Full wwPDB X-ray Structure Validation Report ⓘ

Sep 14, 2023 – 07:25 AM EDT

PDB ID	:	4V9N
Title	:	Crystal structure of the 70S ribosome bound with the Q253P mutant of release factor RF2.
Authors	:	Santos, N.; Zhu, J.; Donohue, J.P.; Korostelev, A.A.; Noller, H.F.
Deposited on	:	2013-04-26
Resolution	:	3.40 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:

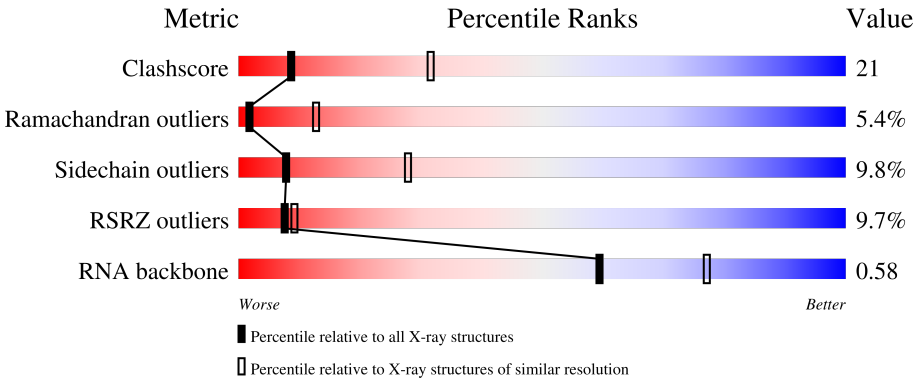
MolProbity	:	4.02b-467
Xtriage (Phenix)	:	1.13
EDS	:	2.35.1
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
Refmac	:	5.8.0158
CCP4	:	7.0.044 (Gargrove)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.35.1

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.40 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))
Clashscore	141614	1055 (3.48-3.32)
Ramachandran outliers	138981	1038 (3.48-3.32)
Sidechain outliers	138945	1038 (3.48-3.32)
RSRZ outliers	127900	2173 (3.50-3.30)
RNA backbone	3102	1006 (3.84-2.96)

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

Mol	Chain	Length	Quality of chain
1	AA	1504	2% 44% 46% 10%
1	CA	1504	3% 44% 46% 10%
2	AV	10	10% 50% 50%
2	CV	10	30% 40% 60%
3	AW	77	% 60% 35% 5%

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Mol	Chain	Length	Quality of chain
3	CW	77	58% 36% 5%
4	AY	362	35% 48% 43% 8%
4	CY	362	36% 49% 43% 7%
5	AB	234	23% 46% 47% 7%
5	CB	234	27% 46% 47% 8%
6	AC	206	12% 44% 46% 10%
6	CC	206	11% 43% 46% 11%
7	AD	208	46% 42% 11%
7	CD	208	9% 41% 50% 8%
8	AE	151	9% 45% 50% 5%
8	CE	151	10% 46% 47% 7%
9	AF	101	17% 55% 41%
9	CF	101	10% 57% 39%
10	AG	155	11% 56% 43%
10	CG	155	12% 61% 38%
11	AH	138	5% 46% 49%
11	CH	138	7% 44% 51%
12	AI	127	32% 41% 52% 7%
12	CI	127	31% 39% 54% 7%
13	AJ	98	35% 35% 54% 10%
13	CJ	98	38% 37% 52% 10%
14	AK	114	17% 55% 39% 5%
14	CK	114	6% 53% 43%
15	AL	122	48% 46% 7%
15	CL	122	49% 43% 7%

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Mol	Chain	Length	Quality of chain
16	AM	117	13% 53% 41% 6%
16	CM	117	17% 53% 41% 6%
17	AN	60	17% 45% 47% 7%
17	CN	60	18% 40% 53% 7%
18	AO	88	2% 56% 34% 10%
18	CO	88	% 53% 35% 11%
19	AP	83	5% 41% 51% 8%
19	CP	83	31% 42% 51% 7%
20	AQ	99	4% 48% 45% 6%
20	CQ	99	6% 47% 46% 6%
21	AR	70	40% 50% 49%
21	CR	70	14% 46% 51%
22	AS	78	32% 36% 46% 17%
22	CS	78	36% 35% 46% 18%
23	AT	99	14% 49% 46%
23	CT	99	17% 49% 46%
24	AU	24	96% 25% 67% 8%
24	CU	24	79% 38% 54% 8%
25	BA	2879	3% 48% 40% 9%
25	DA	2879	3% 48% 39% 9%
26	BB	119	41% 48% 11%
26	DB	119	2% 39% 50% 11%
27	BD	271	5% 41% 50% 9%
27	DD	271	2% 41% 50% 9%
28	BE	204	5% 50% 44% 6%

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Mol	Chain	Length	Quality of chain
28	DE	204	2% 49% 44% 8%
29	BF	202	44% 49% 8%
29	DF	202	% 43% 50% 8%
30	BG	181	22% 41% 49% 10%
30	DG	181	16% 40% 50% 10%
31	BH	159	31% 52% 42% 7%
31	DH	159	4% 50% 43% 6%
32	BI	145	41% 35% 58% 7%
32	DI	145	10% 36% 57% 8%
33	BK	147	83% 50% 41% 9%
33	DK	147	82% 49% 45% 6%
34	BN	137	4% 42% 45% 12%
34	DN	137	44% 44% 12%
35	BO	122	60% 39%
35	DO	122	59% 39%
36	BP	146	9% 30% 46% 19% 5%
36	DP	146	10% 29% 48% 18% 5%
37	BQ	134	5% 43% 51% 6%
37	DQ	134	5% 45% 49% 5%
38	BR	117	% 41% 49% 9%
38	DR	117	3% 43% 48% 9%
39	BS	98	26% 35% 52% 10%
39	DS	98	14% 37% 48% 12%
40	BT	137	5% 47% 41% 11%
40	DT	137	10% 45% 44% 11%

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Mol	Chain	Length	Quality of chain
41	BU	117	5% 47% 45% 8%
41	DU	117	3% 50% 43% 8%
42	BV	101	2% 36% 50% 13%
42	DV	101	9% 32% 54% 13%
43	BW	112	54% 40% 6%
43	DW	112	53% 41% 6%
44	BX	92	2% 38% 58%
44	DX	92	39% 57%
45	BY	100	23% 38% 48% 12%
45	DY	100	15% 39% 46% 12%
46	BZ	187	9% 45% 51%
46	DZ	187	6% 47% 49%
47	B0	76	3% 43% 47% 9%
47	D0	76	4% 46% 46% 8%
48	B1	88	6% 24% 57% 18%
48	D1	88	5% 20% 58% 20%
49	B2	62	10% 31% 55% 11%
49	D2	62	11% 31% 52% 15%
50	B3	59	10% 44% 51% 5%
50	D3	59	5% 47% 47% 5%
51	B4	30	17% 53% 43%
51	D4	30	37% 53% 43%
52	B5	52	6% 58% 38%
52	D5	52	2% 56% 38%
53	B6	44	100% 32% 50% 18%

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Mol	Chain	Length	Quality of chain
53	D6	44	95% 34% 48% 18%
54	B7	48	12% 58% 38%
54	D7	48	6% 58% 38%
55	B8	63	3% 29% 52% 16%
55	D8	63	5% 29% 52% 16%

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	AA	1607	-	-	-	X
56	MG	AA	1612	-	-	-	X
56	MG	AA	1619	-	-	-	X
56	MG	AA	1622	-	-	-	X
56	MG	AA	1625	-	-	-	X
56	MG	AA	1629	-	-	-	X
56	MG	AA	1631	-	-	-	X
56	MG	AA	1632	-	-	-	X
56	MG	AA	1639	-	-	-	X
56	MG	AA	1672	-	-	-	X
56	MG	AA	1675	-	-	-	X
56	MG	AA	1686	-	-	-	X
56	MG	AA	1699	-	-	-	X
56	MG	AA	1702	-	-	-	X
56	MG	AA	1714	-	-	-	X
56	MG	AA	1725	-	-	-	X
56	MG	AA	1726	-	-	-	X
56	MG	AA	1727	-	-	-	X
56	MG	AA	1742	-	-	-	X
56	MG	AA	1744	-	-	-	X
56	MG	AA	1764	-	-	-	X
56	MG	AA	1765	-	-	-	X
56	MG	AA	1767	-	-	-	X
56	MG	AA	1772	-	-	-	X
56	MG	AA	1780	-	-	-	X
56	MG	AA	1782	-	-	-	X
56	MG	AA	1783	-	-	-	X
56	MG	AA	1786	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	AA	1790	-	-	-	X
56	MG	AA	1796	-	-	-	X
56	MG	AA	1804	-	-	-	X
56	MG	AA	1824	-	-	-	X
56	MG	AA	1825	-	-	-	X
56	MG	AA	1829	-	-	-	X
56	MG	AA	1831	-	-	-	X
56	MG	AA	1835	-	-	-	X
56	MG	AA	1839	-	-	-	X
56	MG	AA	1846	-	-	-	X
56	MG	AA	1854	-	-	-	X
56	MG	AA	1860	-	-	-	X
56	MG	AA	1874	-	-	-	X
56	MG	AA	1879	-	-	-	X
56	MG	AA	1897	-	-	-	X
56	MG	AA	1934	-	-	-	X
56	MG	AA	1941	-	-	-	X
56	MG	AA	1945	-	-	-	X
56	MG	AA	1947	-	-	-	X
56	MG	AA	1950	-	-	-	X
56	MG	AA	1951	-	-	-	X
56	MG	AA	1957	-	-	-	X
56	MG	AA	1979	-	-	-	X
56	MG	AC	301	-	-	-	X
56	MG	AG	201	-	-	-	X
56	MG	AT	203	-	-	-	X
56	MG	AW	102	-	-	-	X
56	MG	AW	104	-	-	-	X
56	MG	AW	107	-	-	-	X
56	MG	AW	109	-	-	-	X
56	MG	AW	112	-	-	-	X
56	MG	AY	401	-	-	-	X
56	MG	AY	403	-	-	-	X
56	MG	B0	102	-	-	-	X
56	MG	BA	2917	-	-	-	X
56	MG	BA	2918	-	-	-	X
56	MG	BA	2920	-	-	-	X
56	MG	BA	2922	-	-	-	X
56	MG	BA	2925	-	-	-	X
56	MG	BA	2926	-	-	-	X
56	MG	BA	2929	-	-	-	X
56	MG	BA	2930	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	BA	2934	-	-	-	X
56	MG	BA	2935	-	-	-	X
56	MG	BA	2939	-	-	-	X
56	MG	BA	2943	-	-	-	X
56	MG	BA	2946	-	-	-	X
56	MG	BA	2949	-	-	-	X
56	MG	BA	2950	-	-	-	X
56	MG	BA	2959	-	-	-	X
56	MG	BA	2972	-	-	-	X
56	MG	BA	2973	-	-	-	X
56	MG	BA	2976	-	-	-	X
56	MG	BA	2992	-	-	-	X
56	MG	BA	2994	-	-	-	X
56	MG	BA	3003	-	-	-	X
56	MG	BA	3004	-	-	-	X
56	MG	BA	3011	-	-	-	X
56	MG	BA	3012	-	-	-	X
56	MG	BA	3020	-	-	-	X
56	MG	BA	3022	-	-	-	X
56	MG	BA	3032	-	-	-	X
56	MG	BA	3043	-	-	-	X
56	MG	BA	3053	-	-	-	X
56	MG	BA	3064	-	-	-	X
56	MG	BA	3073	-	-	-	X
56	MG	BA	3078	-	-	-	X
56	MG	BA	3084	-	-	-	X
56	MG	BA	3085	-	-	-	X
56	MG	BA	3092	-	-	-	X
56	MG	BA	3093	-	-	-	X
56	MG	BA	3095	-	-	-	X
56	MG	BA	3097	-	-	-	X
56	MG	BA	3098	-	-	-	X
56	MG	BA	3119	-	-	-	X
56	MG	BA	3121	-	-	-	X
56	MG	BA	3128	-	-	-	X
56	MG	BA	3130	-	-	-	X
56	MG	BA	3139	-	-	-	X
56	MG	BA	3141	-	-	-	X
56	MG	BA	3143	-	-	-	X
56	MG	BA	3147	-	-	-	X
56	MG	BA	3156	-	-	-	X
56	MG	BA	3157	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	BA	3168	-	-	-	X
56	MG	BA	3173	-	-	-	X
56	MG	BA	3175	-	-	-	X
56	MG	BA	3180	-	-	-	X
56	MG	BA	3182	-	-	-	X
56	MG	BA	3185	-	-	-	X
56	MG	BA	3186	-	-	-	X
56	MG	BA	3188	-	-	-	X
56	MG	BA	3189	-	-	-	X
56	MG	BA	3205	-	-	-	X
56	MG	BA	3211	-	-	-	X
56	MG	BA	3213	-	-	-	X
56	MG	BA	3218	-	-	-	X
56	MG	BA	3224	-	-	-	X
56	MG	BA	3229	-	-	-	X
56	MG	BA	3230	-	-	-	X
56	MG	BA	3237	-	-	-	X
56	MG	BA	3239	-	-	-	X
56	MG	BA	3244	-	-	-	X
56	MG	BA	3247	-	-	-	X
56	MG	BA	3248	-	-	-	X
56	MG	BA	3252	-	-	-	X
56	MG	BA	3256	-	-	-	X
56	MG	BA	3257	-	-	-	X
56	MG	BA	3261	-	-	-	X
56	MG	BA	3264	-	-	-	X
56	MG	BA	3267	-	-	-	X
56	MG	BA	3270	-	-	-	X
56	MG	BA	3275	-	-	-	X
56	MG	BA	3278	-	-	-	X
56	MG	BA	3284	-	-	-	X
56	MG	BA	3297	-	-	-	X
56	MG	BA	3299	-	-	-	X
56	MG	BA	3332	-	-	-	X
56	MG	BA	3369	-	-	-	X
56	MG	BA	3377	-	-	-	X
56	MG	BA	3403	-	-	-	X
56	MG	BA	3407	-	-	-	X
56	MG	BA	3414	-	-	-	X
56	MG	BA	3435	-	-	-	X
56	MG	BA	3450	-	-	-	X
56	MG	BA	3462	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	BA	3465	-	-	-	X
56	MG	BA	3479	-	-	-	X
56	MG	BA	3482	-	-	-	X
56	MG	BA	3496	-	-	-	X
56	MG	BA	3514	-	-	-	X
56	MG	BA	3517	-	-	-	X
56	MG	BA	3536	-	-	-	X
56	MG	BA	3540	-	-	-	X
56	MG	BA	3546	-	-	-	X
56	MG	BA	3548	-	-	-	X
56	MG	BA	3553	-	-	-	X
56	MG	BA	3563	-	-	-	X
56	MG	BA	3569	-	-	-	X
56	MG	BA	3577	-	-	-	X
56	MG	BA	3583	-	-	-	X
56	MG	BA	3584	-	-	-	X
56	MG	BA	3588	-	-	-	X
56	MG	BA	3591	-	-	-	X
56	MG	BA	3597	-	-	-	X
56	MG	BA	3599	-	-	-	X
56	MG	BA	3600	-	-	-	X
56	MG	BA	3602	-	-	-	X
56	MG	BA	3612	-	-	-	X
56	MG	BA	3613	-	-	-	X
56	MG	BA	3616	-	-	-	X
56	MG	BA	3618	-	-	-	X
56	MG	BA	3622	-	-	-	X
56	MG	BA	3628	-	-	-	X
56	MG	BA	3629	-	-	-	X
56	MG	BA	3639	-	-	-	X
56	MG	BA	3641	-	-	-	X
56	MG	BA	3650	-	-	-	X
56	MG	BA	3655	-	-	-	X
56	MG	BA	3661	-	-	-	X
56	MG	BA	3672	-	-	-	X
56	MG	BA	3676	-	-	-	X
56	MG	BA	3713	-	-	-	X
56	MG	BB	208	-	-	-	X
56	MG	BB	211	-	-	-	X
56	MG	BB	216	-	-	-	X
56	MG	BB	223	-	-	-	X
56	MG	BE	301	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	CA	1607	-	-	-	X
56	MG	CA	1613	-	-	-	X
56	MG	CA	1614	-	-	-	X
56	MG	CA	1626	-	-	-	X
56	MG	CA	1631	-	-	-	X
56	MG	CA	1644	-	-	-	X
56	MG	CA	1645	-	-	-	X
56	MG	CA	1647	-	-	-	X
56	MG	CA	1658	-	-	-	X
56	MG	CA	1663	-	-	-	X
56	MG	CA	1665	-	-	-	X
56	MG	CA	1669	-	-	-	X
56	MG	CA	1675	-	-	-	X
56	MG	CA	1677	-	-	-	X
56	MG	CA	1678	-	-	-	X
56	MG	CA	1681	-	-	-	X
56	MG	CA	1683	-	-	-	X
56	MG	CA	1693	-	-	-	X
56	MG	CA	1699	-	-	-	X
56	MG	CA	1704	-	-	-	X
56	MG	CA	1710	-	-	-	X
56	MG	CA	1719	-	-	-	X
56	MG	CA	1720	-	-	-	X
56	MG	CA	1725	-	-	-	X
56	MG	CA	1732	-	-	-	X
56	MG	CA	1735	-	-	-	X
56	MG	CA	1737	-	-	-	X
56	MG	CA	1747	-	-	-	X
56	MG	CA	1748	-	-	-	X
56	MG	CA	1752	-	-	-	X
56	MG	CA	1772	-	-	-	X
56	MG	CA	1780	-	-	-	X
56	MG	CA	1790	-	-	-	X
56	MG	CA	1792	-	-	-	X
56	MG	CA	1800	-	-	-	X
56	MG	CA	1807	-	-	-	X
56	MG	CA	1808	-	-	-	X
56	MG	CA	1809	-	-	-	X
56	MG	CA	1810	-	-	-	X
56	MG	CA	1812	-	-	-	X
56	MG	CA	1816	-	-	-	X
56	MG	CA	1820	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	CA	1833	-	-	-	X
56	MG	CA	1840	-	-	-	X
56	MG	CA	1842	-	-	-	X
56	MG	CA	1854	-	-	-	X
56	MG	CA	1874	-	-	-	X
56	MG	CA	1877	-	-	-	X
56	MG	CA	1882	-	-	-	X
56	MG	CA	1884	-	-	-	X
56	MG	CA	1887	-	-	-	X
56	MG	CA	1900	-	-	-	X
56	MG	CA	1902	-	-	-	X
56	MG	CA	1907	-	-	-	X
56	MG	CA	1911	-	-	-	X
56	MG	CA	1912	-	-	-	X
56	MG	CA	1926	-	-	-	X
56	MG	CD	302	-	-	-	X
56	MG	CM	201	-	-	-	X
56	MG	CW	102	-	-	-	X
56	MG	CW	105	-	-	-	X
56	MG	CY	401	-	-	-	X
56	MG	D7	101	-	-	-	X
56	MG	DA	2903	-	-	-	X
56	MG	DA	2911	-	-	-	X
56	MG	DA	2914	-	-	-	X
56	MG	DA	2915	-	-	-	X
56	MG	DA	2916	-	-	-	X
56	MG	DA	2917	-	-	-	X
56	MG	DA	2930	-	-	-	X
56	MG	DA	2936	-	-	-	X
56	MG	DA	2937	-	-	-	X
56	MG	DA	2948	-	-	-	X
56	MG	DA	2949	-	-	-	X
56	MG	DA	2964	-	-	-	X
56	MG	DA	2972	-	-	-	X
56	MG	DA	2975	-	-	-	X
56	MG	DA	2989	-	-	-	X
56	MG	DA	3001	-	-	-	X
56	MG	DA	3003	-	-	-	X
56	MG	DA	3004	-	-	-	X
56	MG	DA	3008	-	-	-	X
56	MG	DA	3009	-	-	-	X
56	MG	DA	3016	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	DA	3030	-	-	-	X
56	MG	DA	3033	-	-	-	X
56	MG	DA	3044	-	-	-	X
56	MG	DA	3052	-	-	-	X
56	MG	DA	3054	-	-	-	X
56	MG	DA	3062	-	-	-	X
56	MG	DA	3066	-	-	-	X
56	MG	DA	3070	-	-	-	X
56	MG	DA	3072	-	-	-	X
56	MG	DA	3073	-	-	-	X
56	MG	DA	3086	-	-	-	X
56	MG	DA	3092	-	-	-	X
56	MG	DA	3097	-	-	-	X
56	MG	DA	3107	-	-	-	X
56	MG	DA	3119	-	-	-	X
56	MG	DA	3188	-	-	-	X
56	MG	DA	3243	-	-	-	X
56	MG	DA	3248	-	-	-	X
56	MG	DA	3270	-	-	-	X
56	MG	DA	3287	-	-	-	X
56	MG	DA	3308	-	-	-	X
56	MG	DA	3325	-	-	-	X
56	MG	DA	3326	-	-	-	X
56	MG	DA	3338	-	-	-	X
56	MG	DA	3343	-	-	-	X
56	MG	DA	3348	-	-	-	X
56	MG	DA	3351	-	-	-	X
56	MG	DA	3375	-	-	-	X
56	MG	DA	3381	-	-	-	X
56	MG	DA	3385	-	-	-	X
56	MG	DA	3398	-	-	-	X
56	MG	DA	3403	-	-	-	X
56	MG	DA	3427	-	-	-	X
56	MG	DA	3428	-	-	-	X
56	MG	DA	3484	-	-	-	X
56	MG	DA	3498	-	-	-	X
56	MG	DA	3502	-	-	-	X
56	MG	DA	3510	-	-	-	X
56	MG	DA	3516	-	-	-	X
56	MG	DA	3517	-	-	-	X
56	MG	DA	3519	-	-	-	X
56	MG	DA	3531	-	-	-	X

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Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
56	MG	DA	3541	-	-	-	X
56	MG	DA	3544	-	-	-	X
56	MG	DA	3548	-	-	-	X
56	MG	DA	3568	-	-	-	X
56	MG	DA	3577	-	-	-	X
56	MG	DA	3586	-	-	-	X
56	MG	DA	3611	-	-	-	X
56	MG	DB	206	-	-	-	X
56	MG	DB	209	-	-	-	X
56	MG	DB	218	-	-	-	X
56	MG	DF	301	-	-	-	X
56	MG	DV	201	-	-	-	X
56	MG	DW	201	-	-	-	X

2 Entry composition

There are 57 unique types of molecules in this entry. The entry contains 294074 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 16S rRNA (1504-MER).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	AA	1504	Total	C	N	O	P	0	0	0
			32332	14391	5994	10444	1503			
1	CA	1504	Total	C	N	O	P	0	0	0
			32332	14391	5994	10444	1503			

- Molecule 2 is a RNA chain called messenger RNA (5'-R(*AP*AP*UP*GP*UP*AP*G)-3').

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	AV	10	Total	C	N	O	P	0	0	0
			214	98	44	63	9			
2	CV	10	Total	C	N	O	P	0	0	0
			214	98	44	63	9			

- Molecule 3 is a RNA chain called P-site tRNA-fMet.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	AW	77	Total	C	N	O	P	0	0	0
			1640	732	297	535	76			
3	CW	77	Total	C	N	O	P	0	0	0
			1640	732	297	535	76			

- Molecule 4 is a protein called Bacterial peptide chain release factor 2 (RF-2).

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	AY	362	Total	C	N	O	S	0	0	0
			2874	1794	517	555	8			
4	CY	362	Total	C	N	O	S	0	0	0
			2874	1794	517	555	8			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
AY	253	PRO	GLN	engineered mutation	UNP Q72GJ6
CY	253	PRO	GLN	engineered mutation	UNP Q72GJ6

- Molecule 5 is a protein called 30S ribosomal protein S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	AB	234	Total	C	N	O	S	0	0	0
			1901	1213	341	342	5			
5	CB	234	Total	C	N	O	S	0	0	0
			1901	1213	341	342	5			

- Molecule 6 is a protein called 30S ribosomal protein S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	AC	206	Total	C	N	O	S	0	0	0
			1613	1016	314	282	1			
6	CC	206	Total	C	N	O	S	0	0	0
			1613	1016	314	282	1			

- Molecule 7 is a protein called 30S ribosomal protein S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	AD	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			
7	CD	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			

- Molecule 8 is a protein called 30S ribosomal protein S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	AE	151	Total	C	N	O	S	0	0	0
			1156	729	218	205	4			
8	CE	151	Total	C	N	O	S	0	0	0
			1156	729	218	205	4			

- Molecule 9 is a protein called 30S ribosomal protein S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	AF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			
9	CF	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			

- Molecule 10 is a protein called 30S ribosomal protein S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	AG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			
10	CG	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			

- Molecule 11 is a protein called 30S ribosomal protein S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	AH	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			
11	CH	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			

- Molecule 12 is a protein called 30S ribosomal protein S9.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
12	AI	127	Total	C	N	O	0	0	0
			1011	639	198	174			
12	CI	127	Total	C	N	O	0	0	0
			1011	639	198	174			

- Molecule 13 is a protein called 30S ribosomal protein S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	AJ	98	Total	C	N	O	S	0	0	0
			795	499	156	139	1			
13	CJ	98	Total	C	N	O	S	0	0	0
			795	499	156	139	1			

- Molecule 14 is a protein called 30S ribosomal protein S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	AK	114	Total	C	N	O	S	0	0	0
			843	522	159	159	3			
14	CK	114	Total	C	N	O	S	0	0	0
			843	522	159	159	3			

- Molecule 15 is a protein called 30S ribosomal protein S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	AL	122	Total	C	N	O	S	0	0	0
			957	603	193	160	1			
15	CL	122	Total	C	N	O	S	0	0	0
			957	603	193	160	1			

- Molecule 16 is a protein called 30S ribosomal protein S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	AM	117	Total	C	N	O	S	0	0	0
			934	577	192	163	2			
16	CM	117	Total	C	N	O	S	0	0	0
			934	577	192	163	2			

- Molecule 17 is a protein called 30S ribosomal protein S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	AN	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			
17	CN	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			

- Molecule 18 is a protein called 30S ribosomal protein S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	AO	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			
18	CO	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			

- Molecule 19 is a protein called 30S ribosomal protein S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	AP	83	Total	C	N	O	S	0	0	0
			701	443	139	118	1			
19	CP	83	Total	C	N	O	S	0	0	0
			701	443	139	118	1			

- Molecule 20 is a protein called 30S ribosomal protein S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	AQ	99	Total	C	N	O	S	0	0	0
			824	528	152	142	2			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	CQ	99	Total	C	N	O	S	0	0	0
			824	528	152	142	2			

- Molecule 21 is a protein called 30S ribosomal protein S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	AR	70	Total	C	N	O	0	0	0
			574	367	112	95			
21	CR	70	Total	C	N	O	0	0	0
			574	367	112	95			

- Molecule 22 is a protein called 30S ribosomal protein S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	AS	78	Total	C	N	O	S	0	0	0
			630	403	114	111	2			
22	CS	78	Total	C	N	O	S	0	0	0
			630	403	114	111	2			

- Molecule 23 is a protein called 30S ribosomal protein S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	AT	99	Total	C	N	O	S	0	0	0
			762	469	162	129	2			
23	CT	99	Total	C	N	O	S	0	0	0
			762	469	162	129	2			

- Molecule 24 is a protein called 30S ribosomal protein Thx.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
24	AU	24	Total	C	N	O	0	0	0
			209	128	50	31			
24	CU	24	Total	C	N	O	0	0	0
			209	128	50	31			

- Molecule 25 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	BA	2789	Total	C	N	O	P	0	0	0
			60059	26734	11225	19312	2788			
25	DA	2789	Total	C	N	O	P	0	0	0
			60059	26734	11225	19312	2788			

There are 8 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
BA	276	C	A	conflict	GB AE017221.1
BA	277	A	C	conflict	GB AE017221.1
BA	1141A	U	C	conflict	GB AE017221.1
BA	2825	U	G	conflict	GB AE017221.1
DA	276	C	A	conflict	GB AE017221.1
DA	277	A	C	conflict	GB AE017221.1
DA	1141A	U	C	conflict	GB AE017221.1
DA	2825	U	G	conflict	GB AE017221.1

- Molecule 26 is a RNA chain called 5S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	BB	119	Total	C	N	O	P	0	0	0
			2551	1136	471	826	118			
26	DB	119	Total	C	N	O	P	0	0	0
			2551	1136	471	826	118			

- Molecule 27 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	BD	271	Total	C	N	O	S	0	0	0
			2105	1329	416	357	3			
27	DD	271	Total	C	N	O	S	0	0	0
			2105	1329	416	357	3			

- Molecule 28 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	BE	204	Total	C	N	O	S	0	0	0
			1564	988	299	271	6			
28	DE	204	Total	C	N	O	S	0	0	0
			1564	988	299	271	6			

- Molecule 29 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	BF	202	Total	C	N	O	S	0	0	0
			1587	1011	297	276	3			
29	DF	202	Total	C	N	O	S	0	0	0
			1587	1011	297	276	3			

- Molecule 30 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	BG	181	Total	C	N	O	S	0	0	0
			1475	943	268	260	4			
30	DG	181	Total	C	N	O	S	0	0	0
			1475	943	268	260	4			

- Molecule 31 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	BH	159	Total	C	N	O	S	0	0	0
			1223	773	228	221	1			
31	DH	159	Total	C	N	O	S	0	0	0
			1223	773	228	221	1			

- Molecule 32 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	BI	145	Total	C	N	O	S	0	0	0
			1133	724	200	208	1			
32	DI	145	Total	C	N	O	S	0	0	0
			1133	724	200	208	1			

- Molecule 33 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	BK	147	Total	C	N	O	S	0	0	0
			1088	692	191	199	6			
33	DK	147	Total	C	N	O	S	0	0	0
			1088	692	191	199	6			

- Molecule 34 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
34	BN	137	Total	C	N	O	S	0	0	0
			1097	707	205	182	3			
34	DN	137	Total	C	N	O	S	0	0	0
			1097	707	205	182	3			

- Molecule 35 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
35	BO	122	Total	C	N	O	S	0	0	0
			932	587	171	170	4			
35	DO	122	Total	C	N	O	S	0	0	0
			932	587	171	170	4			

- Molecule 36 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
36	BP	146	Total	C	N	O	S	0	0	0
			1114	692	227	193	2			
36	DP	146	Total	C	N	O	S	0	0	0
			1114	692	227	193	2			

- Molecule 37 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
37	BQ	134	Total	C	N	O	S	0	0	0
			1065	680	201	179	5			
37	DQ	134	Total	C	N	O	S	0	0	0
			1065	680	201	179	5			

- Molecule 38 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
38	BR	117	Total	C	N	O	0	0	0
			960	599	202	159			
38	DR	117	Total	C	N	O	0	0	0
			960	599	202	159			

- Molecule 39 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
39	BS	98	Total	C	N	O	0	0	0
			771	486	154	131			
39	DS	98	Total	C	N	O	0	0	0
			771	486	154	131			

- Molecule 40 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	BT	137	Total	C	N	O	S	0	0	0
			1144	713	234	196	1			

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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
40	DT	137	Total	C	N	O	S	0	0	0
			1144	713	234	196	1			

- Molecule 41 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
41	BU	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			
41	DU	117	Total	C	N	O	S	0	0	0
			964	610	202	151	1			

- Molecule 42 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
42	BV	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			
42	DV	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			

- Molecule 43 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
43	BW	112	Total	C	N	O	S	0	0	0
			891	560	175	154	2			
43	DW	112	Total	C	N	O	S	0	0	0
			891	560	175	154	2			

- Molecule 44 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
44	BX	92	Total	C	N	O	0	0	0
			726	471	131	124			
44	DX	92	Total	C	N	O	0	0	0
			726	471	131	124			

- Molecule 45 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
45	BY	100	Total	C	N	O	S	0	0	0
			776	500	148	124	4			
45	DY	100	Total	C	N	O	S	0	0	0
			776	500	148	124	4			

- Molecule 46 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
46	BZ	187	Total	C	N	O	S	0	0	0
			1483	945	264	272	2			
46	DZ	187	Total	C	N	O	S	0	0	0
			1483	945	264	272	2			

- Molecule 47 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
47	B0	76	Total	C	N	O	S	0	0	0
			605	376	126	102	1			
47	D0	76	Total	C	N	O	S	0	0	0
			605	376	126	102	1			

- Molecule 48 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
48	B1	88	Total	C	N	O	0	0	0
			695	435	141	119			
48	D1	88	Total	C	N	O	0	0	0
			695	435	141	119			

- Molecule 49 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
49	B2	62	Total	C	N	O	S	0	0	0
			521	325	102	92	2			
49	D2	62	Total	C	N	O	S	0	0	0
			521	325	102	92	2			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
50	B3	59	Total	C	N	O	S	0	0	0
			468	298	90	79	1			
50	D3	59	Total	C	N	O	S	0	0	0
			468	298	90	79	1			

- Molecule 51 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
51	B4	30	Total	C	N	O	S	0	0	0
			226	142	36	44	4			
51	D4	30	Total	C	N	O	S	0	0	0
			226	142	36	44	4			

- Molecule 52 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
52	B5	52	Total	C	N	O	S	0	0	0
			405	255	79	66	5			
52	D5	52	Total	C	N	O	S	0	0	0
			405	255	79	66	5			

- Molecule 53 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
53	B6	44	Total	C	N	O	S	0	0	0
			381	235	77	65	4			
53	D6	44	Total	C	N	O	S	0	0	0
			381	235	77	65	4			

- Molecule 54 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
54	B7	48	Total	C	N	O	S	0	0	0
			419	257	104	56	2			
54	D7	48	Total	C	N	O	S	0	0	0
			419	257	104	56	2			

- Molecule 55 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
55	B8	63	Total	C	N	O	S	0	0	0
			508	326	101	79	2			
55	D8	63	Total	C	N	O	S	0	0	0
			508	326	101	79	2			

- Molecule 56 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
56	AA	393	Total	Mg	0	0
			393	393		

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	AV	1	Total Mg 1 1	0	0
56	AW	18	Total Mg 18 18	0	0
56	AY	3	Total Mg 3 3	0	0
56	AC	1	Total Mg 1 1	0	0
56	AG	1	Total Mg 1 1	0	0
56	AO	1	Total Mg 1 1	0	0
56	AQ	1	Total Mg 1 1	0	0
56	AT	3	Total Mg 3 3	0	0
56	BA	824	Total Mg 824 824	0	0
56	BB	23	Total Mg 23 23	0	0
56	BD	1	Total Mg 1 1	0	0
56	BE	1	Total Mg 1 1	0	0
56	BF	1	Total Mg 1 1	0	0
56	BP	1	Total Mg 1 1	0	0
56	BT	1	Total Mg 1 1	0	0
56	BX	2	Total Mg 2 2	0	0
56	BY	1	Total Mg 1 1	0	0
56	B0	2	Total Mg 2 2	0	0
56	B1	1	Total Mg 1 1	0	0
56	B3	1	Total Mg 1 1	0	0
56	B5	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	B8	2	Total Mg 2 2	0	0
56	CA	326	Total Mg 326 326	0	0
56	CV	2	Total Mg 2 2	0	0
56	CW	16	Total Mg 16 16	0	0
56	CY	2	Total Mg 2 2	0	0
56	CD	1	Total Mg 1 1	0	0
56	CM	1	Total Mg 1 1	0	0
56	CR	1	Total Mg 1 1	0	0
56	DA	732	Total Mg 732 732	0	0
56	DB	20	Total Mg 20 20	0	0
56	DD	1	Total Mg 1 1	0	0
56	DE	1	Total Mg 1 1	0	0
56	DF	2	Total Mg 2 2	0	0
56	DH	1	Total Mg 1 1	0	0
56	DI	2	Total Mg 2 2	0	0
56	DN	1	Total Mg 1 1	0	0
56	DP	2	Total Mg 2 2	0	0
56	DQ	4	Total Mg 4 4	0	0
56	DV	1	Total Mg 1 1	0	0
56	DW	2	Total Mg 2 2	0	0
56	DX	1	Total Mg 1 1	0	0

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Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
56	D0	1	Total Mg 1 1	0	0
56	D1	1	Total Mg 1 1	0	0
56	D5	3	Total Mg 3 3	0	0
56	D7	2	Total Mg 2 2	0	0

- Molecule 57 is ZINC ION (three-letter code: ZN) (formula: Zn).

