1	0.77	0.49	62,62,62,62	0
56	MG	RA	3509	1/1	0.77	0.27	81,81,81,81	0
56	MG	YA	3617	1/1	0.77	0.25	74,74,74,74	0
56	MG	YA	3590	1/1	0.77	0.34	65,65,65,65	0
56	MG	RA	3878	1/1	0.77	0.30	62,62,62,62	0
56	MG	YA	3078	1/1	0.77	0.55	97,97,97,97	0
56	MG	RA	3313	1/1	0.77	0.36	63,63,63,63	0
56	MG	RA	3986	1/1	0.77	0.21	79,79,79,79	0
56	MG	RF	308	1/1	0.77	0.73	92,92,92,92	0
56	MG	RF	309	1/1	0.77	0.29	103,103,103,103	0
56	MG	RA	3883	1/1	0.77	0.22	88,88,88,88	0
56	MG	RA	3243	1/1	0.77	0.24	103,103,103,103	0
56	MG	RA	3700	1/1	0.77	0.30	104,104,104,104	0
56	MG	YA	3339	1/1	0.77	0.23	62,62,62,62	0
56	MG	RA	3997	1/1	0.77	0.63	106,106,106,106	0
56	MG	RA	3518	1/1	0.77	0.46	96,96,96,96	0
56	MG	RA	3705	1/1	0.77	0.26	89,89,89,89	0
56	MG	QA	1609	1/1	0.77	0.14	95,95,95,95	0
56	MG	QA	1794	1/1	0.77	0.19	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3385	1/1	0.77	0.61	62,62,62,62	0
56	MG	QA	1660	1/1	0.77	0.25	81,81,81,81	0
56	MG	RA	4008	1/1	0.77	0.32	92,92,92,92	0
56	MG	RR	201	1/1	0.77	0.69	98,98,98,98	0
56	MG	RA	3604	1/1	0.77	1.10	107,107,107,107	0
56	MG	QG	201	1/1	0.77	0.31	101,101,101,101	0
56	MG	RA	3320	1/1	0.77	0.42	62,62,62,62	0
56	MG	RA	3119	1/1	0.77	0.41	94,94,94,94	0
56	MG	XA	1725	1/1	0.77	0.32	85,85,85,85	0
56	MG	YA	3726	1/1	0.77	0.22	85,85,85,85	0
56	MG	RA	3255	1/1	0.77	0.54	97,97,97,97	0
56	MG	QI	201	1/1	0.77	0.19	100,100,100,100	0
56	MG	RV	202	1/1	0.77	0.16	86,86,86,86	0
56	MG	RA	3467	1/1	0.77	0.40	89,89,89,89	0
56	MG	YA	3459	1/1	0.77	0.17	63,63,63,63	0
56	MG	YA	3443	1/1	0.77	0.24	83,83,83,83	0
56	MG	XA	1696	1/1	0.77	0.45	67,67,67,67	0
56	MG	RA	3472	1/1	0.77	0.27	78,78,78,78	0
56	MG	RA	4039	1/1	0.77	0.23	92,92,92,92	0
56	MG	RA	3539	1/1	0.77	0.10	98,98,98,98	0
56	MG	QA	1712	1/1	0.77	0.23	75,75,75,75	0
56	MG	RA	3405	1/1	0.77	0.16	85,85,85,85	0
56	MG	RA	3825	1/1	0.77	0.23	85,85,85,85	0
56	MG	XA	1664	1/1	0.77	0.27	102,102,102,102	0
56	MG	XA	1739	1/1	0.77	0.33	82,82,82,82	0
56	MG	YA	3409	1/1	0.77	0.54	95,95,95,95	0
56	MG	QA	1621	1/1	0.77	0.10	85,85,85,85	0
56	MG	YA	3109	1/1	0.77	0.32	85,85,85,85	0
56	MG	YA	3531	1/1	0.77	0.40	80,80,80,80	0
56	MG	YA	3213	1/1	0.77	0.28	63,63,63,63	0
56	MG	XA	1607	1/1	0.77	0.10	95,95,95,95	0
56	MG	YA	3682	1/1	0.77	0.34	62,62,62,62	0
56	MG	RA	3555	1/1	0.77	0.40	80,80,80,80	0
56	MG	YA	3685	1/1	0.77	0.41	87,87,87,87	0
56	MG	YA	3203	1/1	0.77	0.25	93,93,93,93	0
56	MG	XA	1708	1/1	0.77	0.24	75,75,75,75	0
56	MG	QA	1684	1/1	0.77	0.17	97,97,97,97	0
56	MG	RA	3686	1/1	0.78	0.33	97,97,97,97	0
56	MG	YA	3565	1/1	0.78	0.23	64,64,64,64	0
56	MG	YA	3570	1/1	0.78	0.41	62,62,62,62	0
56	MG	RA	3616	1/1	0.78	0.34	62,62,62,62	0
56	MG	QA	1878	1/1	0.78	0.21	98,98,98,98	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3485	1/1	0.78	0.40	62,62,62,62	0
56	MG	YA	3169	1/1	0.78	0.44	85,85,85,85	0
56	MG	RE	306	1/1	0.78	0.24	63,63,63,63	0
56	MG	QA	1669	1/1	0.78	0.41	81,81,81,81	0
56	MG	RA	3928	1/1	0.78	0.37	90,90,90,90	0
56	MG	RA	3390	1/1	0.78	0.37	65,65,65,65	0
56	MG	YA	3549	1/1	0.78	0.41	90,90,90,90	0
56	MG	RA	3706	1/1	0.78	0.26	78,78,78,78	0
56	MG	QA	1703	1/1	0.78	0.30	63,63,63,63	0
56	MG	YA	3196	1/1	0.78	0.18	91,91,91,91	0
56	MG	XA	1613	1/1	0.78	0.13	73,73,73,73	0
56	MG	RA	3854	1/1	0.78	0.90	87,87,87,87	0
56	MG	YA	3514	1/1	0.78	0.32	62,62,62,62	0
56	MG	YA	3037	1/1	0.78	0.17	84,84,84,84	0
56	MG	RA	4031	1/1	0.78	0.44	108,108,108,108	0
56	MG	RN	201	1/1	0.78	0.32	91,91,91,91	0
56	MG	RA	3211	1/1	0.78	0.15	78,78,78,78	0
56	MG	RA	3511	1/1	0.78	0.18	71,71,71,71	0
56	MG	QA	1815	1/1	0.78	0.16	87,87,87,87	0
56	MG	YA	3211	1/1	0.78	0.16	98,98,98,98	0
56	MG	YQ	201	1/1	0.78	0.26	69,69,69,69	0
56	MG	RA	3345	1/1	0.78	0.28	62,62,62,62	0
56	MG	YA	3518	1/1	0.78	0.29	70,70,70,70	0
56	MG	RA	3159	1/1	0.78	0.56	94,94,94,94	0
56	MG	YA	3212	1/1	0.78	0.14	87,87,87,87	0
56	MG	RA	4057	1/1	0.78	0.33	97,97,97,97	0
56	MG	RA	3162	1/1	0.78	0.17	83,83,83,83	0
56	MG	RA	3110	1/1	0.78	0.29	94,94,94,94	0
56	MG	RA	3733	1/1	0.78	0.07	79,79,79,79	0
56	MG	YA	3362	1/1	0.78	0.38	70,70,70,70	0
56	MG	RA	3957	1/1	0.78	0.37	79,79,79,79	0
56	MG	RA	3650	1/1	0.78	0.12	76,76,76,76	0
56	MG	YA	3057	1/1	0.78	0.20	90,90,90,90	0
56	MG	QA	1822	1/1	0.78	0.10	97,97,97,97	0
56	MG	YA	3273	1/1	0.78	0.23	84,84,84,84	0
56	MG	QA	1862	1/1	0.78	0.12	82,82,82,82	0
56	MG	RA	3657	1/1	0.78	0.33	70,70,70,70	0
56	MG	YD	309	1/1	0.78	0.24	62,62,62,62	0
56	MG	RA	3886	1/1	0.78	0.74	97,97,97,97	0
56	MG	QA	1649	1/1	0.78	0.16	73,73,73,73	0
56	MG	R3	102	1/1	0.78	0.44	102,102,102,102	0
56	MG	RA	3661	1/1	0.78	0.33	73,73,73,73	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3420	1/1	0.78	0.43	62,62,62,62	0
56	MG	YA	3542	1/1	0.78	0.36	71,71,71,71	0
56	MG	RA	3121	1/1	0.78	0.43	100,100,100,100	0
56	MG	QA	1614	1/1	0.78	0.19	85,85,85,85	0
56	MG	YE	302	1/1	0.78	0.95	95,95,95,95	0
56	MG	RA	3178	1/1	0.78	0.36	107,107,107,107	0
56	MG	RA	3674	1/1	0.78	0.37	70,70,70,70	0
56	MG	YA	3639	1/1	0.78	0.42	65,65,65,65	0
56	MG	YA	3640	1/1	0.78	0.25	70,70,70,70	0
56	MG	RA	3906	1/1	0.78	0.35	62,62,62,62	0
56	MG	XA	1719	1/1	0.78	0.36	78,78,78,78	0
56	MG	YA	3379	1/1	0.78	0.26	73,73,73,73	0