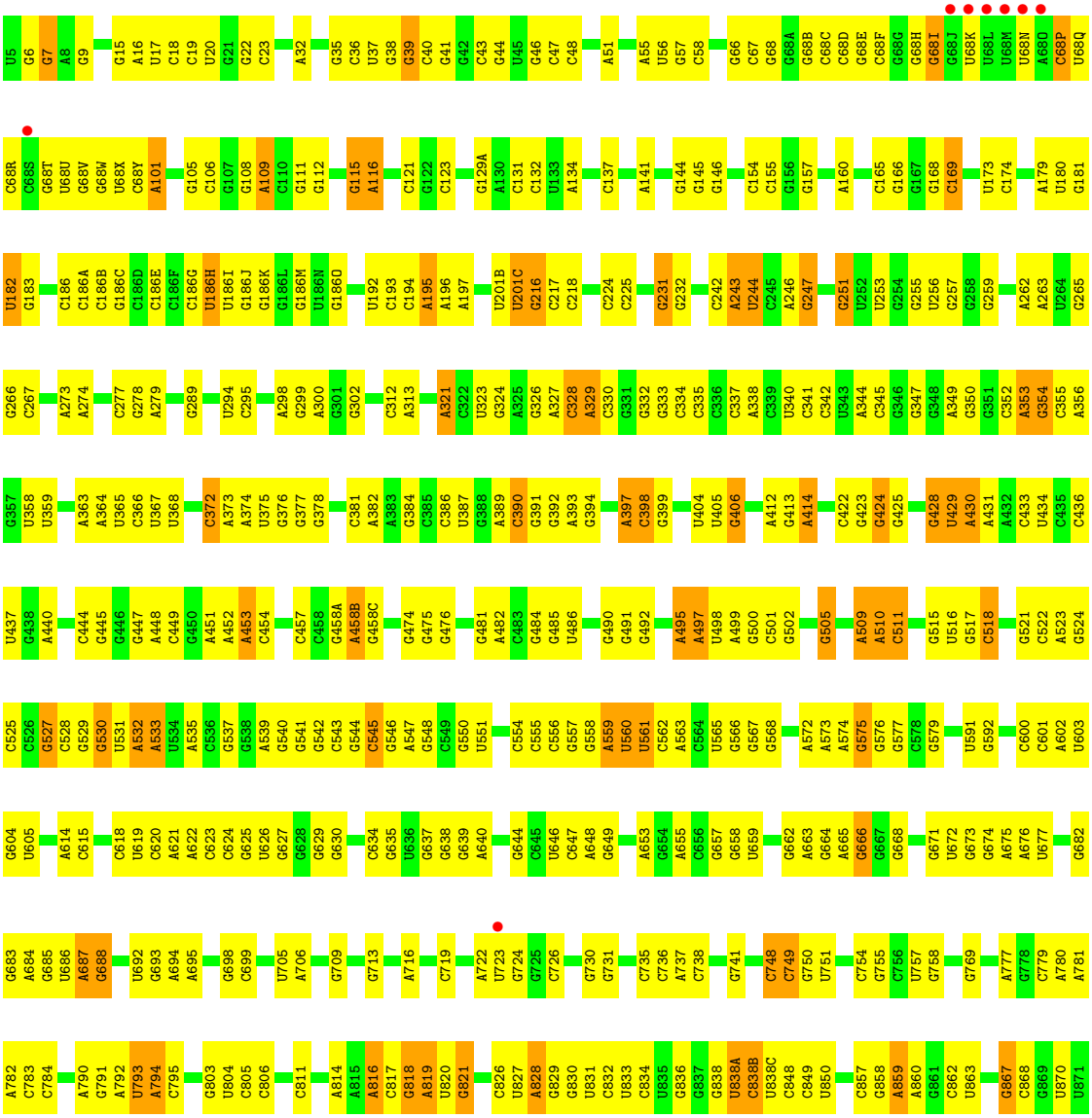
Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
57	AD	1	Total Zn 1 1	0	0
57	AN	1	Total Zn 1 1	0	0
57	CD	1	Total Zn 1 1	0	0
57	CN	1	Total Zn 1 1	0	0

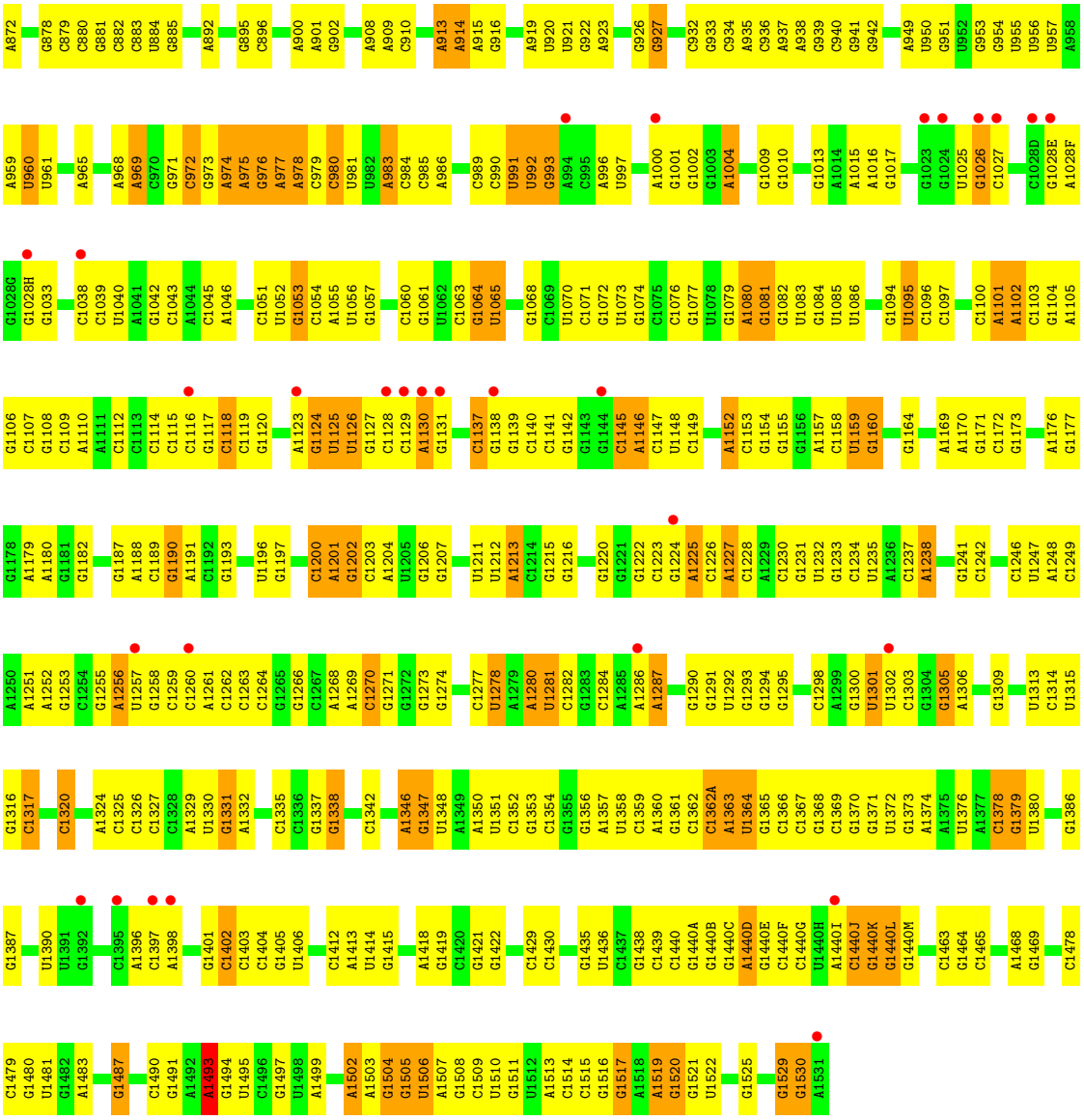
3 Residue-property plots (i)

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

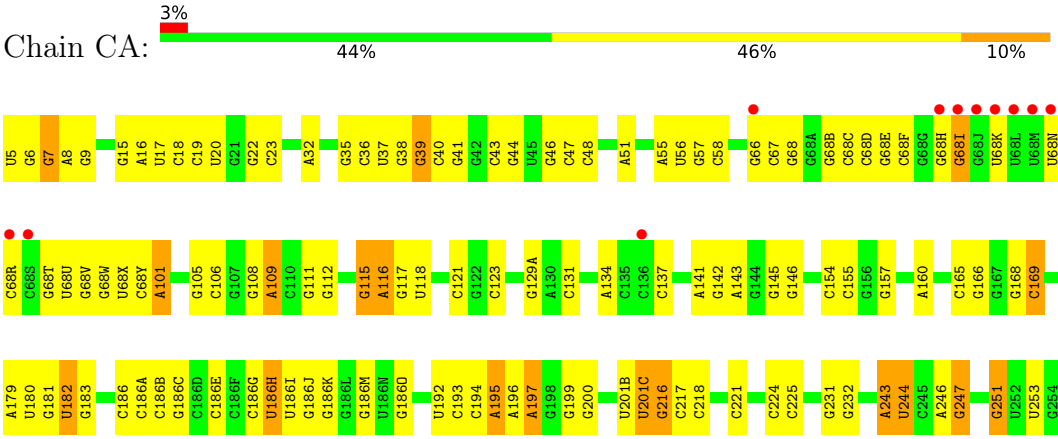
- Molecule 1: 16S rRNA (1504-MER)

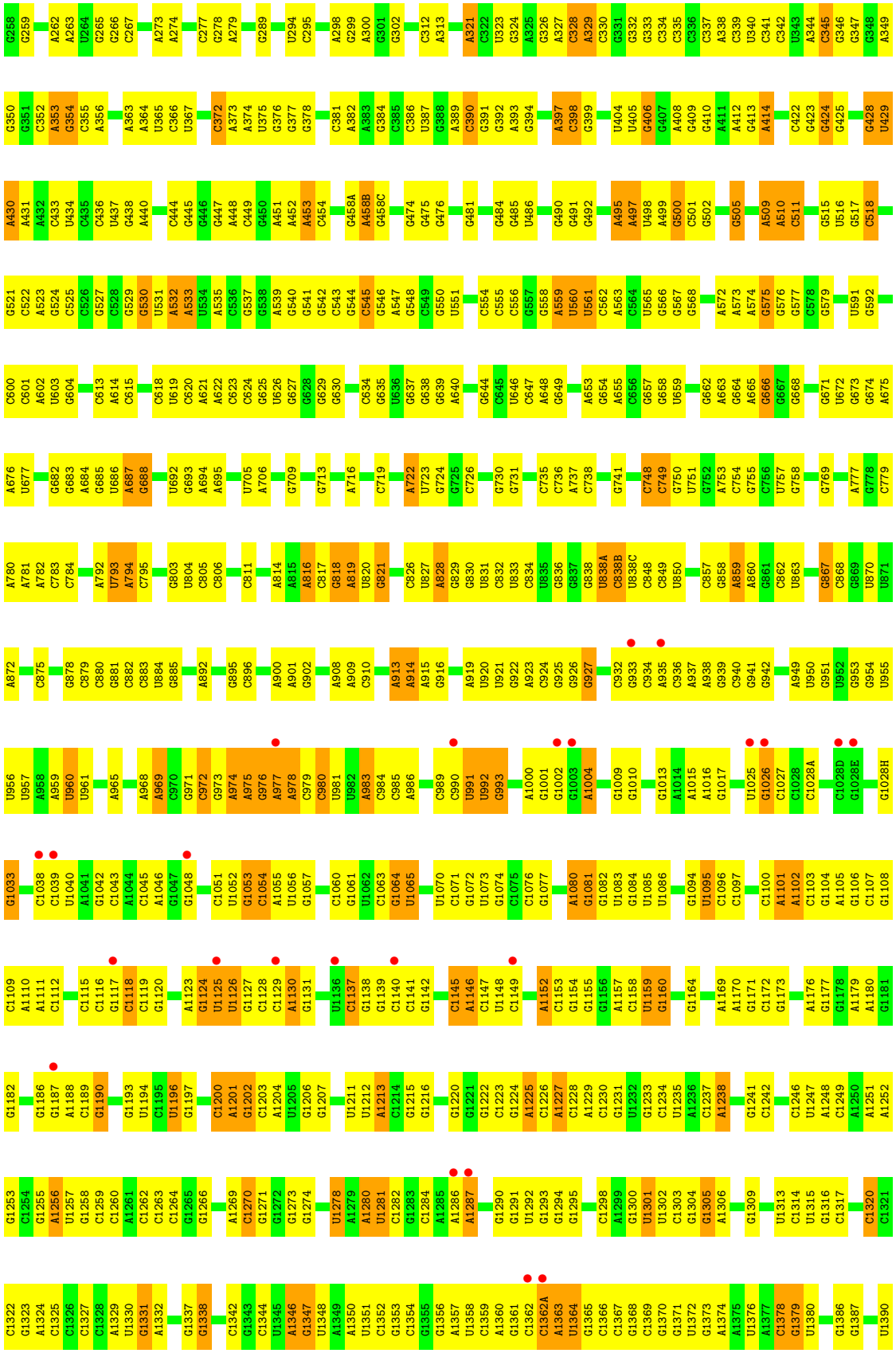
Chain AA: 2% 44% 46% 10%

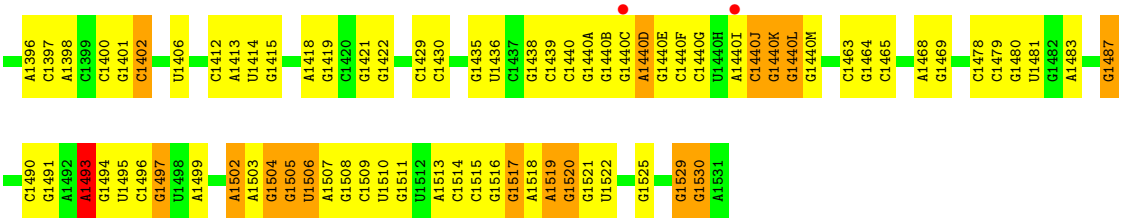




• Molecule 1: 16S rRNA (1504-MER)

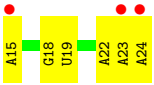






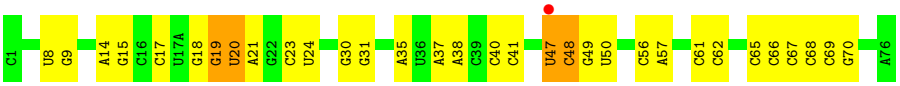
• Molecule 2: messenger RNA (5'-R(*AP*AP*UP*GP*UP*AP*G)-3')

• Molecule 2: messenger RNA (5'-R(*AP*AP*UP*GP*UP*AP*G)-3')

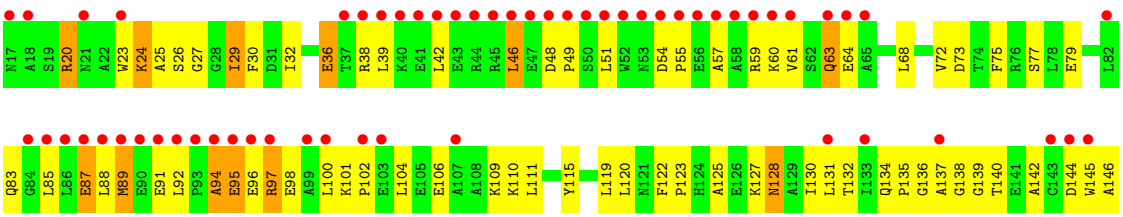


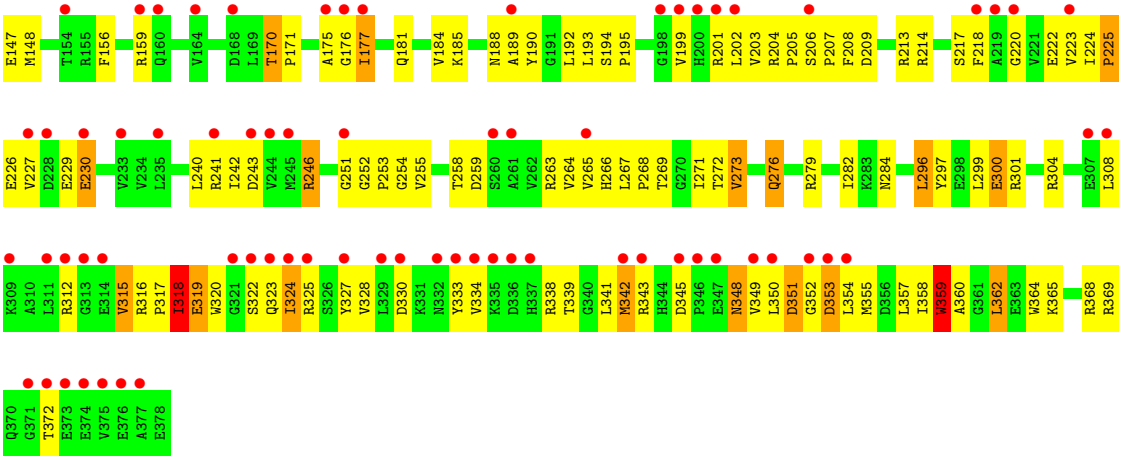
• Molecule 3: P-site tRNA-fMet

• Molecule 3: P-site tRNA-fMet



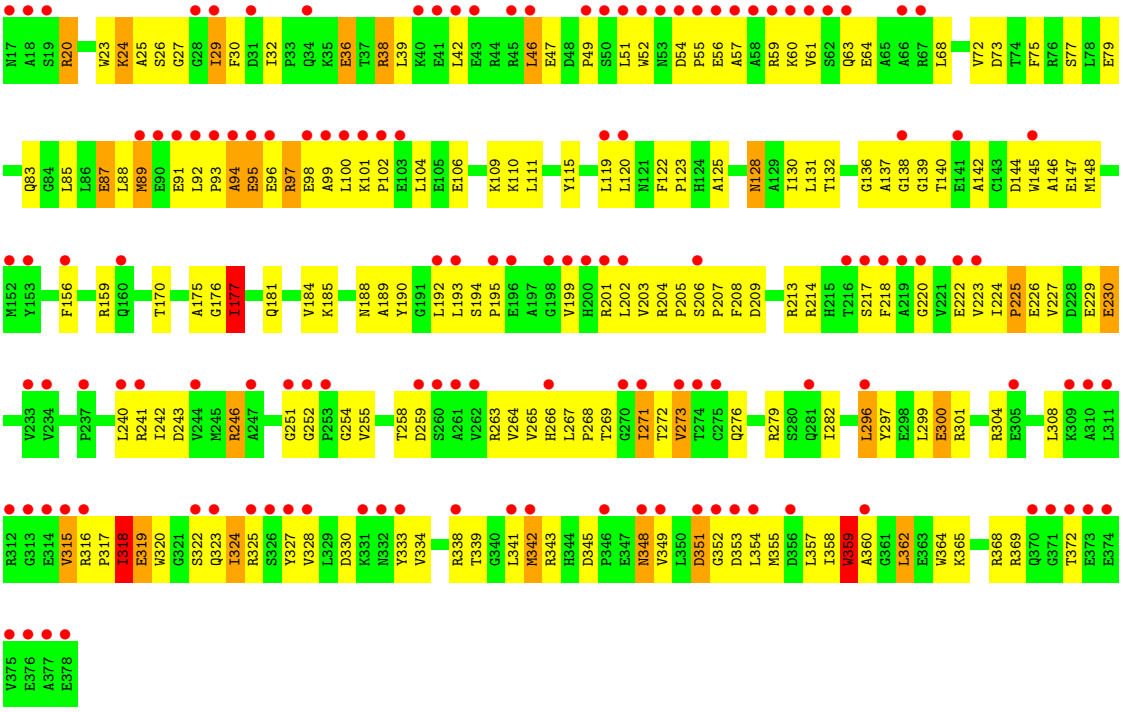
• Molecule 4: Bacterial peptide chain release factor 2 (RF-2)





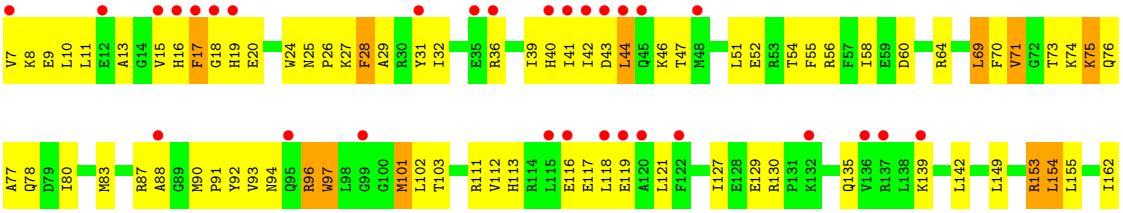
• Molecule 4: Bacterial peptide chain release factor 2 (RF-2)

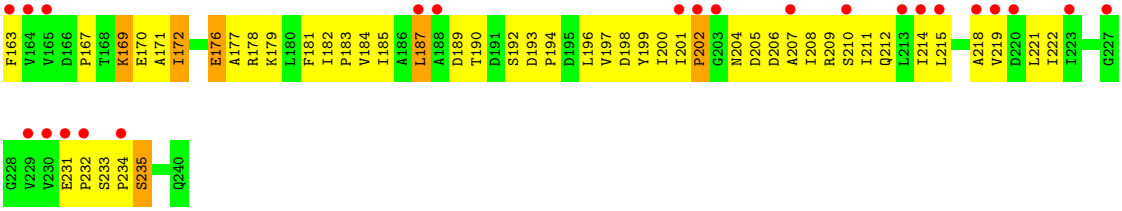
Chain CY:



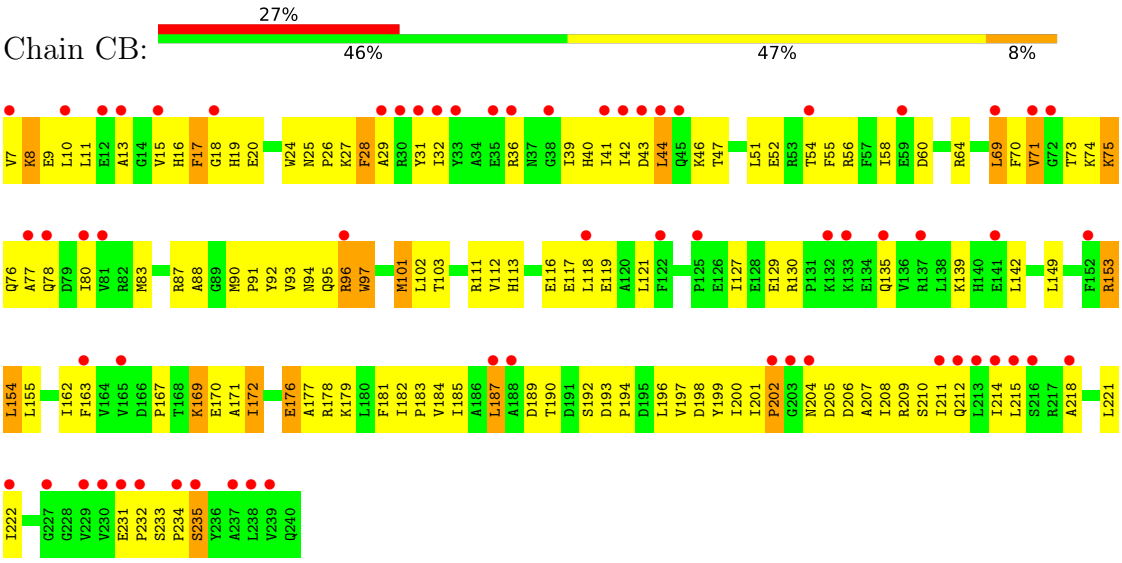
• Molecule 5: 30S ribosomal protein S2

Chain AB:

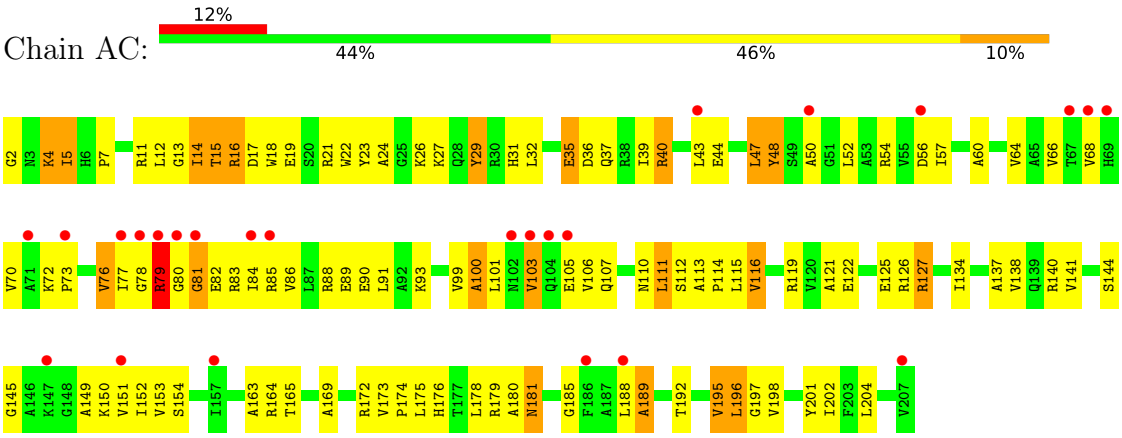




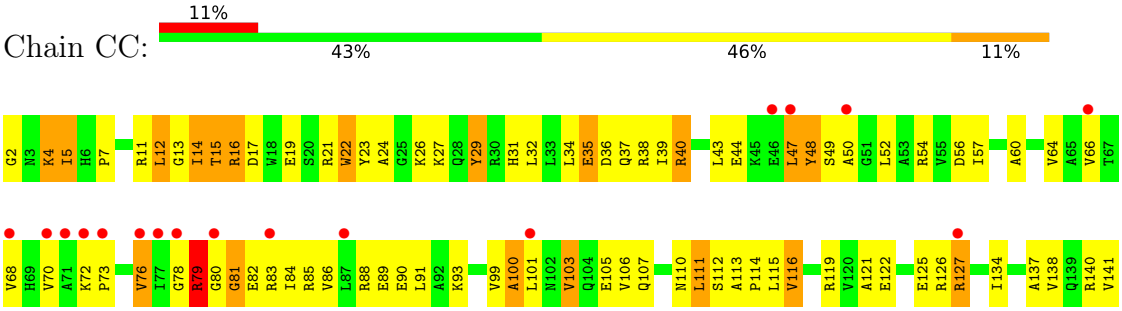
• Molecule 5: 30S ribosomal protein S2

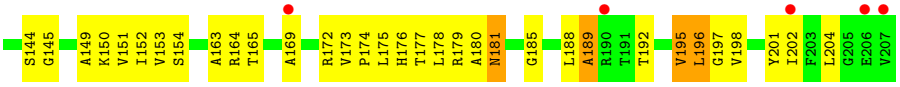


• Molecule 6: 30S ribosomal protein S3



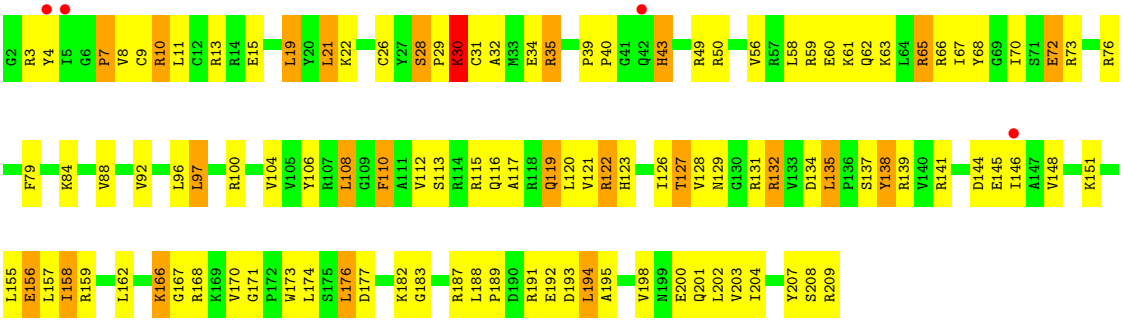
• Molecule 6: 30S ribosomal protein S3





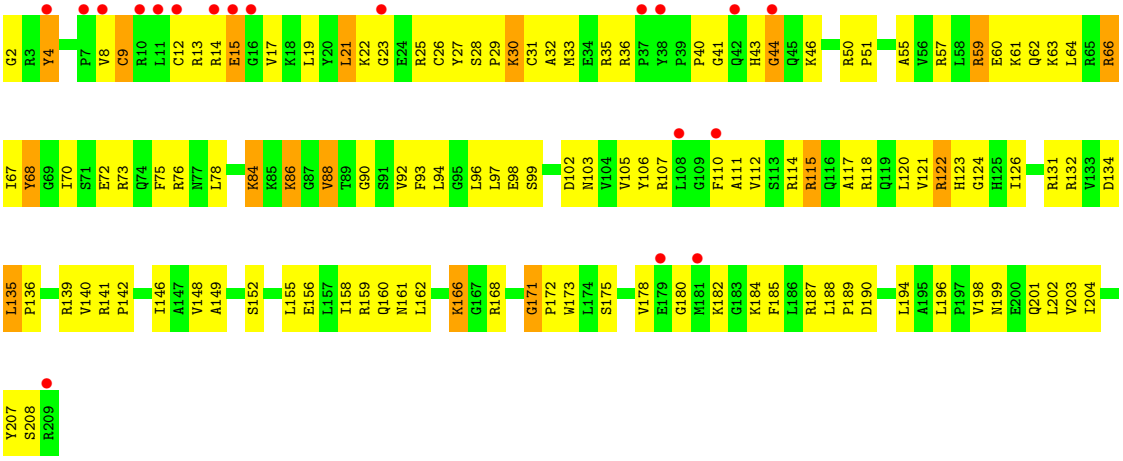
• Molecule 7: 30S ribosomal protein S4

Chain AD:



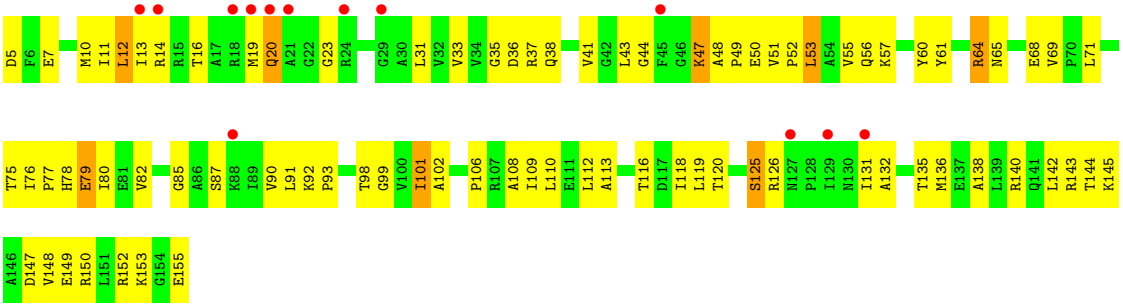
• Molecule 7: 30S ribosomal protein S4

Chain CD:



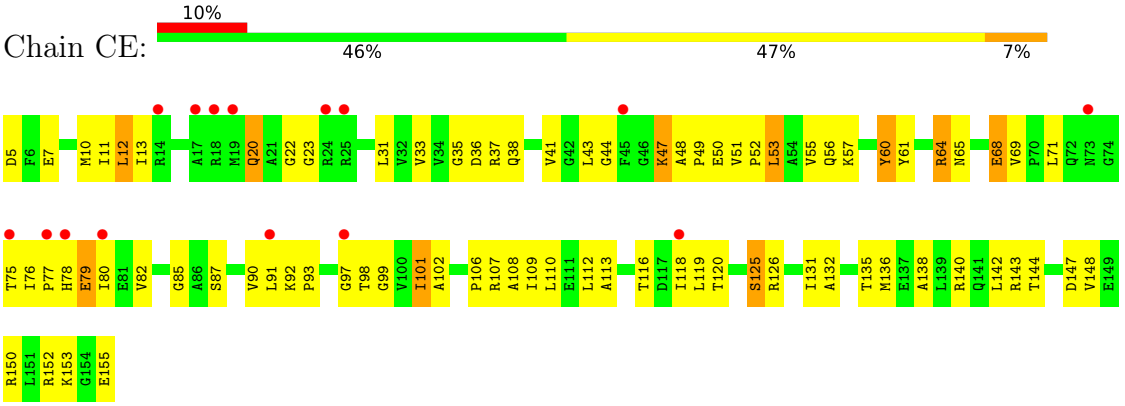
• Molecule 8: 30S ribosomal protein S5

Chain AE:



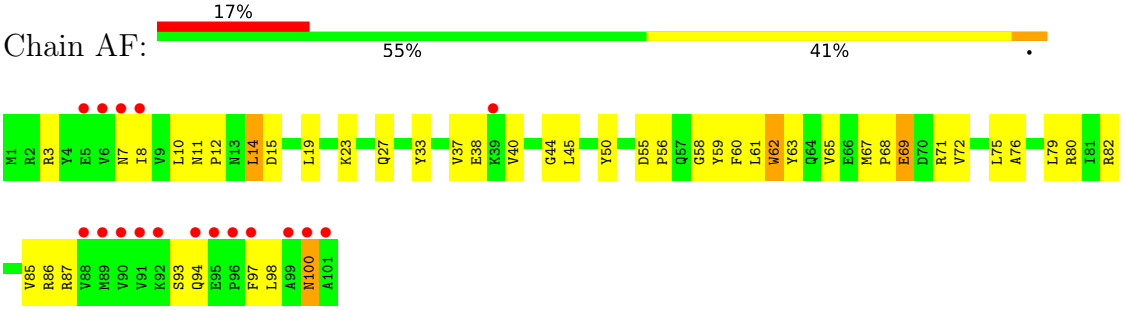
• Molecule 8: 30S ribosomal protein S5

Chain CE:



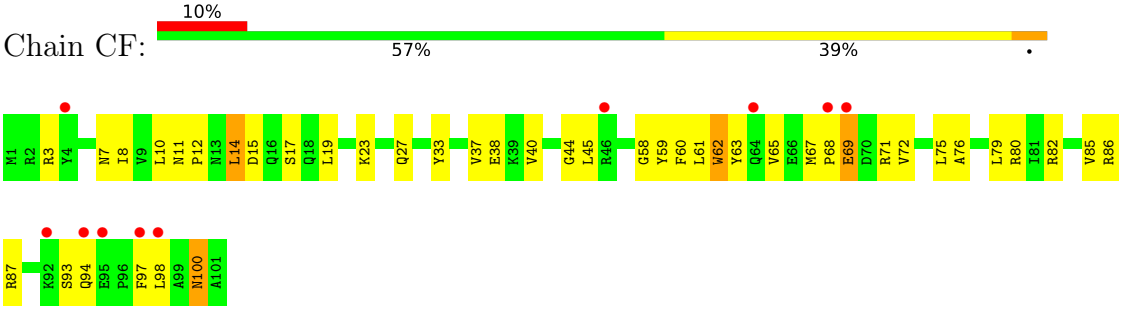
• Molecule 9: 30S ribosomal protein S6

Chain AF:



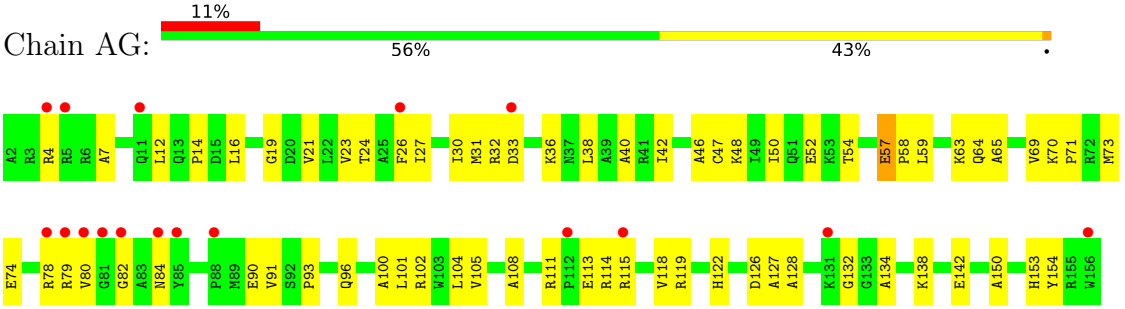
• Molecule 9: 30S ribosomal protein S6

Chain CF:



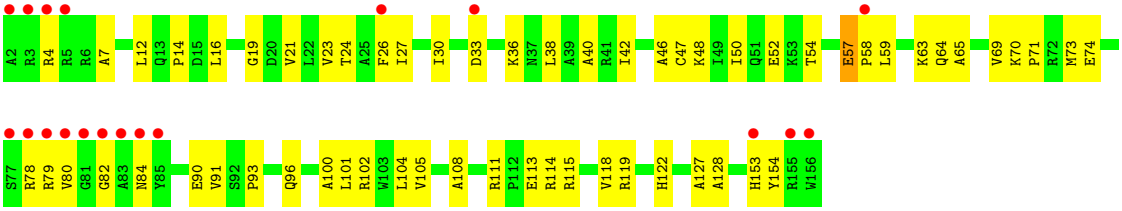
• Molecule 10: 30S ribosomal protein S7

Chain AG:

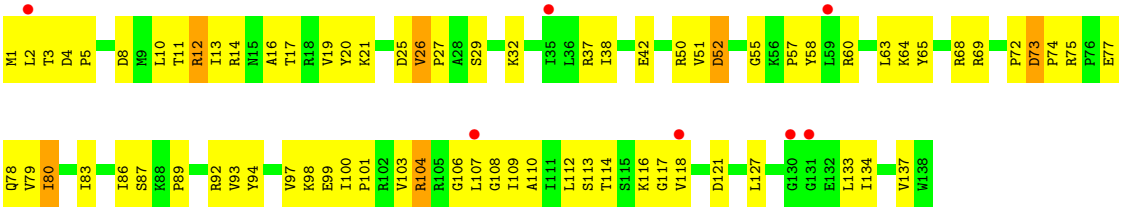


• Molecule 10: 30S ribosomal protein S7

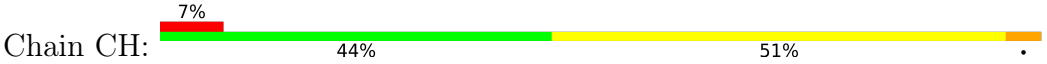
Chain CG:

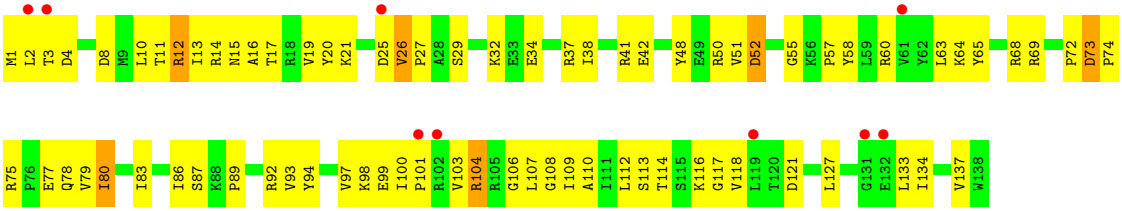


• Molecule 11: 30S ribosomal protein S8

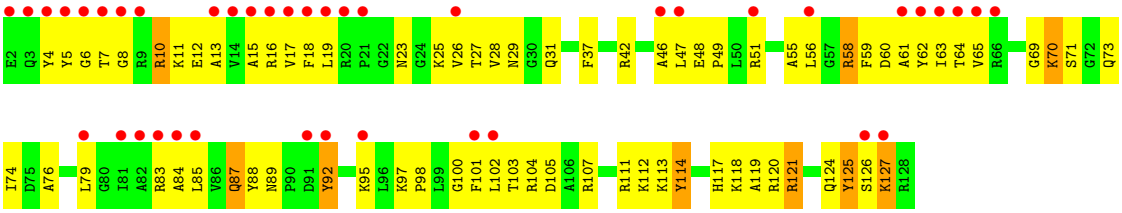


• Molecule 11: 30S ribosomal protein S8

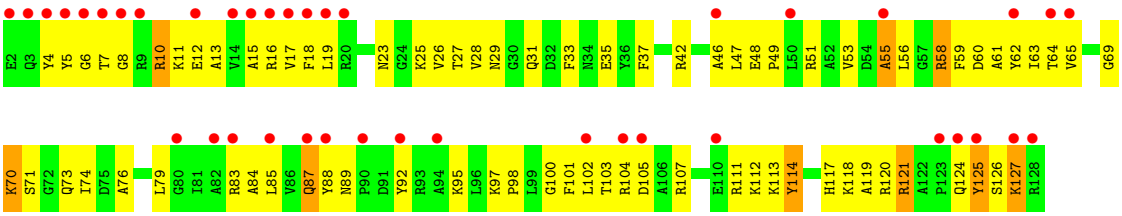




• Molecule 12: 30S ribosomal protein S9

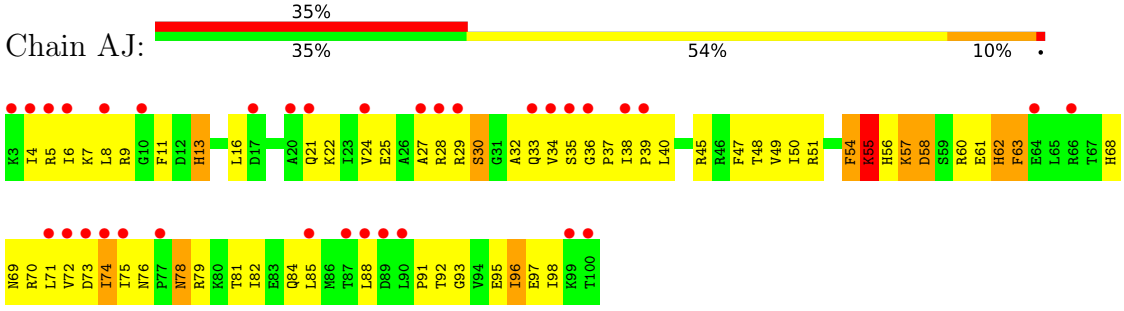


• Molecule 12: 30S ribosomal protein S9



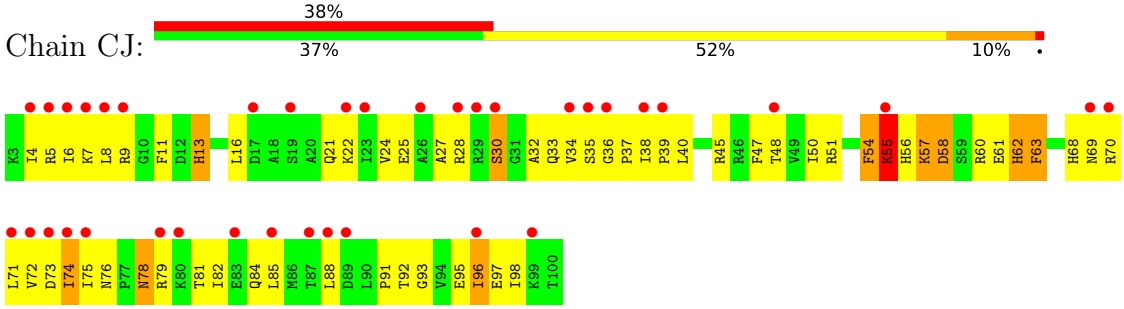
• Molecule 13: 30S ribosomal protein S10

Chain AJ:



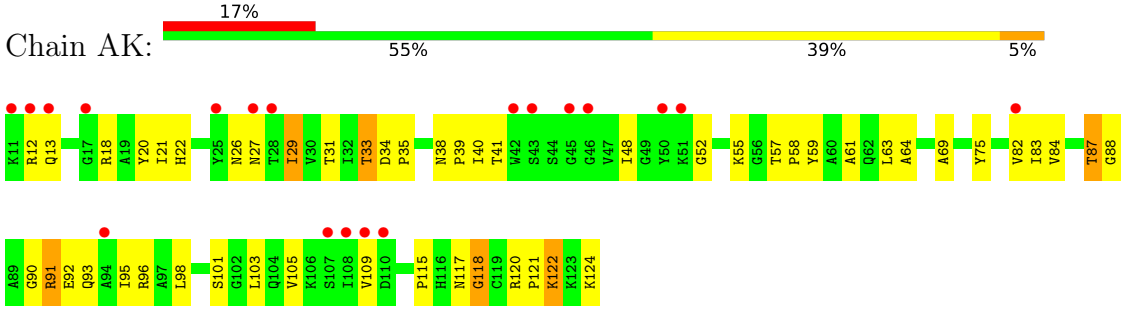
• Molecule 13: 30S ribosomal protein S10

Chain CJ:



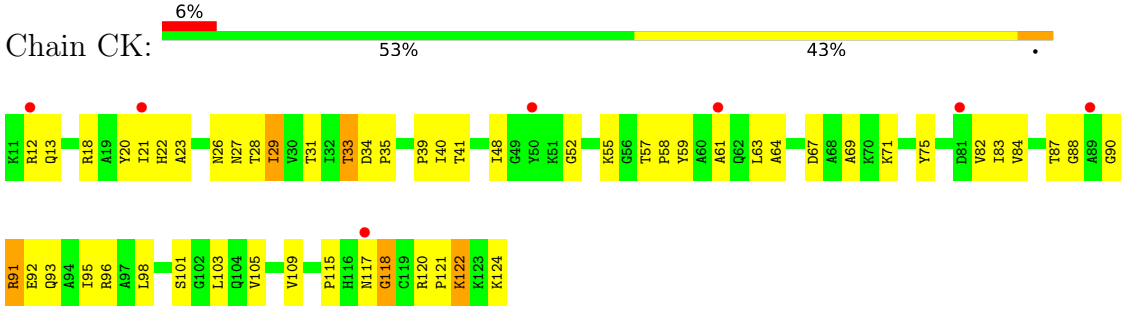
• Molecule 14: 30S ribosomal protein S11

Chain AK:



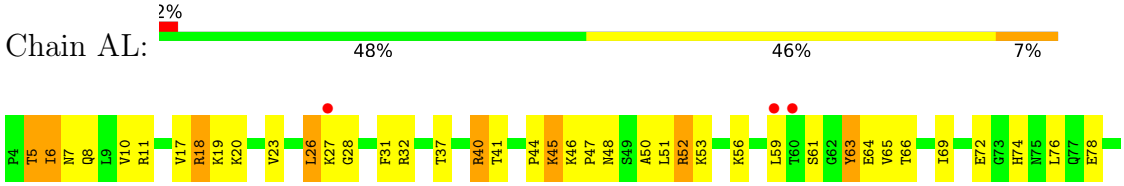
• Molecule 14: 30S ribosomal protein S11

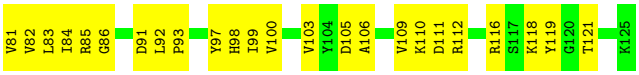
Chain CK:



• Molecule 15: 30S ribosomal protein S12

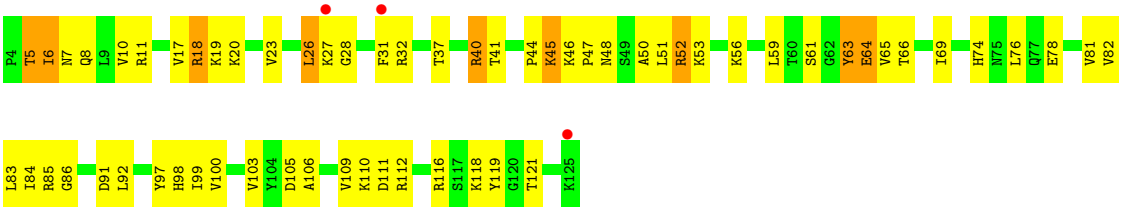
Chain AL:





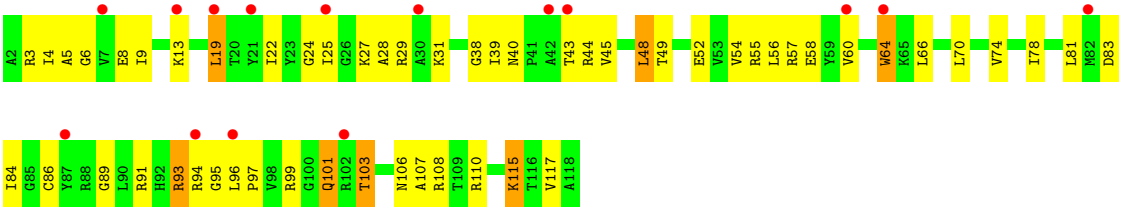
• Molecule 15: 30S ribosomal protein S12

Chain CL:



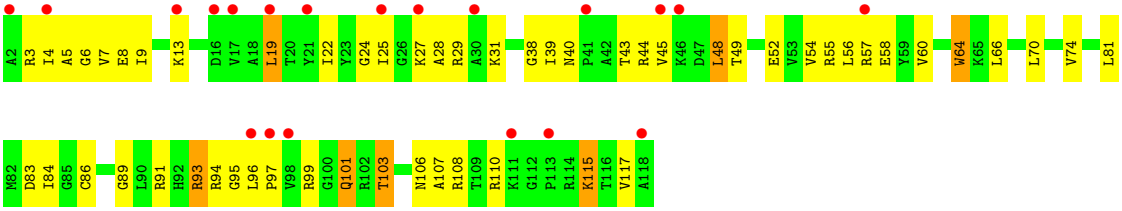
• Molecule 16: 30S ribosomal protein S13

Chain AM:



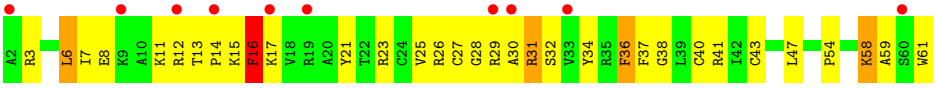
• Molecule 16: 30S ribosomal protein S13

Chain CM:



• Molecule 17: 30S ribosomal protein S14

Chain AN:

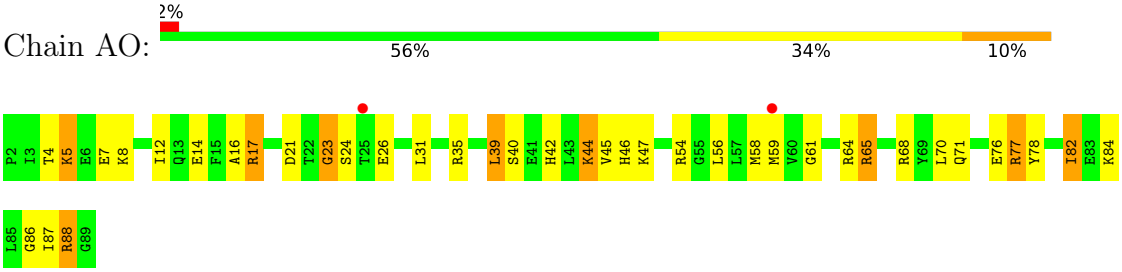


• Molecule 17: 30S ribosomal protein S14

Chain CN:

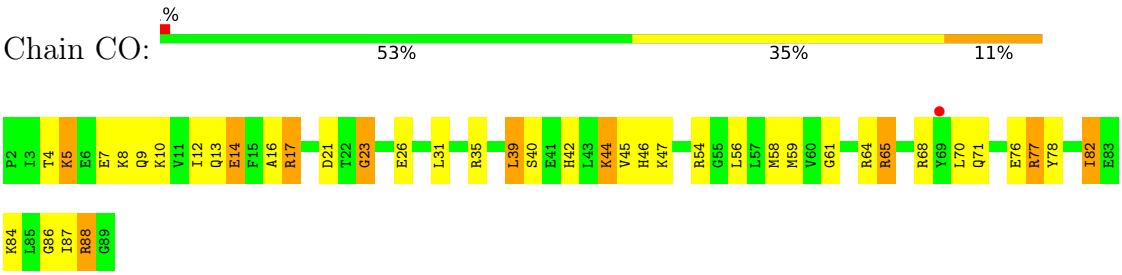
• Molecule 18: 30S ribosomal protein S15

Chain AO:



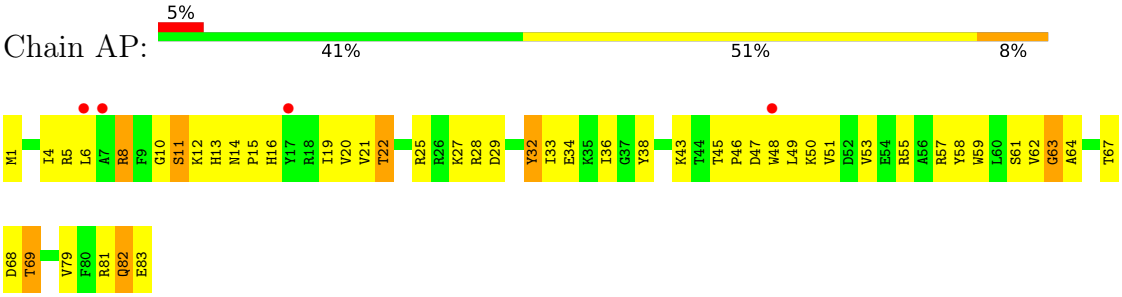
• Molecule 18: 30S ribosomal protein S15

Chain CO:



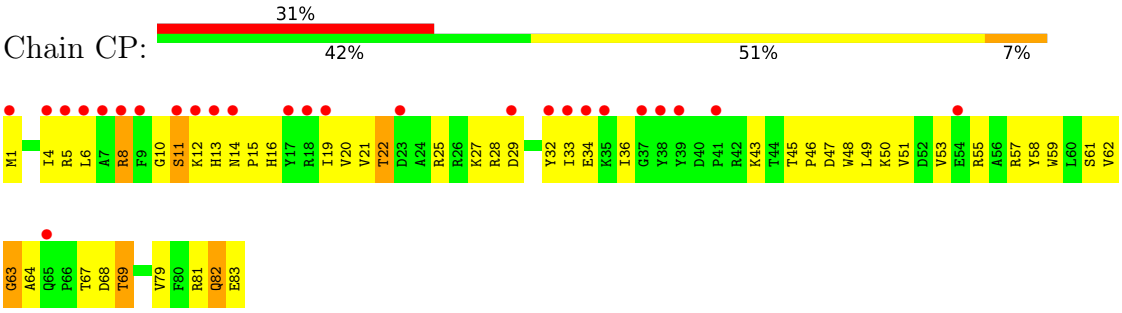
• Molecule 19: 30S ribosomal protein S16

Chain AP:



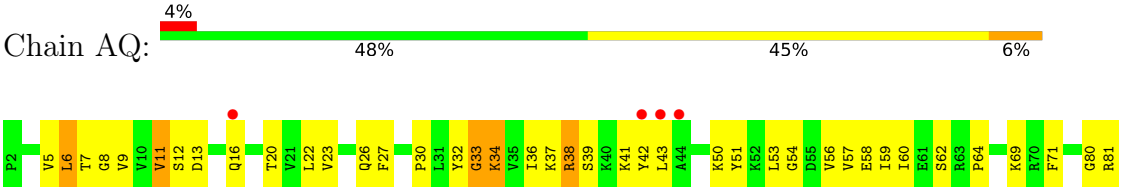
• Molecule 19: 30S ribosomal protein S16

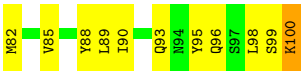
Chain CP:



• Molecule 20: 30S ribosomal protein S17

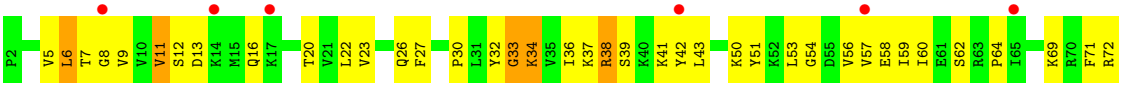
Chain AQ:

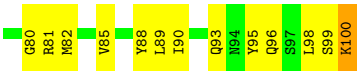




• Molecule 20: 30S ribosomal protein S17

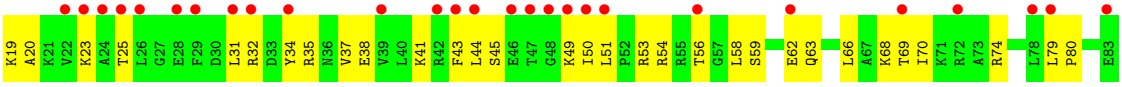
Chain CQ:





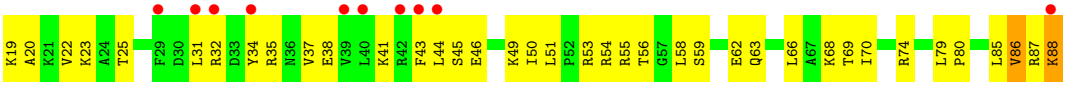
• Molecule 21: 30S ribosomal protein S18

Chain AR:



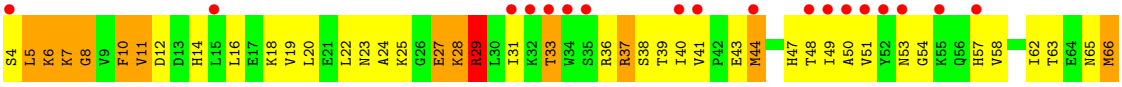
• Molecule 21: 30S ribosomal protein S18

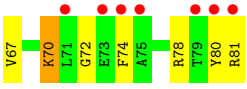
Chain CR:



• Molecule 22: 30S ribosomal protein S19

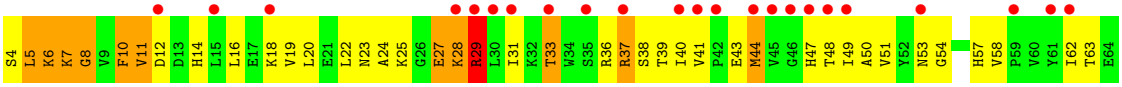
Chain AS:

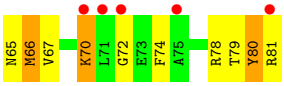




• Molecule 22: 30S ribosomal protein S19

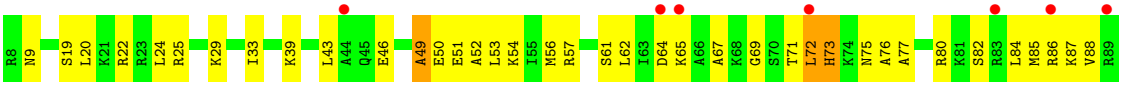
Chain CS:

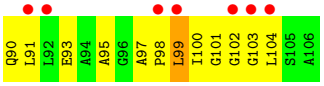




• Molecule 23: 30S ribosomal protein S20

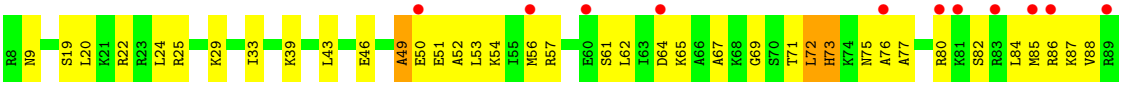
Chain AT:

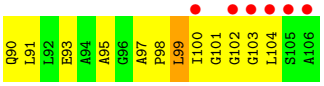




• Molecule 23: 30S ribosomal protein S20

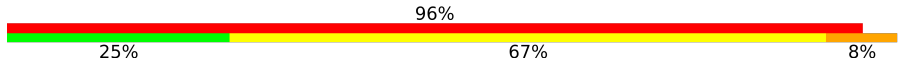
Chain CT:





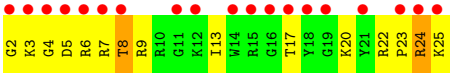
• Molecule 24: 30S ribosomal protein Thx

Chain AU:



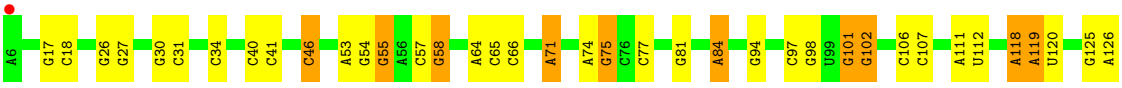
• Molecule 24: 30S ribosomal protein Thx

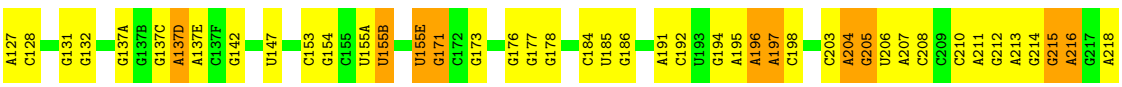
Chain CU:

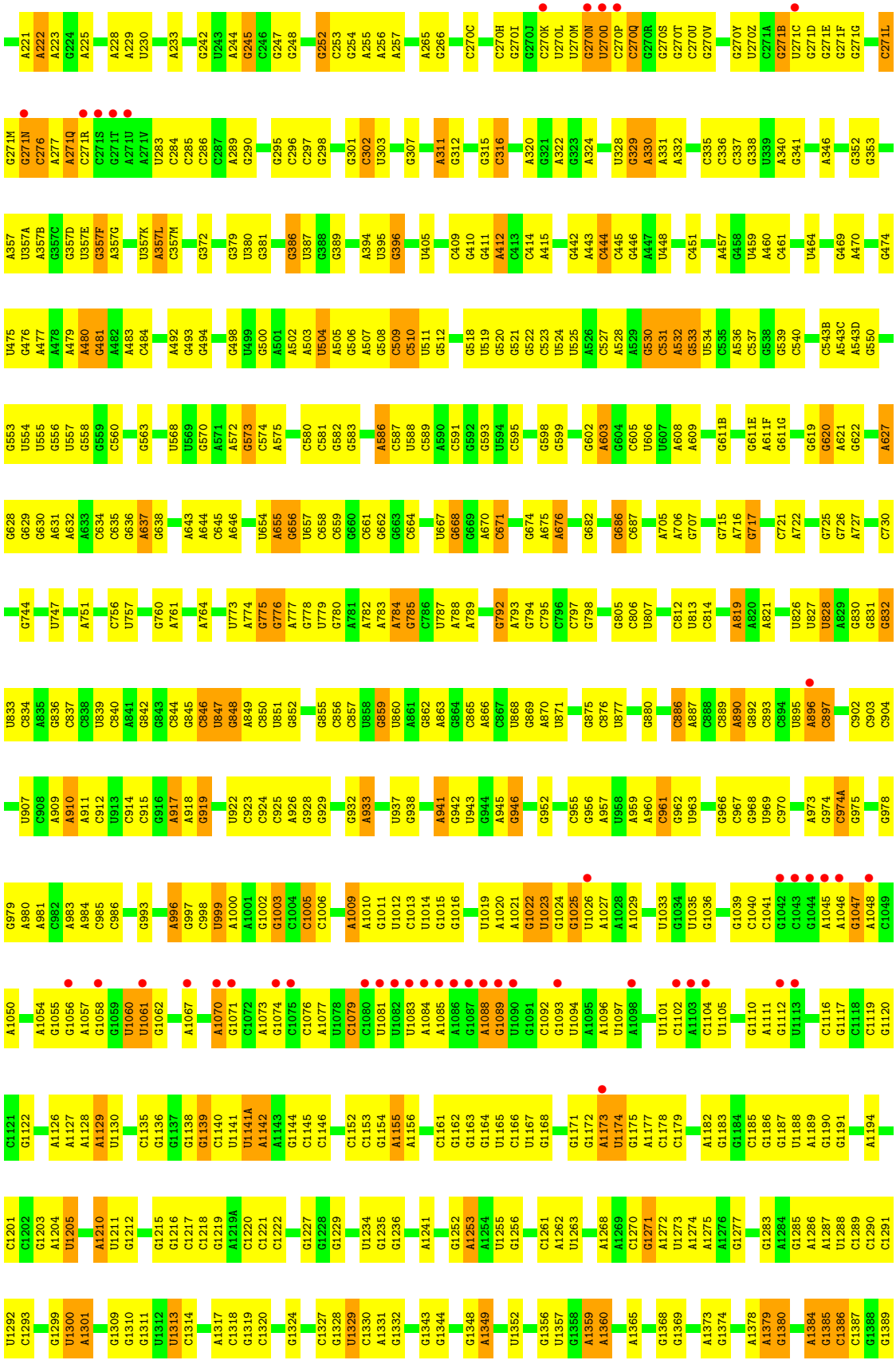


• Molecule 25: 23S ribosomal RNA

Chain BA:



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G271M G271N C276 A277 A271Q C271R C271S G271T A271U A271V U283 C284 C285 C286 C287 A289 G290 G295 C296 C297 G298 G301 C302 U303 G307 A311 G312 G315 C316 A320 G321 A322 G323 A324 U328 G329 A330 A331 A332 C335 C336 C337 G338 U339 A340 G341 A346 G352 G353
A357 U357A A357B G357C G357D U357E G357F A357G U357K A357L C357M G372 G379 U380 G381 G386 U387 G388 G389 A394 U395 G396 U405 C409 G410 G411 A412 C413 C414 A415 G442 A443 C444 C445 G446 A447 U448 C451 A457 G458 U459 A460 C461 U464 G469 A470 G474
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G553 U554 U555 G556 U557 G558 G559 C560 G563 U568 U569 G570 A571 A572 G573 C574 A575 C580 C581 G582 G583 A586 C587 U588 C589 A590 C591 G592 G593 U594 C595 G598 G599 G602 A603 G604 C605 U606 U607 A608 A609 G611B G611E A611F G611G G619 G620 A621 G622 A627
G628 G629 C630 A631 A632 A633 C634 C635 C636 A637 G638 A643 A644 C645 A646 U654 A655 G656 U657 C658 C659 G660 C661 G662 G663 C664 U667 G668 G669 A670 C671 G674 A675 A676 G682 G686 C687 A705 A706 G707 G715 A716 G717 C721 A722 G725 G726 A727 C730
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A1050 A1054 G1055 G1056 A1057 G1058 G1059 U1060 U1061 G1062 A1067 A1070 G1071 C1072 A1073 G1074 C1075 C1076 A1077 U1078 C1079 C1080 U1081 U1082 U1083 A1084 A1085 A1086 G1087 A1088 G1089 U1090 G1091 C1092 G1093 U1094 A1095 A1096 U1097 A1098 U1101 C1102 A1103 C1104 U1105 G1110 A1111 G1112 U1113 C1116 G1117 C1118 C1119 G1120
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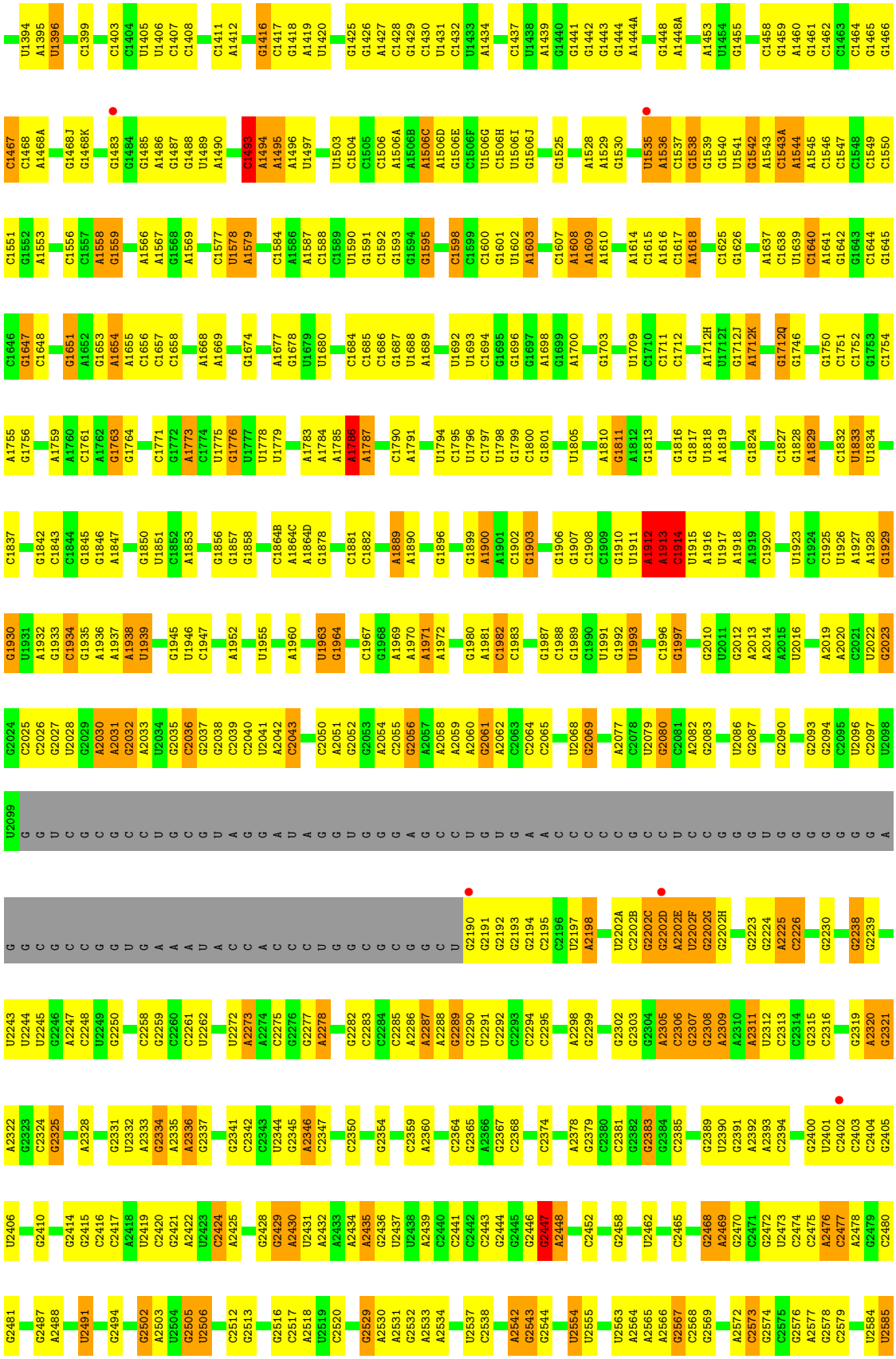
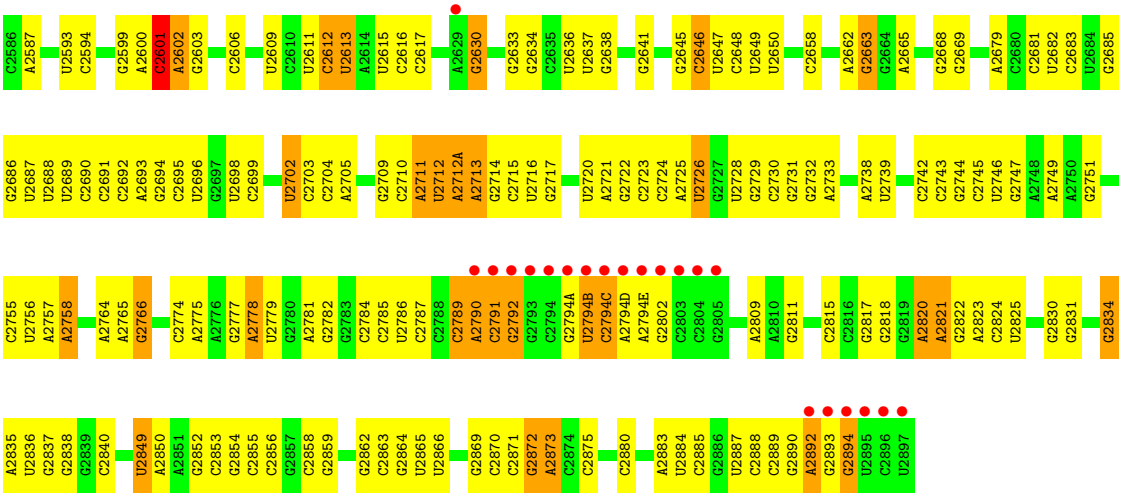
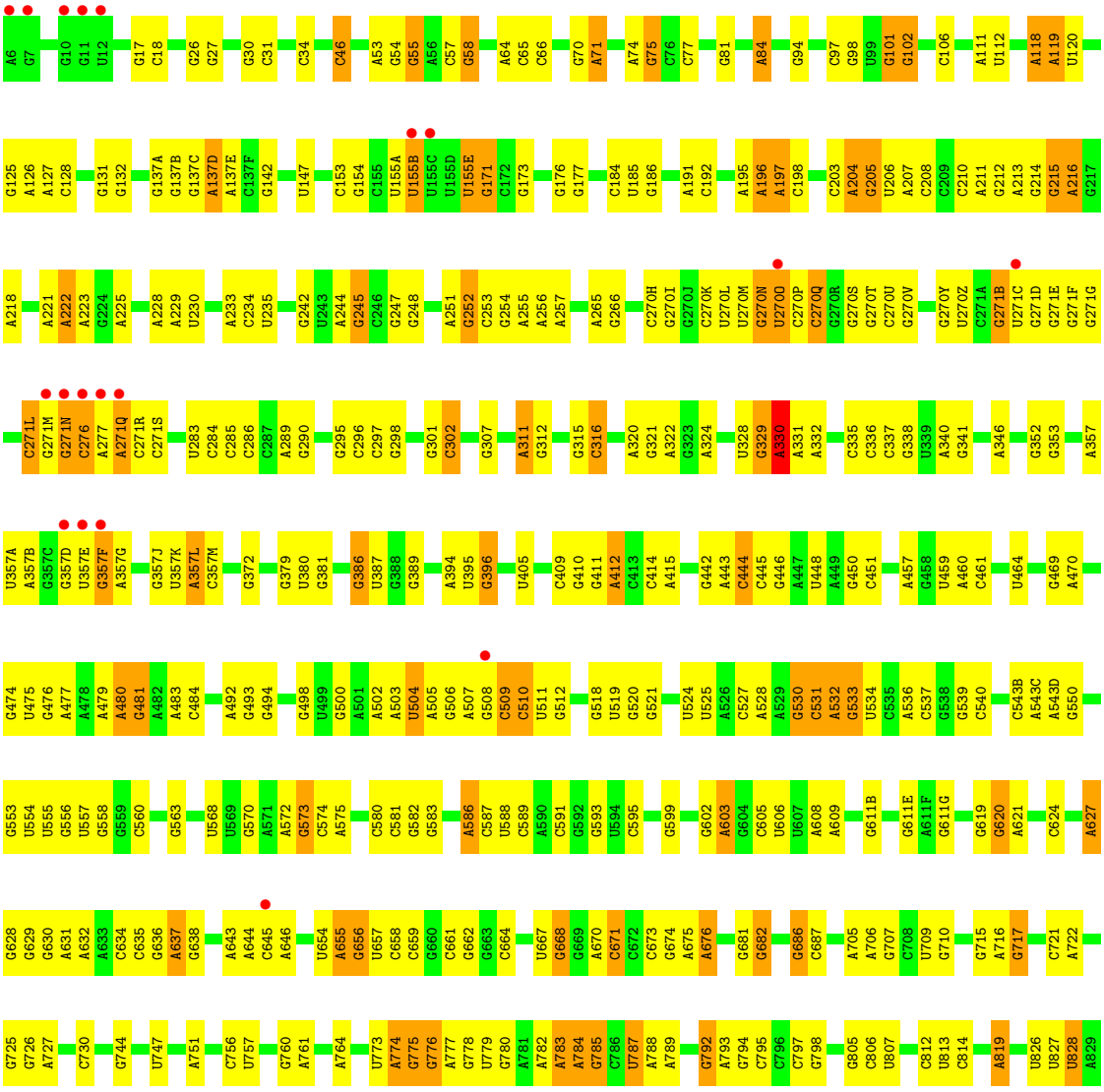
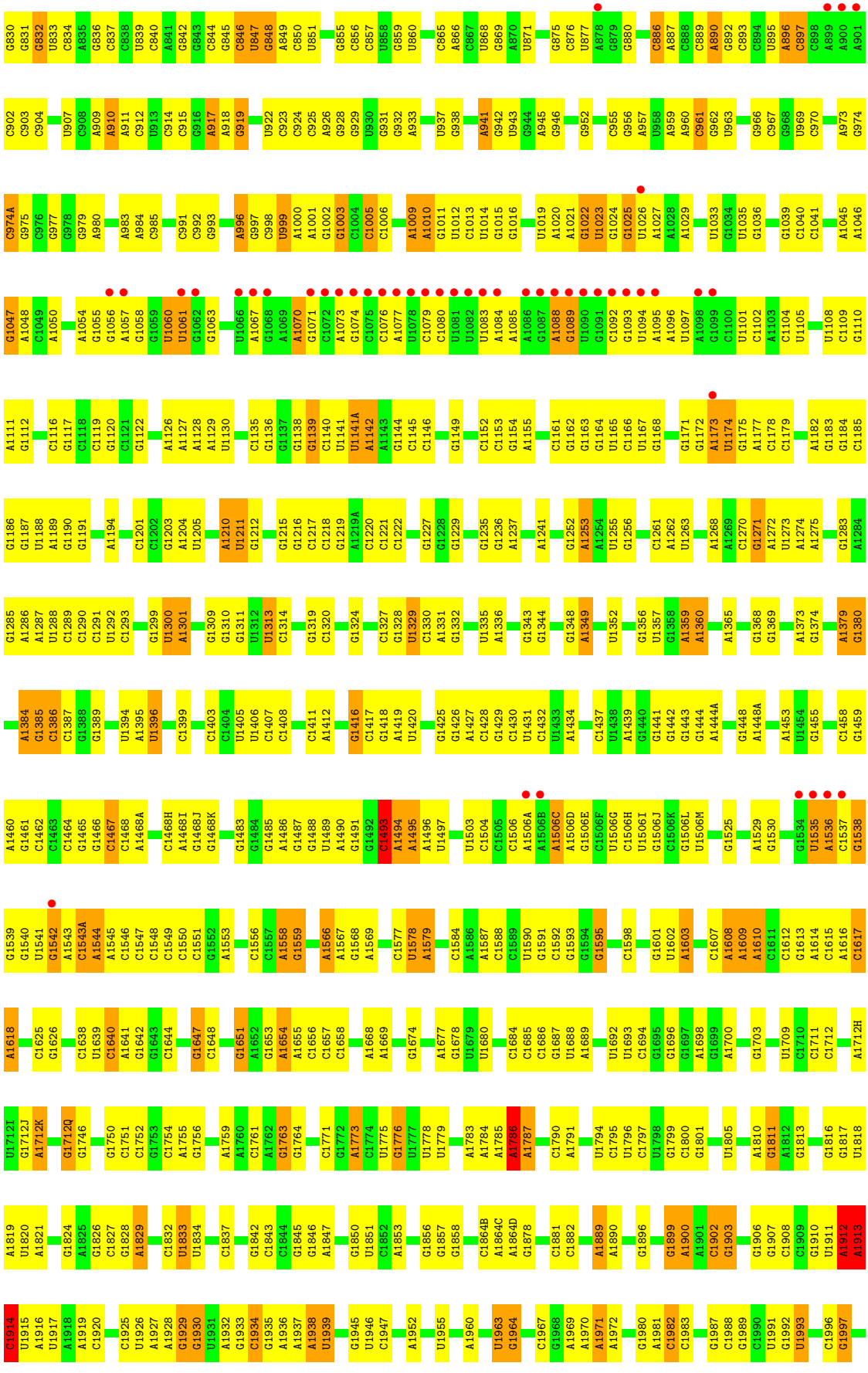