56	MG	QA	1797	1/1	0.78	0.37	75,75,75,75	0
56	MG	XA	1606	1/1	0.78	0.24	90,90,90,90	0
56	MG	QA	1838	1/1	0.78	0.29	87,87,87,87	0
56	MG	RA	3931	1/1	0.79	0.30	78,78,78,78	0
56	MG	YA	3410	1/1	0.79	0.35	68,68,68,68	0
56	MG	RA	3856	1/1	0.79	0.44	77,77,77,77	0
56	MG	YA	3728	1/1	0.79	0.72	89,89,89,89	0
56	MG	YA	3268	1/1	0.79	0.25	83,83,83,83	0
56	MG	YA	3299	1/1	0.79	0.25	64,64,64,64	0
56	MG	XA	1759	1/1	0.79	0.34	68,68,68,68	0
56	MG	RF	307	1/1	0.79	0.42	74,74,74,74	0
56	MG	RA	3646	1/1	0.79	0.27	92,92,92,92	0
56	MG	XA	1654	1/1	0.79	0.49	87,87,87,87	0
56	MG	QA	1826	1/1	0.79	0.62	110,110,110,110	0
56	MG	YB	216	1/1	0.79	0.22	66,66,66,66	0
56	MG	XA	1764	1/1	0.79	0.11	73,73,73,73	0
56	MG	YA	3731	1/1	0.79	0.38	78,78,78,78	0
56	MG	RA	3060	1/1	0.79	0.25	83,83,83,83	0
56	MG	YB	219	1/1	0.79	0.24	63,63,63,63	0
56	MG	RA	3528	1/1	0.79	0.49	81,81,81,81	0
56	MG	YA	3138	1/1	0.79	0.36	72,72,72,72	0
56	MG	QA	1641	1/1	0.79	0.14	95,95,95,95	0
56	MG	YA	3491	1/1	0.79	0.27	91,91,91,91	0
56	MG	YA	3416	1/1	0.79	0.39	75,75,75,75	0
56	MG	YA	3453	1/1	0.79	0.15	79,79,79,79	0
56	MG	RA	3665	1/1	0.79	0.24	62,62,62,62	0
56	MG	RA	4060	1/1	0.79	0.83	109,109,109,109	0
56	MG	RA	3139	1/1	0.79	0.11	89,89,89,89	0
56	MG	RA	3021	1/1	0.79	0.24	103,103,103,103	0
56	MG	XA	1634	1/1	0.79	0.31	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3431	1/1	0.79	0.31	63,63,63,63	0
56	MG	QA	1800	1/1	0.79	0.23	85,85,85,85	0
56	MG	YA	3711	1/1	0.79	0.35	83,83,83,83	0
56	MG	YA	3398	1/1	0.79	0.49	63,63,63,63	0
56	MG	RA	3753	1/1	0.79	0.33	92,92,92,92	0
56	MG	YA	3110	1/1	0.79	0.27	62,62,62,62	0
56	MG	YA	3272	1/1	0.79	0.27	77,77,77,77	0
56	MG	YA	3185	1/1	0.79	0.88	99,99,99,99	0
56	MG	RA	3383	1/1	0.79	0.23	63,63,63,63	0
56	MG	QA	1731	1/1	0.79	0.41	76,76,76,76	0
56	MG	RA	3973	1/1	0.79	0.12	99,99,99,99	0
56	MG	YA	3020	1/1	0.79	0.21	96,96,96,96	0
56	MG	RA	3201	1/1	0.79	0.25	96,96,96,96	0
56	MG	RA	3387	1/1	0.79	0.22	75,75,75,75	0
56	MG	YA	3148	1/1	0.79	0.25	63,63,63,63	0
56	MG	RA	3696	1/1	0.79	0.25	82,82,82,82	0
56	MG	YA	3571	1/1	0.79	0.35	64,64,64,64	0
56	MG	RA	3917	1/1	0.79	0.27	92,92,92,92	0
56	MG	QA	1695	1/1	0.79	0.30	93,93,93,93	0
56	MG	RA	3767	1/1	0.79	0.34	63,63,63,63	0
56	MG	YA	3673	1/1	0.79	0.39	66,66,66,66	0
56	MG	RA	3769	1/1	0.79	0.22	85,85,85,85	0
56	MG	R9	103	1/1	0.79	0.27	93,93,93,93	0
56	MG	XA	1748	1/1	0.79	0.29	79,79,79,79	0
56	MG	YA	3152	1/1	0.79	0.26	83,83,83,83	0
56	MG	RA	3216	1/1	0.79	0.74	104,104,104,104	0
56	MG	YA	3012	1/1	0.79	0.21	70,70,70,70	0
56	MG	YA	3019	1/1	0.79	0.70	102,102,102,102	0
56	MG	RA	3287	1/1	0.79	0.22	102,102,102,102	0
56	MG	RA	3288	1/1	0.79	0.34	96,96,96,96	0
56	MG	YO	201	1/1	0.79	0.24	86,86,86,86	0
56	MG	RA	3569	1/1	0.79	0.33	62,62,62,62	0
56	MG	XA	1729	1/1	0.80	0.14	83,83,83,83	0
56	MG	RA	3692	1/1	0.80	0.22	84,84,84,84	0
56	MG	XA	1772	1/1	0.80	0.16	76,76,76,76	0
56	MG	YA	3159	1/1	0.80	0.12	76,76,76,76	0
56	MG	YA	3554	1/1	0.80	0.35	79,79,79,79	0
56	MG	YA	3619	1/1	0.80	0.18	65,65,65,65	0
56	MG	RA	3625	1/1	0.80	0.34	73,73,73,73	0
56	MG	RA	3557	1/1	0.80	0.26	94,94,94,94	0
56	MG	XA	1738	1/1	0.80	0.26	64,64,64,64	0
56	MG	XA	1777	1/1	0.80	0.27	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3631	1/1	0.80	0.41	94,94,94,94	0
56	MG	YA	3371	1/1	0.80	0.55	68,68,68,68	0
56	MG	YA	3226	1/1	0.80	0.20	87,87,87,87	0
56	MG	RA	3447	1/1	0.80	0.32	78,78,78,78	0
56	MG	XA	1741	1/1	0.80	0.29	78,78,78,78	0
56	MG	YA	3317	1/1	0.80	0.31	69,69,69,69	0
56	MG	YA	3462	1/1	0.80	0.36	97,97,97,97	0
56	MG	RA	3638	1/1	0.80	0.15	85,85,85,85	0
56	MG	RA	3010	1/1	0.80	0.28	79,79,79,79	0
56	MG	RA	3137	1/1	0.80	0.52	102,102,102,102	0
56	MG	YA	3438	1/1	0.80	0.27	80,80,80,80	0
56	MG	XA	1709	1/1	0.80	0.32	88,88,88,88	0
56	MG	QA	1667	1/1	0.80	0.18	92,92,92,92	0
56	MG	YA	3626	1/1	0.80	0.38	62,62,62,62	0
56	MG	QA	1872	1/1	0.80	0.41	70,70,70,70	0
56	MG	RA	3956	1/1	0.80	0.14	80,80,80,80	0
56	MG	RA	3647	1/1	0.80	0.41	102,102,102,102	0
56	MG	RA	3459	1/1	0.80	0.15	88,88,88,88	0
56	MG	RA	3805	1/1	0.80	0.18	97,97,97,97	0
56	MG	YA	3130	1/1	0.80	0.65	90,90,90,90	0
56	MG	RA	3577	1/1	0.80	0.20	69,69,69,69	0
56	MG	YA	3653	1/1	0.80	0.34	64,64,64,64	0
56	MG	QA	1627	1/1	0.80	0.12	79,79,79,79	0
56	MG	RA	3024	1/1	0.80	0.59	105,105,105,105	0
56	MG	RA	3207	1/1	0.80	0.50	96,96,96,96	0
56	MG	YA	3228	1/1	0.80	0.18	73,73,73,73	0
56	MG	RA	3088	1/1	0.80	0.34	98,98,98,98	0
56	MG	YA	3281	1/1	0.80	0.25	62,62,62,62	0
56	MG	YA	3312	1/1	0.80	0.41	80,80,80,80	0
56	MG	RA	3094	1/1	0.80	0.52	85,85,85,85	0
56	MG	YA	3456	1/1	0.80	0.41	84,84,84,84	0
56	MG	QA	1715	1/1	0.80	0.24	71,71,71,71	0
56	MG	RA	3666	1/1	0.80	0.33	80,80,80,80	0
56	MG	YA	3611	1/1	0.80	0.62	62,62,62,62	0
56	MG	QA	1802	1/1	0.80	0.26	82,82,82,82	0
56	MG	YA	3282	1/1	0.80	0.33	62,62,62,62	0
56	MG	YA	3614	1/1	0.80	0.25	68,68,68,68	0
56	MG	RA	3363	1/1	0.80	0.30	91,91,91,91	0
56	MG	YA	3743	1/1	0.80	0.34	63,63,63,63	0
56	MG	RB	222	1/1	0.80	0.18	79,79,79,79	0
56	MG	YA	3747	1/1	0.80	0.39	98,98,98,98	0
56	MG	Y7	101	1/1	0.80	0.35	99,99,99,99	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3304	1/1	0.80	0.37	76,76,76,76	0