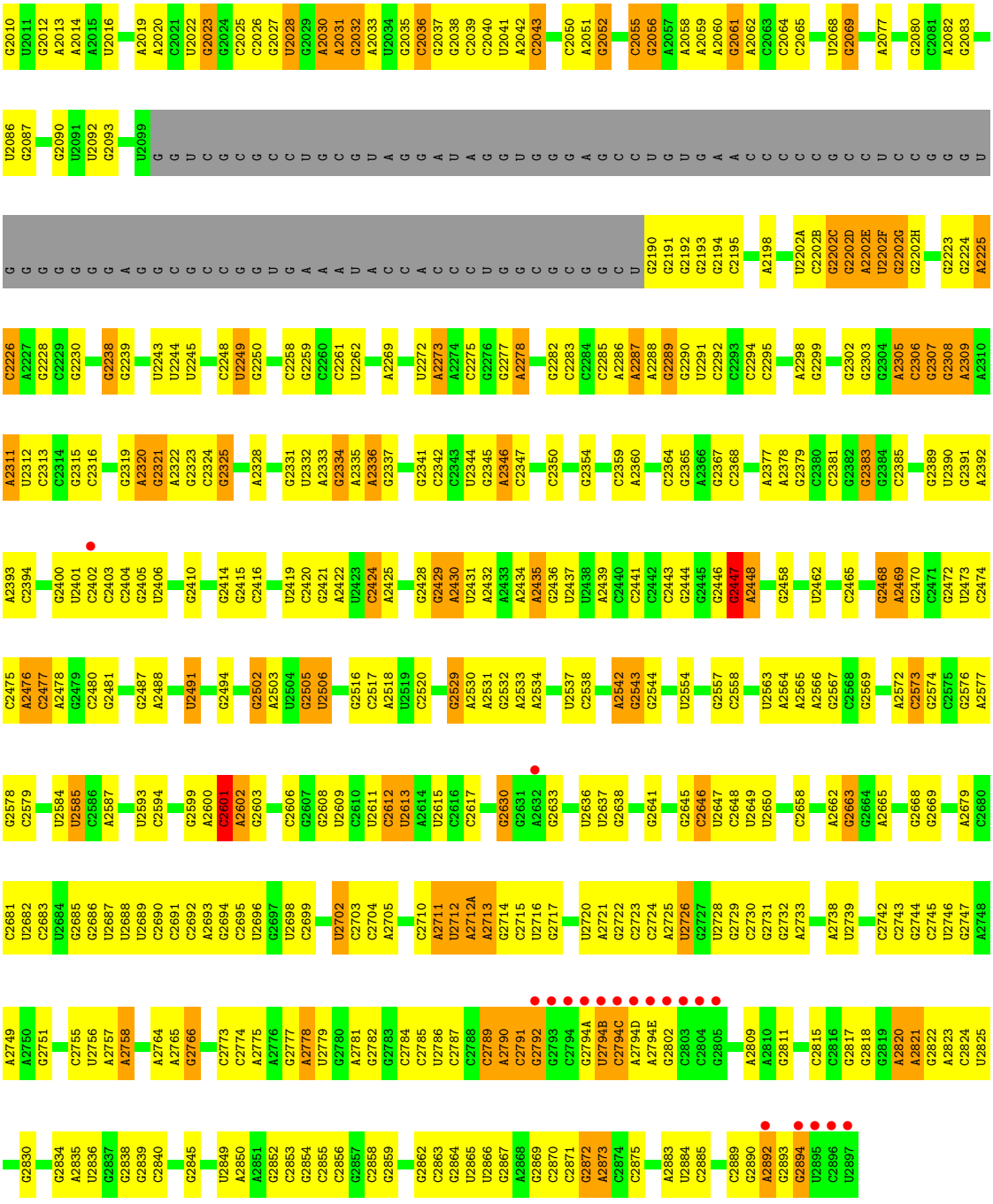


• Molecule 25: 23S ribosomal RNA

Chain DA:

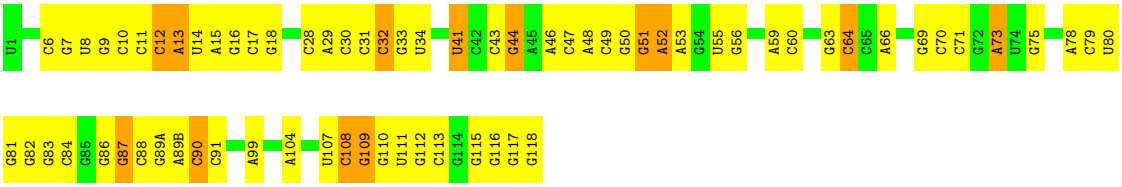






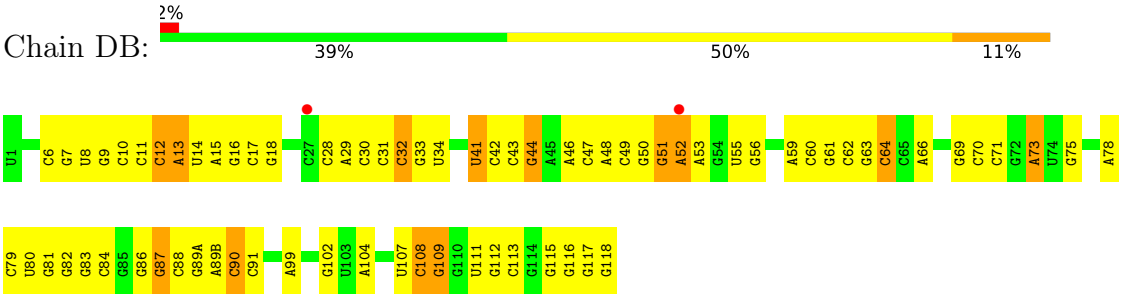
• Molecule 26: 5S ribosomal RNA

Chain BB:



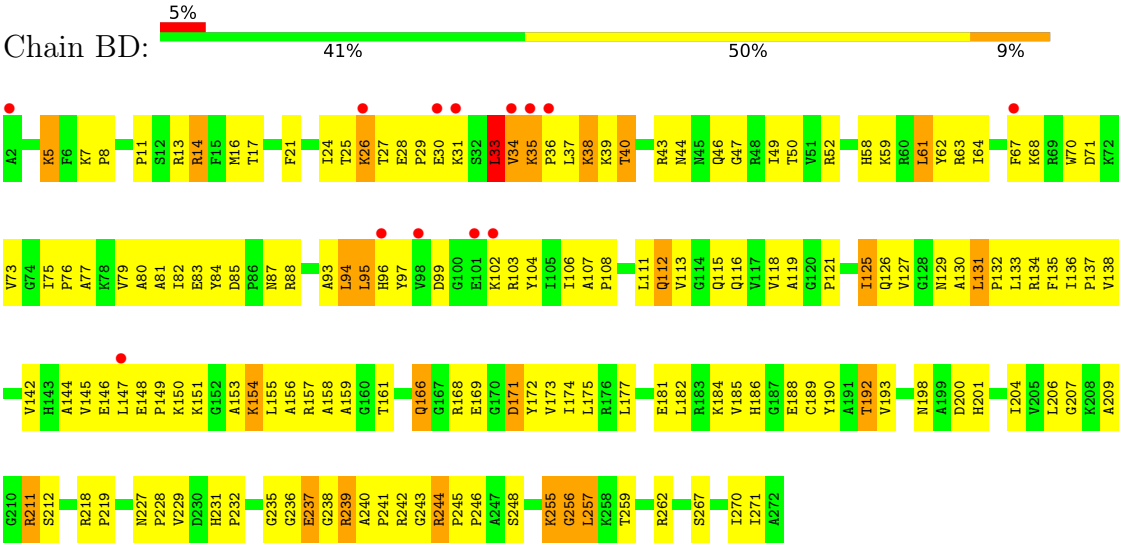
• Molecule 26: 5S ribosomal RNA

Chain DB:



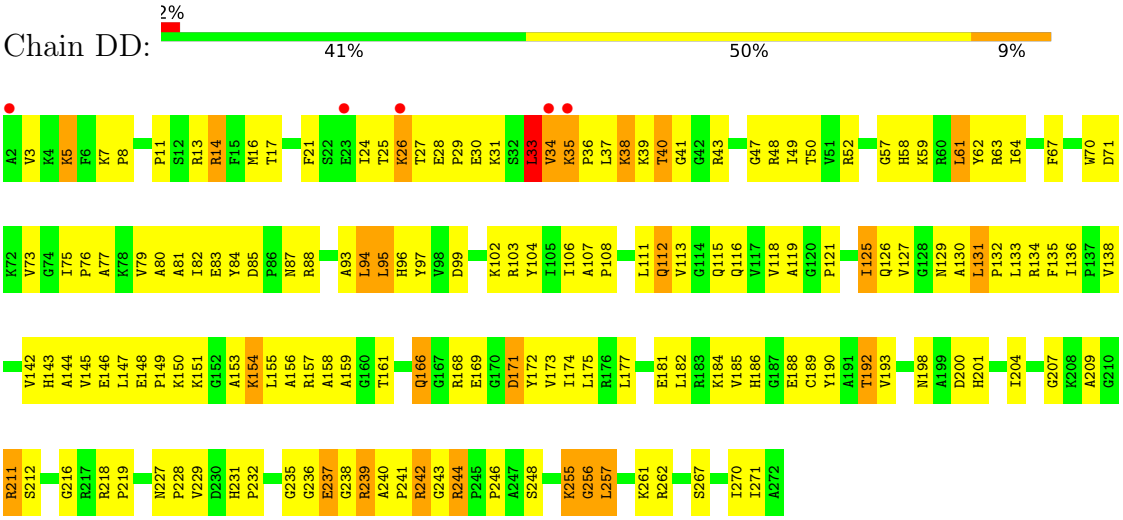
• Molecule 27: 50S ribosomal protein L2

Chain BD:



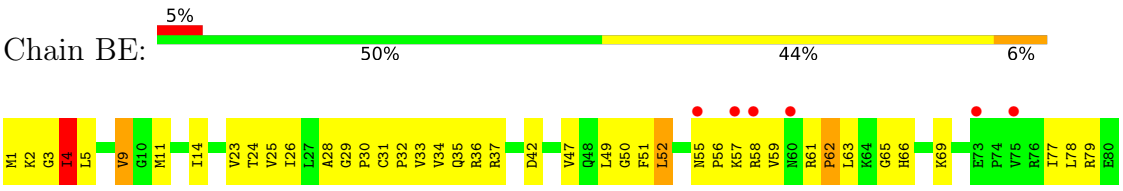
• Molecule 27: 50S ribosomal protein L2

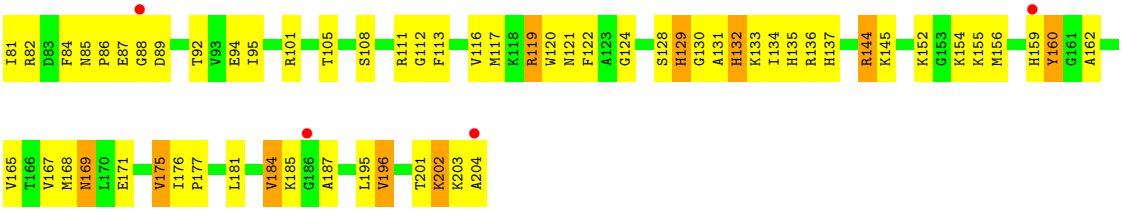
Chain DD:



• Molecule 28: 50S ribosomal protein L3

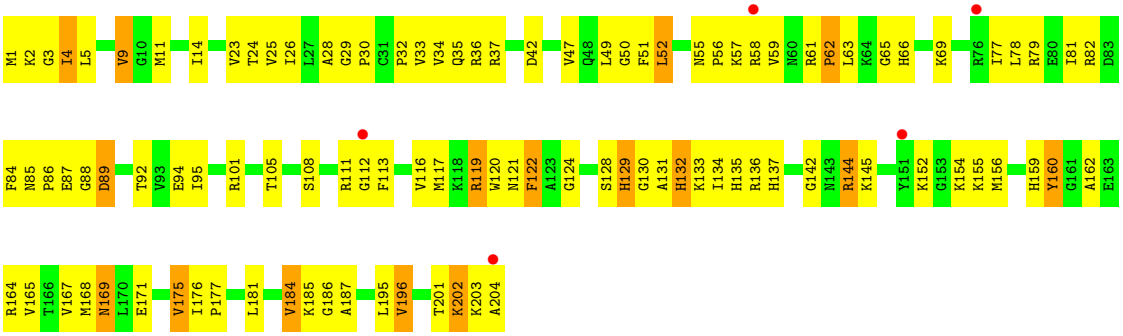
Chain BE:





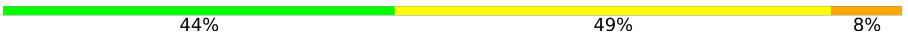
• Molecule 28: 50S ribosomal protein L3

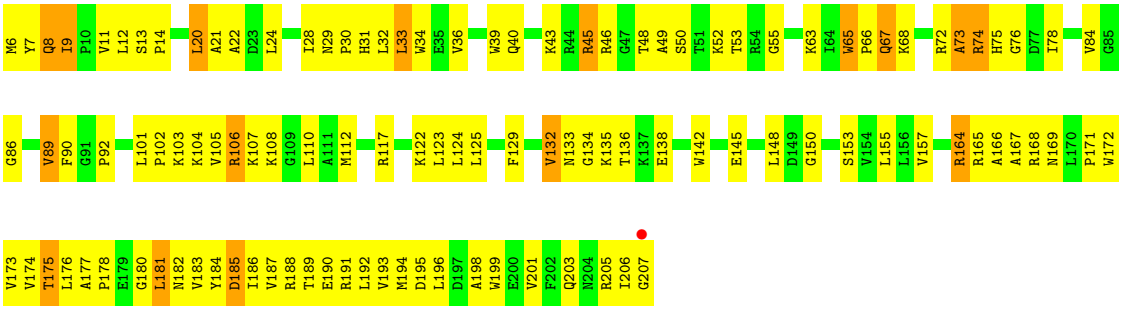
Chain DE:



• Molecule 29: 50S ribosomal protein L4

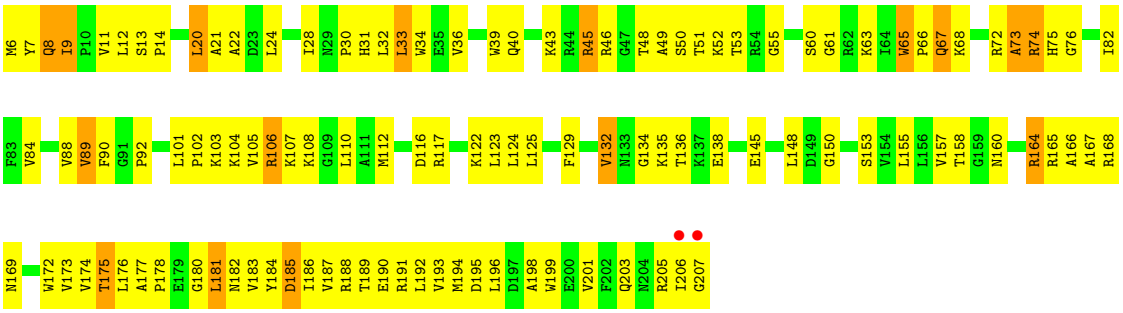
Chain BF:





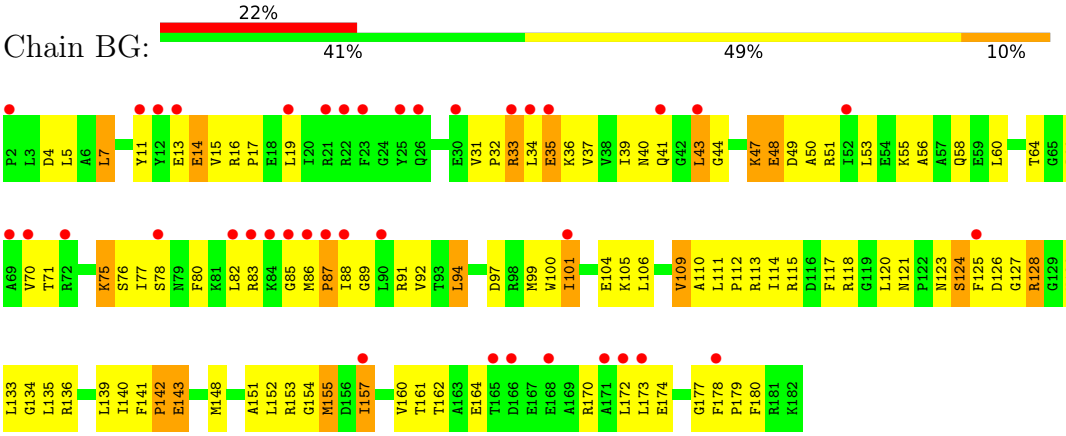
• Molecule 29: 50S ribosomal protein L4

Chain DF:



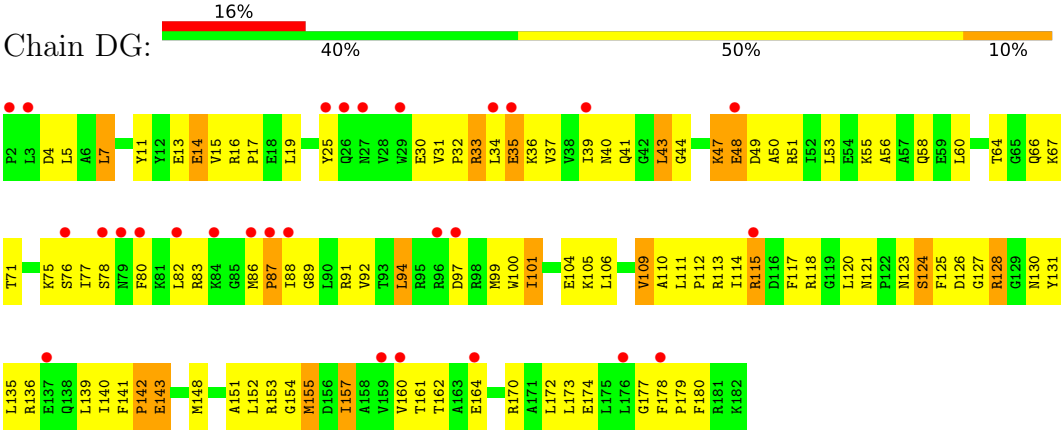
• Molecule 30: 50S ribosomal protein L5

Chain BG:



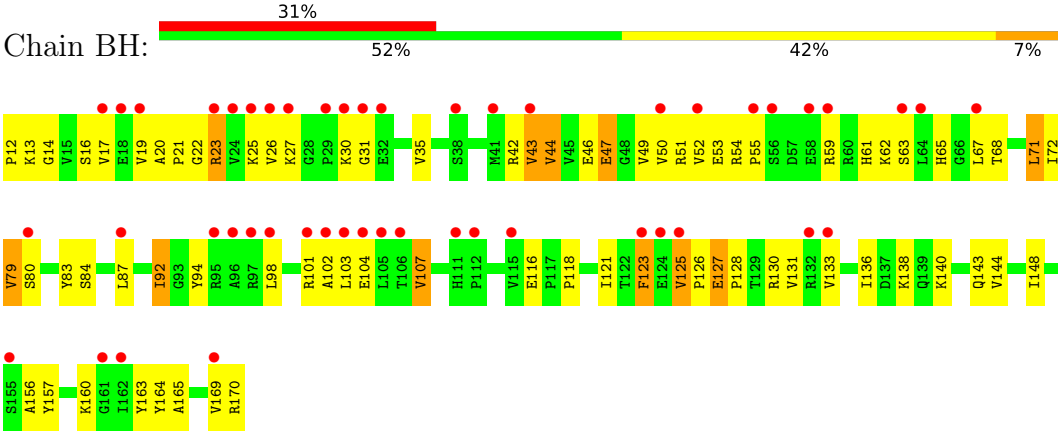
• Molecule 30: 50S ribosomal protein L5

Chain DG:



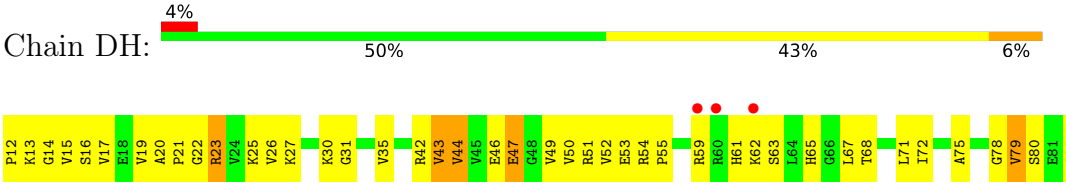
• Molecule 31: 50S ribosomal protein L6

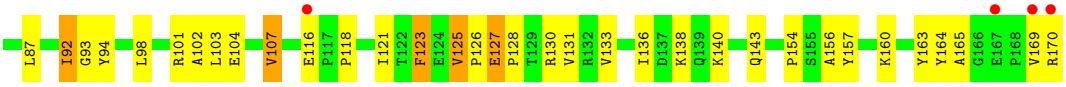
Chain BH:



• Molecule 31: 50S ribosomal protein L6

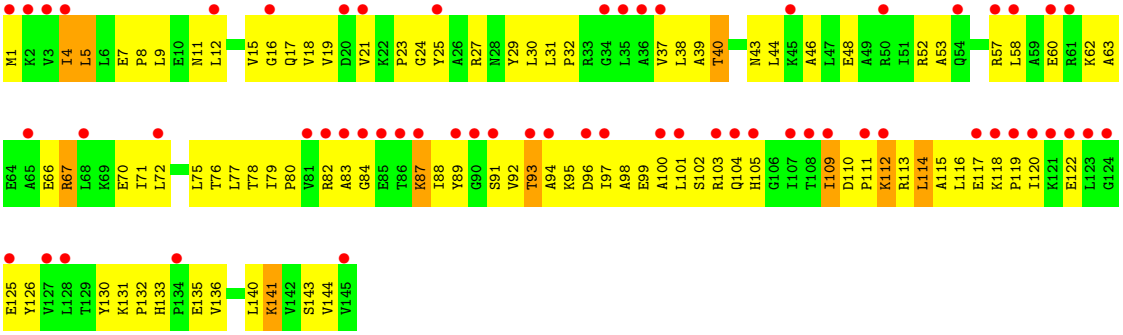
Chain DH:





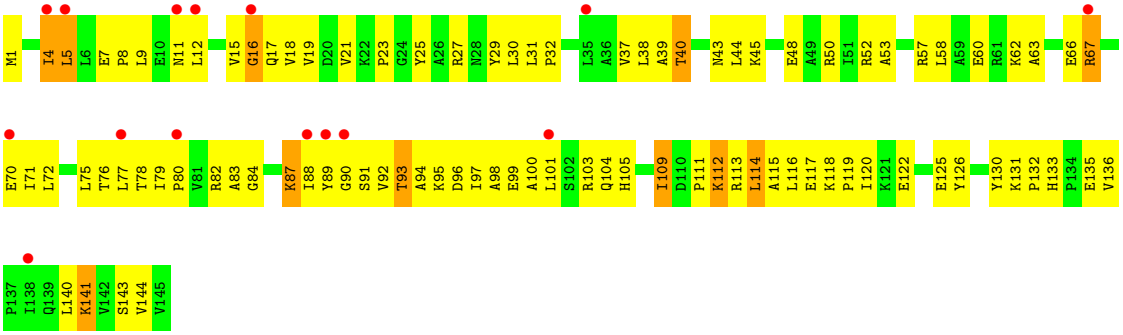
• Molecule 32: 50S ribosomal protein L9

Chain BI:



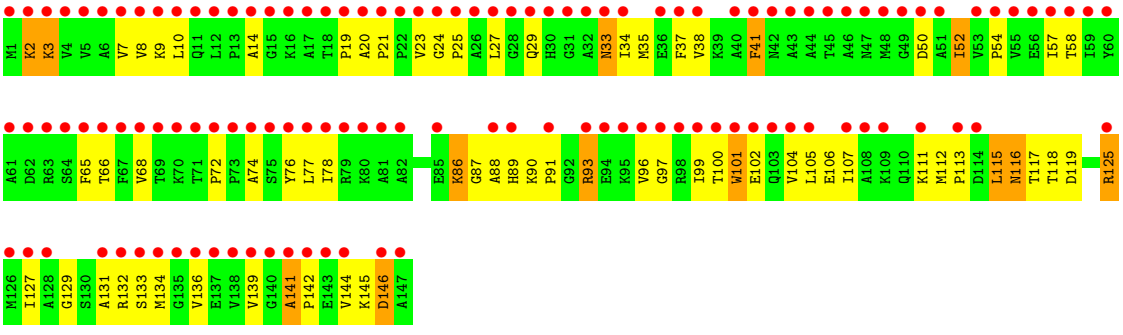
• Molecule 32: 50S ribosomal protein L9

Chain DI:



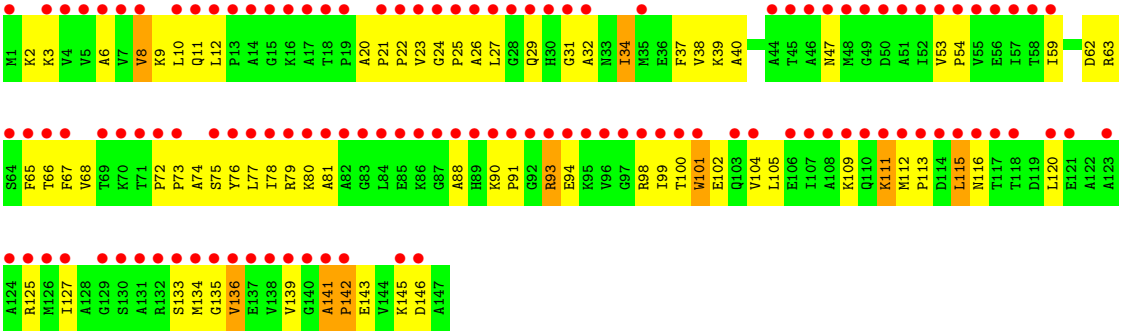
• Molecule 33: 50S ribosomal protein L11

Chain BK:



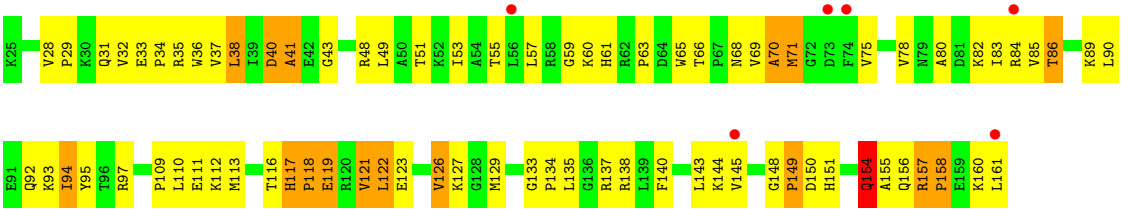
• Molecule 33: 50S ribosomal protein L11

Chain DK:



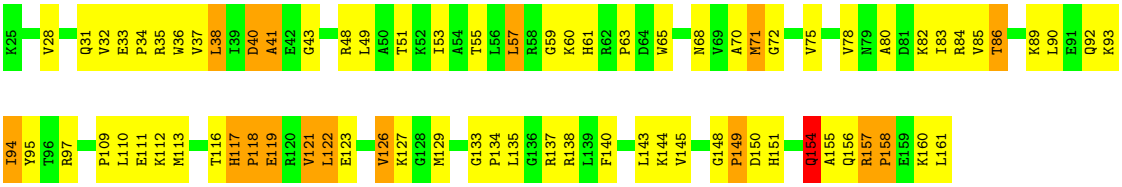
• Molecule 34: 50S ribosomal protein L13

Chain BN:



• Molecule 34: 50S ribosomal protein L13

Chain DN:

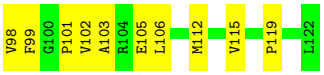


• Molecule 35: 50S ribosomal protein L14

Chain BO:

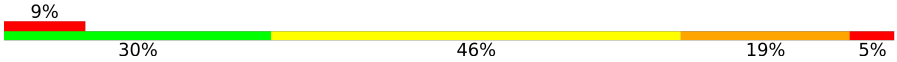
• Molecule 35: 50S ribosomal protein L14

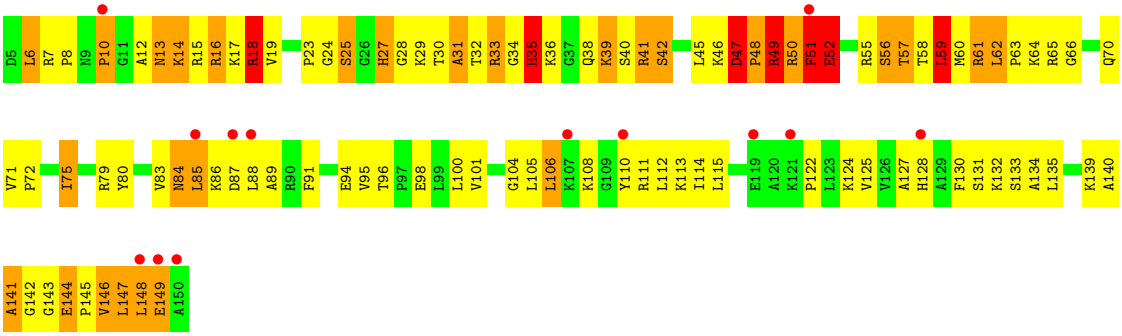
Chain DO:



• Molecule 36: 50S ribosomal protein L15

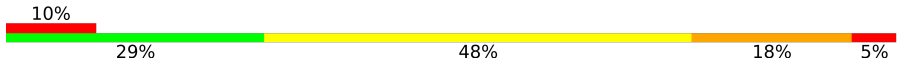
Chain BP:

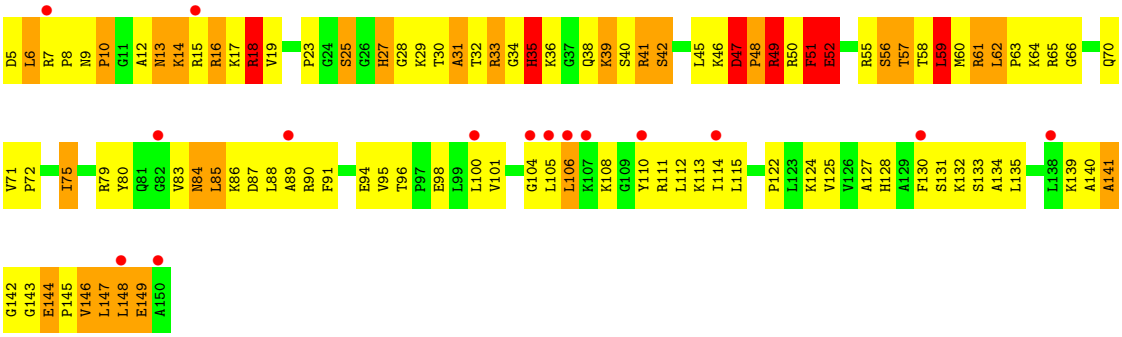




• Molecule 36: 50S ribosomal protein L15

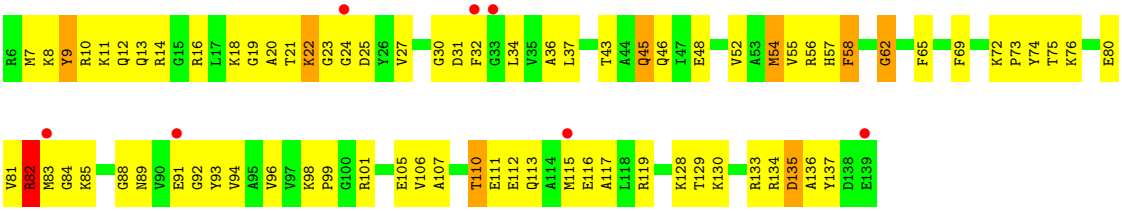
Chain DP:





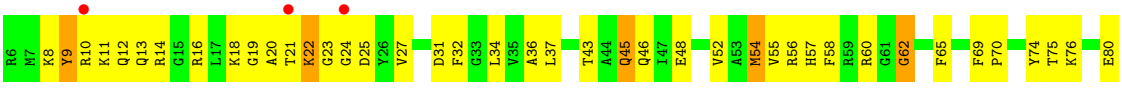
• Molecule 37: 50S ribosomal protein L16

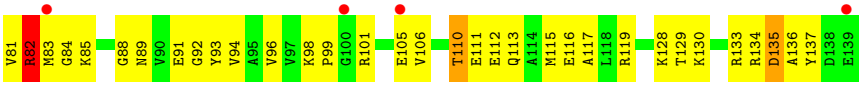
Chain BQ:



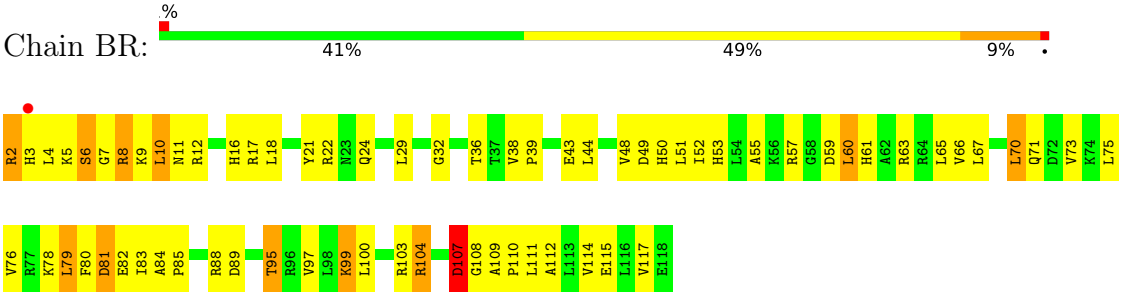
• Molecule 37: 50S ribosomal protein L16

Chain DQ:

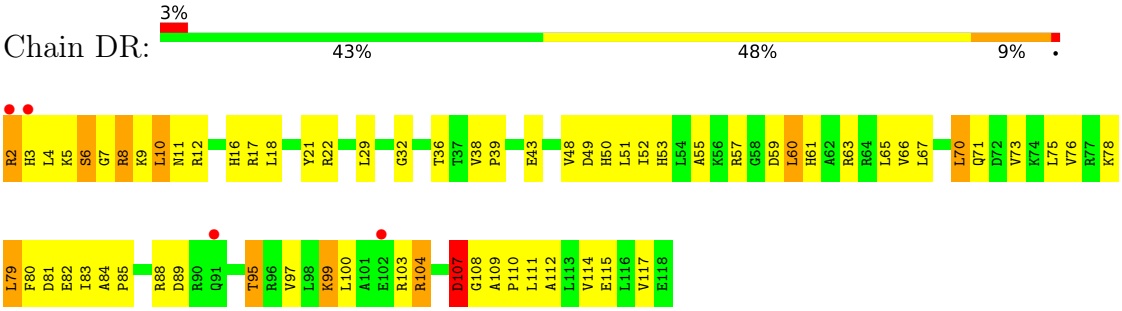




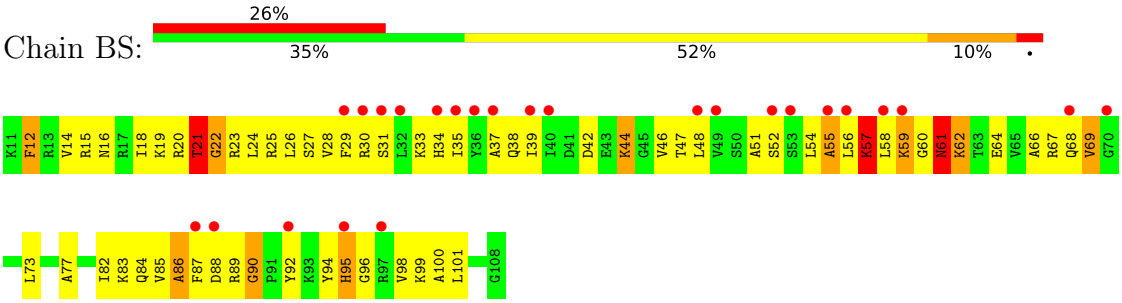
• Molecule 38: 50S ribosomal protein L17



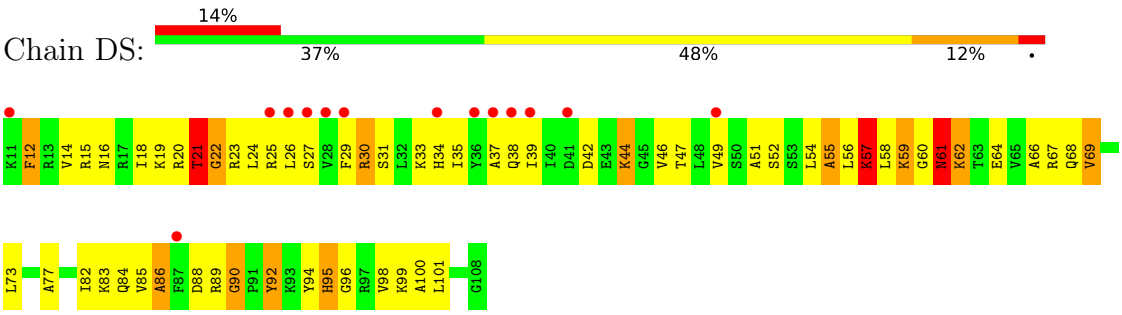
• Molecule 38: 50S ribosomal protein L17



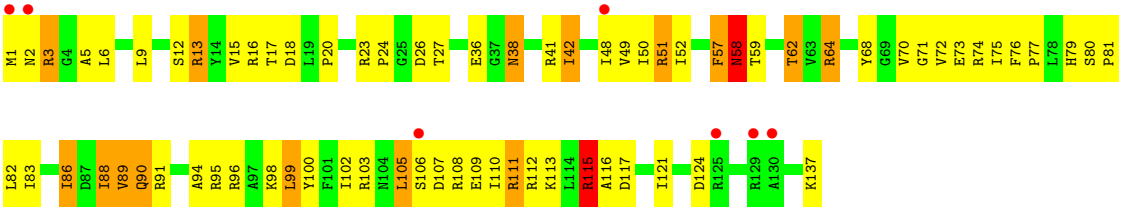
• Molecule 39: 50S ribosomal protein L18



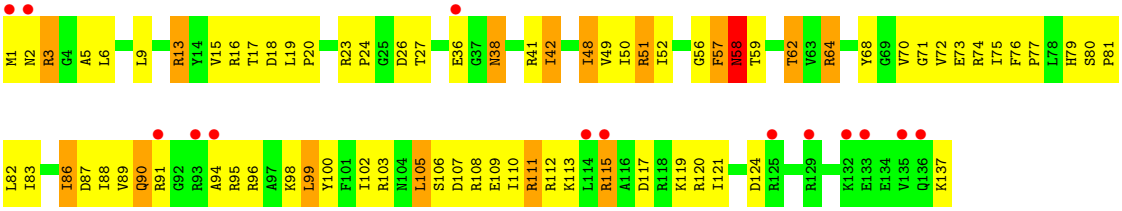
• Molecule 39: 50S ribosomal protein L18



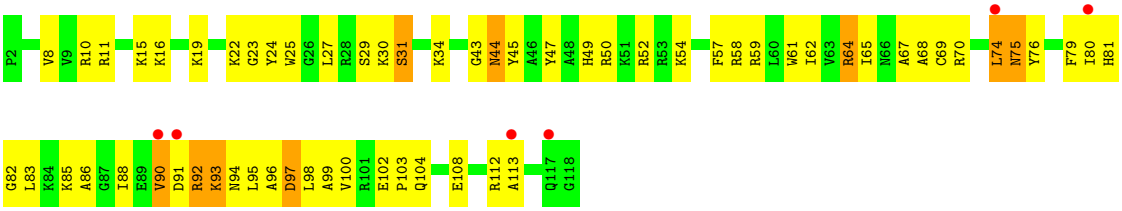
• Molecule 40: 50S ribosomal protein L19



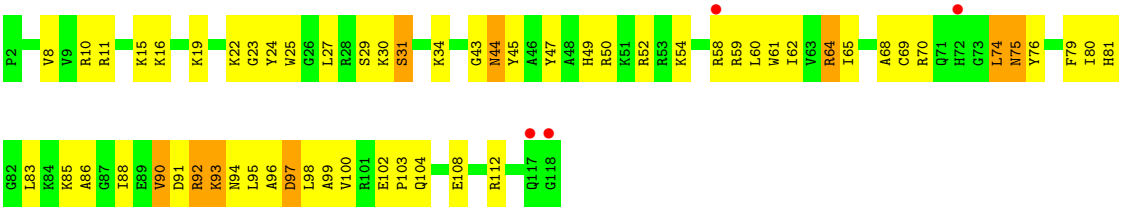
• Molecule 40: 50S ribosomal protein L19



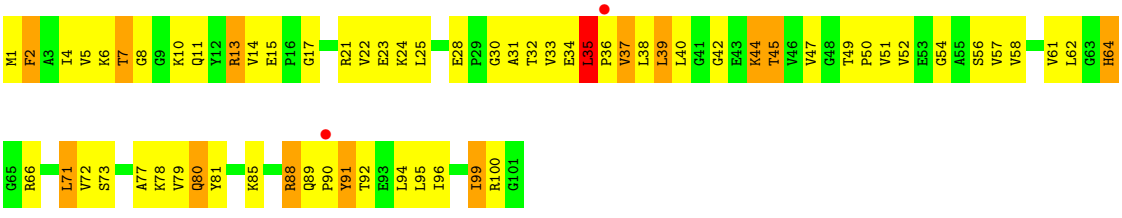
• Molecule 41: 50S ribosomal protein L20



• Molecule 41: 50S ribosomal protein L20

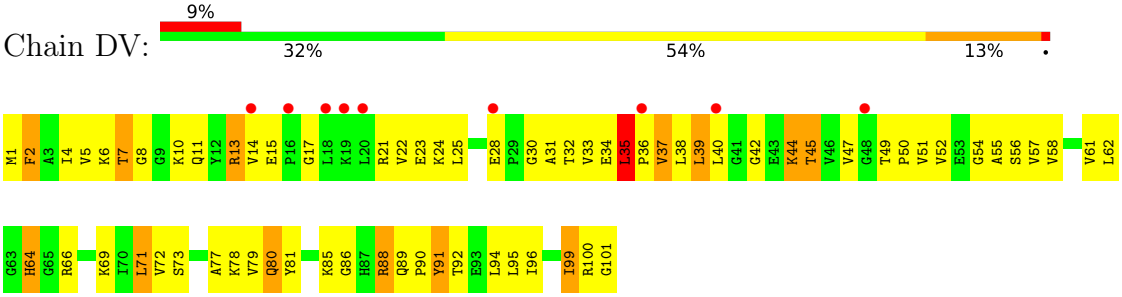


• Molecule 42: 50S ribosomal protein L21



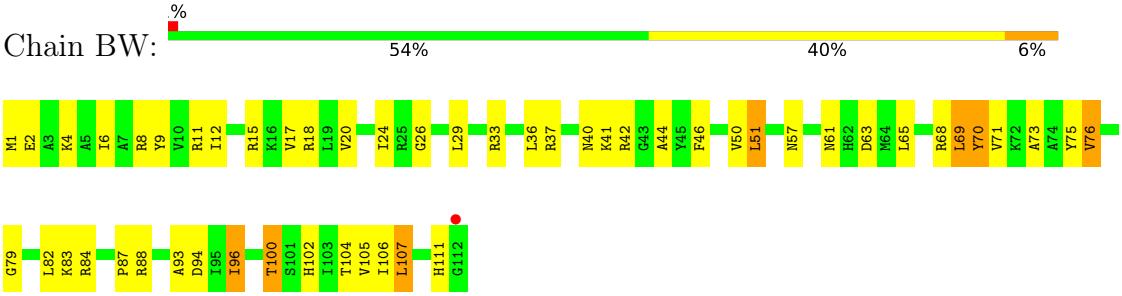
• Molecule 42: 50S ribosomal protein L21

Chain DV:



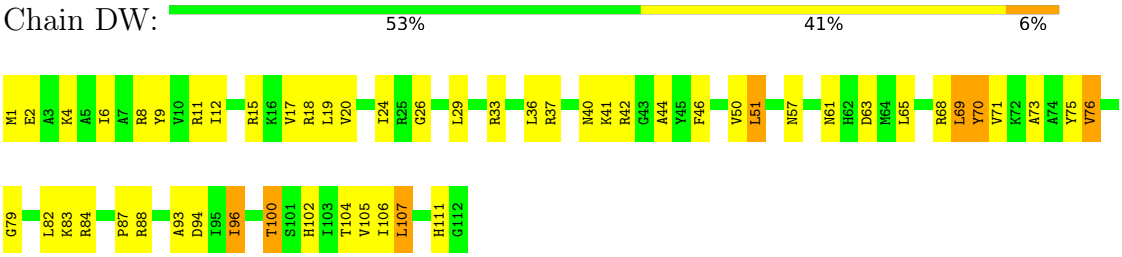
• Molecule 43: 50S ribosomal protein L22

Chain BW:



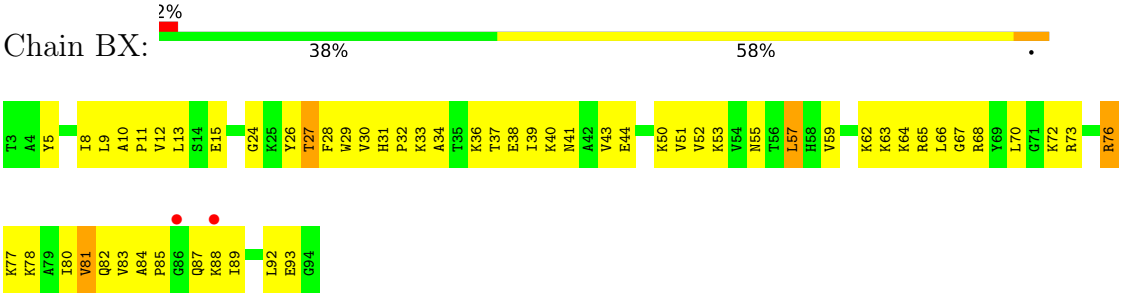
• Molecule 43: 50S ribosomal protein L22

Chain DW:



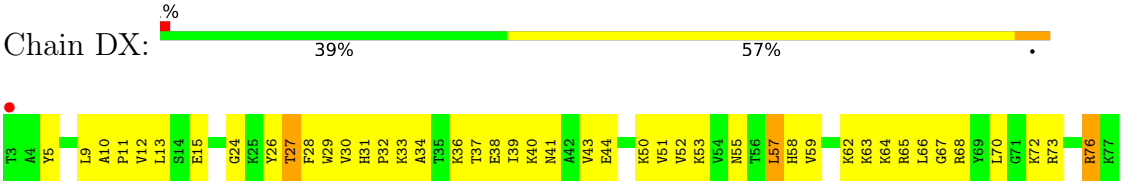
• Molecule 44: 50S ribosomal protein L23

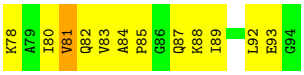
Chain BX:



• Molecule 44: 50S ribosomal protein L23

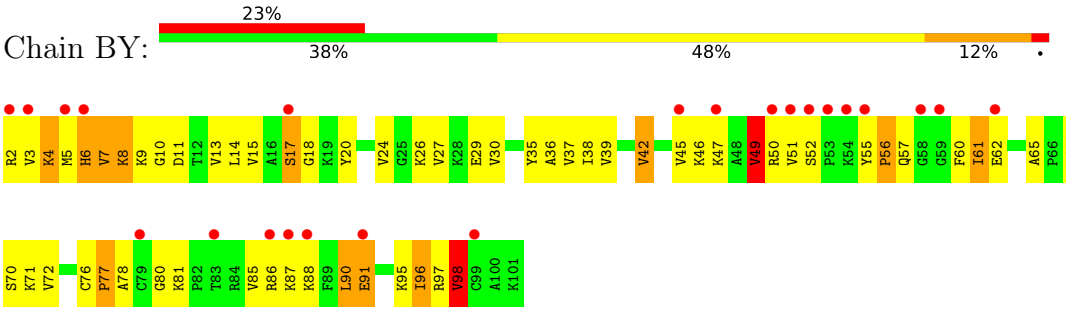
Chain DX:





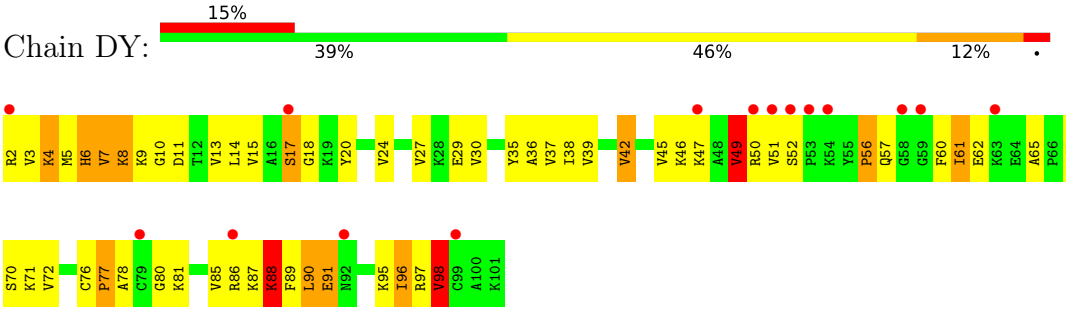
• Molecule 45: 50S ribosomal protein L24

Chain BY:



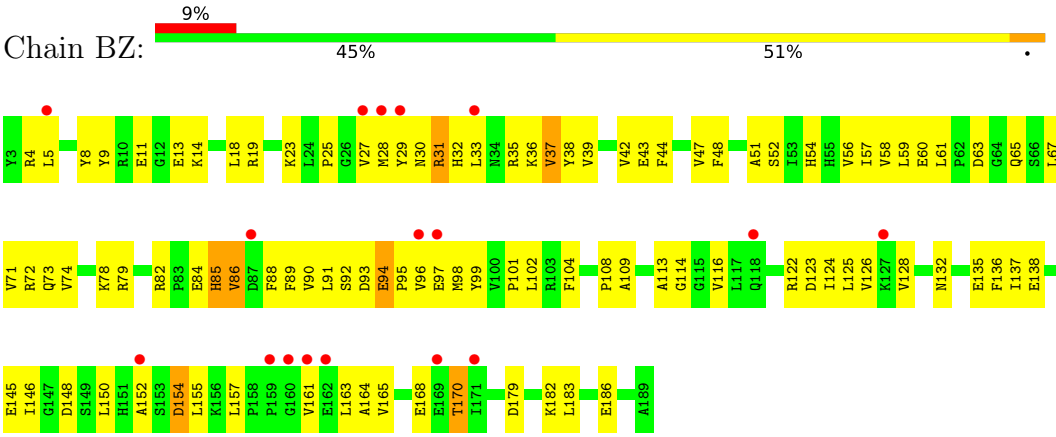
• Molecule 45: 50S ribosomal protein L24

Chain DY:



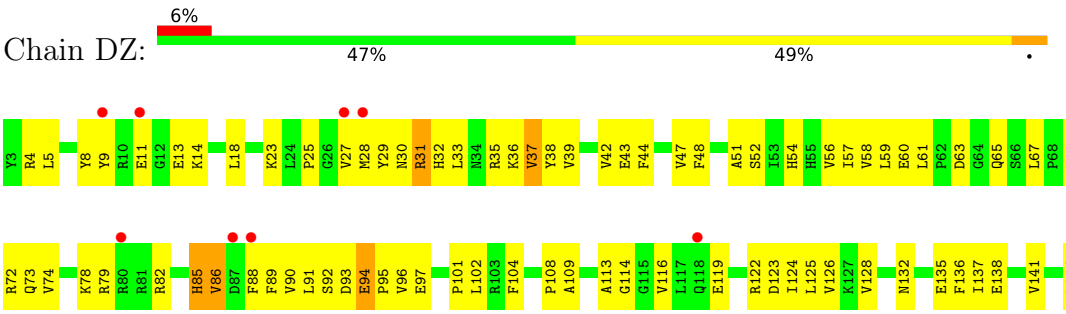
• Molecule 46: 50S ribosomal protein L25

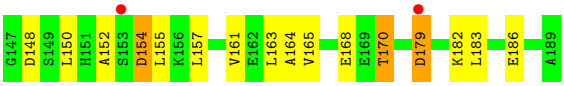
Chain BZ:



• Molecule 46: 50S ribosomal protein L25

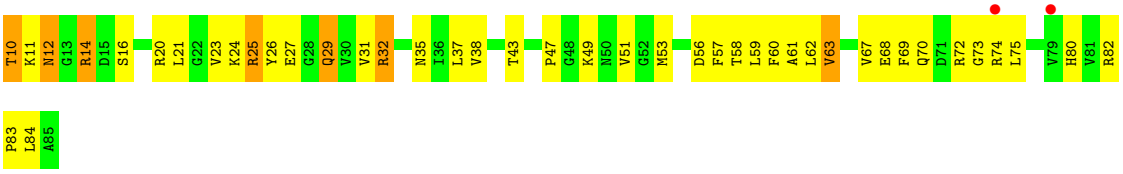
Chain DZ:





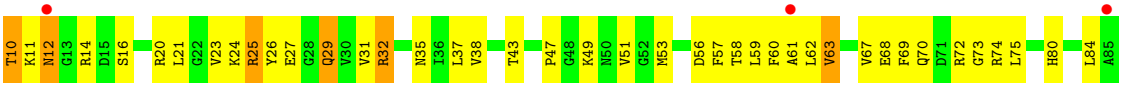
• Molecule 47: 50S ribosomal protein L27

Chain B0:



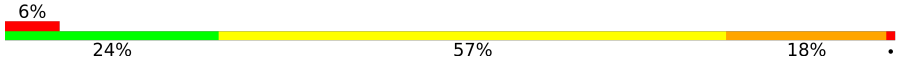
• Molecule 47: 50S ribosomal protein L27

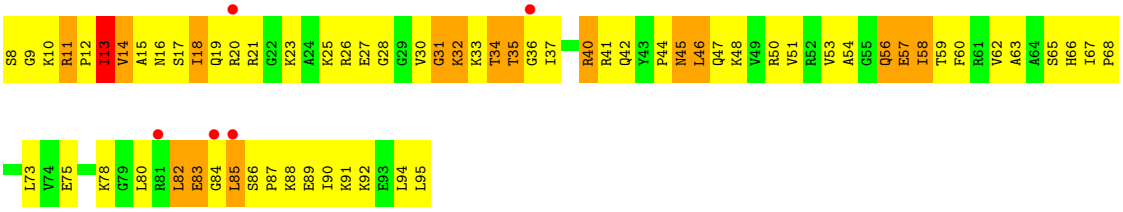
Chain D0:



• Molecule 48: 50S ribosomal protein L28

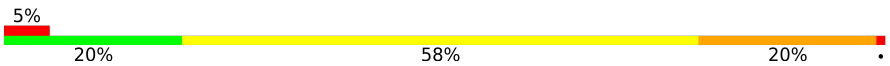
Chain B1:

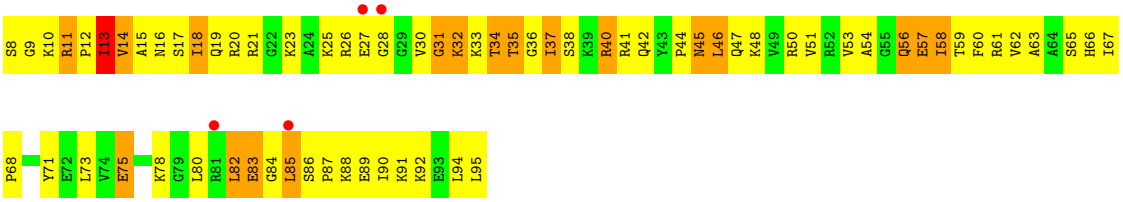




• Molecule 48: 50S ribosomal protein L28

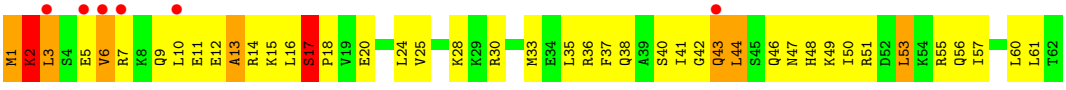
Chain D1:





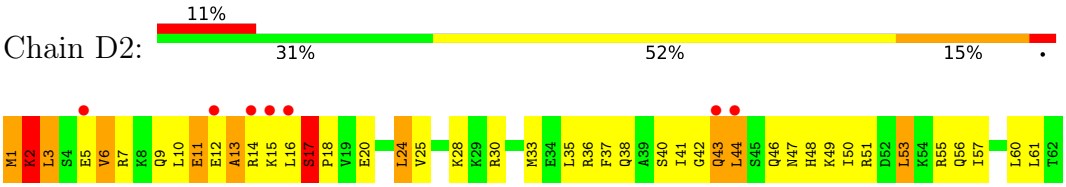
• Molecule 49: 50S ribosomal protein L29

Chain B2:



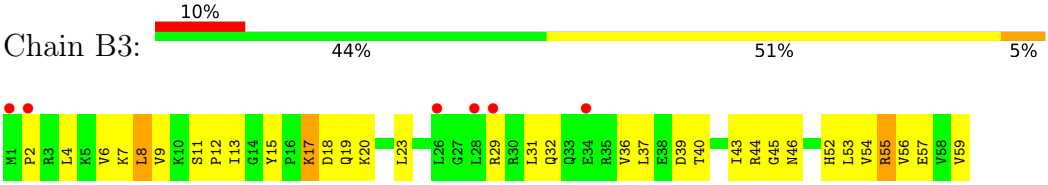
• Molecule 49: 50S ribosomal protein L29

Chain D2:



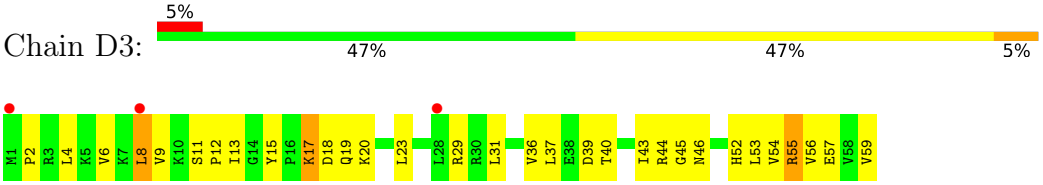
• Molecule 50: 50S ribosomal protein L30

Chain B3:



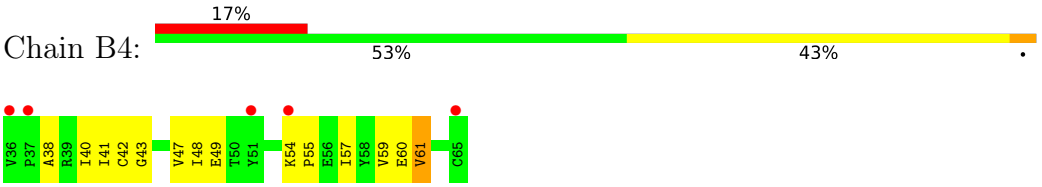
• Molecule 50: 50S ribosomal protein L30

Chain D3:



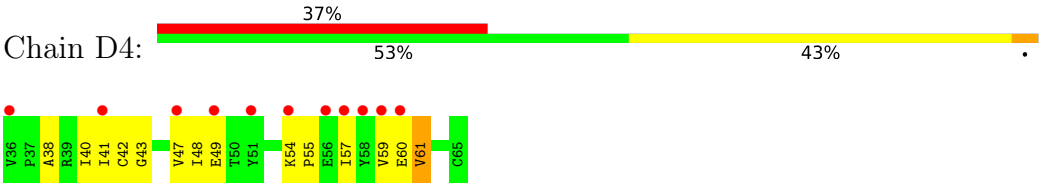
• Molecule 51: 50S ribosomal protein L31

Chain B4:



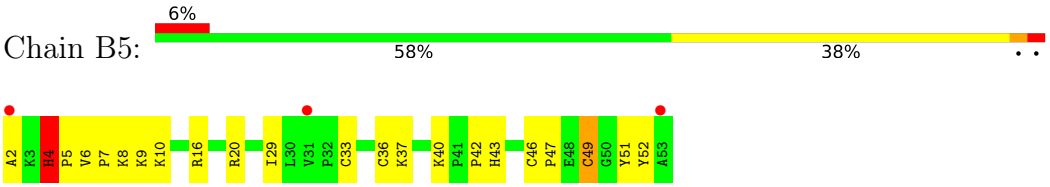
• Molecule 51: 50S ribosomal protein L31

Chain D4:



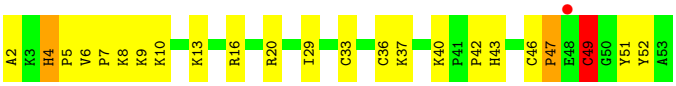
• Molecule 52: 50S ribosomal protein L32

Chain B5:



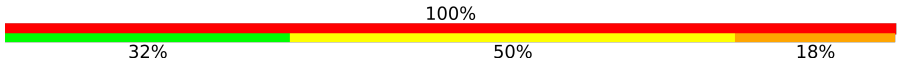
• Molecule 52: 50S ribosomal protein L32

Chain D5:



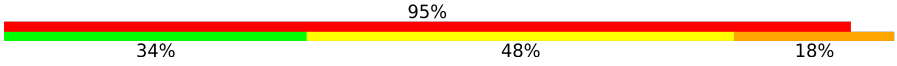
• Molecule 53: 50S ribosomal protein L33

Chain B6:



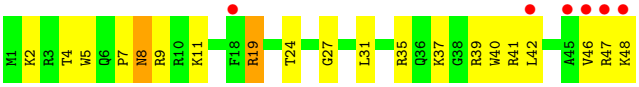
• Molecule 53: 50S ribosomal protein L33

Chain D6:



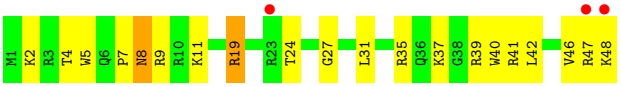
• Molecule 54: 50S ribosomal protein L34

Chain B7:



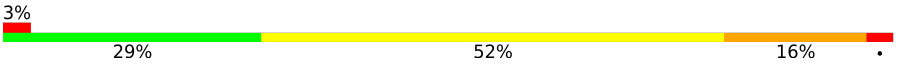
• Molecule 54: 50S ribosomal protein L34

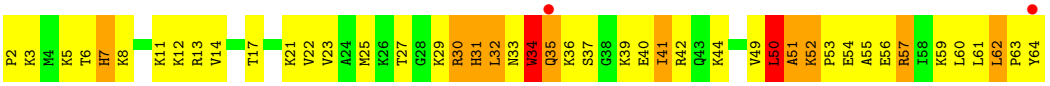
Chain D7:



• Molecule 55: 50S ribosomal protein L35

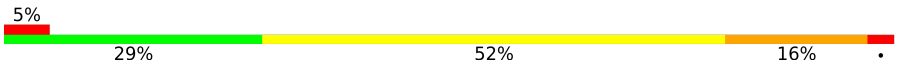
Chain B8:

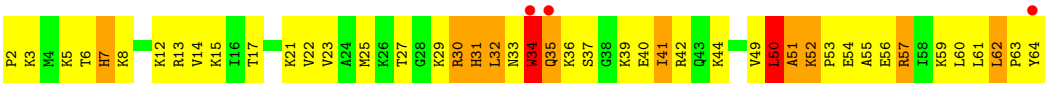




• Molecule 55: 50S ribosomal protein L35

Chain D8:





4 Data and refinement statistics (i)

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, α, β, γ	212.07Å 454.40Å 618.45Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.67 – 3.40 49.78 – 3.35	Depositor EDS
% Data completeness (in resolution range)	99.7 (49.67-3.40) 99.7 (49.78-3.35)	Depositor EDS
R_{merge}	(Not available)	Depositor
R_{sym}	(Not available)	Depositor
$< I/\sigma(I) >$ [1]	1.72 (at 3.33Å)	Xtriage
Refinement program	PHENIX (phenix.refine: 1.6.4_486), CNS	Depositor
R, R_{free}	0.234 , 0.268 0.241 , (Not available)	Depositor DCC
R_{free} test set	No test flags present.	wwPDB-VP
Wilson B-factor (Å^2)	83.6	Xtriage
Anisotropy	0.218	Xtriage
Bulk solvent k_{sol}(e/Å^3), B_{sol}(Å^2)	0.27 , 97.0	EDS
L-test for twinning[2]	$< \|L\| > = 0.44$, $< L^2 > = 0.26$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o,F_c correlation	0.91	EDS
Total number of atoms	294074	wwPDB-VP
Average B, all atoms (Å^2)	109.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.50% of the height of the origin peak. No significant pseudotranslation is detected.*

[1] Intensities estimated from amplitudes.

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

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: MG, ZN

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	AA	0.27	2/36194 (0.0%)	0.55	0/56493
1	CA	0.27	2/36194 (0.0%)	0.54	0/56493
2	AV	0.26	0/241	0.53	0/374
2	CV	0.23	0/241	0.54	0/374
3	AW	0.25	0/1832	0.52	0/2855
3	CW	0.26	0/1832	0.53	0/2855
4	AY	0.21	0/2925	0.39	0/3953
4	CY	0.21	0/2925	0.39	0/3953
5	AB	0.22	0/1936	0.40	0/2609
5	CB	0.22	0/1936	0.39	0/2609
6	AC	0.22	0/1637	0.39	0/2205
6	CC	0.22	0/1637	0.39	0/2205
7	AD	0.25	0/1733	0.44	0/2318
7	CD	0.24	0/1733	0.41	0/2318
8	AE	0.24	0/1172	0.44	0/1576
8	CE	0.24	0/1172	0.43	0/1576
9	AF	0.23	0/856	0.42	0/1154
9	CF	0.24	0/856	0.43	0/1154
10	AG	0.22	0/1276	0.37	0/1709
10	CG	0.22	0/1276	0.37	0/1709
11	AH	0.23	0/1136	0.44	0/1527
11	CH	0.22	0/1136	0.43	0/1527
12	AI	0.23	0/1029	0.40	0/1378
12	CI	0.22	0/1029	0.40	0/1378
13	AJ	0.21	0/808	0.41	0/1085
13	CJ	0.21	0/808	0.41	0/1085
14	AK	0.24	0/857	0.43	0/1157
14	CK	0.24	0/857	0.43	0/1157
15	AL	0.27	0/973	0.47	0/1301
15	CL	0.26	0/973	0.47	0/1301
16	AM	0.20	0/944	0.40	0/1265
16	CM	0.20	0/944	0.40	0/1265

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
17	AN	0.24	0/501	0.41	0/664
17	CN	0.25	0/501	0.39	0/664
18	AO	0.24	0/745	0.39	0/992
18	CO	0.24	0/745	0.39	0/992
19	AP	0.24	0/717	0.43	0/963
19	CP	0.22	0/717	0.43	0/963
20	AQ	0.25	0/837	0.41	0/1117
20	CQ	0.23	0/837	0.41	0/1117
21	AR	0.24	0/579	0.43	0/768
21	CR	0.24	0/579	0.43	0/768
22	AS	0.21	0/643	0.40	0/865
22	CS	0.22	0/643	0.40	0/865
23	AT	0.23	0/764	0.39	0/1006
23	CT	0.22	0/764	0.39	0/1006
24	AU	0.21	0/213	0.40	0/277
24	CU	0.21	0/213	0.41	0/277
25	BA	0.38	6/67268 (0.0%)	0.67	12/105011 (0.0%)
25	DA	0.42	6/67268 (0.0%)	0.70	21/105011 (0.0%)
26	BB	0.25	0/2853	0.55	0/4451
26	DB	0.26	0/2853	0.56	0/4451
27	BD	0.33	0/2155	0.53	0/2905
27	DD	0.35	0/2155	0.53	1/2905 (0.0%)
28	BE	0.28	0/1597	0.49	0/2153
28	DE	0.29	0/1597	0.49	0/2153
29	BF	0.29	0/1622	0.48	0/2194
29	DF	0.31	0/1622	0.48	0/2194
30	BG	0.23	0/1500	0.42	0/2017
30	DG	0.23	0/1500	0.43	0/2017
31	BH	0.22	0/1246	0.44	0/1682
31	DH	0.24	0/1246	0.45	0/1682
32	BI	0.22	0/1148	0.42	0/1552
32	DI	0.23	0/1148	0.43	0/1552
33	BK	0.21	0/1108	0.40	0/1500
33	DK	0.20	0/1108	0.39	0/1500
34	BN	0.27	0/1124	0.46	0/1515
34	DN	0.29	0/1124	0.47	0/1515
35	BO	0.28	0/942	0.47	0/1268
35	DO	0.30	0/942	0.48	0/1268
36	BP	0.34	0/1131	0.62	1/1504 (0.1%)
36	DP	0.36	0/1131	0.63	1/1504 (0.1%)
37	BQ	0.30	0/1085	0.52	0/1449
37	DQ	0.31	0/1085	0.52	0/1449
38	BR	0.28	0/974	0.48	0/1302

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	#|Z| >5	RMSZ	#|Z| >5
38	DR	0.29	0/974	0.49	0/1302
39	BS	0.24	0/779	0.44	0/1036
39	DS	0.25	0/779	0.44	0/1036
40	BT	0.27	0/1158	0.47	0/1544
40	DT	0.28	0/1158	0.48	0/1544
41	BU	0.31	0/982	0.47	0/1306
41	DU	0.32	0/982	0.46	0/1306
42	BV	0.28	0/790	0.49	0/1057
42	DV	0.29	0/790	0.49	0/1057
43	BW	0.30	0/902	0.47	0/1209
43	DW	0.29	0/902	0.47	0/1209
44	BX	0.30	0/740	0.46	0/993
44	DX	0.33	0/740	0.48	0/993
45	BY	0.28	0/789	0.49	0/1051
45	DY	0.30	0/789	0.49	0/1051
46	BZ	0.22	0/1515	0.42	0/2056
46	DZ	0.23	0/1515	0.42	0/2056
47	B0	0.27	0/613	0.53	0/816
47	D0	0.29	0/613	0.52	0/816
48	B1	0.34	0/702	0.59	1/932 (0.1%)
48	D1	0.36	0/702	0.61	1/932 (0.1%)
49	B2	0.27	0/523	0.50	0/690
49	D2	0.32	0/523	0.53	0/690
50	B3	0.25	0/473	0.43	0/634
50	D3	0.27	0/473	0.43	0/634
51	B4	0.24	0/229	0.40	0/309
51	D4	0.23	0/229	0.42	0/309
52	B5	0.27	0/419	0.51	0/567
52	D5	0.29	0/419	0.50	0/567
53	B6	0.21	0/388	0.41	0/518
53	D6	0.21	0/388	0.42	0/518
54	B7	0.34	0/427	0.54	0/561
54	D7	0.38	0/427	0.56	0/561
55	B8	0.32	0/516	0.49	0/679
55	D8	0.35	0/516	0.50	0/679
All	All	0.33	16/316492 (0.0%)	0.59	38/472144 (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
36	BP	0	1
36	DP	0	1
38	BR	0	1
38	DR	0	1
48	B1	0	1
48	D1	0	1
52	B5	0	1
All	All	0	7

All (16) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	BA	1913	A	P-OP1	-9.19	1.33	1.49
1	AA	1493	A	P-OP2	-9.00	1.33	1.49
25	BA	1912	A	P-OP2	-9.00	1.33	1.49
25	DA	1912	A	P-OP1	-8.94	1.33	1.49
1	CA	1493	A	P-OP1	-8.80	1.33	1.49
25	DA	1914	C	P-OP2	-8.79	1.34	1.49
25	BA	1914	C	P-OP1	-8.77	1.34	1.49
25	DA	1913	A	P-OP1	-8.74	1.34	1.49
25	DA	1913	A	P-OP2	-8.73	1.34	1.49
25	DA	1912	A	P-OP2	-8.72	1.34	1.49
1	CA	1493	A	P-OP2	-8.58	1.34	1.49
25	BA	1914	C	P-OP2	-8.51	1.34	1.49
1	AA	1493	A	P-OP1	-8.46	1.34	1.49
25	BA	1912	A	P-OP1	-8.42	1.34	1.49
25	DA	1914	C	P-OP1	-8.41	1.34	1.49
25	BA	1913	A	P-OP2	-8.36	1.34	1.49

All (38) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BA	2061	G	N1-C6-O6	8.50	125.00	119.90
25	DA	2447	G	N1-C6-O6	6.34	123.71	119.90
25	DA	2061	G	N1-C6-O6	6.02	123.51	119.90
25	DA	1899	G	C2-N3-C4	-6.02	108.89	111.90
25	DA	2447	G	C6-C5-N7	-5.97	126.82	130.40
25	DA	774	A	C2-N3-C4	-5.97	107.62	110.60
25	BA	2447	G	N1-C6-O6	5.91	123.45	119.90
25	BA	2447	G	C8-N9-C1'	-5.84	119.41	127.00
25	DA	783	A	C5-N7-C8	-5.82	100.99	103.90
25	DA	2447	G	C8-N9-C1'	-5.76	119.51	127.00
25	DA	330	A	C2-N3-C4	-5.75	107.73	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
25	BA	2061	G	C5-C6-O6	-5.66	125.20	128.60
25	BA	676	A	C5-N7-C8	-5.63	101.08	103.90
25	DA	450	G	C5-C6-N1	-5.63	108.69	111.50
25	DA	676	A	C5-N7-C8	-5.58	101.11	103.90
25	BA	1786	A	N7-C8-N9	5.56	116.58	113.80
25	DA	1493	C	C2-N1-C1'	5.56	124.91	118.80
48	B1	35	THR	N-CA-C	5.55	126.00	111.00
25	DA	2447	G	C4-N9-C1'	5.54	133.70	126.50
25	BA	1786	A	C6-C5-N7	-5.53	128.43	132.30
48	D1	35	THR	N-CA-C	5.47	125.77	111.00
25	DA	2249	U	N3-C4-C5	-5.46	111.32	114.60
25	BA	1493	C	C2-N1-C1'	5.46	124.80	118.80
36	DP	52	GLU	N-CA-C	5.42	125.64	111.00
25	DA	945	A	N7-C8-N9	5.40	116.50	113.80
36	BP	52	GLU	N-CA-C	5.34	125.42	111.00
25	BA	676	A	N7-C8-N9	5.27	116.44	113.80
25	BA	2447	G	C4-N9-C1'	5.23	133.30	126.50
25	DA	1786	A	N7-C8-N9	5.21	116.41	113.80
25	DA	2028	U	N3-C4-C5	-5.21	111.48	114.60
27	DD	41	GLY	N-CA-C	5.17	126.02	113.10
25	DA	945	A	C5-N7-C8	-5.13	101.34	103.90
25	BA	2447	G	C6-C5-N7	-5.12	127.33	130.40
25	DA	1902	C	N3-C4-N4	-5.09	114.43	118.00
25	DA	1786	A	C6-C5-N7	-5.07	128.75	132.30
25	DA	676	A	N7-C8-N9	5.04	116.32	113.80
25	DA	2601	C	C3'-C2'-C1'	5.03	105.53	101.50
25	BA	2601	C	C3'-C2'-C1'	5.02	105.51	101.50

There are no chirality outliers.

All (7) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
48	B1	26	ARG	Peptide
52	B5	4	HIS	Peptide
36	BP	51	PHE	Peptide
38	BR	10	LEU	Peptide
48	D1	26	ARG	Peptide
36	DP	51	PHE	Peptide
38	DR	10	LEU	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	AA	32332	0	16318	783	0
1	CA	32332	0	16318	798	0
2	AV	214	0	110	7	0
2	CV	214	0	110	8	0
3	AW	1640	0	837	26	0
3	CW	1640	0	837	24	0
4	AY	2874	0	2866	173	0
4	CY	2874	0	2866	164	0
5	AB	1901	0	1951	118	0
5	CB	1901	0	1951	119	0
6	AC	1613	0	1677	100	0
6	CC	1613	0	1677	101	0
7	AD	1703	0	1764	102	0
7	CD	1703	0	1765	121	0
8	AE	1156	0	1213	80	0
8	CE	1156	0	1213	80	0
9	AF	843	0	857	36	0
9	CF	843	0	857	36	0
10	AG	1257	0	1296	46	0
10	CG	1257	0	1296	42	0
11	AH	1116	0	1177	72	0
11	CH	1116	0	1177	77	0
12	AI	1011	0	1043	69	0
12	CI	1011	0	1043	70	0
13	AJ	795	0	840	74	0
13	CJ	795	0	840	72	0
14	AK	843	0	859	39	0
14	CK	843	0	859	40	0
15	AL	957	0	1046	73	0
15	CL	957	0	1046	71	0
16	AM	934	0	992	50	0
16	CM	934	0	992	55	0
17	AN	492	0	530	47	0
17	CN	492	0	530	39	0
18	AO	734	0	771	34	0
18	CO	734	0	771	34	0
19	AP	701	0	720	51	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
19	CP	701	0	720	49	0
20	AQ	824	0	893	38	0
20	CQ	824	0	893	40	0
21	AR	574	0	644	37	0
21	CR	574	0	644	39	0
22	AS	630	0	652	55	0
22	CS	630	0	652	56	0
23	AT	762	0	859	38	0
23	CT	762	0	859	40	0
24	AU	209	0	221	16	0
24	CU	209	0	221	17	0
25	BA	60059	0	30274	1273	0
25	DA	60059	0	30274	1280	0
26	BB	2551	0	1295	81	0
26	DB	2551	0	1295	83	0
27	BD	2105	0	2182	176	0
27	DD	2105	0	2182	179	0
28	BE	1564	0	1629	122	0
28	DE	1564	0	1629	123	0
29	BF	1587	0	1632	100	0
29	DF	1587	0	1632	108	0
30	BG	1475	0	1537	110	0
30	DG	1475	0	1537	114	0
31	BH	1223	0	1282	76	0
31	DH	1223	0	1282	77	0
32	BI	1133	0	1220	100	0
32	DI	1133	0	1220	110	0
33	BK	1088	0	1138	58	0
33	DK	1088	0	1138	61	0
34	BN	1097	0	1168	80	0
34	DN	1097	0	1168	74	0
35	BO	932	0	994	45	0
35	DO	932	0	994	46	0
36	BP	1114	0	1187	184	0
36	DP	1114	0	1187	194	0
37	BQ	1065	0	1114	82	0
37	DQ	1065	0	1114	83	0
38	BR	960	0	1021	84	0
38	DR	960	0	1021	77	0
39	BS	771	0	832	60	0
39	DS	771	0	832	60	0
40	BT	1144	0	1211	76	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
40	DT	1144	0	1211	74	0
41	BU	964	0	1022	83	0
41	DU	964	0	1022	78	0
42	BV	779	0	852	83	0
42	DV	779	0	852	79	0
43	BW	891	0	951	58	0
43	DW	891	0	951	61	0
44	BX	726	0	778	64	0
44	DX	726	0	778	65	0
45	BY	776	0	870	80	0
45	DY	776	0	870	81	0
46	BZ	1483	0	1507	89	0
46	DZ	1483	0	1507	89	0
47	B0	605	0	628	36	0
47	D0	605	0	628	32	0
48	B1	695	0	764	67	0
48	D1	695	0	764	77	0
49	B2	521	0	575	52	0
49	D2	521	0	575	56	0
50	B3	468	0	523	27	0
50	D3	468	0	523	24	0
51	B4	226	0	227	13	0
51	D4	226	0	225	15	0
52	B5	405	0	420	27	0
52	D5	405	0	420	31	0
53	B6	381	0	391	28	0
53	D6	381	0	391	26	0
54	B7	419	0	467	22	0
54	D7	419	0	467	22	0
55	B8	508	0	576	58	0
55	D8	508	0	576	60	0
56	AA	393	0	0	0	0
56	AC	1	0	0	0	0
56	AG	1	0	0	0	0
56	AO	1	0	0	0	0
56	AQ	1	0	0	0	0
56	AT	3	0	0	0	0
56	AV	1	0	0	0	0
56	AW	18	0	0	0	0
56	AY	3	0	0	0	0
56	B0	2	0	0	0	0
56	B1	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
56	B3	1	0	0	0	0
56	B5	1	0	0	0	0
56	B8	2	0	0	0	0
56	BA	824	0	0	0	0
56	BB	23	0	0	0	0
56	BD	1	0	0	0	0
56	BE	1	0	0	0	0
56	BF	1	0	0	0	0
56	BP	1	0	0	0	0
56	BT	1	0	0	0	0
56	BX	2	0	0	0	0
56	BY	1	0	0	0	0
56	CA	326	0	0	0	0
56	CD	1	0	0	0	0
56	CM	1	0	0	0	0
56	CR	1	0	0	0	0
56	CV	2	0	0	0	0
56	CW	16	0	0	0	0
56	CY	2	0	0	0	0
56	D0	1	0	0	0	0
56	D1	1	0	0	0	0
56	D5	3	0	0	0	0
56	D7	2	0	0	0	0
56	DA	732	0	0	0	0
56	DB	20	0	0	0	0
56	DD	1	0	0	0	0
56	DE	1	0	0	0	0
56	DF	2	0	0	0	0
56	DH	1	0	0	0	0
56	DI	2	0	0	0	0
56	DN	1	0	0	0	0
56	DP	2	0	0	0	0
56	DQ	4	0	0	0	0
56	DV	1	0	0	0	0
56	DW	2	0	0	0	0
56	DX	1	0	0	0	0
57	AD	1	0	0	0	0
57	AN	1	0	0	0	0
57	CD	1	0	0	0	0
57	CN	1	0	0	0	0
All	All	294074	0	200805	10187	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including

hydrogen atoms). The all-atom clashscore for this structure is 21.