56	MG	YA	3572	1/1	0.80	0.33	72,72,72,72	0
56	MG	XA	1602	1/1	0.80	0.17	88,88,88,88	0
56	MG	QA	1601	1/1	0.80	0.25	101,101,101,101	0
56	MG	YA	3717	1/1	0.80	0.53	100,100,100,100	0
56	MG	YA	3665	1/1	0.80	0.32	63,63,63,63	0
56	MG	RA	3117	1/1	0.80	0.27	96,96,96,96	0
56	MG	RA	4005	1/1	0.80	0.23	80,80,80,80	0
56	MG	YA	3039	1/1	0.81	0.15	67,67,67,67	0
56	MG	YA	3063	1/1	0.81	0.22	92,92,92,92	0
56	MG	RA	3210	1/1	0.81	0.64	110,110,110,110	0
56	MG	YA	3189	1/1	0.81	0.26	83,83,83,83	0
56	MG	Y0	101	1/1	0.81	0.42	78,78,78,78	0
56	MG	YA	3532	1/1	0.81	0.18	84,84,84,84	0
56	MG	QA	1798	1/1	0.81	0.28	89,89,89,89	0
56	MG	YA	3749	1/1	0.81	0.30	90,90,90,90	0
56	MG	RA	3446	1/1	0.81	0.31	77,77,77,77	0
56	MG	RG	202	1/1	0.81	0.15	86,86,86,86	0
56	MG	YA	3512	1/1	0.81	0.29	74,74,74,74	0
56	MG	XA	1631	1/1	0.81	0.31	88,88,88,88	0
56	MG	RA	3884	1/1	0.81	0.21	96,96,96,96	0
56	MG	RA	3395	1/1	0.81	0.35	62,62,62,62	0
56	MG	QA	1652	1/1	0.81	0.15	83,83,83,83	0
56	MG	YA	3612	1/1	0.81	0.37	64,64,64,64	0
56	MG	RA	3452	1/1	0.81	0.35	62,62,62,62	0
56	MG	RA	3398	1/1	0.81	0.47	80,80,80,80	0
56	MG	RA	3894	1/1	0.81	0.43	69,69,69,69	0
56	MG	YE	304	1/1	0.81	0.18	71,71,71,71	0
56	MG	YA	3585	1/1	0.81	0.33	64,64,64,64	0
56	MG	QA	1618	1/1	0.81	0.12	101,101,101,101	0
56	MG	YA	3080	1/1	0.81	0.19	84,84,84,84	0
56	MG	QA	1696	1/1	0.81	0.39	71,71,71,71	0
56	MG	YA	3175	1/1	0.81	0.40	101,101,101,101	0
56	MG	YA	3329	1/1	0.81	0.34	62,62,62,62	0
56	MG	YA	3360	1/1	0.81	0.62	62,62,62,62	0
56	MG	YA	3330	1/1	0.81	0.38	62,62,62,62	0
56	MG	RA	3083	1/1	0.81	0.32	95,95,95,95	0
56	MG	RU	203	1/1	0.81	0.26	81,81,81,81	0
56	MG	YA	3446	1/1	0.81	0.40	89,89,89,89	0
56	MG	RA	3774	1/1	0.81	0.30	64,64,64,64	0
56	MG	XA	1731	1/1	0.81	0.17	82,82,82,82	0
56	MG	RA	3185	1/1	0.81	0.22	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3841	1/1	0.81	0.20	91,91,91,91	0
56	MG	YA	3136	1/1	0.81	0.26	65,65,65,65	0
56	MG	RA	3090	1/1	0.81	0.26	84,84,84,84	0
56	MG	R1	101	1/1	0.81	0.37	89,89,89,89	0
56	MG	RA	3846	1/1	0.81	0.23	98,98,98,98	0
56	MG	QA	1631	1/1	0.81	0.12	73,73,73,73	0
56	MG	RA	3192	1/1	0.81	0.33	83,83,83,83	0
56	MG	RA	3585	1/1	0.81	0.10	77,77,77,77	0
56	MG	YA	3622	1/1	0.81	0.28	66,66,66,66	0
56	MG	YA	3544	1/1	0.81	0.27	63,63,63,63	0
56	MG	QA	1634	1/1	0.81	0.16	68,68,68,68	0
56	MG	RA	3530	1/1	0.81	0.26	62,62,62,62	0
56	MG	RA	4003	1/1	0.81	0.27	92,92,92,92	0
56	MG	R7	101	1/1	0.81	0.16	88,88,88,88	0
56	MG	RA	3424	1/1	0.81	0.37	62,62,62,62	0
56	MG	RA	3373	1/1	0.81	0.34	82,82,82,82	0
56	MG	XA	1736	1/1	0.81	0.32	70,70,70,70	0
56	MG	RA	3260	1/1	0.81	0.23	99,99,99,99	0
56	MG	YA	3449	1/1	0.81	0.22	66,66,66,66	0
56	MG	QA	1861	1/1	0.81	0.31	72,72,72,72	0
56	MG	RA	3737	1/1	0.81	0.25	84,84,84,84	0
56	MG	YA	3400	1/1	0.81	0.38	75,75,75,75	0
56	MG	RE	302	1/1	0.81	0.45	97,97,97,97	0
56	MG	YA	3214	1/1	0.81	0.14	76,76,76,76	0
56	MG	YA	3131	1/1	0.81	0.29	105,105,105,105	0
56	MG	YA	3240	1/1	0.81	0.33	93,93,93,93	0
56	MG	RA	3249	1/1	0.82	0.27	99,99,99,99	0
56	MG	XA	1678	1/1	0.82	0.24	72,72,72,72	0
56	MG	YA	3147	1/1	0.82	0.28	86,86,86,86	0
56	MG	QA	1811	1/1	0.82	0.14	78,78,78,78	0
56	MG	YA	3714	1/1	0.82	0.34	85,85,85,85	0
56	MG	XA	1771	1/1	0.82	0.33	72,72,72,72	0
56	MG	RA	3766	1/1	0.82	0.44	71,71,71,71	0
56	MG	RA	3695	1/1	0.82	0.92	107,107,107,107	0
56	MG	YA	3377	1/1	0.82	0.35	62,62,62,62	0
56	MG	QA	1777	1/1	0.82	0.30	83,83,83,83	0
56	MG	RA	3845	1/1	0.82	0.53	97,97,97,97	0
56	MG	RA	3321	1/1	0.82	0.29	63,63,63,63	0
56	MG	RA	3441	1/1	0.82	0.31	67,67,67,67	0
56	MG	RA	3702	1/1	0.82	0.24	83,83,83,83	0
56	MG	RA	4017	1/1	0.82	0.33	92,92,92,92	0
56	MG	YA	3047	1/1	0.82	0.29	86,86,86,86	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3704	1/1	0.82	0.25	82,82,82,82	0
56	MG	RA	3037	1/1	0.82	0.27	100,100,100,100	0
56	MG	YA	3560	1/1	0.82	0.25	64,64,64,64	0
56	MG	RA	3269	1/1	0.82	0.14	90,90,90,90	0
56	MG	RA	3271	1/1	0.82	0.28	97,97,97,97	0
56	MG	RA	3202	1/1	0.82	0.18	87,87,87,87	0
56	MG	QA	1744	1/1	0.82	0.36	77,77,77,77	0
56	MG	QA	1602	1/1	0.82	0.09	88,88,88,88	0
56	MG	RA	3785	1/1	0.82	0.15	83,83,83,83	0
56	MG	RA	3275	1/1	0.82	0.52	110,110,110,110	0
56	MG	YA	3502	1/1	0.82	0.15	71,71,71,71	0
56	MG	YA	3115	1/1	0.82	0.09	77,77,77,77	0
56	MG	RA	4047	1/1	0.82	0.40	97,97,97,97	0
56	MG	RA	3790	1/1	0.82	0.17	102,102,102,102	0
56	MG	YA	3123	1/1	0.82	0.35	105,105,105,105	0
56	MG	RA	3339	1/1	0.82	0.26	86,86,86,86	0
56	MG	QA	1676	1/1	0.82	0.12	97,97,97,97	0
56	MG	RT	201	1/1	0.82	0.19	78,78,78,78	0
56	MG	YA	3304	1/1	0.82	0.28	82,82,82,82	0
56	MG	XA	1688	1/1	0.82	0.15	97,97,97,97	0
56	MG	RA	3163	1/1	0.82	0.53	88,88,88,88	0
56	MG	RA	3874	1/1	0.82	0.40	63,63,63,63	0
56	MG	RA	3001	1/1	0.82	0.21	91,91,91,91	0
56	MG	YA	3523	1/1	0.82	0.36	72,72,72,72	0
56	MG	RA	4068	1/1	0.82	0.28	91,91,91,91	0
56	MG	RV	203	1/1	0.82	0.20	83,83,83,83	0
56	MG	YA	3545	1/1	0.82	0.26	82,82,82,82	0
56	MG	YA	3077	1/1	0.82	0.48	107,107,107,107	0
56	MG	RA	3463	1/1	0.82	0.28	69,69,69,69	0
56	MG	YA	3671	1/1	0.82	0.36	62,62,62,62	0
56	MG	RA	3465	1/1	0.82	0.23	69,69,69,69	0