All (10187) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:559:A:H4'	1:CA:560:U:H3'	1.26	1.16
25:BA:1899:G:N2	25:BA:1902:C:H41	1.43	1.15
45:DY:76:CYS:SG	45:DY:77:PRO:HD2	1.91	1.11
25:DA:1899:G:N2	25:DA:1902:C:H41	1.48	1.10
1:AA:559:A:H4'	1:AA:560:U:H3'	1.26	1.09
48:B1:11:ARG:HB3	48:B1:12:PRO:HD2	1.34	1.08
48:D1:11:ARG:HB3	48:D1:12:PRO:HD2	1.34	1.07
41:BU:90:VAL:HG22	41:BU:91:ASP:H	1.20	1.07
45:BY:76:CYS:SG	45:BY:77:PRO:HD2	1.95	1.05
25:DA:1541:U:H3'	25:DA:1542:G:H3'	1.38	1.05
41:DU:90:VAL:HG22	41:DU:91:ASP:H	1.16	1.05
44:BX:84:ALA:HB3	44:BX:87:GLN:HE21	1.22	1.04
52:D5:4:HIS:HB2	52:D5:5:PRO:HD3	1.40	1.04
25:DA:774:A:H2	25:DA:787:U:HO2'	1.04	1.03
31:DH:121:ILE:HD11	31:DH:140:LYS:HD3	1.41	1.03
1:AA:1286:A:H3'	1:AA:1287:A:H5"	1.41	1.03
1:CA:1286:A:H3'	1:CA:1287:A:H5"	1.41	1.03
27:BD:246:PRO:HG2	27:BD:255:LYS:HG2	1.42	1.02
44:DX:84:ALA:HB3	44:DX:87:GLN:HE21	1.20	1.02
52:B5:4:HIS:HB2	52:B5:5:PRO:HD3	1.40	1.01
36:DP:23:PRO:HB2	36:DP:33:ARG:HG3	1.41	1.00
25:DA:2068:U:H3	25:DA:2430:A:H2	1.09	1.00
27:DD:246:PRO:HG2	27:DD:255:LYS:HG2	1.38	0.99
25:BA:1541:U:H3'	25:BA:1542:G:H3'	1.38	0.99
31:BH:121:ILE:HD11	31:BH:140:LYS:HD3	1.43	0.99
45:DY:90:LEU:HG	45:DY:91:GLU:H	1.28	0.99
36:BP:16:ARG:NH2	36:BP:18:ARG:HB2	1.77	0.98
37:BQ:74:TYR:HD2	37:BQ:91:GLU:HB2	1.28	0.98
36:BP:23:PRO:HB2	36:BP:33:ARG:HG3	1.42	0.98
37:DQ:74:TYR:HD2	37:DQ:91:GLU:HB2	1.28	0.98
15:AL:74:HIS:HD2	15:AL:76:LEU:H	1.11	0.98
1:AA:1101:A:H4'	1:AA:1102:A:O5'	1.64	0.98
25:DA:1190:G:H5"	36:DP:35:HIS:HA	1.47	0.97
45:BY:90:LEU:HG	45:BY:91:GLU:H	1.29	0.97
4:AY:358:ILE:HA	4:AY:362:LEU:HB2	1.46	0.97
25:DA:875:G:H4'	46:DZ:170:THR:HG21	1.45	0.97
15:CL:31:PHE:HB3	15:CL:83:LEU:HD11	1.47	0.96
41:DU:75:ASN:H	41:DU:75:ASN:HD22	1.07	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AC:91:LEU:HD22	6:AC:99:VAL:HG12	1.47	0.96
36:DP:16:ARG:NH2	36:DP:18:ARG:HB2	1.79	0.96
25:BA:875:G:H4'	46:BZ:170:THR:HG21	1.47	0.96
25:BA:1332:G:N2	25:BA:1610:A:H8	1.65	0.95
4:CY:358:ILE:HA	4:CY:362:LEU:HB2	1.46	0.95
25:BA:1902:C:H1'	27:BD:244:ARG:HD3	1.46	0.95
30:BG:41:GLN:HG2	30:BG:155:MET:HB3	1.48	0.95
25:BA:1009:A:H5'	25:BA:1009:A:H8	1.32	0.95
25:BA:2681:C:H5	25:BA:2725:A:H62	1.13	0.95
2:CV:19:U:H3	4:CY:139:GLY:HA3	1.31	0.95
1:CA:1101:A:H4'	1:CA:1102:A:O5'	1.63	0.95
7:CD:59:ARG:HA	7:CD:59:ARG:HE	1.30	0.94
25:BA:806:C:OP2	36:BP:39:LYS:HD3	1.66	0.94
49:D2:50:ILE:HD12	49:D2:51:ARG:H	1.33	0.94
25:BA:1190:G:H5"	36:BP:35:HIS:HA	1.46	0.94
36:BP:49:ARG:HH11	36:BP:49:ARG:HG3	1.32	0.94
36:BP:50:ARG:HG3	36:BP:51:PHE:H	1.33	0.94
25:DA:1332:G:N2	25:DA:1610:A:H8	1.64	0.94
11:CH:51:VAL:HG12	11:CH:52:ASP:H	1.33	0.94
6:CC:91:LEU:HD22	6:CC:99:VAL:HG12	1.47	0.94
30:DG:41:GLN:HG2	30:DG:155:MET:HB3	1.47	0.94
17:AN:16:PHE:H	17:AN:16:PHE:HD2	1.08	0.94
15:AL:31:PHE:HB3	15:AL:83:LEU:HD11	1.48	0.93
5:AB:185:ILE:HG22	5:AB:199:TYR:HB2	1.50	0.93
25:BA:1506(A):A:HO2'	25:BA:1506(C):A:H2	0.98	0.93
25:DA:1332:G:H21	25:DA:1610:A:H8	1.04	0.93
36:DP:49:ARG:HH11	36:DP:49:ARG:HG3	1.34	0.93
25:DA:2415:G:H4'	36:DP:66:GLY:HA3	1.50	0.93
1:AA:134:A:H61	19:AP:25:ARG:HH12	1.16	0.93
25:DA:806:C:OP2	36:DP:39:LYS:HD3	1.68	0.93
25:DA:2712:U:H1'	25:DA:2712(A):A:C8	2.03	0.93
15:CL:74:HIS:HD2	15:CL:76:LEU:H	1.13	0.93
27:DD:8:PRO:HB3	27:DD:14:ARG:HB2	1.50	0.93
5:CB:185:ILE:HG22	5:CB:199:TYR:HB2	1.50	0.93
25:DA:1506(A):A:HO2'	25:DA:1506(C):A:H2	0.99	0.93
25:BA:774:A:H2	25:BA:787:U:HO2'	1.02	0.93
25:BA:1332:G:H21	25:BA:1610:A:H8	1.04	0.93
41:BU:75:ASN:HD22	41:BU:75:ASN:H	1.08	0.93
7:CD:8:VAL:HG12	7:CD:21:LEU:HD22	1.51	0.93
25:BA:2712:U:H1'	25:BA:2712(A):A:C8	2.04	0.92
25:BA:1019:U:HO2'	25:BA:1021:A:H2	0.96	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:DN:157:ARG:H	34:DN:158:PRO:HD3	1.33	0.92
37:DQ:82:ARG:HG2	37:DQ:82:ARG:HH11	1.33	0.92
15:CL:23:VAL:HG13	15:CL:97:TYR:HE2	1.35	0.92
25:BA:2415:G:H4'	36:BP:66:GLY:HA3	1.49	0.92
11:AH:51:VAL:HG12	11:AH:52:ASP:H	1.32	0.92
34:BN:157:ARG:H	34:BN:158:PRO:HD3	1.35	0.92
25:DA:2681:C:H5	25:DA:2725:A:H62	1.13	0.92
37:BQ:82:ARG:HG2	37:BQ:82:ARG:HH11	1.34	0.92
27:DD:121:PRO:HB3	27:DD:135:PHE:HE2	1.32	0.92
13:CJ:48:THR:HA	13:CJ:62:HIS:HB3	1.52	0.92
25:DA:1902:C:H1'	27:DD:244:ARG:HD3	1.48	0.92
15:AL:23:VAL:HG13	15:AL:97:TYR:HE2	1.34	0.91
28:BE:2:LYS:HD3	28:BE:95:ILE:HB	1.52	0.91
27:BD:121:PRO:HB3	27:BD:135:PHE:HE2	1.33	0.91
2:AV:19:U:H3	4:AY:139:GLY:HA3	1.35	0.91
36:DP:50:ARG:HG3	36:DP:51:PHE:H	1.34	0.91
27:BD:8:PRO:HB3	27:BD:14:ARG:HB2	1.52	0.91
6:CC:14:ILE:HG12	6:CC:15:THR:H	1.36	0.91
25:DA:1019:U:HO2'	25:DA:1021:A:H2	0.94	0.91
4:AY:92:LEU:HB3	4:AY:97:ARG:HB2	1.52	0.91
25:DA:1009:A:H5'	25:DA:1009:A:H8	1.34	0.91
25:BA:1899:G:N2	25:BA:1902:C:N4	2.20	0.90
16:AM:39:ILE:HG13	16:AM:56:LEU:HD21	1.53	0.90
25:DA:860:U:H5	25:DA:917:A:N7	1.70	0.90
9:AF:7:ASN:HD21	21:AR:34:TYR:HE1	1.20	0.90
34:BN:93:LYS:HE3	34:BN:95:TYR:HE1	1.36	0.89
16:CM:39:ILE:HG13	16:CM:56:LEU:HD21	1.52	0.89
29:DF:103:LYS:HA	29:DF:106:ARG:HG3	1.51	0.89
41:BU:88:ILE:HG22	41:BU:90:VAL:HG12	1.54	0.89
25:BA:2068:U:H3	25:BA:2430:A:H2	1.07	0.89
25:DA:1332:G:N2	25:DA:1610:A:C8	2.40	0.89
30:BG:32:PRO:HB2	30:BG:172:LEU:HD12	1.55	0.89
4:CY:92:LEU:HB3	4:CY:97:ARG:HB2	1.52	0.89
25:BA:1332:G:N2	25:BA:1610:A:C8	2.41	0.88
9:CF:7:ASN:HD21	21:CR:34:TYR:HE1	1.20	0.88
13:CJ:6:ILE:HG22	13:CJ:98:ILE:HG12	1.55	0.88
25:DA:919:G:H5'	26:DB:81:G:H1'	1.55	0.88
34:DN:93:LYS:HE3	34:DN:95:TYR:HE1	1.37	0.88
26:DB:116:G:H5'	39:DS:55:ALA:HB1	1.54	0.88
13:AJ:6:ILE:HG22	13:AJ:98:ILE:HG12	1.55	0.88
25:BA:919:G:H5'	26:BB:81:G:H1'	1.54	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:23:PRO:HD2	36:DP:33:ARG:NH2	1.87	0.88
13:AJ:48:THR:HA	13:AJ:62:HIS:HB3	1.53	0.88
3:CW:47:U:H3'	3:CW:48:C:H5'	1.56	0.88
37:BQ:74:TYR:CD2	37:BQ:91:GLU:HB2	2.08	0.88
49:B2:50:ILE:HD12	49:B2:51:ARG:H	1.38	0.88
25:DA:1300:U:H4'	25:DA:1301:A:O5'	1.73	0.88
40:BT:24:PRO:HA	40:BT:49:VAL:HG13	1.56	0.88
54:B7:19:ARG:HH11	54:B7:19:ARG:HG3	1.37	0.88
1:CA:134:A:H61	19:CP:25:ARG:HH12	1.18	0.88
25:DA:330:A:H2	25:DA:1210:A:O2'	1.56	0.88
6:CC:70:VAL:HG12	6:CC:72:LYS:H	1.39	0.88
6:AC:14:ILE:HG12	6:AC:15:THR:H	1.37	0.88
28:BE:47:VAL:HG21	28:BE:86:PRO:HD2	1.56	0.88
1:AA:501:C:H2'	1:AA:502:G:H8	1.38	0.87
3:AW:47:U:H3'	3:AW:48:C:H5'	1.56	0.87
35:BO:88:ASN:HD21	35:BO:90:GLN:HG2	1.39	0.87
55:D8:52:LYS:HE3	55:D8:52:LYS:HA	1.56	0.87
1:AA:1346:A:H5"	12:AI:120:ARG:HH12	1.39	0.87
12:CI:125:TYR:HD2	12:CI:126:SER:H	1.21	0.87
41:DU:88:ILE:HG22	41:DU:90:VAL:HG12	1.54	0.87
15:AL:7:ASN:HD22	20:AQ:34:LYS:HE2	1.39	0.87
1:CA:501:C:H2'	1:CA:502:G:H8	1.38	0.87
28:BE:111:ARG:HG2	38:BR:2:ARG:HH21	1.38	0.87
25:BA:1141:U:H2'	34:BN:86:THR:HG21	1.56	0.87
33:DK:34:ILE:HB	33:DK:38:VAL:HG23	1.57	0.87
40:DT:24:PRO:HA	40:DT:49:VAL:HG13	1.55	0.87
1:AA:559:A:C4'	1:AA:560:U:H3'	2.05	0.87
35:DO:88:ASN:HD21	35:DO:90:GLN:HG2	1.37	0.87
54:D7:19:ARG:HG3	54:D7:19:ARG:HH11	1.38	0.87
48:B1:11:ARG:CB	48:B1:12:PRO:HD2	2.05	0.87
15:CL:7:ASN:HD22	20:CQ:34:LYS:HE2	1.39	0.87
28:DE:2:LYS:HD3	28:DE:95:ILE:HB	1.54	0.87
28:DE:111:ARG:HG2	38:DR:2:ARG:HH21	1.38	0.87
25:DA:1899:G:N2	25:DA:1902:C:N4	2.22	0.87
29:BF:103:LYS:HA	29:BF:106:ARG:HG3	1.53	0.86
5:AB:10:LEU:HA	5:AB:13:ALA:HB3	1.57	0.86
1:CA:243:A:H4'	1:CA:244:U:O5'	1.73	0.86
1:CA:1346:A:H5"	12:CI:120:ARG:HH12	1.40	0.86
29:DF:67:GLN:HG3	29:DF:67:GLN:O	1.73	0.86
7:AD:63:LYS:HE3	7:AD:198:VAL:HG12	1.56	0.86
25:BA:330:A:H2	25:BA:1210:A:O2'	1.56	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:B8:52:LYS:HA	55:B8:52:LYS:HE3	1.56	0.86
37:DQ:74:TYR:CD2	37:DQ:91:GLU:HB2	2.09	0.86
26:BB:116:G:H5'	39:BS:55:ALA:HB1	1.55	0.86
5:CB:10:LEU:HA	5:CB:13:ALA:HB3	1.57	0.86
7:AD:28:SER:HB3	7:AD:29:PRO:HD2	1.58	0.86
29:BF:67:GLN:HG3	29:BF:67:GLN:O	1.76	0.86
30:DG:32:PRO:HB2	30:DG:172:LEU:HD12	1.56	0.86
54:D7:9:ARG:HH21	54:D7:47:ARG:HD2	1.40	0.86
6:AC:70:VAL:HG12	6:AC:72:LYS:H	1.39	0.86
25:BA:1689:A:H62	25:BA:1698:A:H2	1.22	0.86
27:DD:58:HIS:HD2	27:DD:59:LYS:H	1.22	0.86
28:DE:47:VAL:HG21	28:DE:86:PRO:HD2	1.57	0.86
48:D1:11:ARG:CB	48:D1:12:PRO:HD2	2.05	0.86
1:AA:1201:A:H1'	1:AA:1202:G:OP2	1.76	0.86
45:BY:81:LYS:HE2	45:BY:97:ARG:HD3	1.58	0.86
1:AA:243:A:H4'	1:AA:244:U:O5'	1.73	0.86
1:AA:1305:G:N2	1:AA:1331:G:H2'	1.91	0.86
8:AE:50:GLU:HG3	8:AE:52:PRO:HD2	1.57	0.86
36:BP:23:PRO:HD2	36:BP:33:ARG:NH2	1.90	0.86
48:B1:11:ARG:HB3	48:B1:12:PRO:CD	2.05	0.86
25:BA:860:U:H5	25:BA:917:A:N7	1.73	0.86
25:BA:1300:U:H4'	25:BA:1301:A:O5'	1.74	0.85
1:CA:559:A:C4'	1:CA:560:U:H3'	2.04	0.85
25:BA:1902:C:O2'	27:BD:244:ARG:HB2	1.76	0.85
1:AA:1211:U:H4'	1:AA:1213:A:H1'	1.59	0.85
47:D0:23:VAL:HA	47:D0:38:VAL:HG22	1.58	0.85
1:AA:1145:C:H1'	1:AA:1146:A:OP2	1.76	0.85
36:BP:23:PRO:HD2	36:BP:33:ARG:HH21	1.42	0.85
25:DA:1902:C:O2'	27:DD:244:ARG:HB2	1.76	0.85
25:DA:2794(A):G:H3'	25:DA:2794(B):U:H5"	1.57	0.85
27:DD:31:LYS:HG3	27:DD:33:LEU:HG	1.56	0.85
48:D1:11:ARG:HB3	48:D1:12:PRO:CD	2.06	0.85
1:CA:1145:C:H1'	1:CA:1146:A:OP2	1.77	0.85
27:BD:58:HIS:HD2	27:BD:59:LYS:H	1.24	0.85
25:DA:2190:G:H2'	25:DA:2191:G:H8	1.42	0.85
1:AA:509:A:H3'	1:AA:509:A:OP2	1.76	0.85
10:AG:93:PRO:HA	10:AG:96:GLN:HE21	1.42	0.85
25:BA:1024:G:H3'	25:BA:1025:G:H5"	1.59	0.85
25:BA:627:A:H62	36:BP:84:ASN:HD21	1.25	0.84
53:B6:23:THR:HB	55:B8:35:GLN:HA	1.59	0.84
25:DA:1141:U:H2'	34:DN:86:THR:HG21	1.55	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AI:125:TYR:HD2	12:AI:126:SER:H	1.21	0.84
1:AA:265:G:H2'	1:AA:266:G:H5"	1.60	0.84
5:AB:187:LEU:HD22	5:AB:205:ASP:HB3	1.59	0.84
25:BA:1379:A:H4'	25:BA:1380:G:OP2	1.75	0.84
1:CA:67:C:H2'	1:CA:68:G:C8	2.11	0.84
1:CA:265:G:H2'	1:CA:266:G:H5"	1.59	0.84
15:CL:82:VAL:HG23	15:CL:106:ALA:HB2	1.59	0.84
36:DP:23:PRO:HD2	36:DP:33:ARG:HH21	1.40	0.84
45:DY:81:LYS:HE2	45:DY:97:ARG:HD3	1.58	0.84
31:BH:51:ARG:HG2	31:BH:52:VAL:H	1.42	0.84
25:DA:2777:G:H5"	25:DA:2778:A:H5'	1.58	0.84
4:AY:199:VAL:HG21	4:AY:318:ILE:HA	1.60	0.84
25:BA:2777:G:H5"	25:BA:2778:A:H5'	1.58	0.84
25:BA:2190:G:H2'	25:BA:2191:G:H8	1.41	0.84
25:DA:1614:A:N1	43:DW:93:ALA:HB2	1.93	0.84
27:DD:121:PRO:HB3	27:DD:135:PHE:CE2	2.13	0.84
1:CA:509:A:H3'	1:CA:509:A:OP2	1.77	0.84
10:CG:93:PRO:HA	10:CG:96:GLN:HE21	1.43	0.84
25:DA:1689:A:H62	25:DA:1698:A:H2	1.23	0.84
8:CE:76:ILE:HG22	8:CE:93:PRO:HG3	1.59	0.84
25:DA:662:G:OP1	36:DP:18:ARG:HD2	1.78	0.84
25:DA:1019:U:H3	25:DA:1142:A:H62	1.24	0.84
1:AA:201(B):U:H5"	1:AA:201(C):U:OP1	1.77	0.84
1:CA:1305:G:N2	1:CA:1331:G:H2'	1.92	0.84
53:D6:23:THR:HB	55:D8:35:GLN:HA	1.59	0.84
25:BA:2202(E):A:H1'	25:BA:2202(G):G:C5	2.13	0.83
25:BA:2468:G:O2'	25:BA:2469:A:H5'	1.78	0.83
1:CA:1211:U:H4'	1:CA:1213:A:H1'	1.59	0.83
25:BA:2794(A):G:H3'	25:BA:2794(B):U:H5"	1.57	0.83
48:B1:18:ILE:HD11	48:B1:42:GLN:HB2	1.60	0.83
25:DA:1558:A:H1'	25:DA:1559:G:OP2	1.78	0.83
25:DA:2468:G:O2'	25:DA:2469:A:H5'	1.79	0.83
54:D7:19:ARG:HH11	54:D7:19:ARG:CG	1.91	0.83
27:BD:31:LYS:HG3	27:BD:33:LEU:HG	1.58	0.83
32:DI:79:ILE:HB	32:DI:144:VAL:HA	1.60	0.83
27:BD:28:GLU:HB3	27:BD:29:PRO:HD3	1.60	0.83
54:B7:9:ARG:HH21	54:B7:47:ARG:HD2	1.40	0.83
1:AA:922:G:H2'	1:AA:923:A:H8	1.42	0.83
1:CA:1201:A:H1'	1:CA:1202:G:OP2	1.78	0.83
25:DA:627:A:H62	36:DP:84:ASN:HD21	1.25	0.83
1:CA:677:U:H3	1:CA:713:G:H22	1.26	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1379:A:H4'	25:DA:1380:G:OP2	1.76	0.83
1:CA:201(B):U:H5"	1:CA:201(C):U:OP1	1.78	0.83
5:CB:77:ALA:HB2	5:CB:211:ILE:HD13	1.60	0.83
33:BK:21:PRO:HA	33:BK:24:GLY:H	1.40	0.83
1:CA:545:C:H5'	7:CD:72:GLU:HG3	1.61	0.83
27:DD:127:VAL:HA	27:DD:193:VAL:HG13	1.60	0.83
1:AA:67:C:H2'	1:AA:68:G:C8	2.13	0.82
18:AO:87:ILE:HG22	18:AO:88:ARG:H	1.45	0.82
25:BA:1019:U:H3	25:BA:1142:A:H62	1.25	0.82
8:CE:50:GLU:HG3	8:CE:52:PRO:HD2	1.58	0.82
1:AA:495:A:H4'	1:AA:497:A:OP1	1.79	0.82
5:AB:24:TRP:HZ3	5:AB:29:ALA:HB2	1.44	0.82
45:BY:76:CYS:HB3	45:BY:96:ILE:HD13	1.61	0.82
47:B0:23:VAL:HA	47:B0:38:VAL:HG22	1.58	0.82
25:BA:784:A:C5	27:BD:229:VAL:HG21	2.14	0.82
1:AA:922:G:H2'	1:AA:923:A:C8	2.14	0.82
5:AB:8:LYS:HA	5:AB:11:LEU:HD12	1.61	0.82
5:AB:77:ALA:HB2	5:AB:211:ILE:HD13	1.59	0.82
8:AE:101:ILE:HD11	8:AE:119:LEU:HD23	1.62	0.82
42:BV:99:ILE:H	42:BV:99:ILE:HD13	1.45	0.82
43:BW:4:LYS:HB2	43:BW:106:ILE:HG22	1.61	0.82
45:DY:81:LYS:HG2	45:DY:97:ARG:HB3	1.61	0.82
1:AA:1028(H):G:H2'	1:AA:1033:G:H8	1.41	0.82
12:AI:4:TYR:CE2	12:AI:88:TYR:HB3	2.14	0.82
27:BD:121:PRO:HB3	27:BD:135:PHE:CE2	2.14	0.82
1:CA:922:G:H2'	1:CA:923:A:C8	2.14	0.82
22:CS:16:LEU:HA	22:CS:19:VAL:HG12	1.61	0.82
7:CD:102:ASP:HB3	7:CD:136:PRO:HB3	1.62	0.82
8:CE:78:HIS:HE1	8:CE:143:ARG:H	1.27	0.82
20:CQ:26:GLN:HG2	20:CQ:37:LYS:HG2	1.62	0.82
25:DA:1024:G:H3'	25:DA:1025:G:H5"	1.61	0.82
12:AI:4:TYR:HB2	12:AI:19:LEU:HB2	1.62	0.82
15:AL:82:VAL:HG23	15:AL:106:ALA:HB2	1.59	0.82
25:BA:271(L):C:H42	25:BA:357(F):G:H1	1.27	0.82
47:B0:32:ARG:HG2	47:B0:32:ARG:HH11	1.43	0.82
12:CI:4:TYR:HB2	12:CI:19:LEU:HB2	1.61	0.82
12:CI:28:VAL:HG22	12:CI:63:ILE:HB	1.60	0.82
22:AS:16:LEU:HA	22:AS:19:VAL:HG12	1.60	0.82
25:BA:1558:A:H1'	25:BA:1559:G:OP2	1.79	0.82
38:BR:12:ARG:HD3	38:BR:16:HIS:CD2	2.15	0.82
54:B7:19:ARG:HH11	54:B7:19:ARG:CG	1.92	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CB:24:TRP:HZ3	5:CB:29:ALA:HB2	1.45	0.82
25:DA:2202(E):A:H1'	25:DA:2202(G):G:C5	2.13	0.82
48:D1:18:ILE:HD11	48:D1:42:GLN:HB2	1.60	0.82
25:BA:676:A:H8	25:BA:2069:G:H21	1.27	0.81
31:DH:51:ARG:HG2	31:DH:52:VAL:H	1.44	0.81
36:DP:23:PRO:HB2	36:DP:33:ARG:CG	2.10	0.81
46:DZ:59:LEU:HD12	46:DZ:69:THR:HG21	1.62	0.81
3:CW:47:U:H3'	3:CW:48:C:C5'	2.10	0.81
25:DA:676:A:H8	25:DA:2069:G:H21	1.28	0.81
1:AA:677:U:H3	1:AA:713:G:H22	1.28	0.81
5:CB:187:LEU:HD22	5:CB:205:ASP:HB3	1.59	0.81
7:CD:4:TYR:HE1	7:CD:66:ARG:HE	1.27	0.81
49:D2:50:ILE:HD12	49:D2:51:ARG:N	1.95	0.81
8:AE:76:ILE:HG22	8:AE:93:PRO:HG3	1.60	0.81
12:AI:28:VAL:HG22	12:AI:63:ILE:HB	1.60	0.81
32:BI:79:ILE:HB	32:BI:144:VAL:HA	1.61	0.81
36:BP:128:HIS:HA	36:BP:147:LEU:HB3	1.62	0.81
6:CC:16:ARG:HD2	6:CC:54:ARG:HH21	1.43	0.81
25:BA:1006:C:H1'	34:BN:129:MET:HG2	1.61	0.81
13:CJ:40:LEU:HB2	13:CJ:69:ASN:HB2	1.62	0.81
49:D2:17:SER:HB3	49:D2:18:PRO:HD3	1.62	0.81
40:BT:16:ARG:HH21	40:BT:81:PRO:HA	1.45	0.81
38:DR:12:ARG:HD3	38:DR:16:HIS:CD2	2.15	0.81
1:CA:673:G:H2'	1:CA:674:G:C8	2.16	0.81
27:DD:28:GLU:HB3	27:DD:29:PRO:HD3	1.61	0.81
37:DQ:82:ARG:HH11	37:DQ:82:ARG:CG	1.92	0.81
47:D0:32:ARG:HG2	47:D0:32:ARG:HH11	1.45	0.81
20:AQ:26:GLN:HG2	20:AQ:37:LYS:HG2	1.62	0.81
25:BA:662:G:OP1	36:BP:18:ARG:HD2	1.81	0.81
4:CY:199:VAL:HG21	4:CY:318:ILE:HA	1.61	0.81
42:DV:99:ILE:H	42:DV:99:ILE:HD13	1.45	0.81
49:D2:24:LEU:HD22	49:D2:60:LEU:HD21	1.63	0.81
4:AY:136:GLY:HA3	4:AY:318:ILE:HD12	1.62	0.81
16:AM:60:VAL:HG13	16:AM:64:TRP:HE1	1.44	0.81
12:CI:4:TYR:CE2	12:CI:88:TYR:HB3	2.16	0.81
7:CD:201:GLN:HE22	8:CE:116:THR:HB	1.46	0.81
1:CA:1356:G:H2'	1:CA:1357:A:C8	2.16	0.80
6:CC:14:ILE:HG12	6:CC:15:THR:N	1.96	0.80
34:DN:112:LYS:O	34:DN:116:THR:HG22	1.81	0.80
36:DP:41:ARG:HA	36:DP:41:ARG:HE	1.45	0.80
13:AJ:40:LEU:HB2	13:AJ:69:ASN:HB2	1.62	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:955:C:OP1	37:BQ:85:LYS:HE2	1.81	0.80
25:BA:1022:G:H22	25:BA:1142:A:H2	1.29	0.80
25:BA:1614:A:N1	43:BW:93:ALA:HB2	1.96	0.80
49:B2:17:SER:HB3	49:B2:18:PRO:HD3	1.63	0.80
1:CA:922:G:H2'	1:CA:923:A:H8	1.43	0.80
5:CB:44:LEU:H	5:CB:44:LEU:HD12	1.45	0.80
25:DA:784:A:C5	27:DD:229:VAL:HG21	2.16	0.80
38:BR:12:ARG:HD3	38:BR:16:HIS:HD2	1.47	0.80
4:CY:136:GLY:HA3	4:CY:318:ILE:HD12	1.61	0.80
18:CO:87:ILE:HG22	18:CO:88:ARG:H	1.44	0.80
36:DP:41:ARG:HA	36:DP:41:ARG:NE	1.94	0.80
40:DT:16:ARG:HH21	40:DT:81:PRO:HA	1.45	0.80
45:DY:76:CYS:HB3	45:DY:96:ILE:HD13	1.61	0.80
30:BG:11:TYR:HA	30:BG:15:VAL:HB	1.61	0.80
6:AC:16:ARG:HD2	6:AC:54:ARG:HH21	1.44	0.80
1:CA:922:G:H4'	8:CE:20:GLN:HA	1.64	0.80
43:DW:4:LYS:HB2	43:DW:106:ILE:HG22	1.62	0.80
25:BA:2287:A:H62	25:BA:2344:U:H3	1.27	0.80
1:CA:1356:G:H2'	1:CA:1357:A:H8	1.46	0.80
7:AD:119:GLN:HG3	7:AD:123:HIS:CD2	2.16	0.80
8:AE:78:HIS:HE1	8:AE:143:ARG:H	1.27	0.80
13:CJ:27:ALA:HB2	13:CJ:85:LEU:HD11	1.63	0.80
53:D6:9:LEU:HD13	53:D6:28:ARG:HD3	1.63	0.80
1:AA:1356:G:H2'	1:AA:1357:A:C8	2.16	0.80
3:AW:47:U:H3'	3:AW:48:C:C5'	2.11	0.80
25:BA:2794(A):G:H1'	25:BA:2802:G:H22	1.46	0.80
25:DA:271(L):C:H42	25:DA:357(F):G:H1	1.26	0.80
33:DK:78:ILE:HD11	33:DK:127:ILE:HG23	1.62	0.80
34:DN:157:ARG:N	34:DN:158:PRO:HD3	1.97	0.80
27:BD:127:VAL:HA	27:BD:193:VAL:HG13	1.62	0.80
36:BP:41:ARG:NE	36:BP:41:ARG:HA	1.95	0.80
42:BV:21:ARG:HE	42:BV:91:TYR:HE1	1.28	0.80
46:BZ:59:LEU:HD12	46:BZ:69:THR:HG21	1.63	0.80
53:B6:9:LEU:HD13	53:B6:28:ARG:HD3	1.63	0.80
29:DF:184:TYR:O	29:DF:188:ARG:HG3	1.81	0.80
36:DP:47:ASP:HB3	36:DP:48:PRO:CA	2.12	0.80
38:DR:63:ARG:HB2	38:DR:80:PHE:HE2	1.47	0.80
34:BN:112:LYS:O	34:BN:116:THR:HG22	1.82	0.79
39:BS:31:SER:HB3	39:BS:34:HIS:HB2	1.64	0.79
45:BY:81:LYS:HG2	45:BY:97:ARG:HB3	1.62	0.79
5:CB:8:LYS:HA	5:CB:11:LEU:HD12	1.61	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2287:A:H62	25:DA:2344:U:H3	1.28	0.79
9:AF:37:VAL:HG12	9:AF:38:GLU:H	1.46	0.79
1:CA:979:C:H3'	1:CA:980:C:H5"	1.64	0.79
4:CY:334:VAL:HG22	4:CY:343:ARG:HB3	1.62	0.79
32:DI:94:ALA:H	32:DI:116:LEU:HD22	1.47	0.79
1:AA:368:U:H5"	32:DI:90:GLY:HA2	1.64	0.79
39:BS:14:VAL:O	39:BS:18:ILE:HG12	1.83	0.79
16:CM:60:VAL:HG13	16:CM:64:TRP:HE1	1.45	0.79
25:DA:780:G:H21	25:DA:783:A:H62	1.30	0.79
25:DA:2794(A):G:H1'	25:DA:2802:G:H22	1.47	0.79
30:DG:11:TYR:HA	30:DG:15:VAL:HB	1.61	0.79
46:DZ:63:ASP:HB2	46:DZ:65:GLN:HG3	1.64	0.79
47:B0:32:ARG:HH11	47:B0:32:ARG:CG	1.96	0.79
1:CA:495:A:H4'	1:CA:497:A:OP1	1.80	0.79
41:DU:16:LYS:HA	41:DU:19:LYS:HE2	1.63	0.79
1:AA:673:G:H2'	1:AA:674:G:C8	2.16	0.79
25:BA:2305:A:H3'	25:BA:2306:C:H5"	1.65	0.79
36:BP:23:PRO:HB2	36:BP:33:ARG:CG	2.11	0.79
4:CY:89:MET:HA	4:CY:97:ARG:HG3	1.64	0.79
37:BQ:82:ARG:HH11	37:BQ:82:ARG:CG	1.95	0.79
49:B2:24:LEU:HD22	49:B2:60:LEU:HD21	1.64	0.79
1:AA:499:A:H4'	1:AA:500:G:OP1	1.82	0.79
41:BU:16:LYS:HA	41:BU:19:LYS:HE2	1.65	0.79
4:CY:24:LYS:HE3	4:CY:111:LEU:HD12	1.65	0.79
25:DA:106:C:H1'	45:DY:2:ARG:HE	1.47	0.79
55:D8:61:LEU:O	55:D8:63:PRO:HD2	1.82	0.79
1:AA:922:G:H4'	8:AE:20:GLN:HA	1.65	0.79
32:BI:71:ILE:HG13	32:BI:72:LEU:HD22	1.65	0.79
1:CA:736:C:H2'	1:CA:737:A:C8	2.17	0.79
1:AA:736:C:H2'	1:AA:737:A:C8	2.18	0.79
1:AA:979:C:H3'	1:AA:980:C:H5"	1.65	0.79
11:AH:80:ILE:HD12	11:AH:80:ILE:H	1.48	0.79
25:DA:2090:G:H21	48:D1:45:ASN:HD21	1.31	0.79
32:DI:71:ILE:HG13	32:DI:72:LEU:HD22	1.63	0.79
30:BG:60:LEU:HD11	30:BG:92:VAL:HG11	1.63	0.78
36:BP:47:ASP:HB3	36:BP:48:PRO:CA	2.13	0.78
1:CA:430:A:OP1	7:CD:9:CYS:HB2	1.82	0.78
25:DA:1506:C:H2'	25:DA:1506(A):A:C8	2.18	0.78
25:DA:1614:A:H61	43:DW:88:ARG:H	1.30	0.78
31:DH:23:ARG:HD3	31:DH:23:ARG:H	1.48	0.78
4:AY:89:MET:HA	4:AY:97:ARG:HG3	1.64	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1356:G:H2'	1:AA:1357:A:H8	1.47	0.78
4:AY:334:VAL:HG22	4:AY:343:ARG:HB3	1.63	0.78
6:AC:14:ILE:HG12	6:AC:15:THR:N	1.97	0.78
29:BF:184:TYR:O	29:BF:188:ARG:HG3	1.83	0.78
5:CB:208:ILE:H	5:CB:208:ILE:HD12	1.49	0.78
11:CH:80:ILE:H	11:CH:80:ILE:HD12	1.48	0.78
19:AP:4:ILE:HG12	19:AP:21:VAL:HG12	1.66	0.78
28:BE:3:GLY:HA3	28:BE:81:ILE:HG21	1.64	0.78
25:DA:1021:A:H8	25:DA:1022:G:H5"	1.48	0.78
13:AJ:27:ALA:HB2	13:AJ:85:LEU:HD11	1.64	0.78
25:BA:1506:C:H2'	25:BA:1506(A):A:C8	2.18	0.78
43:BW:73:ALA:HB3	43:BW:106:ILE:HD11	1.64	0.78
1:CA:499:A:H4'	1:CA:500:G:OP1	1.83	0.78
1:CA:976:G:C8	1:CA:1358:U:H2'	2.18	0.78
30:DG:60:LEU:HD11	30:DG:92:VAL:HG11	1.64	0.78
36:DP:128:HIS:HA	36:DP:147:LEU:HB3	1.63	0.78
47:D0:32:ARG:HH11	47:D0:32:ARG:CG	1.96	0.78
27:DD:158:ALA:HB3	27:DD:161:THR:HG21	1.66	0.78
30:DG:94:LEU:HD23	30:DG:94:LEU:H	1.49	0.78
25:BA:780:G:H21	25:BA:783:A:H62	1.31	0.78
1:CA:1504:G:H4'	1:CA:1505:G:O5'	1.84	0.78
5:AB:44:LEU:H	5:AB:44:LEU:HD12	1.47	0.78
8:AE:51:VAL:HB	8:AE:52:PRO:HD3	1.66	0.78
18:AO:44:LYS:HA	18:AO:44:LYS:HE3	1.65	0.78
35:BO:2:ILE:HG12	35:BO:8:LEU:HD11	1.66	0.77
18:AO:16:ALA:HB1	18:AO:21:ASP:HB3	1.66	0.77
25:DA:2305:A:H3'	25:DA:2306:C:H5"	1.65	0.77
39:DS:31:SER:HB3	39:DS:34:HIS:HB2	1.64	0.77
55:D8:34:TRP:CD1	55:D8:35:GLN:N	2.51	0.77
26:BB:111:U:H2'	26:BB:112:G:H8	1.49	0.77
32:BI:94:ALA:H	32:BI:116:LEU:HD22	1.47	0.77
55:B8:34:TRP:CD1	55:B8:35:GLN:N	2.52	0.77
9:CF:37:VAL:HG12	9:CF:38:GLU:H	1.49	0.77