56	MG	XA	1784	1/1	0.82	0.21	80,80,80,80	0
56	MG	YA	3167	1/1	0.82	0.28	87,87,87,87	0
56	MG	YA	3368	1/1	0.82	0.36	62,62,62,62	0
56	MG	QA	1760	1/1	0.82	0.65	97,97,97,97	0
56	MG	YA	3353	1/1	0.82	0.56	68,68,68,68	0
56	MG	RA	3593	1/1	0.82	0.51	84,84,84,84	0
56	MG	RA	3595	1/1	0.82	0.15	91,91,91,91	0
56	MG	RA	3064	1/1	0.82	0.12	81,81,81,81	0
56	MG	YA	3675	1/1	0.82	0.24	68,68,68,68	0
56	MG	RA	3128	1/1	0.82	0.21	85,85,85,85	0
56	MG	YA	3651	1/1	0.82	0.30	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3206	1/1	0.82	0.18	73,73,73,73	0
56	MG	RA	3980	1/1	0.82	0.25	77,77,77,77	0
56	MG	RA	3422	1/1	0.82	0.23	73,73,73,73	0
56	MG	YA	3296	1/1	0.82	0.44	62,62,62,62	0
56	MG	RA	3538	1/1	0.82	0.32	95,95,95,95	0
56	MG	RB	224	1/1	0.82	0.17	86,86,86,86	0
56	MG	YA	3180	1/1	0.82	0.19	73,73,73,73	0
56	MG	YA	3533	1/1	0.82	0.19	76,76,76,76	0
56	MG	XV	101	1/1	0.82	0.14	87,87,87,87	0
56	MG	RA	3992	1/1	0.82	0.18	101,101,101,101	0
56	MG	QA	1625	1/1	0.82	0.33	88,88,88,88	0
56	MG	YA	3359	1/1	0.82	0.47	62,62,62,62	0
57	ZN	YY	201	1/1	0.82	0.15	167,167,167,167	0
56	MG	XF	201	1/1	0.82	0.10	68,68,68,68	0
57	ZN	R4	101	1/1	0.82	0.33	177,177,177,177	0
56	MG	XA	1753	1/1	0.83	0.15	81,81,81,81	0
56	MG	YA	3482	1/1	0.83	0.48	62,62,62,62	0
56	MG	RA	3613	1/1	0.83	0.33	75,75,75,75	0
56	MG	RA	3428	1/1	0.83	0.28	92,92,92,92	0
56	MG	YA	3181	1/1	0.83	0.18	93,93,93,93	0
56	MG	YA	3528	1/1	0.83	0.27	72,72,72,72	0
56	MG	RA	3005	1/1	0.83	0.15	91,91,91,91	0
56	MG	RA	3082	1/1	0.83	0.69	100,100,100,100	0
56	MG	QA	1857	1/1	0.83	0.19	83,83,83,83	0
56	MG	RA	3254	1/1	0.83	0.58	105,105,105,105	0
56	MG	RA	3910	1/1	0.83	0.18	83,83,83,83	0
56	MG	RA	3916	1/1	0.83	0.19	71,71,71,71	0
56	MG	YA	3606	1/1	0.83	0.26	62,62,62,62	0
56	MG	YA	3354	1/1	0.83	0.50	84,84,84,84	0
56	MG	RA	3348	1/1	0.83	0.25	74,74,74,74	0
56	MG	RA	3046	1/1	0.83	0.44	99,99,99,99	0
56	MG	XA	1647	1/1	0.83	0.26	70,70,70,70	0
56	MG	RA	3855	1/1	0.83	0.29	71,71,71,71	0
56	MG	YA	3369	1/1	0.83	0.37	72,72,72,72	0
56	MG	RA	3215	1/1	0.83	0.19	90,90,90,90	0
56	MG	RA	3012	1/1	0.83	0.17	84,84,84,84	0
56	MG	RA	3987	1/1	0.83	0.17	79,79,79,79	0
56	MG	RA	3267	1/1	0.83	0.22	85,85,85,85	0
56	MG	RA	3689	1/1	0.83	0.17	85,85,85,85	0
56	MG	QA	1743	1/1	0.83	0.24	71,71,71,71	0
56	MG	XA	1666	1/1	0.83	0.14	92,92,92,92	0
56	MG	RA	3580	1/1	0.83	0.32	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3337	1/1	0.83	0.16	76,76,76,76	0
56	MG	RA	3932	1/1	0.83	0.26	88,88,88,88	0
56	MG	QF	201	1/1	0.83	0.19	75,75,75,75	0
56	MG	RA	3934	1/1	0.83	0.19	81,81,81,81	0
56	MG	RA	3697	1/1	0.83	0.46	101,101,101,101	0
56	MG	RA	3104	1/1	0.83	0.20	77,77,77,77	0
56	MG	QA	1656	1/1	0.83	0.25	78,78,78,78	0
56	MG	RA	3870	1/1	0.83	0.38	86,86,86,86	0
56	MG	YA	3466	1/1	0.83	0.30	79,79,79,79	0
56	MG	RA	3540	1/1	0.83	0.37	68,68,68,68	0
56	MG	QA	1725	1/1	0.83	0.30	76,76,76,76	0
56	MG	YA	3209	1/1	0.83	0.30	85,85,85,85	0
56	MG	YA	3479	1/1	0.83	0.34	62,62,62,62	0
56	MG	RA	3323	1/1	0.83	0.15	69,69,69,69	0
56	MG	RA	3026	1/1	0.83	0.36	100,100,100,100	0
56	MG	YA	3191	1/1	0.83	0.26	86,86,86,86	0
56	MG	R7	102	1/1	0.83	0.33	75,75,75,75	0
56	MG	RA	3714	1/1	0.83	0.32	63,63,63,63	0
56	MG	RA	3374	1/1	0.83	0.34	72,72,72,72	0
56	MG	XA	1603	1/1	0.83	0.26	83,83,83,83	0
56	MG	YA	3537	1/1	0.83	0.32	62,62,62,62	0
56	MG	RA	3719	1/1	0.83	0.30	79,79,79,79	0
56	MG	YA	3165	1/1	0.83	0.24	100,100,100,100	0
56	MG	RA	3331	1/1	0.83	0.39	75,75,75,75	0
56	MG	RA	4035	1/1	0.83	0.24	90,90,90,90	0
56	MG	QQ	201	1/1	0.83	0.17	91,91,91,91	0
56	MG	RA	3605	1/1	0.83	0.29	90,90,90,90	0
56	MG	RF	305	1/1	0.83	0.55	101,101,101,101	0
56	MG	RF	306	1/1	0.83	0.62	106,106,106,106	0
56	MG	QA	1707	1/1	0.83	0.33	66,66,66,66	0
56	MG	QA	1623	1/1	0.83	0.16	86,86,86,86	0
56	MG	RA	4044	1/1	0.83	0.95	106,106,106,106	0
56	MG	RB	214	1/1	0.84	0.38	67,67,67,67	0
56	MG	YA	3314	1/1	0.84	0.19	69,69,69,69	0
56	MG	YA	3687	1/1	0.84	0.31	62,62,62,62	0
56	MG	RA	3070	1/1	0.84	0.43	85,85,85,85	0
56	MG	RA	3912	1/1	0.84	0.23	78,78,78,78	0
56	MG	QA	1638	1/1	0.84	0.24	75,75,75,75	0
56	MG	RA	3403	1/1	0.84	0.23	87,87,87,87	0
56	MG	RA	3863	1/1	0.84	0.16	86,86,86,86	0
56	MG	RA	3045	1/1	0.84	0.36	86,86,86,86	0
56	MG	RA	3771	1/1	0.84	0.33	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3657	1/1	0.84	0.35	81,81,81,81	0
56	MG	QA	1803	1/1	0.84	0.28	81,81,81,81	0
56	MG	RA	3263	1/1	0.84	0.66	93,93,93,93	0
56	MG	RA	4036	1/1	0.84	0.35	99,99,99,99	0
56	MG	RD	301	1/1	0.84	0.54	93,93,93,93	0
56	MG	RA	3336	1/1	0.84	0.23	86,86,86,86	0
56	MG	YA	3060	1/1	0.84	0.14	68,68,68,68	0
56	MG	YB	204	1/1	0.84	0.18	95,95,95,95	0
56	MG	YA	3530	1/1	0.84	0.26	102,102,102,102	0
56	MG	XA	1628	1/1	0.84	0.13	79,79,79,79	0
56	MG	R0	103	1/1	0.84	0.29	70,70,70,70	0
56	MG	R0	104	1/1	0.84	0.19	86,86,86,86	0
56	MG	RA	3087	1/1	0.84	1.24	113,113,113,113	0
56	MG	RD	314	1/1	0.84	0.25	80,80,80,80	0
56	MG	RA	3645	1/1	0.84	0.12	85,85,85,85	0
56	MG	YA	3511	1/1	0.84	0.36	62,62,62,62	0
56	MG	YA	3740	1/1	0.84	0.23	96,96,96,96	0
56	MG	YT	201	1/1	0.84	0.22	85,85,85,85	0
56	MG	YA	3029	1/1	0.84	0.39	62,62,62,62	0
56	MG	RA	3882	1/1	0.84	0.43	87,87,87,87	0
56	MG	RA	3610	1/1	0.84	0.20	91,91,91,91	0
56	MG	RA	3127	1/1	0.84	0.21	81,81,81,81	0
56	MG	RA	3421	1/1	0.84	0.25	62,62,62,62	0
56	MG	RA	3349	1/1	0.84	0.22	68,68,68,68	0
56	MG	YA	3290	1/1	0.84	0.35	91,91,91,91	0
56	MG	RA	3752	1/1	0.84	0.08	85,85,85,85	0
56	MG	YA	3325	1/1	0.84	0.27	62,62,62,62	0
56	MG	RA	3130	1/1	0.84	0.13	85,85,85,85	0
56	MG	YB	212	1/1	0.84	0.40	79,79,79,79	0
56	MG	RA	3099	1/1	0.84	0.16	94,94,94,94	0
56	MG	YA	3069	1/1	0.84	0.50	98,98,98,98	0
56	MG	YA	3002	1/1	0.84	0.24	75,75,75,75	0
56	MG	XA	1721	1/1	0.84	0.37	78,78,78,78	0
56	MG	XA	1658	1/1	0.84	0.35	86,86,86,86	0
56	MG	RA	3667	1/1	0.84	0.18	88,88,88,88	0
56	MG	YA	3009	1/1	0.84	0.24	70,70,70,70	0
56	MG	RA	3507	1/1	0.84	0.22	75,75,75,75	0
56	MG	RA	3954	1/1	0.84	0.11	82,82,82,82	0
56	MG	YA	3616	1/1	0.84	0.25	65,65,65,65	0
56	MG	RA	3914	1/1	0.85	0.36	70,70,70,70	0
56	MG	RA	3102	1/1	0.85	0.14	88,88,88,88	0
56	MG	YA	3266	1/1	0.85	0.13	91,91,91,91	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3647	1/1	0.85	0.59	62,62,62,62	0
56	MG	RA	3795	1/1	0.85	0.29	75,75,75,75	0
56	MG	RA	3976	1/1	0.85	0.19	76,76,76,76	0
56	MG	YA	3564	1/1	0.85	0.25	63,63,63,63	0
56	MG	YA	3712	1/1	0.85	0.37	80,80,80,80	0
56	MG	RA	3694	1/1	0.85	0.25	93,93,93,93	0
56	MG	YA	3650	1/1	0.85	0.38	76,76,76,76	0
56	MG	RA	3982	1/1	0.85	0.07	79,79,79,79	0
56	MG	RA	3325	1/1	0.85	0.32	77,77,77,77	0
56	MG	RA	3231	1/1	0.85	0.99	89,89,89,89	0
56	MG	RA	3985	1/1	0.85	0.29	70,70,70,70	0
56	MG	YA	3680	1/1	0.85	0.44	62,62,62,62	0
56	MG	XA	1730	1/1	0.85	0.30	88,88,88,88	0
56	MG	RA	3149	1/1	0.85	0.14	73,73,73,73	0
56	MG	XA	1621	1/1	0.85	0.12	83,83,83,83	0
56	MG	XA	1760	1/1	0.85	0.24	67,67,67,67	0
56	MG	YA	3357	1/1	0.85	0.35	78,78,78,78	0
56	MG	RA	3193	1/1	0.85	0.34	103,103,103,103	0
56	MG	RA	3071	1/1	0.85	0.52	86,86,86,86	0
56	MG	YA	3384	1/1	0.85	0.38	64,64,64,64	0
56	MG	RA	3708	1/1	0.85	0.43	77,77,77,77	0
56	MG	RA	4001	1/1	0.85	0.22	62,62,62,62	0
56	MG	XA	1604	1/1	0.85	0.33	98,98,98,98	0
56	MG	RA	3713	1/1	0.85	0.39	89,89,89,89	0
56	MG	XA	1689	1/1	0.85	0.20	75,75,75,75	0
56	MG	RA	3821	1/1	0.85	0.16	76,76,76,76	0
56	MG	RA	3297	1/1	0.85	0.12	102,102,102,102	0
56	MG	QA	1663	1/1	0.85	0.11	90,90,90,90	0
56	MG	YD	307	1/1	0.85	0.39	79,79,79,79	0
56	MG	YA	3363	1/1	0.85	0.35	75,75,75,75	0
56	MG	QA	1716	1/1	0.85	0.36	75,75,75,75	0
56	MG	R1	103	1/1	0.85	0.18	76,76,76,76	0
56	MG	RA	4011	1/1	0.85	0.43	102,102,102,102	0
56	MG	YA	3517	1/1	0.85	0.46	97,97,97,97	0
56	MG	YA	3448	1/1	0.85	0.15	80,80,80,80	0
56	MG	RA	3772	1/1	0.85	0.15	69,69,69,69	0
56	MG	RA	3165	1/1	0.85	0.63	103,103,103,103	0
56	MG	RA	3393	1/1	0.85	0.26	64,64,64,64	0
56	MG	QA	1720	1/1	0.85	0.40	85,85,85,85	0
56	MG	YA	3194	1/1	0.85	0.29	89,89,89,89	0
56	MG	YA	3126	1/1	0.85	0.09	65,65,65,65	0
56	MG	RE	301	1/1	0.85	0.50	107,107,107,107	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3895	1/1	0.85	0.42	63,63,63,63	0
56	MG	YA	3539	1/1	0.85	0.41	72,72,72,72	0
56	MG	RA	3673	1/1	0.85	0.26	86,86,86,86	0
56	MG	RA	3571	1/1	0.85	0.17	74,74,74,74	0
56	MG	YA	3158	1/1	0.85	0.14	84,84,84,84	0
56	MG	QA	1836	1/1	0.85	0.20	77,77,77,77	0
56	MG	RA	3842	1/1	0.85	0.37	75,75,75,75	0
56	MG	RA	3483	1/1	0.85	0.41	62,62,62,62	0
56	MG	RA	3097	1/1	0.85	0.26	90,90,90,90	0
56	MG	QH	201	1/1	0.85	0.21	87,87,87,87	0
56	MG	XA	1677	1/1	0.85	0.19	63,63,63,63	0
56	MG	RA	3788	1/1	0.85	0.39	90,90,90,90	0
56	MG	YA	3745	1/1	0.85	0.29	104,104,104,104	0
56	MG	RA	3488	1/1	0.85	0.15	67,67,67,67	0
56	MG	RA	3101	1/1	0.85	0.53	95,95,95,95	0
56	MG	RA	3203	1/1	0.86	0.32	98,98,98,98	0
56	MG	YA	3073	1/1	0.86	0.09	86,86,86,86	0
56	MG	RA	3160	1/1	0.86	0.45	102,102,102,102	0
56	MG	YA	3036	1/1	0.86	0.30	76,76,76,76	0
56	MG	YA	3404	1/1	0.86	0.60	62,62,62,62	0
56	MG	RA	3069	1/1	0.86	0.20	70,70,70,70	0
56	MG	RA	3675	1/1	0.86	0.30	84,84,84,84	0
56	MG	XA	1645	1/1	0.86	0.27	82,82,82,82	0
56	MG	YA	3187	1/1	0.86	0.09	89,89,89,89	0
56	MG	YB	215	1/1	0.86	0.20	79,79,79,79	0
56	MG	RA	3074	1/1	0.86	0.17	69,69,69,69	0
56	MG	YA	3684	1/1	0.86	0.31	63,63,63,63	0
56	MG	YA	3660	1/1	0.86	0.33	69,69,69,69	0
56	MG	YA	3151	1/1	0.86	0.23	87,87,87,87	0
56	MG	RA	3627	1/1	0.86	0.13	81,81,81,81	0
56	MG	YT	202	1/1	0.86	0.17	80,80,80,80	0
56	MG	RA	3222	1/1	0.86	0.49	88,88,88,88	0
56	MG	YT	203	1/1	0.86	0.17	91,91,91,91	0
56	MG	RA	3807	1/1	0.86	0.42	91,91,91,91	0
56	MG	YA	3014	1/1	0.86	0.16	82,82,82,82	0
56	MG	XA	1622	1/1	0.86	0.34	78,78,78,78	0
56	MG	YA	3256	1/1	0.86	0.21	85,85,85,85	0
56	MG	RA	3871	1/1	0.86	0.36	62,62,62,62	0
56	MG	RB	218	1/1	0.86	0.19	86,86,86,86	0
56	MG	RA	3575	1/1	0.86	0.34	70,70,70,70	0
56	MG	RA	3041	1/1	0.86	0.20	70,70,70,70	0
56	MG	YD	303	1/1	0.86	0.66	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3054	1/1	0.86	0.32	102,102,102,102	0
56	MG	YA	3430	1/1	0.86	0.20	80,80,80,80	0
56	MG	RA	3818	1/1	0.86	0.72	92,92,92,92	0
56	MG	YA	3566	1/1	0.86	0.27	73,73,73,73	0
56	MG	YA	3567	1/1	0.86	0.28	62,62,62,62	0
56	MG	RA	3006	1/1	0.86	0.20	73,73,73,73	0
56	MG	RA	3439	1/1	0.86	0.25	84,84,84,84	0
56	MG	YA	3274	1/1	0.86	0.41	62,62,62,62	0
56	MG	RA	3239	1/1	0.86	0.69	106,106,106,106	0