6:CC:195:VAL:HG12	6:CC:196:LEU:H	1.50	0.77
34:DN:63:PRO:O	41:DU:64:ARG:HD2	1.85	0.77
43:DW:73:ALA:HB3	43:DW:106:ILE:HD11	1.64	0.77
1:AA:1286:A:H3'	1:AA:1287:A:C5'	2.14	0.77
4:AY:24:LYS:HE3	4:AY:111:LEU:HD12	1.66	0.77
25:DA:1006:C:H1'	34:DN:129:MET:HG2	1.66	0.77
25:BA:1332:G:N2	25:BA:1609:A:O2'	2.17	0.77
25:BA:2090:G:H21	48:B1:45:ASN:HD21	1.31	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BY:17:SER:HB2	45:BY:71:LYS:HD2	1.67	0.77
35:DO:2:ILE:HG12	35:DO:8:LEU:HD11	1.66	0.77
1:AA:1305:G:H22	1:AA:1331:G:H2'	1.49	0.77
26:BB:89(A):G:H2'	26:BB:89(B):A:C8	2.20	0.77
34:BN:157:ARG:N	34:BN:158:PRO:HD3	1.98	0.77
46:BZ:63:ASP:HB2	46:BZ:65:GLN:HG3	1.65	0.77
18:CO:44:LYS:HA	18:CO:44:LYS:HE3	1.66	0.77
28:DE:3:GLY:HA3	28:DE:81:ILE:HG21	1.65	0.77
38:DR:12:ARG:HD3	38:DR:16:HIS:HD2	1.48	0.77
1:AA:976:G:C8	1:AA:1358:U:H2'	2.18	0.77
32:BI:112:LYS:H	32:BI:112:LYS:HD2	1.50	0.77
34:BN:63:PRO:O	41:BU:64:ARG:HD2	1.84	0.77
36:BP:41:ARG:HA	36:BP:41:ARG:HE	1.46	0.77
1:CA:501:C:H2'	1:CA:502:G:C8	2.19	0.77
29:DF:185:ASP:HA	29:DF:188:ARG:HD3	1.65	0.77
1:CA:629:G:H2'	1:CA:630:G:H8	1.50	0.77
18:CO:16:ALA:HB1	18:CO:21:ASP:HB3	1.66	0.77
25:DA:1022:G:H22	25:DA:1142:A:H2	1.31	0.77
25:DA:2794(A):G:H3'	25:DA:2794(B):U:C5'	2.15	0.77
48:D1:27:GLU:HB2	48:D1:33:LYS:NZ	2.00	0.77
1:AA:68(Q):U:H2'	1:AA:68(R):C:H6	1.50	0.77
14:AK:22:HIS:HB3	14:AK:29:ILE:HG23	1.66	0.77
25:BA:106:C:H1'	45:BY:2:ARG:HE	1.48	0.77
4:CY:242:ILE:HG12	4:CY:264:VAL:HG12	1.67	0.77
7:CD:21:LEU:HD12	7:CD:22:LYS:H	1.48	0.77
9:CF:45:LEU:HD12	9:CF:59:TYR:HD1	1.50	0.77
25:BA:942:G:H5'	36:BP:35:HIS:HB2	1.67	0.76
19:CP:8:ARG:HB2	19:CP:28:ARG:NH1	2.00	0.76
21:CR:32:ARG:HA	21:CR:69:THR:HG21	1.67	0.76
25:DA:2202(C):G:H3'	25:DA:2202(C):G:N3	2.00	0.76
26:DB:89(A):G:H2'	26:DB:89(B):A:C8	2.19	0.76
1:AA:1504:G:H4'	1:AA:1505:G:O5'	1.85	0.76
15:CL:6:ILE:HD12	15:CL:7:ASN:H	1.51	0.76
25:DA:942:G:H5'	36:DP:35:HIS:HB2	1.66	0.76
1:AA:501:C:H2'	1:AA:502:G:C8	2.19	0.76
25:BA:1614:A:H61	43:BW:88:ARG:H	1.31	0.76
29:BF:8:GLN:H	29:BF:8:GLN:CD	1.86	0.76
1:CA:1286:A:H3'	1:CA:1287:A:C5'	2.14	0.76
8:CE:101:ILE:HD11	8:CE:119:LEU:HD23	1.65	0.76
25:DA:896:A:H5'	25:DA:897:C:OP2	1.84	0.76
1:AA:629:G:H2'	1:AA:630:G:H8	1.50	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1028(H):G:H2'	1:AA:1033:G:C8	2.19	0.76
9:AF:45:LEU:HD12	9:AF:59:TYR:HD1	1.50	0.76
25:BA:380:U:O2'	48:B1:20:ARG:HB3	1.85	0.76
25:BA:2202(C):G:H3'	25:BA:2202(C):G:N3	2.00	0.76
15:CL:5:THR:HG23	15:CL:8:GLN:HE21	1.50	0.76
6:AC:195:VAL:HG12	6:AC:196:LEU:H	1.50	0.76
23:AT:29:LYS:O	23:AT:33:ILE:HG12	1.85	0.76
25:BA:2432:A:C5	48:B1:34:THR:HG21	2.20	0.76
8:CE:51:VAL:HB	8:CE:52:PRO:HD3	1.67	0.76
39:DS:14:VAL:O	39:DS:18:ILE:HG12	1.84	0.76
43:DW:18:ARG:HG3	43:DW:76:VAL:HG13	1.67	0.76
44:DX:57:LEU:HD11	44:DX:78:LYS:HD2	1.67	0.76
8:AE:82:VAL:HG21	8:AE:138:ALA:HA	1.68	0.76
1:CA:68(Q):U:H2'	1:CA:68(R):C:H6	1.50	0.76
19:CP:4:ILE:HG12	19:CP:21:VAL:HG12	1.66	0.76
25:DA:1332:G:N2	25:DA:1609:A:O2'	2.18	0.76
29:DF:8:GLN:CD	29:DF:8:GLN:H	1.87	0.76
25:BA:896:A:H5'	25:BA:897:C:OP2	1.85	0.76
33:BK:90:LYS:HB3	33:BK:93:ARG:HD3	1.66	0.76
49:B2:14:ARG:HA	49:B2:17:SER:HB2	1.67	0.76
1:AA:1348:U:H4'	12:AI:120:ARG:HD2	1.68	0.76
15:AL:6:ILE:HD12	15:AL:7:ASN:H	1.50	0.76
21:AR:32:ARG:HA	21:AR:69:THR:HG21	1.68	0.76
25:BA:2784:C:H1'	28:BE:37:ARG:HH12	1.50	0.76
27:BD:158:ALA:HB3	27:BD:161:THR:HG21	1.68	0.76
14:CK:22:HIS:HB3	14:CK:29:ILE:HG23	1.68	0.76
23:CT:29:LYS:O	23:CT:33:ILE:HG12	1.84	0.76
25:BA:1021:A:H8	25:BA:1022:G:H5"	1.47	0.76
30:BG:94:LEU:HD23	30:BG:94:LEU:H	1.51	0.76
28:DE:57:LYS:HG3	28:DE:58:ARG:H	1.51	0.76
1:AA:950:U:H2'	1:AA:951:G:H8	1.51	0.75
25:BA:670:A:H4'	25:BA:671:C:H5"	1.68	0.75
25:BA:2794(A):G:H3'	25:BA:2794(B):U:C5'	2.15	0.75
1:CA:1305:G:H22	1:CA:1331:G:H2'	1.50	0.75
42:DV:21:ARG:HE	42:DV:91:TYR:HE1	1.29	0.75
52:D5:4:HIS:CB	52:D5:5:PRO:HD3	2.16	0.75
26:DB:111:U:H2'	26:DB:112:G:H8	1.49	0.75
28:BE:132:HIS:CD2	28:BE:135:HIS:CE1	2.74	0.75
29:BF:185:ASP:HA	29:BF:188:ARG:HD3	1.68	0.75
49:B2:50:ILE:HD12	49:B2:51:ARG:N	2.00	0.75
55:B8:61:LEU:O	55:B8:63:PRO:HD2	1.85	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DU:90:VAL:HG22	41:DU:91:ASP:N	1.98	0.75
13:AJ:74:ILE:HD13	13:AJ:74:ILE:H	1.51	0.75
15:AL:5:THR:HG23	15:AL:8:GLN:HE21	1.52	0.75
25:DA:955:C:OP1	37:DQ:85:LYS:HE2	1.86	0.75
36:DP:50:ARG:CG	36:DP:51:PHE:H	2.00	0.75
1:AA:992:U:H5'	1:AA:993:G:OP1	1.86	0.75
14:AK:57:THR:HG22	14:AK:59:TYR:H	1.52	0.75
41:BU:90:VAL:HG22	41:BU:91:ASP:N	2.01	0.75
40:DT:105:LEU:HB3	40:DT:110:ILE:HD11	1.69	0.75
5:AB:208:ILE:HD12	5:AB:208:ILE:H	1.49	0.75
40:BT:105:LEU:HB3	40:BT:110:ILE:HD11	1.68	0.75
29:DF:155:LEU:HB2	29:DF:189:THR:HG21	1.69	0.75
25:DA:807:U:OP2	36:DP:39:LYS:HG3	1.86	0.75
1:AA:1326:C:OP1	24:AU:12:LYS:HE2	1.87	0.75
38:BR:63:ARG:HB2	38:BR:80:PHE:HE2	1.50	0.75
6:CC:150:LYS:HB3	6:CC:201:TYR:HB2	1.68	0.75
8:CE:82:VAL:HG21	8:CE:138:ALA:HA	1.69	0.75
7:AD:119:GLN:HG3	7:AD:123:HIS:HD2	1.51	0.74
36:BP:71:VAL:HB	36:BP:72:PRO:HD3	1.69	0.74
20:CQ:7:THR:HG22	20:CQ:58:GLU:HG2	1.69	0.74
25:DA:2784:C:H1'	28:DE:37:ARG:HH12	1.50	0.74
45:DY:17:SER:HB2	45:DY:71:LYS:HD2	1.69	0.74
1:CA:992:U:H5'	1:CA:993:G:OP1	1.87	0.74
11:CH:114:THR:HG22	11:CH:117:GLY:O	1.87	0.74
14:CK:57:THR:HG22	14:CK:59:TYR:H	1.52	0.74
15:CL:32:ARG:O	15:CL:84:ILE:HG22	1.87	0.74
29:DF:34:TRP:CZ2	36:DP:12:ALA:HB2	2.22	0.74
6:AC:150:LYS:HB3	6:AC:201:TYR:HB2	1.68	0.74
10:CG:27:ILE:HD12	10:CG:40:ALA:HA	1.70	0.74
4:AY:242:ILE:HG12	4:AY:264:VAL:HG12	1.68	0.74
23:AT:49:ALA:HB3	23:AT:99:LEU:HD12	1.68	0.74
48:B1:86:SER:HB3	48:B1:89:GLU:HB2	1.69	0.74
8:CE:101:ILE:HD13	8:CE:101:ILE:H	1.52	0.74
19:AP:8:ARG:HB2	19:AP:28:ARG:NH1	2.01	0.74
25:BA:1116:C:H2'	25:BA:1117:G:H8	1.52	0.74
29:BF:155:LEU:HB2	29:BF:189:THR:HG21	1.68	0.74
36:BP:50:ARG:CG	36:BP:51:PHE:H	2.00	0.74
15:AL:5:THR:H	15:AL:8:GLN:HE21	1.35	0.74
15:AL:17:VAL:HG23	15:AL:18:ARG:H	1.52	0.74
6:CC:105:GLU:CD	6:CC:106:VAL:H	1.91	0.74
25:DA:1658:C:OP1	28:DE:132:HIS:ND1	2.20	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DI:112:LYS:H	32:DI:112:LYS:HD2	1.51	0.74
49:D2:57:ILE:O	49:D2:61:LEU:HB2	1.87	0.74
25:BA:1313:U:H4'	25:BA:1332:G:H4'	1.69	0.74
25:BA:1799:G:H8	27:BD:181:GLU:OE1	1.71	0.74
31:BH:23:ARG:HD3	31:BH:23:ARG:H	1.49	0.74
23:CT:82:SER:O	23:CT:86:ARG:HB3	1.88	0.74
34:DN:160:LYS:NZ	34:DN:160:LYS:HB3	2.02	0.74
49:D2:41:ILE:HD11	49:D2:44:LEU:HB2	1.69	0.74
5:AB:69:LEU:HD22	5:AB:91:PRO:HB2	1.68	0.74
13:AJ:96:ILE:HD13	13:AJ:96:ILE:H	1.53	0.74
25:BA:1348:G:H2'	25:BA:1349:A:H5"	1.69	0.74
29:BF:157:VAL:HB	29:BF:194:MET:HB3	1.70	0.74
1:CA:390:C:H4'	19:CP:28:ARG:HH21	1.53	0.74
41:DU:75:ASN:H	41:DU:75:ASN:ND2	1.85	0.74
31:BH:125:VAL:HG13	31:BH:131:VAL:HG22	1.70	0.74
1:CA:1172:C:H2'	1:CA:1173:G:H8	1.53	0.74
1:CA:1348:U:H4'	12:CI:120:ARG:HD2	1.68	0.74
25:DA:1799:G:H8	27:DD:181:GLU:OE1	1.70	0.74
25:DA:2432:A:C5	48:D1:34:THR:HG21	2.22	0.74
33:DK:90:LYS:HD3	33:DK:93:ARG:HD3	1.69	0.74
49:D2:14:ARG:HA	49:D2:17:SER:HB2	1.68	0.74
5:CB:69:LEU:HD22	5:CB:91:PRO:HB2	1.70	0.73
23:CT:49:ALA:HB3	23:CT:99:LEU:HD12	1.68	0.73
25:DA:1348:G:H2'	25:DA:1349:A:H5"	1.69	0.73
6:AC:105:GLU:CD	6:AC:106:VAL:H	1.91	0.73
15:AL:32:ARG:O	15:AL:84:ILE:HG22	1.88	0.73
25:BA:518:G:H4'	43:BW:18:ARG:NH1	2.03	0.73
54:B7:8:ASN:HD22	54:B7:8:ASN:C	1.91	0.73
1:CA:950:U:H2'	1:CA:951:G:H8	1.53	0.73
5:CB:24:TRP:CZ3	5:CB:26:PRO:HA	2.24	0.73
13:CJ:74:ILE:HD13	13:CJ:74:ILE:H	1.51	0.73
13:CJ:96:ILE:HD13	13:CJ:96:ILE:H	1.53	0.73
32:DI:38:LEU:HD23	48:D1:75:GLU:OE2	1.88	0.73
36:DP:71:VAL:HB	36:DP:72:PRO:HD3	1.69	0.73
1:AA:1493:A:C4	4:AY:137:ALA:HA	2.23	0.73
15:CL:17:VAL:HG23	15:CL:18:ARG:H	1.51	0.73
25:DA:270(S):G:H2'	25:DA:270(T):G:H8	1.52	0.73
25:DA:1313:U:H4'	25:DA:1332:G:H4'	1.69	0.73
25:DA:2731:G:C6	25:DA:2732:G:O6	2.41	0.73
27:DD:58:HIS:HD2	27:DD:59:LYS:N	1.84	0.73
44:DX:63:LYS:NZ	44:DX:72:LYS:HB3	2.03	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:807:U:OP2	36:BP:39:LYS:HG3	1.89	0.73
25:BA:2745:C:H1'	31:BH:143:GLN:HG2	1.70	0.73
28:BE:57:LYS:HG3	28:BE:58:ARG:H	1.53	0.73
36:BP:50:ARG:HG3	36:BP:51:PHE:N	2.02	0.73
52:B5:4:HIS:CB	52:B5:5:PRO:HD3	2.18	0.73
29:DF:157:VAL:HB	29:DF:194:MET:HB3	1.70	0.73
17:AN:12:ARG:HB3	17:AN:14:PRO:HD3	1.69	0.73
39:DS:24:LEU:O	39:DS:86:ALA:HB3	1.87	0.73
1:AA:390:C:H4'	19:AP:28:ARG:HH21	1.54	0.73
20:AQ:7:THR:HG22	20:AQ:58:GLU:HG2	1.70	0.73
4:CY:264:VAL:HG23	4:CY:273:VAL:HG13	1.71	0.73
16:CM:54:VAL:O	16:CM:58:GLU:HG2	1.88	0.73
25:DA:2745:C:H1'	31:DH:143:GLN:HG2	1.70	0.73
33:DK:112:MET:N	33:DK:113:PRO:HD2	2.03	0.73
48:D1:13:ILE:O	48:D1:14:VAL:HB	1.88	0.73
1:AA:1124:G:H4'	13:AJ:38:ILE:HD11	1.71	0.73
11:AH:114:THR:HG22	11:AH:117:GLY:O	1.88	0.73
32:BI:60:GLU:HA	32:BI:63:ALA:HB3	1.71	0.73
1:CA:1422:G:H5"	35:DO:48:PRO:HB3	1.68	0.73
45:DY:14:LEU:HA	45:DY:24:VAL:HG22	1.69	0.73
48:D1:18:ILE:CD1	48:D1:42:GLN:HB2	2.19	0.73
25:BA:2731:G:C6	25:BA:2732:G:O6	2.42	0.73
39:BS:34:HIS:HA	39:BS:54:LEU:HD23	1.70	0.73
43:BW:18:ARG:HG3	43:BW:76:VAL:HG13	1.69	0.73
44:BX:57:LEU:HD11	44:BX:78:LYS:HD2	1.70	0.73
37:DQ:81:VAL:O	37:DQ:82:ARG:HG2	1.89	0.73
48:D1:13:ILE:HG13	48:D1:15:ALA:H	1.51	0.73
10:AG:27:ILE:HD12	10:AG:40:ALA:HA	1.69	0.73
36:BP:45:LEU:HD23	36:BP:46:LYS:N	2.04	0.73
36:DP:50:ARG:HG3	36:DP:51:PHE:N	2.04	0.73
25:BA:271(M):G:H3'	25:BA:271(N):G:H4'	1.71	0.72
25:BA:850:C:H5'	50:B3:17:LYS:HZ2	1.54	0.72
25:BA:1079:C:OP1	33:BK:132:ARG:HD2	1.89	0.72
25:BA:2068:U:N3	25:BA:2430:A:H2	1.85	0.72
25:DA:670:A:H4'	25:DA:671:C:H5"	1.69	0.72
25:DA:1116:C:H2'	25:DA:1117:G:H8	1.52	0.72
1:AA:1063:C:H3'	1:AA:1064:G:H2'	1.71	0.72
34:BN:160:LYS:NZ	34:BN:160:LYS:HB3	2.02	0.72
53:B6:11:LEU:HD13	53:B6:12:GLU:H	1.53	0.72
41:DU:75:ASN:HD22	41:DU:75:ASN:N	1.85	0.72
54:D7:8:ASN:HD22	54:D7:8:ASN:C	1.92	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AD:117:ALA:O	7:AD:121:VAL:HG23	1.89	0.72
25:BA:2415:G:H4'	36:BP:66:GLY:CA	2.19	0.72
37:BQ:82:ARG:HG2	37:BQ:82:ARG:NH1	2.00	0.72
45:BY:14:LEU:HA	45:BY:24:VAL:HG22	1.70	0.72
5:AB:24:TRP:CZ3	5:AB:26:PRO:HA	2.24	0.72
5:AB:210:SER:O	5:AB:214:ILE:HG12	1.89	0.72
15:AL:74:HIS:CD2	15:AL:76:LEU:H	2.03	0.72
32:BI:93:THR:HG22	32:BI:116:LEU:HD11	1.71	0.72
41:BU:75:ASN:H	41:BU:75:ASN:ND2	1.85	0.72
54:B7:46:VAL:HG12	54:B7:47:ARG:H	1.53	0.72
9:CF:12:PRO:HD3	9:CF:58:GLY:HA2	1.72	0.72
28:DE:132:HIS:CD2	28:DE:135:HIS:CE1	2.77	0.72
36:DP:146:VAL:HG22	36:DP:147:LEU:H	1.52	0.72
48:D1:86:SER:O	48:D1:90:ILE:HG12	1.89	0.72
49:D2:35:LEU:HD12	49:D2:53:LEU:HD12	1.71	0.72
1:AA:1363:A:H4'	1:AA:1364:U:H5"	1.72	0.72
11:AH:51:VAL:HG12	11:AH:52:ASP:N	2.04	0.72
16:AM:54:VAL:O	16:AM:58:GLU:HG2	1.89	0.72
36:BP:146:VAL:HG22	36:BP:147:LEU:H	1.54	0.72
5:CB:204:ASN:HD21	5:CB:207:ALA:H	1.37	0.72
25:DA:1541:U:H3'	25:DA:1542:G:C3'	2.19	0.72
25:DA:2393:A:H5"	36:DP:62:LEU:HB3	1.72	0.72
16:AM:97:PRO:HA	16:AM:110:ARG:HD3	1.71	0.72
25:BA:1899:G:H22	25:BA:1902:C:H41	1.37	0.72
1:CA:438:G:H4'	7:CD:123:HIS:ND1	2.04	0.72
25:DA:448:U:H1'	29:DF:84:VAL:HG21	1.70	0.72
25:DA:2090:G:H21	48:D1:45:ASN:ND2	1.86	0.72
30:DG:34:LEU:HD23	30:DG:161:THR:HG22	1.72	0.72
25:BA:1996:C:H4'	25:BA:1997:G:OP1	1.89	0.72
40:BT:90:GLN:HA	40:BT:90:GLN:HE21	1.54	0.72
21:CR:58:LEU:HD23	21:CR:62:GLU:HB3	1.70	0.72
25:DA:1912:A:H4'	25:DA:1913:A:OP1	1.89	0.72
36:DP:62:LEU:HD21	55:D8:25:MET:HB2	1.71	0.72
37:DQ:36:ALA:HA	37:DQ:129:THR:HG22	1.70	0.72
9:AF:12:PRO:HD3	9:AF:58:GLY:HA2	1.72	0.72
25:BA:270(H):C:H2'	25:BA:270(I):G:H8	1.55	0.72
36:BP:62:LEU:HD21	55:B8:25:MET:HB2	1.71	0.72
37:BQ:81:VAL:O	37:BQ:82:ARG:HG2	1.90	0.72
13:CJ:50:ILE:HB	17:CN:41:ARG:HE	1.53	0.72
1:AA:985:C:H2'	1:AA:986:A:H8	1.54	0.72
4:AY:264:VAL:HG23	4:AY:273:VAL:HG13	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:AS:40:ILE:HD13	22:AS:62:ILE:HD11	1.71	0.72
25:BA:448:U:H1'	29:BF:84:VAL:HG21	1.72	0.72
30:BG:67:LYS:H	30:BG:67:LYS:HD2	1.55	0.72
31:DH:125:VAL:HG13	31:DH:131:VAL:HG22	1.71	0.72
40:DT:90:GLN:HA	40:DT:90:GLN:HE21	1.54	0.72
27:BD:58:HIS:HD2	27:BD:59:LYS:N	1.87	0.71
39:BS:24:LEU:O	39:BS:86:ALA:HB3	1.90	0.71
48:B1:27:GLU:HB2	48:B1:33:LYS:NZ	2.03	0.71
26:DB:10:C:N4	26:DB:11:C:H41	1.87	0.71
27:DD:267:SER:O	27:DD:270:ILE:HG13	1.90	0.71
28:DE:201:THR:HG22	28:DE:202:LYS:N	2.05	0.71
36:DP:58:THR:C	36:DP:60:MET:H	1.91	0.71
48:D1:86:SER:HB3	48:D1:89:GLU:HB2	1.71	0.71
23:AT:82:SER:O	23:AT:86:ARG:HB3	1.89	0.71
31:BH:20:ALA:HB1	31:BH:21:PRO:HD2	1.72	0.71
36:BP:47:ASP:HB3	36:BP:48:PRO:C	2.10	0.71
49:B2:9:GLN:HA	49:B2:12:GLU:HB3	1.72	0.71
49:B2:41:ILE:HD11	49:B2:44:LEU:HB2	1.71	0.71
22:CS:50:ALA:HB1	22:CS:57:HIS:HB3	1.71	0.71
25:DA:773:U:H4'	27:DD:47:GLY:HA3	1.71	0.71
25:DA:1045:A:H4'	25:DA:1046:A:H5"	1.72	0.71
36:DP:45:LEU:HD23	36:DP:46:LYS:N	2.04	0.71
40:DT:26:ASP:HB2	40:DT:91:ARG:HA	1.72	0.71
25:BA:1386:C:H2'	25:BA:1387:C:H6	1.55	0.71
34:BN:85:VAL:HG22	34:BN:89:LYS:HG3	1.72	0.71
37:BQ:36:ALA:HA	37:BQ:129:THR:HG22	1.72	0.71
25:DA:1009:A:H5'	25:DA:1009:A:C8	2.23	0.71
25:DA:1359:A:H2'	25:DA:1360:A:H5'	1.72	0.71
6:AC:52:LEU:HD13	6:AC:68:VAL:HG13	1.72	0.71
21:AR:58:LEU:HD23	21:AR:62:GLU:HB3	1.70	0.71
25:BA:270(S):G:H2'	25:BA:270(T):G:H8	1.54	0.71
34:BN:127:LYS:HB2	34:BN:140:PHE:CE1	2.24	0.71
34:BN:151:HIS:HE1	34:BN:157:ARG:NE	1.88	0.71
48:B1:13:ILE:O	48:B1:14:VAL:HB	1.90	0.71
6:CC:52:LEU:HD13	6:CC:68:VAL:HG13	1.73	0.71
25:BA:2090:G:H21	48:B1:45:ASN:ND2	1.87	0.71
1:CA:1238:A:N7	1:CA:1303:C:H1'	2.06	0.71
32:DI:60:GLU:HA	32:DI:63:ALA:HB3	1.72	0.71
1:AA:404:U:H2'	1:AA:405:U:H6	1.56	0.71
7:AD:126:ILE:HG22	7:AD:127:THR:H	1.54	0.71
29:BF:110:LEU:HD11	29:BF:181:LEU:HD22	1.73	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BG:34:LEU:HD23	30:BG:161:THR:HG22	1.71	0.71
49:B2:35:LEU:HD12	49:B2:53:LEU:HD12	1.72	0.71
6:CC:164:ARG:HG2	6:CC:165:THR:H	1.56	0.71
25:DA:1996:C:H4'	25:DA:1997:G:OP1	1.90	0.71
27:DD:31:LYS:O	27:DD:35:LYS:HB2	1.91	0.71
25:BA:560:C:H4'	41:BU:52:ARG:NH2	2.04	0.71
25:BA:560:C:H4'	41:BU:52:ARG:HH22	1.56	0.71
33:BK:131:ALA:HA	33:BK:134:MET:HG2	1.70	0.71
25:DA:773:U:C4'	27:DD:47:GLY:HA3	2.20	0.71
25:DA:1174:U:H2'	25:DA:1175:G:C5	2.26	0.71
36:DP:47:ASP:HB3	36:DP:48:PRO:C	2.11	0.71
42:DV:2:PHE:CE2	42:DV:13:ARG:HD3	2.25	0.71
53:D6:11:LEU:HD13	53:D6:12:GLU:H	1.53	0.71
22:AS:50:ALA:HB1	22:AS:57:HIS:HB3	1.71	0.71
33:BK:2:LYS:HG3	33:BK:3:LYS:H	1.53	0.71
37:BQ:58:PHE:HD1	37:BQ:58:PHE:O	1.73	0.71
48:B1:13:ILE:HG13	48:B1:15:ALA:H	1.53	0.71
1:AA:522:C:H41	15:AL:52:ARG:HH22	1.37	0.71
35:BO:119:PRO:HB2	40:BT:68:TYR:CE1	2.26	0.71
40:BT:26:ASP:HB2	40:BT:91:ARG:HA	1.71	0.71
48:B1:86:SER:O	48:B1:90:ILE:HG12	1.89	0.71
49:B2:57:ILE:O	49:B2:61:LEU:HB2	1.90	0.71
54:B7:35:ARG:HG3	54:B7:42:LEU:HD11	1.72	0.71
1:CA:404:U:H2'	1:CA:405:U:H6	1.55	0.71
4:CY:122:PHE:HB2	4:CY:125:ALA:HB2	1.73	0.71
25:DA:271(M):G:H3'	25:DA:271(N):G:H4'	1.71	0.71
25:DA:1678:G:N2	25:DA:1989:G:H22	1.88	0.71
39:DS:34:HIS:HA	39:DS:54:LEU:HD23	1.71	0.71
49:D2:9:GLN:HA	49:D2:12:GLU:HB3	1.72	0.71
4:AY:122:PHE:HB2	4:AY:125:ALA:HB2	1.73	0.71
25:DA:1386:C:H2'	25:DA:1387:C:H6	1.55	0.71
25:BA:1061:U:C4	33:BK:9:LYS:HB3	2.26	0.70
25:BA:1270:C:H5"	25:BA:1271:G:O5'	1.91	0.70
25:BA:1493:C:H4'	25:BA:1494:A:OP1	1.90	0.70
25:BA:1506:C:H2'	25:BA:1506(A):A:H8	1.56	0.70
25:BA:2393:A:H5"	36:BP:62:LEU:HB3	1.73	0.70
36:BP:58:THR:C	36:BP:60:MET:H	1.92	0.70
1:CA:748:C:H1'	1:CA:749:C:OP2	1.90	0.70
1:CA:818:G:O2'	1:CA:819:A:H5'	1.91	0.70
25:DA:1981:A:H5"	25:DA:1982:C:OP2	1.90	0.70
54:D7:46:VAL:HG12	54:D7:47:ARG:H	1.54	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:AN:16:PHE:HD2	17:AN:16:PHE:N	1.88	0.70
25:BA:271(Q):A:H61	25:BA:357(E):U:H3	1.39	0.70
27:BD:16:MET:HE2	27:BD:211:ARG:HE	1.56	0.70
36:BP:41:ARG:NH1	36:BP:45:LEU:HD12	2.06	0.70
1:CA:1124:G:H4'	13:CJ:38:ILE:HD11	1.71	0.70
25:DA:380:U:O2'	48:D1:20:ARG:HB3	1.90	0.70
25:DA:518:G:H4'	43:DW:18:ARG:NH1	2.06	0.70
25:DA:1270:C:H5"	25:DA:1271:G:O5'	1.91	0.70
37:DQ:58:PHE:O	37:DQ:58:PHE:HD1	1.73	0.70
1:AA:1172:C:H2'	1:AA:1173:G:H8	1.55	0.70
1:AA:1238:A:N7	1:AA:1303:C:H1'	2.06	0.70
25:BA:2630:G:H1'	25:BA:2894:G:H1'	1.73	0.70
48:B1:18:ILE:CD1	48:B1:42:GLN:HB2	2.20	0.70
1:CA:723:U:H5"	1:CA:724:G:OP2	1.91	0.70
16:CM:97:PRO:HA	16:CM:110:ARG:HD3	1.72	0.70
25:DA:191:A:H2'	25:DA:192:C:C6	2.25	0.70
25:DA:560:C:H4'	41:DU:52:ARG:NH2	2.06	0.70
25:DA:1864(B):C:O2	25:DA:1864(B):C:H2'	1.91	0.70
27:DD:58:HIS:CD2	27:DD:59:LYS:N	2.58	0.70
25:BA:479:A:H4'	25:BA:480:A:OP1	1.89	0.70
25:BA:543(C):A:H2'	25:BA:543(D):A:C8	2.26	0.70
25:BA:1658:C:OP1	28:BE:132:HIS:ND1	2.24	0.70
28:BE:111:ARG:HD2	28:BE:160:TYR:HE1	1.56	0.70
44:BX:15:GLU:H	44:BX:15:GLU:CD	1.94	0.70
1:CA:1269:A:OP1	24:CU:24:ARG:HG2	1.92	0.70
5:CB:210:SER:O	5:CB:214:ILE:HG12	1.91	0.70
7:CD:121:VAL:O	7:CD:134:ASP:HA	1.91	0.70
8:CE:91:LEU:HD23	8:CE:120:THR:HG22	1.73	0.70
25:DA:850:C:H5'	50:D3:17:LYS:HZ2	1.55	0.70
1:AA:818:G:O2'	1:AA:819:A:H5'	1.91	0.70
7:AD:8:VAL:O	7:AD:11:LEU:HG	1.91	0.70
25:BA:1045:A:H4'	25:BA:1046:A:H5"	1.72	0.70
42:BV:2:PHE:CE2	42:BV:13:ARG:HD3	2.25	0.70
45:BY:7:VAL:HB	45:BY:8:LYS:HZ3	1.56	0.70
45:BY:50:ARG:HG3	45:BY:52:SER:H	1.56	0.70
1:CA:1363:A:H4'	1:CA:1364:U:H5"	1.71	0.70
11:CH:51:VAL:HG12	11:CH:52:ASP:N	2.06	0.70
25:DA:1299:G:H5"	25:DA:1300:U:OP1	1.90	0.70
25:DA:1493:C:H4'	25:DA:1494:A:OP1	1.91	0.70
28:DE:101:ARG:HD3	28:DE:169:ASN:ND2	2.07	0.70
36:DP:41:ARG:NH1	36:DP:45:LEU:HD12	2.06	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DU:22:LYS:HE2	41:DU:22:LYS:HA	1.74	0.70
31:BH:92:ILE:H	31:BH:92:ILE:HD12	1.57	0.70
1:CA:522:C:H41	15:CL:52:ARG:HH22	1.38	0.70
21:CR:19:LYS:HE3	21:CR:19:LYS:HA	1.74	0.70
25:DA:479:A:H4'	25:DA:480:A:OP1	1.91	0.70
29:DF:110:LEU:HD11	29:DF:181:LEU:HD22	1.72	0.70
1:AA:950:U:H2'	1:AA:951:G:C8	2.27	0.70
25:BA:1171:G:H2'	25:BA:1172:G:O4'	1.91	0.70
26:BB:10:C:N4	26:BB:11:C:H41	1.88	0.70
1:CA:68(H):G:H1	1:CA:68(R):C:H42	1.39	0.70
25:DA:137(D):A:H8	25:DA:1408:C:HO2'	1.34	0.70
25:DA:2415:G:H4'	36:DP:66:GLY:CA	2.21	0.70
25:DA:2630:G:H1'	25:DA:2894:G:H1'	1.73	0.70
30:DG:67:LYS:H	30:DG:67:LYS:HD2	1.55	0.70
34:DN:127:LYS:HB2	34:DN:140:PHE:CE1	2.25	0.70
36:DP:62:LEU:CD2	55:D8:25:MET:HB2	2.22	0.70
1:AA:1080:A:H5"	1:AA:1081:G:OP2	1.92	0.70
25:BA:1912:A:H4'	25:BA:1913:A:OP1	1.91	0.70
27:BD:31:LYS:O	27:BD:35:LYS:HB2	1.91	0.70
1:CA:1504:G:OP1	1:CA:1507:A:H4'	1.91	0.70
25:DA:270(H):C:H2'	25:DA:270(I):G:H8	1.56	0.70
39:DS:24:LEU:HD12	39:DS:84:GLN:HB3	1.74	0.70
41:DU:58:ARG:O	41:DU:62:ILE:HG12	1.91	0.70
44:DX:26:TYR:OH	44:DX:88:LYS:HB2	1.92	0.70
27:BD:58:HIS:CD2	27:BD:59:LYS:N	2.60	0.70
37:BQ:80:GLU:HA	37:BQ:80:GLU:OE2	1.92	0.70
45:BY:81:LYS:CG	45:BY:97:ARG:HB3	2.22	0.70
25:DA:844:C:H2'	25:DA:845:G:H5'	1.74	0.70
25:DA:1021:A:H62	25:DA:1141:U:H3	1.40	0.70
25:DA:1614:A:C2	43:DW:93:ALA:HB2	2.27	0.70
25:DA:2600:A:C6	25:DA:2601:C:N4	2.60	0.70
30:DG:39:ILE:HG12	30:DG:157:ILE:HG22	1.74	0.70
42:DV:34:GLU:O	42:DV:36:PRO:HD3	1.91	0.70
45:DY:81:LYS:CG	45:DY:97:ARG:HB3	2.21	0.70
1:AA:723:U:H5"	1:AA:724:G:OP2	1.92	0.70
8:AE:101:ILE:HD13	8:AE:101:ILE:H	1.53	0.70
12:AI:58:ARG:HH21	12:AI:59:PHE:HE1	1.40	0.70
14:AK:18:ARG:HG3	14:AK:33:THR:HG23	1.74	0.70
25:BA:1174:U:H2'	25:BA:1175:G:C5	2.26	0.70
25:BA:1678:G:N2	25:BA:1989:G:H22	1.90	0.70
25:BA:1899:G:H21	25:BA:1902:C:H41	1.34	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:101:ARG:HH21	28:BE:171:GLU:HB2	1.57	0.70
32:BI:5:LEU:H	32:BI:5:LEU:HD23	1.57	0.70
25:DA:1506:C:H2'	25:DA:1506(A):A:H8	1.55	0.70
25:BA:1210:A:H5'	25:BA:1210:A:H8	1.56	0.69
25:BA:1359:A:H2'	25:BA:1360:A:H5'	1.72	0.69
27:BD:267:SER:O	27:BD:270:ILE:HG13	1.91	0.69
40:BT:77:PRO:HB2	40:BT:80:SER:HB2	1.74	0.69
15:CL:5:THR:HG23	15:CL:8:GLN:NE2	2.06	0.69
25:DA:2502:G:H5'	25:DA:2503:A:H5"	1.72	0.69
31:DH:20:ALA:HB1	31:DH:21:PRO:HD2	1.72	0.69
34:DN:151:HIS:HE1	34:DN:157:ARG:NE	1.90	0.69
13:AJ:38:ILE:HB	13:AJ:71:LEU:HB3	1.74	0.69
1:CA:1063:C:H3'	1:CA:1064:G:H2'	1.72	0.69
13:CJ:38:ILE:HB	13:CJ:71:LEU:HB3	1.73	0.69
22:CS:40:ILE:HD13	22:CS:62:ILE:HD11	1.73	0.69
25:DA:1171:G:H2'	25:DA:1172:G:O4'	1.91	0.69
1:AA:748:C:H1'	1:AA:749:C:OP2	1.91	0.69
25:BA:322:A:H3'	29:BF:169:ASN:HD21	1.58	0.69
31:BH:17:VAL:HG12	31:BH:26:VAL:HG22	1.74	0.69
25:DA:539:G:H2'	25:DA:540:C:H6	1.57	0.69
25:DA:857:C:H4'	47:D0:23:VAL:HG21	1.75	0.69