56	MG	RA	3950	1/1	0.86	0.20	86,86,86,86	0
56	MG	YA	3093	1/1	0.86	0.15	86,86,86,86	0
56	MG	RA	3187	1/1	0.86	0.25	90,90,90,90	0
56	MG	YA	3045	1/1	0.86	0.20	64,64,64,64	0
56	MG	RA	3709	1/1	0.86	0.30	91,91,91,91	0
56	MG	RA	4028	1/1	0.86	0.59	108,108,108,108	0
56	MG	QA	1738	1/1	0.86	0.15	101,101,101,101	0
56	MG	RA	3649	1/1	0.86	0.40	94,94,94,94	0
56	MG	YA	3415	1/1	0.86	0.28	68,68,68,68	0
56	MG	XA	1665	1/1	0.86	0.23	72,72,72,72	0
56	MG	YA	3697	1/1	0.86	0.21	78,78,78,78	0
56	MG	YA	3601	1/1	0.86	0.26	62,62,62,62	0
56	MG	RA	3654	1/1	0.86	0.08	71,71,71,71	0
56	MG	RA	3496	1/1	0.86	0.46	63,63,63,63	0
56	MG	XA	1700	1/1	0.86	0.35	65,65,65,65	0
56	MG	QA	1848	1/1	0.86	0.43	81,81,81,81	0
56	MG	YA	3277	1/1	0.86	0.41	62,62,62,62	0
56	MG	YA	3072	1/1	0.86	0.30	100,100,100,100	0
56	MG	YA	3263	1/1	0.86	0.26	70,70,70,70	0
56	MG	RA	3502	1/1	0.86	0.64	64,64,64,64	0
56	MG	YA	3127	1/1	0.86	0.22	70,70,70,70	0
56	MG	RA	3554	1/1	0.86	0.26	74,74,74,74	0
56	MG	YA	3221	1/1	0.86	0.16	80,80,80,80	0
56	MG	QA	1624	1/1	0.87	0.23	74,74,74,74	0
56	MG	RA	3913	1/1	0.87	0.81	94,94,94,94	0
56	MG	YA	3434	1/1	0.87	0.30	72,72,72,72	0
56	MG	RA	3209	1/1	0.87	0.34	88,88,88,88	0
56	MG	RA	3693	1/1	0.87	0.63	102,102,102,102	0
56	MG	YA	3755	1/1	0.87	0.20	74,74,74,74	0
56	MG	YA	3550	1/1	0.87	0.25	80,80,80,80	0
56	MG	XA	1630	1/1	0.87	0.20	64,64,64,64	0
56	MG	Y8	101	1/1	0.87	0.24	72,72,72,72	0
56	MG	RA	3967	1/1	0.87	0.47	97,97,97,97	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	QA	1750	1/1	0.87	0.16	69,69,69,69	0
56	MG	XA	1761	1/1	0.87	0.19	80,80,80,80	0
56	MG	QA	1650	1/1	0.87	0.08	93,93,93,93	0
56	MG	RA	3292	1/1	0.87	0.43	93,93,93,93	0
56	MG	YA	3413	1/1	0.87	0.58	85,85,85,85	0
56	MG	RA	3659	1/1	0.87	0.94	95,95,95,95	0
56	MG	RA	3436	1/1	0.87	0.53	63,63,63,63	0
56	MG	RA	3622	1/1	0.87	0.29	87,87,87,87	0
56	MG	YA	3124	1/1	0.87	0.08	93,93,93,93	0
56	MG	RA	4043	1/1	0.87	0.16	92,92,92,92	0
56	MG	YD	308	1/1	0.87	0.54	97,97,97,97	0
56	MG	RA	3004	1/1	0.87	0.16	63,63,63,63	0
56	MG	RA	3839	1/1	0.87	0.51	62,62,62,62	0
56	MG	RA	4048	1/1	0.87	0.37	103,103,103,103	0
56	MG	RA	3626	1/1	0.87	0.32	72,72,72,72	0
56	MG	YV	201	1/1	0.87	0.19	84,84,84,84	0
56	MG	YA	3044	1/1	0.87	0.19	68,68,68,68	0
56	MG	RA	3261	1/1	0.87	0.41	87,87,87,87	0
56	MG	RA	3550	1/1	0.87	0.34	88,88,88,88	0
56	MG	YA	3569	1/1	0.87	0.52	67,67,67,67	0
56	MG	RA	3891	1/1	0.87	0.40	69,69,69,69	0
56	MG	YA	3285	1/1	0.87	0.28	76,76,76,76	0
56	MG	XA	1752	1/1	0.87	0.35	81,81,81,81	0
56	MG	RA	3230	1/1	0.87	0.29	106,106,106,106	0
56	MG	YA	3736	1/1	0.87	0.92	115,115,115,115	0
56	MG	RA	3232	1/1	0.87	0.78	100,100,100,100	0
56	MG	RB	201	1/1	0.87	0.14	104,104,104,104	0
56	MG	RA	3851	1/1	0.87	0.21	73,73,73,73	0
56	MG	QA	1762	1/1	0.87	0.35	80,80,80,80	0
56	MG	RA	3234	1/1	0.87	0.42	101,101,101,101	0
56	MG	RA	3235	1/1	0.87	0.14	93,93,93,93	0
56	MG	RA	3151	1/1	0.87	0.20	84,84,84,84	0
56	MG	YA	3251	1/1	0.87	0.12	93,93,93,93	0
56	MG	QH	202	1/1	0.87	0.07	91,91,91,91	0
56	MG	YE	305	1/1	0.87	0.21	82,82,82,82	0
56	MG	RA	3350	1/1	0.87	0.20	74,74,74,74	0
56	MG	RO	201	1/1	0.87	0.16	72,72,72,72	0
56	MG	RA	3817	1/1	0.87	0.66	92,92,92,92	0
56	MG	RA	3351	1/1	0.87	0.15	89,89,89,89	0
56	MG	RA	3911	1/1	0.87	0.38	71,71,71,71	0
56	MG	YA	3261	1/1	0.88	0.10	85,85,85,85	0
56	MG	RA	4041	1/1	0.88	0.44	109,109,109,109	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3276	1/1	0.88	0.62	95,95,95,95	0
56	MG	RA	3311	1/1	0.88	0.33	83,83,83,83	0
56	MG	YA	3478	1/1	0.88	0.24	62,62,62,62	0
56	MG	YA	3220	1/1	0.88	0.25	105,105,105,105	0
56	MG	RD	302	1/1	0.88	0.16	71,71,71,71	0
56	MG	YA	3298	1/1	0.88	0.17	82,82,82,82	0
56	MG	RA	3988	1/1	0.88	0.08	86,86,86,86	0
56	MG	YA	3753	1/1	0.88	0.60	81,81,81,81	0
56	MG	RA	3905	1/1	0.88	0.27	63,63,63,63	0
56	MG	XA	1742	1/1	0.88	0.22	78,78,78,78	0
56	MG	RA	3283	1/1	0.88	0.13	88,88,88,88	0
56	MG	YA	3754	1/1	0.88	0.19	84,84,84,84	0
56	MG	RA	3671	1/1	0.88	0.15	79,79,79,79	0
56	MG	RA	3389	1/1	0.88	0.37	69,69,69,69	0
56	MG	YA	3436	1/1	0.88	0.26	65,65,65,65	0
56	MG	RA	3715	1/1	0.88	0.23	65,65,65,65	0
56	MG	RE	305	1/1	0.88	0.34	92,92,92,92	0
56	MG	RA	4064	1/1	0.88	0.19	84,84,84,84	0
56	MG	YA	3597	1/1	0.88	0.35	71,71,71,71	0
56	MG	RA	3186	1/1	0.88	0.42	98,98,98,98	0
56	MG	RA	3915	1/1	0.88	0.34	73,73,73,73	0
56	MG	XA	1747	1/1	0.88	0.41	63,63,63,63	0
56	MG	RA	3834	1/1	0.88	0.35	63,63,63,63	0
56	MG	YA	3140	1/1	0.88	0.22	79,79,79,79	0
56	MG	YA	3578	1/1	0.88	0.23	101,101,101,101	0
56	MG	YA	3004	1/1	0.88	0.17	63,63,63,63	0
56	MG	YA	3232	1/1	0.88	0.20	84,84,84,84	0
56	MG	YA	3068	1/1	0.88	0.18	79,79,79,79	0
56	MG	RA	3611	1/1	0.88	0.47	95,95,95,95	0
56	MG	YA	3137	1/1	0.88	0.17	81,81,81,81	0
56	MG	RA	3040	1/1	0.88	0.24	97,97,97,97	0
56	MG	YB	207	1/1	0.88	0.32	97,97,97,97	0
56	MG	YA	3061	1/1	0.88	0.26	65,65,65,65	0
56	MG	QV	102	1/1	0.88	0.09	94,94,94,94	0
56	MG	YA	3052	1/1	0.88	0.09	80,80,80,80	0
56	MG	YA	3700	1/1	0.88	0.23	64,64,64,64	0
56	MG	YA	3385	1/1	0.88	0.18	69,69,69,69	0
56	MG	RA	3302	1/1	0.88	0.52	91,91,91,91	0
56	MG	YA	3210	1/1	0.88	0.21	70,70,70,70	0
56	MG	XA	1733	1/1	0.88	0.50	69,69,69,69	0
56	MG	YA	3260	1/1	0.88	0.58	95,95,95,95	0
56	MG	RA	3893	1/1	0.88	0.37	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3081	1/1	0.88	0.19	92,92,92,92	0
56	MG	RA	3815	1/1	0.88	0.34	99,99,99,99	0
56	MG	YF	303	1/1	0.88	0.22	108,108,108,108	0
56	MG	QA	1830	1/1	0.89	0.26	69,69,69,69	0
56	MG	YA	3200	1/1	0.89	0.19	77,77,77,77	0
56	MG	XA	1614	1/1	0.89	0.15	77,77,77,77	0
56	MG	RA	3107	1/1	0.89	1.16	90,90,90,90	0
56	MG	YA	3632	1/1	0.89	0.17	67,67,67,67	0
56	MG	RA	3357	1/1	0.89	0.14	62,62,62,62	0
56	MG	YA	3389	1/1	0.89	0.28	71,71,71,71	0
56	MG	YA	3575	1/1	0.89	0.40	67,67,67,67	0
56	MG	QA	1648	1/1	0.89	0.12	87,87,87,87	0
56	MG	RA	3750	1/1	0.89	0.34	83,83,83,83	0
56	MG	RA	3993	1/1	0.89	0.15	85,85,85,85	0
56	MG	QA	1620	1/1	0.89	0.16	69,69,69,69	0
56	MG	RF	311	1/1	0.89	0.24	94,94,94,94	0
56	MG	RA	3136	1/1	0.89	0.24	94,94,94,94	0
56	MG	RA	3682	1/1	0.89	0.11	104,104,104,104	0
56	MG	YA	3594	1/1	0.89	0.37	70,70,70,70	0
56	MG	RA	3584	1/1	0.89	0.17	76,76,76,76	0
56	MG	RA	3470	1/1	0.89	0.48	62,62,62,62	0
56	MG	RA	3093	1/1	0.89	0.15	97,97,97,97	0
56	MG	RA	3587	1/1	0.89	0.23	78,78,78,78	0
56	MG	XA	1744	1/1	0.89	0.33	63,63,63,63	0
56	MG	RA	3366	1/1	0.89	0.22	71,71,71,71	0
56	MG	YA	3207	1/1	0.89	0.13	87,87,87,87	0
56	MG	YA	3659	1/1	0.89	0.38	65,65,65,65	0
56	MG	RA	3532	1/1	0.89	0.15	63,63,63,63	0
56	MG	YA	3242	1/1	0.89	0.60	107,107,107,107	0
56	MG	QA	1721	1/1	0.89	0.48	62,62,62,62	0
56	MG	RA	3241	1/1	0.89	0.25	91,91,91,91	0
56	MG	RA	3597	1/1	0.89	0.14	89,89,89,89	0
56	MG	YA	3114	1/1	0.89	0.17	90,90,90,90	0
56	MG	RA	4066	1/1	0.89	0.47	86,86,86,86	0
56	MG	RA	4067	1/1	0.89	0.26	72,72,72,72	0
56	MG	RA	4013	1/1	0.89	0.21	77,77,77,77	0
56	MG	QA	1689	1/1	0.89	0.26	81,81,81,81	0
56	MG	RA	3347	1/1	0.89	0.53	62,62,62,62	0
56	MG	RA	3147	1/1	0.89	0.18	84,84,84,84	0
56	MG	YA	3133	1/1	0.89	0.28	87,87,87,87	0
57	ZN	Y6	101	1/1	0.89	0.25	156,156,156,156	0
56	MG	YA	3270	1/1	0.89	0.16	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3088	1/1	0.90	0.33	90,90,90,90	0
56	MG	RA	4034	1/1	0.90	0.38	88,88,88,88	0
56	MG	YA	3678	1/1	0.90	0.29	62,62,62,62	0
56	MG	YA	3241	1/1	0.90	0.35	91,91,91,91	0
56	MG	RA	3053	1/1	0.90	0.45	98,98,98,98	0
56	MG	YA	3303	1/1	0.90	0.24	62,62,62,62	0
56	MG	YA	3546	1/1	0.90	0.29	75,75,75,75	0
56	MG	RA	3406	1/1	0.90	0.37	68,68,68,68	0
56	MG	XA	1627	1/1	0.90	0.46	80,80,80,80	0
56	MG	YA	3744	1/1	0.90	0.80	98,98,98,98	0
56	MG	RA	3220	1/1	0.90	0.19	82,82,82,82	0
56	MG	RA	3901	1/1	0.90	0.17	71,71,71,71	0
56	MG	YA	3490	1/1	0.90	0.25	67,67,67,67	0
56	MG	YA	3334	1/1	0.90	0.34	66,66,66,66	0
56	MG	YA	3390	1/1	0.90	0.14	88,88,88,88	0
56	MG	YA	3420	1/1	0.90	0.19	68,68,68,68	0
56	MG	RA	3784	1/1	0.90	0.13	88,88,88,88	0
56	MG	YA	3237	1/1	0.90	0.45	95,95,95,95	0
56	MG	RA	3494	1/1	0.90	0.27	81,81,81,81	0
56	MG	RA	3016	1/1	0.90	0.56	109,109,109,109	0
56	MG	YA	3053	1/1	0.90	0.12	62,62,62,62	0
56	MG	RN	203	1/1	0.90	0.11	90,90,90,90	0
56	MG	QA	1717	1/1	0.90	0.13	92,92,92,92	0
56	MG	RA	3020	1/1	0.90	0.95	95,95,95,95	0
56	MG	RA	3880	1/1	0.90	0.29	62,62,62,62	0
56	MG	RD	303	1/1	0.90	0.41	88,88,88,88	0
56	MG	RA	3582	1/1	0.90	0.33	87,87,87,87	0
56	MG	RD	305	1/1	0.90	0.20	102,102,102,102	0
56	MG	RA	4018	1/1	0.90	0.42	106,106,106,106	0
56	MG	RA	3043	1/1	0.90	0.13	67,67,67,67	0
56	MG	QA	1659	1/1	0.90	0.21	92,92,92,92	0
56	MG	YA	3383	1/1	0.90	0.35	63,63,63,63	0
56	MG	YA	3065	1/1	0.90	0.34	86,86,86,86	0
56	MG	RD	313	1/1	0.90	0.16	84,84,84,84	0
56	MG	QA	1662	1/1	0.90	0.21	90,90,90,90	0
56	MG	RA	4026	1/1	0.90	0.30	105,105,105,105	0
56	MG	RA	3887	1/1	0.90	0.28	91,91,91,91	0
56	MG	YA	3607	1/1	0.90	0.25	65,65,65,65	0
56	MG	YA	3738	1/1	0.90	0.73	99,99,99,99	0
56	MG	RA	3190	1/1	0.91	0.17	69,69,69,69	0
56	MG	RA	3594	1/1	0.91	0.18	80,80,80,80	0
56	MG	RA	4015	1/1	0.91	0.21	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	3017	1/1	0.91	0.53	82,82,82,82	0
56	MG	RA	3116	1/1	0.91	0.23	104,104,104,104	0
56	MG	YA	3216	1/1	0.91	0.18	80,80,80,80	0
56	MG	YA	3079	1/1	0.91	0.39	97,97,97,97	0
56	MG	RA	4055	1/1	0.91	0.11	95,95,95,95	0
56	MG	RA	4056	1/1	0.91	0.42	112,112,112,112	0
56	MG	YA	3746	1/1	0.91	0.17	85,85,85,85	0
56	MG	RA	3326	1/1	0.91	0.18	63,63,63,63	0
56	MG	RA	3256	1/1	0.91	0.68	96,96,96,96	0
56	MG	QL	202	1/1	0.91	0.11	82,82,82,82	0
56	MG	RA	3998	1/1	0.91	0.22	84,84,84,84	0
56	MG	RA	4027	1/1	0.91	0.23	88,88,88,88	0
56	MG	RA	3258	1/1	0.91	0.26	102,102,102,102	0
56	MG	RA	3685	1/1	0.91	0.41	80,80,80,80	0
56	MG	YA	3345	1/1	0.91	0.24	62,62,62,62	0
56	MG	RA	3798	1/1	0.91	0.15	93,93,93,93	0
56	MG	YA	3467	1/1	0.91	0.32	76,76,76,76	0
56	MG	QA	1680	1/1	0.91	0.35	84,84,84,84	0
56	MG	RA	3979	1/1	0.91	0.38	70,70,70,70	0
56	MG	XA	1791	1/1	0.91	0.07	74,74,74,74	0
56	MG	RA	3217	1/1	0.91	0.43	97,97,97,97	0
56	MG	RA	3669	1/1	0.91	0.44	68,68,68,68	0
56	MG	YA	3087	1/1	0.91	0.17	100,100,100,100	0
56	MG	RA	3126	1/1	0.91	0.15	89,89,89,89	0
56	MG	RA	3355	1/1	0.91	0.16	88,88,88,88	0
56	MG	RD	309	1/1	0.91	0.61	100,100,100,100	0
57	ZN	R6	101	1/1	0.91	0.23	159,159,159,159	0
56	MG	RD	307	1/1	0.92	0.19	72,72,72,72	0
56	MG	RA	3344	1/1	0.92	0.26	67,67,67,67	0
56	MG	XA	1737	1/1	0.92	0.15	78,78,78,78	0
56	MG	RA	3086	1/1	0.92	0.85	111,111,111,111	0
56	MG	YA	3630	1/1	0.92	0.67	66,66,66,66	0
56	MG	RA	3678	1/1	0.92	0.73	78,78,78,78	0
56	MG	YA	3406	1/1	0.92	0.40	95,95,95,95	0
56	MG	XA	1727	1/1	0.92	0.15	79,79,79,79	0
56	MG	RA	3607	1/1	0.92	0.57	91,91,91,91	0
56	MG	YA	3591	1/1	0.92	0.56	62,62,62,62	0
56	MG	YA	3751	1/1	0.92	0.40	102,102,102,102	0
56	MG	YD	306	1/1	0.92	0.10	81,81,81,81	0
56	MG	RA	4023	1/1	0.92	0.52	101,101,101,101	0
56	MG	RA	3308	1/1	0.92	0.21	94,94,94,94	0
56	MG	RA	4059	1/1	0.92	0.36	98,98,98,98	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3608	1/1	0.92	0.19	66,66,66,66	0
56	MG	YA	3280	1/1	0.92	0.23	64,64,64,64	0
56	MG	YA	3392	1/1	0.92	0.48	62,62,62,62	0
56	MG	YB	217	1/1	0.92	0.15	84,84,84,84	0
56	MG	RA	3972	1/1	0.92	0.41	62,62,62,62	0
56	MG	YA	3702	1/1	0.92	0.45	66,66,66,66	0
56	MG	YA	3386	1/1	0.92	0.17	82,82,82,82	0
56	MG	RA	3270	1/1	0.92	0.33	95,95,95,95	0
56	MG	QA	1781	1/1	0.92	0.11	95,95,95,95	0
56	MG	RA	3014	1/1	0.92	0.19	68,68,68,68	0
56	MG	RA	3173	1/1	0.92	0.23	90,90,90,90	0
56	MG	XL	201	1/1	0.92	0.31	82,82,82,82	0
56	MG	R0	101	1/1	0.92	0.11	77,77,77,77	0
56	MG	RA	3252	1/1	0.92	0.24	89,89,89,89	0
56	MG	RA	4040	1/1	0.92	0.12	99,99,99,99	0
56	MG	RA	3212	1/1	0.92	0.09	80,80,80,80	0
56	MG	YA	3021	1/1	0.93	0.12	66,66,66,66	0
56	MG	RA	3092	1/1	0.93	0.11	91,91,91,91	0
56	MG	YA	3683	1/1	0.93	0.14	82,82,82,82	0
56	MG	RQ	202	1/1	0.93	0.19	73,73,73,73	0
56	MG	RA	3268	1/1	0.93	0.15	79,79,79,79	0
56	MG	RA	4033	1/1	0.93	0.20	96,96,96,96	0
56	MG	RA	3731	1/1	0.93	0.21	74,74,74,74	0
56	MG	RE	307	1/1	0.93	0.29	86,86,86,86	0
56	MG	YA	3580	1/1	0.93	0.18	70,70,70,70	0
56	MG	RA	3095	1/1	0.93	0.36	92,92,92,92	0
56	MG	RA	3712	1/1	0.93	0.67	83,83,83,83	0
56	MG	RA	3289	1/1	0.93	0.36	99,99,99,99	0
56	MG	RA	3991	1/1	0.93	0.14	75,75,75,75	0
56	MG	RA	4014	1/1	0.93	0.09	79,79,79,79	0
56	MG	YA	3725	1/1	0.93	0.14	62,62,62,62	0
56	MG	YA	3081	1/1	0.93	0.17	81,81,81,81	0
56	MG	RA	3656	1/1	0.93	0.14	74,74,74,74	0
56	MG	YA	3342	1/1	0.93	0.29	62,62,62,62	0
56	MG	RA	4045	1/1	0.93	0.24	101,101,101,101	0
56	MG	YA	3149	1/1	0.93	0.25	95,95,95,95	0
56	MG	YD	304	1/1	0.93	0.46	104,104,104,104	0
56	MG	RA	4021	1/1	0.93	0.17	78,78,78,78	0
56	MG	YA	3150	1/1	0.93	0.11	79,79,79,79	0
56	MG	RA	4051	1/1	0.93	0.55	105,105,105,105	0
56	MG	YA	3492	1/1	0.93	0.56	62,62,62,62	0
56	MG	YA	3048	1/1	0.93	0.12	98,98,98,98	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	YA	3644	1/1	0.93	0.27	75,75,75,75	0
57	ZN	RY	201	1/1	0.93	0.16	158,158,158,158	0
56	MG	YA	3734	1/1	0.93	0.24	83,83,83,83	0
56	MG	RA	3214	1/1	0.93	0.14	86,86,86,86	0
56	MG	YA	3568	1/1	0.94	0.20	63,63,63,63	0
56	MG	XA	1705	1/1	0.94	0.16	84,84,84,84	0
56	MG	RA	3889	1/1	0.94	0.47	62,62,62,62	0
56	MG	RA	3265	1/1	0.94	0.23	94,94,94,94	0
56	MG	RA	3277	1/1	0.94	0.29	85,85,85,85	0
56	MG	RA	3084	1/1	0.94	0.18	76,76,76,76	0
56	MG	RA	3195	1/1	0.94	0.55	97,97,97,97	0
56	MG	RA	3990	1/1	0.94	0.23	68,68,68,68	0
56	MG	YA	3748	1/1	0.94	0.22	93,93,93,93	0
56	MG	YA	3215	1/1	0.94	0.11	86,86,86,86	0
56	MG	YA	3380	1/1	0.94	0.22	83,83,83,83	0
56	MG	YA	3223	1/1	0.94	0.38	65,65,65,65	0
56	MG	RA	3722	1/1	0.94	0.30	83,83,83,83	0
56	MG	RA	4030	1/1	0.94	0.30	103,103,103,103	0
56	MG	YA	3648	1/1	0.94	0.43	62,62,62,62	0
56	MG	RA	3710	1/1	0.94	0.35	98,98,98,98	0
56	MG	YA	3375	1/1	0.94	0.29	80,80,80,80	0
56	MG	RA	3796	1/1	0.94	0.12	90,90,90,90	0
56	MG	RA	3240	1/1	0.95	0.20	106,106,106,106	0
56	MG	YA	3476	1/1	0.95	0.54	62,62,62,62	0
56	MG	YA	3121	1/1	0.95	0.14	77,77,77,77	0
56	MG	RA	3598	1/1	0.95	0.19	69,69,69,69	0
56	MG	YA	3071	1/1	0.95	0.24	90,90,90,90	0
56	MG	RA	3699	1/1	0.95	0.09	107,107,107,107	0
56	MG	RA	3080	1/1	0.95	0.35	98,98,98,98	0
56	MG	RA	4052	1/1	0.95	0.18	90,90,90,90	0
56	MG	RA	3073	1/1	0.95	0.48	96,96,96,96	0
56	MG	YA	3015	1/1	0.95	0.53	89,89,89,89	0
56	MG	YA	3596	1/1	0.95	0.40	66,66,66,66	0
56	MG	QA	1790	1/1	0.96	0.10	81,81,81,81	0
56	MG	YA	3733	1/1	0.96	0.46	89,89,89,89	0
56	MG	RA	3138	1/1	0.96	0.53	79,79,79,79	0
56	MG	RA	3549	1/1	0.96	0.27	76,76,76,76	0
56	MG	RV	204	1/1	0.96	0.24	79,79,79,79	0
56	MG	Y8	102	1/1	0.96	0.40	68,68,68,68	0
56	MG	RA	3078	1/1	0.96	0.14	90,90,90,90	0
56	MG	XA	1671	1/1	0.96	0.10	84,84,84,84	0
56	MG	RA	3418	1/1	0.96	0.15	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors($\text{\AA}^2$)	Q<0.9
56	MG	RA	4049	1/1	0.97	0.35	99,99,99,99	0
57	ZN	Y9	101	1/1	0.97	0.05	116,116,116,116	0
56	MG	RA	3517	1/1	0.97	0.50	62,62,62,62	0
56	MG	RA	3135	1/1	0.97	0.14	91,91,91,91	0
57	ZN	Y5	102	1/1	0.97	0.07	144,144,144,144	0
57	ZN	R9	102	1/1	0.97	0.11	125,125,125,125	0
58	SF4	QD	302	8/8	0.97	0.06	71,79,94,101	0
56	MG	YA	3234	1/1	0.98	0.29	92,92,92,92	0
56	MG	RA	3056	1/1	0.98	0.29	87,87,87,87	0
58	SF4	XD	301	8/8	0.98	0.05	65,79,98,112	0
57	ZN	R5	103	1/1	0.98	0.06	135,135,135,135	0
57	ZN	QN	101	1/1	0.99	0.03	110,110,110,110	0
57	ZN	XN	101	1/1	1.00	0.02	91,91,91,91	0

6.5 Other polymers [i](#)

There are no such residues in this entry.