31:DH:169:VAL:HA	31:DH:170:ARG:HH21	1.57	0.69
39:DS:51:ALA:HB3	39:DS:73:LEU:HG	1.74	0.69
7:AD:49:ARG:NH1	7:AD:49:ARG:HA	2.06	0.69
15:AL:5:THR:HG23	15:AL:8:GLN:NE2	2.08	0.69
17:AN:16:PHE:N	17:AN:16:PHE:CD2	2.57	0.69
42:BV:34:GLU:O	42:BV:36:PRO:HD3	1.92	0.69
46:BZ:109:ALA:HB3	46:BZ:145:GLU:HG2	1.74	0.69
4:CY:77:SER:HB2	4:CY:110:LYS:HZ1	1.56	0.69
25:DA:543(C):A:H2'	25:DA:543(D):A:C8	2.27	0.69
28:DE:36:ARG:NH2	28:DE:88:GLY:HA2	2.07	0.69
28:DE:101:ARG:HH21	28:DE:171:GLU:HB2	1.56	0.69
32:DI:82:ARG:HD2	32:DI:89:TYR:HE2	1.57	0.69
37:DQ:23:GLY:HA3	37:DQ:98:LYS:HB2	1.75	0.69
23:AT:25:ARG:O	23:AT:29:LYS:HG2	1.92	0.69
25:BA:1993:U:H4'	28:BE:128:SER:HB2	1.75	0.69
30:BG:39:ILE:HG12	30:BG:157:ILE:HG22	1.74	0.69
1:CA:559:A:H4'	1:CA:560:U:C3'	2.16	0.69
5:CB:83:MET:HE3	5:CB:234:PRO:HG2	1.75	0.69
14:CK:18:ARG:HG3	14:CK:33:THR:HG23	1.74	0.69
14:CK:48:ILE:HD11	14:CK:64:ALA:HA	1.75	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1899:G:H22	25:DA:1902:C:H41	1.39	0.69
40:DT:48:ILE:H	40:DT:48:ILE:HD12	1.57	0.69
6:AC:164:ARG:HG2	6:AC:165:THR:H	1.56	0.69
23:AT:49:ALA:HA	23:AT:52:ALA:HB3	1.73	0.69
34:BN:80:ALA:O	34:BN:83:ILE:HG13	1.93	0.69
7:CD:118:ARG:O	7:CD:122:ARG:HB2	1.92	0.69
25:DA:1817:G:OP1	27:DD:88:ARG:NH2	2.25	0.69
38:DR:18:LEU:HD11	38:DR:22:ARG:CZ	2.22	0.69
38:DR:52:ILE:HD13	38:DR:79:LEU:HD21	1.75	0.69
40:DT:77:PRO:HB2	40:DT:80:SER:HB2	1.75	0.69
49:D2:12:GLU:C	49:D2:14:ARG:H	1.96	0.69
1:AA:1371:G:OP1	12:AI:11:LYS:HB3	1.92	0.69
25:BA:71:A:H2	44:BX:31:HIS:HE1	1.41	0.69
15:CL:74:HIS:CD2	15:CL:76:LEU:H	2.04	0.69
25:DA:1116:C:H2'	25:DA:1117:G:C8	2.28	0.69
27:DD:16:MET:HE2	27:DD:211:ARG:HE	1.56	0.69
36:DP:58:THR:C	36:DP:61:ARG:HE	1.96	0.69
43:DW:18:ARG:HG3	43:DW:76:VAL:CG1	2.22	0.69
1:AA:6:G:H4'	1:AA:298:A:H4'	1.75	0.69
1:AA:523:A:H61	15:AL:52:ARG:HH12	1.40	0.69
1:AA:1422:G:H5"	35:BO:48:PRO:HB3	1.75	0.69
1:AA:1504:G:OP1	1:AA:1507:A:H4'	1.91	0.69
5:AB:204:ASN:HD21	5:AB:207:ALA:H	1.37	0.69
5:AB:212:GLN:HG3	5:AB:235:SER:HB2	1.75	0.69
8:AE:91:LEU:HD23	8:AE:120:THR:HG22	1.75	0.69
25:BA:137(A):G:H2'	25:BA:137(C):G:N7	2.08	0.69
25:BA:214:G:H1'	25:BA:216:A:O2'	1.93	0.69
25:BA:539:G:H2'	25:BA:540:C:H6	1.58	0.69
25:BA:773:U:H4'	27:BD:47:GLY:HA3	1.74	0.69
25:BA:1062:G:H21	33:BK:133:SER:HB3	1.58	0.69
25:BA:2502:G:H5'	25:BA:2503:A:H5"	1.74	0.69
32:BI:82:ARG:HD2	32:BI:89:TYR:HE2	1.58	0.69
38:BR:18:LEU:HD11	38:BR:22:ARG:CZ	2.23	0.69
39:BS:51:ALA:HB3	39:BS:73:LEU:HG	1.74	0.69
41:BU:22:LYS:HE2	41:BU:22:LYS:HA	1.73	0.69
52:B5:6:VAL:HG22	52:B5:7:PRO:HD2	1.74	0.69
1:CA:523:A:H61	15:CL:52:ARG:HH12	1.41	0.69
1:CA:1371:G:OP1	12:CI:11:LYS:HB3	1.92	0.69
13:CJ:84:GLN:HE21	13:CJ:88:LEU:HD22	1.58	0.69
25:DA:214:G:H1'	25:DA:216:A:O2'	1.92	0.69
25:DA:528:A:C2	25:DA:2042:A:H2'	2.28	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1386:C:H2'	25:DA:1387:C:C6	2.28	0.69
25:DA:2893:G:H5"	25:DA:2894:G:O4'	1.93	0.69
29:DF:136:THR:HG22	29:DF:166:ALA:O	1.92	0.69
29:DF:165:ARG:HA	29:DF:168:ARG:HD3	1.75	0.69
31:DH:92:ILE:HD12	31:DH:92:ILE:H	1.57	0.69
32:DI:93:THR:HG22	32:DI:116:LEU:HD11	1.74	0.69
33:DK:66:THR:HG22	33:DK:68:VAL:HG23	1.75	0.69
34:DN:85:VAL:HG22	34:DN:89:LYS:HG3	1.74	0.69
45:DY:50:ARG:HG3	45:DY:52:SER:H	1.56	0.69
46:DZ:109:ALA:HB3	46:DZ:145:GLU:HG2	1.74	0.69
25:BA:2893:G:H5"	25:BA:2894:G:O4'	1.93	0.69
28:BE:36:ARG:NH2	28:BE:88:GLY:HA2	2.06	0.69
28:BE:101:ARG:HD3	28:BE:169:ASN:ND2	2.07	0.69
31:BH:169:VAL:HA	31:BH:170:ARG:HH21	1.56	0.69
15:CL:5:THR:H	15:CL:8:GLN:HE21	1.41	0.69
23:CT:25:ARG:O	23:CT:29:LYS:HG2	1.93	0.69
33:DK:8:VAL:HG22	33:DK:9:LYS:H	1.56	0.69
36:DP:125:VAL:O	36:DP:145:PRO:HD2	1.93	0.69
42:BV:79:VAL:O	42:BV:79:VAL:HG12	1.92	0.69
1:CA:950:U:H2'	1:CA:951:G:C8	2.28	0.69
12:CI:58:ARG:HH21	12:CI:59:PHE:HE1	1.40	0.69
25:DA:1545:A:H2'	25:DA:1546:C:H5'	1.75	0.69
4:AY:110:LYS:HZ3	4:AY:110:LYS:HB3	1.58	0.68
25:BA:1386:C:H2'	25:BA:1387:C:C6	2.28	0.68
25:BA:2600:A:C6	25:BA:2601:C:N4	2.61	0.68
36:BP:62:LEU:CD2	55:B8:25:MET:HB2	2.22	0.68
37:BQ:23:GLY:HA3	37:BQ:98:LYS:HB2	1.74	0.68
8:CE:43:LEU:HD12	8:CE:109:ILE:HD11	1.75	0.68
36:DP:25:SER:O	36:DP:30:THR:HG23	1.93	0.68
37:DQ:82:ARG:HG2	37:DQ:82:ARG:NH1	1.99	0.68
41:DU:29:SER:OG	41:DU:30:LYS:HE3	1.94	0.68
1:AA:634:C:H2'	1:AA:635:G:H8	1.57	0.68
16:AM:45:VAL:O	16:AM:48:LEU:HD22	1.94	0.68
33:BK:54:PRO:HD3	33:BK:72:PRO:HA	1.75	0.68
36:BP:27:HIS:CG	36:BP:28:GLY:N	2.60	0.68
46:BZ:4:ARG:HH12	46:BZ:60:GLU:HG3	1.58	0.68
1:CA:955:U:H2'	1:CA:956:U:H6	1.58	0.68
25:DA:1541:U:C3'	25:DA:1542:G:H3'	2.19	0.68
32:DI:92:VAL:HG13	32:DI:120:ILE:HB	1.75	0.68
1:AA:1314:C:H41	22:AS:4:SER:N	1.92	0.68
13:AJ:84:GLN:HE21	13:AJ:88:LEU:HD22	1.57	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:773:U:C4'	27:BD:47:GLY:HA3	2.23	0.68
25:BA:857:C:H4'	47:B0:23:VAL:HG21	1.75	0.68
25:BA:1299:G:H5"	25:BA:1300:U:OP1	1.93	0.68
1:CA:634:C:H2'	1:CA:635:G:H8	1.57	0.68
1:CA:973:G:H3'	1:CA:974:A:H5"	1.75	0.68
1:CA:985:C:H2'	1:CA:986:A:H8	1.56	0.68
1:CA:1109:C:H2'	1:CA:1110:A:O4'	1.93	0.68
25:DA:271(Q):A:H61	25:DA:357(E):U:H3	1.40	0.68
25:DA:910:A:C5	37:DQ:13:GLN:HG3	2.28	0.68
53:D6:34:LEU:H	53:D6:34:LEU:HD13	1.58	0.68
1:AA:913:A:H1'	1:AA:914:A:OP2	1.93	0.68
1:AA:977:A:H2'	1:AA:978:A:H5'	1.75	0.68
6:AC:31:HIS:O	6:AC:35:GLU:HG2	1.93	0.68
25:BA:1005:C:O2'	34:BN:51:THR:HG21	1.94	0.68
26:BB:66:A:H61	26:BB:107:U:H2'	1.58	0.68
29:BF:136:THR:HG22	29:BF:166:ALA:O	1.92	0.68
36:BP:17:LYS:HG2	36:BP:19:VAL:HG22	1.76	0.68
36:BP:25:SER:O	36:BP:30:THR:HG23	1.94	0.68
6:CC:122:GLU:O	6:CC:126:ARG:HG2	1.93	0.68
23:CT:49:ALA:HA	23:CT:52:ALA:HB3	1.75	0.68
17:AN:6:LEU:HD13	17:AN:23:ARG:HH22	1.59	0.68
1:CA:1080:A:H5"	1:CA:1081:G:OP2	1.93	0.68
25:DA:560:C:H4'	41:DU:52:ARG:HH22	1.58	0.68
25:DA:1993:U:H4'	28:DE:128:SER:HB2	1.75	0.68
31:DH:17:VAL:HG12	31:DH:26:VAL:HG22	1.74	0.68
46:DZ:108:PRO:HG3	46:DZ:141:VAL:HG22	1.76	0.68
1:AA:973:G:H3'	1:AA:974:A:H5"	1.74	0.68
25:BA:1021:A:H62	25:BA:1141:U:H3	1.42	0.68
1:CA:458(A):G:O6	1:CA:458(C):G:H5"	1.94	0.68
22:CS:11:VAL:HG23	22:CS:38:SER:HB2	1.75	0.68
25:DA:271(L):C:N4	25:DA:357(F):G:H1	1.91	0.68
25:DA:655:A:H2'	25:DA:656:G:O4'	1.94	0.68
27:DD:238:GLY:O	27:DD:239:ARG:C	2.32	0.68
34:DN:59:GLY:O	34:DN:61:HIS:N	2.26	0.68
35:DO:119:PRO:HB2	40:DT:68:TYR:CE1	2.29	0.68
5:AB:29:ALA:HA	5:AB:32:ILE:HD13	1.75	0.68
25:BA:191:A:H2'	25:BA:192:C:C6	2.28	0.68
25:BA:910:A:C5	37:BQ:13:GLN:HG3	2.29	0.68
4:CY:56:GLU:CD	25:DA:2473:U:H6	1.97	0.68
5:CB:212:GLN:HG3	5:CB:235:SER:HB2	1.75	0.68
27:DD:33:LEU:O	27:DD:36:PRO:HD2	1.94	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:101:ARG:HD3	28:DE:169:ASN:HD22	1.56	0.68
43:DW:1:MET:HG2	43:DW:2:GLU:H	1.59	0.68
44:DX:15:GLU:H	44:DX:15:GLU:CD	1.95	0.68
4:AY:184:VAL:HG23	4:AY:189:ALA:HB1	1.76	0.68
16:AM:19:LEU:HD13	16:AM:19:LEU:H	1.59	0.68
25:BA:974(A):C:OP2	25:BA:974(A):C:H4'	1.93	0.68
25:BA:1009:A:H5'	25:BA:1009:A:C8	2.22	0.68
25:BA:1116:C:H2'	25:BA:1117:G:C8	2.28	0.68
51:B4:40:ILE:HB	51:B4:48:ILE:HB	1.75	0.68
1:CA:913:A:H1'	1:CA:914:A:OP2	1.94	0.68
25:DA:1005:C:O2'	34:DN:51:THR:HG21	1.93	0.68
25:DA:1292:U:H2'	25:DA:1293:C:C6	2.28	0.68
25:DA:2688:U:O2	25:DA:2688:U:H3'	1.93	0.68
37:DQ:80:GLU:HA	37:DQ:80:GLU:OE2	1.92	0.68
42:DV:79:VAL:O	42:DV:79:VAL:HG12	1.93	0.68
54:D7:5:TRP:NE1	54:D7:7:PRO:HG3	2.09	0.68
7:AD:30:LYS:C	7:AD:32:ALA:H	1.97	0.68
21:AR:19:LYS:HA	21:AR:19:LYS:HE3	1.74	0.68
25:BA:655:A:H2'	25:BA:656:G:O4'	1.93	0.68
16:CM:19:LEU:H	16:CM:19:LEU:HD13	1.59	0.68
16:CM:66:LEU:HA	16:CM:70:LEU:HB2	1.75	0.68
25:DA:71:A:H2	44:DX:31:HIS:HE1	1.41	0.68
36:DP:64:LYS:O	36:DP:66:GLY:N	2.27	0.68
7:AD:128:VAL:HG12	7:AD:129:ASN:ND2	2.09	0.68
22:AS:11:VAL:HG23	22:AS:38:SER:HB2	1.74	0.68
25:BA:244:A:C2	25:BA:255:A:C4	2.82	0.68
36:BP:112:LEU:HD23	36:BP:113:LYS:N	2.09	0.68
44:BX:84:ALA:HB3	44:BX:87:GLN:NE2	2.05	0.68
46:BZ:108:PRO:HG3	46:BZ:141:VAL:HG22	1.76	0.68
1:CA:559:A:C5'	1:CA:560:U:H3'	2.24	0.68
4:CY:88:LEU:HB2	4:CY:100:LEU:HD13	1.76	0.68
7:CD:110:PHE:CE2	7:CD:148:VAL:HG23	2.29	0.68
25:DA:1537:C:H2'	25:DA:1538:G:O4'	1.94	0.68
25:DA:1614:A:N6	43:DW:88:ARG:H	1.92	0.68
34:DN:80:ALA:O	34:DN:83:ILE:HG13	1.94	0.68
16:AM:66:LEU:HA	16:AM:70:LEU:HB2	1.76	0.67
25:BA:271(L):C:N4	25:BA:357(F):G:H1	1.91	0.67
25:BA:784:A:N7	27:BD:229:VAL:HG21	2.08	0.67
34:BN:157:ARG:H	34:BN:158:PRO:CD	2.07	0.67
1:CA:376:G:H2'	1:CA:377:G:H8	1.60	0.67
1:CA:1346:A:H5"	12:CI:120:ARG:NH1	2.08	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CB:169:LYS:NZ	5:CB:169:LYS:HB3	2.09	0.67
7:CD:110:PHE:HE2	7:CD:148:VAL:HG23	1.58	0.67
25:DA:137(A):G:H2'	25:DA:137(C):G:N7	2.09	0.67
25:DA:1543:A:N7	25:DA:1544:A:H5"	2.09	0.67
32:DI:5:LEU:HD23	32:DI:5:LEU:H	1.59	0.67
37:DQ:111:GLU:O	37:DQ:115:MET:HG2	1.94	0.67
22:AS:22:LEU:HD13	22:AS:27:GLU:HB2	1.75	0.67
40:BT:64:ARG:HB2	40:BT:73:GLU:HG2	1.75	0.67
43:BW:1:MET:HG2	43:BW:2:GLU:H	1.59	0.67
1:CA:559:A:H5"	1:CA:560:U:H3'	1.76	0.67
5:CB:29:ALA:HA	5:CB:32:ILE:HD13	1.76	0.67
16:CM:45:VAL:O	16:CM:48:LEU:HD22	1.94	0.67
17:CN:23:ARG:HD2	17:CN:28:GLY:O	1.94	0.67
40:DT:50:ILE:HD11	40:DT:99:LEU:O	1.94	0.67
1:AA:68(H):G:H1	1:AA:68(R):C:H42	1.40	0.67
1:AA:490:G:P	7:AD:132:ARG:HH22	2.18	0.67
1:AA:955:U:H2'	1:AA:956:U:H6	1.60	0.67
4:AY:88:LEU:HB2	4:AY:100:LEU:HD13	1.77	0.67
25:BA:1817:G:OP1	27:BD:88:ARG:NH2	2.27	0.67
37:BQ:111:GLU:O	37:BQ:115:MET:HG2	1.95	0.67
39:BS:24:LEU:HD12	39:BS:84:GLN:HB3	1.74	0.67
41:BU:58:ARG:O	41:BU:62:ILE:HG12	1.94	0.67
49:B2:12:GLU:C	49:B2:14:ARG:H	1.97	0.67
1:CA:977:A:H2'	1:CA:978:A:H5'	1.75	0.67
23:CT:53:LEU:HD22	23:CT:102:GLY:HA3	1.76	0.67
25:DA:285:C:H2'	25:DA:286:C:H6	1.59	0.67
38:DR:67:LEU:HD22	38:DR:76:VAL:HG11	1.75	0.67
38:DR:73:VAL:O	38:DR:76:VAL:HG22	1.94	0.67
54:D7:35:ARG:HG3	54:D7:42:LEU:HD11	1.76	0.67
6:AC:122:GLU:O	6:AC:126:ARG:HG2	1.93	0.67
23:AT:53:LEU:HD22	23:AT:102:GLY:HA3	1.77	0.67
25:BA:1541:U:C3'	25:BA:1542:G:H3'	2.20	0.67
25:BA:1614:A:C2	43:BW:93:ALA:HB2	2.29	0.67
32:BI:92:VAL:HG13	32:BI:120:ILE:HB	1.76	0.67
43:BW:18:ARG:HG3	43:BW:76:VAL:CG1	2.24	0.67
25:DA:1495:A:O2'	25:DA:1579:A:H5"	1.95	0.67
36:DP:17:LYS:HG2	36:DP:19:VAL:HG22	1.75	0.67
36:DP:58:THR:O	36:DP:61:ARG:HG3	1.94	0.67
1:AA:748:C:H4'	1:AA:749:C:O5'	1.94	0.67
28:BE:201:THR:HG22	28:BE:202:LYS:N	2.09	0.67
1:CA:6:G:H4'	1:CA:298:A:H4'	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CB:28:PHE:CE1	5:CB:190:THR:HA	2.30	0.67
31:DH:13:LYS:NZ	31:DH:14:GLY:HA2	2.10	0.67
1:AA:134:A:N6	19:AP:25:ARG:HH12	1.92	0.67
22:AS:19:VAL:HG11	22:AS:44:MET:HE1	1.77	0.67
23:AT:72:LEU:HD22	23:AT:73:HIS:N	2.10	0.67
25:BA:1021:A:H3'	25:BA:1021:A:C8	2.30	0.67
25:BA:1864(B):C:O2	25:BA:1864(B):C:H2'	1.92	0.67
36:BP:124:LYS:HA	36:BP:143:GLY:O	1.94	0.67
53:B6:34:LEU:H	53:B6:34:LEU:HD13	1.58	0.67
33:DK:109:LYS:HE2	33:DK:120:LEU:HD21	1.75	0.67
38:DR:55:ALA:HA	38:DR:80:PHE:CE1	2.30	0.67
1:AA:192:U:H2'	1:AA:193:C:H6	1.60	0.67
11:AH:114:THR:HG23	11:AH:116:LYS:H	1.60	0.67
13:AJ:48:THR:HG22	13:AJ:62:HIS:ND1	2.09	0.67
27:BD:25:THR:CG2	27:BD:82:ILE:H	2.08	0.67
38:BR:73:VAL:O	38:BR:76:VAL:HG22	1.94	0.67
46:BZ:82:ARG:NH1	46:BZ:82:ARG:HB3	2.10	0.67
1:CA:826:C:H2'	1:CA:827:U:H6	1.60	0.67
7:CD:78:LEU:HD11	7:CD:139:ARG:HH22	1.60	0.67
29:DF:22:ALA:HB1	29:DF:24:LEU:HD13	1.76	0.67
36:DP:27:HIS:CG	36:DP:28:GLY:N	2.63	0.67
44:DX:29:TRP:CZ3	44:DX:78:LYS:HB2	2.29	0.67
45:DY:2:ARG:N	45:DY:4:LYS:HZ2	1.93	0.67
14:AK:59:TYR:CZ	14:AK:63:LEU:HD11	2.30	0.67
25:BA:636:G:OP1	36:BP:132:LYS:HB2	1.94	0.67
25:BA:1541:U:H3'	25:BA:1542:G:C3'	2.20	0.67
27:BD:238:GLY:O	27:BD:239:ARG:C	2.31	0.67
28:BE:101:ARG:HD3	28:BE:169:ASN:HD22	1.58	0.67
42:BV:66:ARG:HD2	42:BV:88:ARG:CZ	2.24	0.67
48:B1:32:LYS:HG2	48:B1:33:LYS:H	1.59	0.67
1:CA:748:C:H4'	1:CA:749:C:O5'	1.94	0.67
33:DK:98:ARG:HA	33:DK:136:VAL:HG23	1.77	0.67
52:D5:6:VAL:HG22	52:D5:7:PRO:HD2	1.75	0.67
1:AA:1225:A:H5"	1:AA:1226:C:OP2	1.95	0.67
5:AB:80:ILE:HD11	5:AB:208:ILE:HG23	1.77	0.67
8:AE:43:LEU:HD12	8:AE:109:ILE:HD11	1.76	0.67
25:BA:844:C:H2'	25:BA:845:G:H5'	1.77	0.67
25:BA:1537:C:H2'	25:BA:1538:G:O4'	1.95	0.67
25:BA:2391:G:OP1	55:B8:32:LEU:HB2	1.95	0.67
32:BI:133:HIS:HE1	32:BI:135:GLU:HB3	1.60	0.67
37:BQ:76:LYS:H	37:BQ:88:GLY:HA2	1.59	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:BY:2:ARG:N	45:BY:4:LYS:HZ2	1.92	0.67
52:B5:16:ARG:HD2	52:B5:20:ARG:HH21	1.60	0.67
54:B7:5:TRP:NE1	54:B7:7:PRO:HG3	2.10	0.67
1:CA:1314:C:H41	22:CS:4:SER:N	1.93	0.67
22:CS:18:LYS:HE2	22:CS:31:ILE:HD13	1.76	0.67
51:D4:40:ILE:HB	51:D4:48:ILE:HB	1.75	0.67
1:AA:17:U:H2'	1:AA:18:C:C6	2.29	0.67
5:AB:18:GLY:H	5:AB:42:ILE:HG22	1.60	0.67
12:AI:125:TYR:CD2	12:AI:126:SER:N	2.63	0.67
23:AT:90:GLN:O	23:AT:93:GLU:HG2	1.95	0.67
27:BD:159:ALA:HB1	27:BD:198:ASN:O	1.95	0.67
36:BP:58:THR:O	36:BP:61:ARG:HG3	1.93	0.67
25:DA:1899:G:H21	25:DA:1902:C:H41	1.41	0.67
25:DA:2747:G:O6	25:DA:2755:C:H5"	1.95	0.67
32:DI:133:HIS:HE1	32:DI:135:GLU:HB3	1.60	0.67
1:AA:985:C:H2'	1:AA:986:A:C8	2.29	0.66
1:AA:1227:A:H2'	1:AA:1227:A:N3	2.11	0.66
1:AA:1493:A:H1'	4:AY:138:GLY:H	1.59	0.66
25:BA:270(H):C:H2'	25:BA:270(I):G:C8	2.30	0.66
25:BA:1545:A:H2'	25:BA:1546:C:H5'	1.76	0.66
25:BA:1614:A:N6	43:BW:88:ARG:H	1.92	0.66
1:CA:17:U:H2'	1:CA:18:C:C6	2.30	0.66
1:CA:985:C:H2'	1:CA:986:A:C8	2.30	0.66
5:CB:18:GLY:H	5:CB:42:ILE:HG22	1.60	0.66
7:CD:96:LEU:HD12	7:CD:139:ARG:NH1	2.10	0.66
13:CJ:48:THR:HG22	13:CJ:62:HIS:ND1	2.09	0.66
25:DA:974(A):C:OP2	25:DA:974(A):C:H4'	1.94	0.66
25:DA:1021:A:C8	25:DA:1021:A:H3'	2.30	0.66
28:DE:111:ARG:HD2	28:DE:160:TYR:HE1	1.59	0.66
29:DF:65:TRP:HB2	29:DF:66:PRO:HD2	1.75	0.66
45:DY:7:VAL:HB	45:DY:8:LYS:HZ3	1.59	0.66
1:AA:365:U:H5"	1:AA:366:C:OP1	1.95	0.66
1:AA:458(A):G:O6	1:AA:458(C):G:H5"	1.95	0.66
1:AA:1109:C:H2'	1:AA:1110:A:O4'	1.94	0.66
5:AB:169:LYS:HB3	5:AB:169:LYS:NZ	2.10	0.66
11:CH:114:THR:HG23	11:CH:116:LYS:H	1.59	0.66
32:DI:97:ILE:HA	32:DI:100:ALA:HB3	1.75	0.66
39:DS:52:SER:HB2	39:DS:55:ALA:HB3	1.77	0.66
46:DZ:4:ARG:HH12	46:DZ:60:GLU:HG3	1.57	0.66
5:AB:28:PHE:CE1	5:AB:190:THR:HA	2.29	0.66
7:AD:49:ARG:HA	7:AD:49:ARG:HH11	1.59	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1076:C:H1'	33:BK:91:PRO:HD2	1.76	0.66
25:BA:2473:U:O2	25:BA:2473:U:H2'	1.96	0.66
25:BA:2747:G:O6	25:BA:2755:C:H5"	1.96	0.66
32:BI:97:ILE:HA	32:BI:100:ALA:HB3	1.76	0.66
36:BP:47:ASP:HB3	36:BP:48:PRO:O	1.94	0.66
9:CF:62:TRP:C	9:CF:63:TYR:HD2	1.99	0.66
25:DA:2068:U:N3	25:DA:2430:A:H2	1.87	0.66
32:DI:98:ALA:HA	32:DI:109:ILE:HD11	1.77	0.66
1:AA:436:C:H2'	1:AA:437:U:H6	1.60	0.66
1:AA:826:C:H2'	1:AA:827:U:H6	1.61	0.66
14:AK:48:ILE:HD11	14:AK:64:ALA:HA	1.76	0.66
25:BA:270(O):U:H4'	25:BA:270(P):C:OP2	1.96	0.66
41:BU:29:SER:OG	41:BU:30:LYS:HE3	1.94	0.66
1:CA:192:U:H2'	1:CA:193:C:H6	1.59	0.66
1:CA:1152:A:H2'	1:CA:1153:C:H6	1.59	0.66
1:CA:1246:C:H2'	1:CA:1247:U:H6	1.60	0.66
22:CS:63:THR:HG23	22:CS:65:ASN:H	1.60	0.66
25:DA:106:C:H1'	45:DY:2:ARG:NE	2.11	0.66
25:DA:675:A:H4'	29:DF:67:GLN:NE2	2.11	0.66
29:DF:178:PRO:HB2	29:DF:201:VAL:HG11	1.78	0.66
1:AA:376:G:H2'	1:AA:377:G:H8	1.59	0.66
1:AA:1246:C:H2'	1:AA:1247:U:H6	1.60	0.66
25:BA:907:U:H4'	37:BQ:101:ARG:HH22	1.61	0.66
36:BP:64:LYS:O	36:BP:66:GLY:N	2.27	0.66
38:BR:48:VAL:HA	38:BR:51:LEU:HD12	1.77	0.66
44:BX:26:TYR:OH	44:BX:88:LYS:HB2	1.94	0.66
44:BX:29:TRP:CZ3	44:BX:78:LYS:HB2	2.30	0.66
1:CA:826:C:H2'	1:CA:827:U:C6	2.30	0.66
1:CA:986:A:H1'	22:CS:54:GLY:O	1.95	0.66
12:CI:125:TYR:CD2	12:CI:126:SER:N	2.63	0.66
25:DA:137(D):A:C8	25:DA:1408:C:O2'	2.49	0.66
25:DA:2822:G:O6	38:DR:4:LEU:HD12	1.96	0.66
25:BA:137(D):A:C8	25:BA:1408:C:O2'	2.48	0.66
25:BA:1639:U:H2'	25:BA:1640:C:H5"	1.76	0.66
25:BA:1981:A:H5"	25:BA:1982:C:OP2	1.94	0.66
25:DA:636:G:OP1	36:DP:132:LYS:HB2	1.95	0.66
25:DA:1021:A:H8	25:DA:1021:A:H3'	1.60	0.66
1:AA:1152:A:H2'	1:AA:1153:C:H6	1.59	0.66
27:BD:33:LEU:O	27:BD:36:PRO:HD2	1.96	0.66
28:BE:35:GLN:HG2	28:BE:36:ARG:H	1.61	0.66
29:BF:178:PRO:HB2	29:BF:201:VAL:HG11	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CB:87:ARG:NH2	5:CB:233:SER:H	1.94	0.66
22:CS:22:LEU:HD13	22:CS:27:GLU:HB2	1.76	0.66
23:CT:72:LEU:HD22	23:CT:73:HIS:N	2.11	0.66
52:D5:33:CYS:SG	52:D5:36:CYS:HB3	2.35	0.66
1:AA:559:A:H5"	1:AA:560:U:H3'	1.77	0.66
1:AA:625:G:H2'	1:AA:626:U:H6	1.60	0.66
12:AI:111:ARG:HD2	17:AN:61:TRP:NE1	2.11	0.66
15:AL:65:VAL:HG11	15:AL:97:TYR:CE1	2.31	0.66
25:BA:779:U:OP1	27:BD:49:ILE:HG13	1.96	0.66
25:BA:1006:C:H5'	34:BN:51:THR:HG23	1.76	0.66
25:BA:1021:A:H8	25:BA:1021:A:H3'	1.61	0.66
25:BA:1543:A:N7	25:BA:1544:A:H5"	2.10	0.66
25:BA:2320:A:N3	25:BA:2320:A:H2'	2.10	0.66
29:BF:165:ARG:HA	29:BF:168:ARG:HD3	1.77	0.66
1:CA:1225:A:H5"	1:CA:1226:C:OP2	1.96	0.66
4:CY:30:PHE:HE2	4:CY:364:TRP:HZ2	1.44	0.66
5:CB:80:ILE:HD11	5:CB:208:ILE:HG23	1.78	0.66
25:DA:586:A:H5'	29:DF:89:VAL:HG21	1.78	0.66
25:DA:2320:A:H2'	25:DA:2320:A:N3	2.10	0.66
34:DN:63:PRO:HB3	41:DU:68:ALA:HB2	1.78	0.66
37:DQ:48:GLU:O	37:DQ:52:VAL:HG12	1.96	0.66
45:DY:90:LEU:HG	45:DY:91:GLU:N	2.08	0.66
1:AA:17:U:O4'	1:AA:1080:A:H1'	1.95	0.66
5:AB:87:ARG:NH2	5:AB:233:SER:H	1.94	0.66
7:AD:10:ARG:HG3	7:AD:11:LEU:HD23	1.78	0.66
15:AL:56:LYS:HG2	15:AL:66:THR:HG22	1.77	0.66
22:AS:18:LYS:HE2	22:AS:31:ILE:HD13	1.76	0.66
1:CA:1530:G:OP1	1:CA:1530:G:H4'	1.96	0.66
25:DA:2391:G:OP1	55:D8:32:LEU:HB2	1.96	0.66
27:DD:25:THR:O	27:DD:25:THR:HG23	1.96	0.66
36:DP:112:LEU:HD23	36:DP:113:LYS:N	2.11	0.66
9:AF:37:VAL:HG12	9:AF:38:GLU:N	2.11	0.66
25:BA:528:A:C2	25:BA:2042:A:H2'	2.31	0.66
25:BA:2313:C:H4'	30:BG:91:ARG:HG3	1.77	0.66
34:BN:59:GLY:O	34:BN:61:HIS:N	2.27	0.66
4:CY:201:ARG:HD3	4:CY:323:GLN:HG2	1.78	0.66
8:CE:76:ILE:HG23	8:CE:78:HIS:H	1.61	0.66
25:DA:270(O):U:H4'	25:DA:270(P):C:OP2	1.95	0.66
25:DA:844:C:C2'	25:DA:845:G:H5'	2.26	0.66
25:DA:2313:C:H4'	30:DG:91:ARG:HG3	1.78	0.66
27:DD:243:GLY:O	27:DD:244:ARG:HB3	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:124:LYS:HA	36:DP:143:GLY:O	1.94	0.66
39:DS:25:ARG:HG2	39:DS:88:ASP:HB2	1.77	0.66
1:AA:639:G:O2'	1:AA:640:A:H5'	1.96	0.65
7:AD:29:PRO:O	7:AD:30:LYS:HB3	1.95	0.65
12:AI:125:TYR:HD2	12:AI:126:SER:N	1.93	0.65
25:BA:1416:G:H2'	25:BA:1417:C:C6	2.31	0.65
25:BA:1602:U:H3'	25:BA:1603:A:H5'	1.78	0.65
25:BA:1899:G:H22	25:BA:1902:C:N4	1.93	0.65
1:CA:976:G:H8	1:CA:1358:U:H2'	1.61	0.65
6:CC:31:HIS:O	6:CC:35:GLU:HG2	1.94	0.65
27:DD:25:THR:CG2	27:DD:82:ILE:H	2.08	0.65
27:DD:76:PRO:HB2	27:DD:116:GLN:HE21	1.61	0.65
36:DP:148:LEU:HD13	36:DP:148:LEU:H	1.60	0.65
1:AA:559:A:C5'	1:AA:560:U:H3'	2.25	0.65
1:AA:867:G:H2'	1:AA:868:C:H6	1.61	0.65
1:AA:986:A:H1'	22:AS:54:GLY:O	1.96	0.65
1:AA:1187:G:H5'	12:AI:113:LYS:HE2	1.79	0.65
25:BA:320:A:H2'	29:BF:136:THR:HG21	1.78	0.65
31:BH:123:PHE:H	31:BH:123:PHE:HD1	1.45	0.65
43:BW:4:LYS:CB	43:BW:106:ILE:HG22	2.26	0.65
44:BX:63:LYS:NZ	44:BX:72:LYS:HB3	2.10	0.65
1:CA:1104:G:H5'	5:CB:111:ARG:HD2	1.78	0.65
10:CG:115:ARG:O	10:CG:118:VAL:HG22	1.96	0.65
22:CS:19:VAL:HG11	22:CS:44:MET:HE1	1.77	0.65
25:DA:270(H):C:H2'	25:DA:270(I):G:C8	2.31	0.65
25:DA:1416:G:H2'	25:DA:1417:C:C6	2.31	0.65
25:DA:1678:G:H22	25:DA:1989:G:H22	1.44	0.65
36:DP:23:PRO:HB2	36:DP:33:ARG:CD	2.26	0.65
38:DR:48:VAL:HA	38:DR:51:LEU:HD12	1.76	0.65
45:DY:97:ARG:HG2	45:DY:97:ARG:O	1.95	0.65
1:AA:559:A:H4'	1:AA:560:U:C3'	2.16	0.65
25:BA:285:C:H2'	25:BA:286:C:H6	1.60	0.65
25:BA:1292:U:H2'	25:BA:1293:C:C6	2.30	0.65
15:CL:23:VAL:HG13	15:CL:97:TYR:CE2	2.26	0.65
25:DA:779:U:OP1	27:DD:49:ILE:HG13	1.97	0.65
28:DE:131:ALA:O	28:DE:133:LYS:N	2.29	0.65
42:DV:66:ARG:HD2	42:DV:88:ARG:CZ	2.26	0.65
47:D0:32:ARG:HG2	47:D0:32:ARG:NH1	2.10	0.65
52:D5:4:HIS:HB2	52:D5:5:PRO:CD	2.22	0.65
6:AC:150:LYS:HG3	6:AC:169:ALA:HB2	1.78	0.65
27:BD:144:ALA:HB3	27:BD:192:THR:HG23	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BI:98:ALA:HA	32:BI:109:ILE:HD11	1.77	0.65
33:BK:21:PRO:HG3	33:BK:25:PRO:HD3	1.77	0.65
36:BP:36:LYS:HD3	36:BP:41:ARG:HG3	1.78	0.65
36:BP:125:VAL:O	36:BP:145:PRO:HD2	1.95	0.65
38:BR:4:LEU:O	38:BR:4:LEU:HD13	1.96	0.65
6:CC:43:LEU:O	6:CC:47:LEU:HB3	1.97	0.65
8:CE:76:ILE:HG13	8:CE:77:PRO:HD2	1.77	0.65
25:DA:244:A:C2	25:DA:255:A:C4	2.85	0.65
27:DD:70:TRP:CH2	27:DD:150:LYS:HA	2.31	0.65
37:DQ:76:LYS:H	37:DQ:88:GLY:HA2	1.60	0.65
38:DR:57:ARG:HD2	38:DR:59:ASP:OD2	1.97	0.65
46:DZ:82:ARG:NH1	46:DZ:82:ARG:HB3	2.11	0.65
1:AA:1317:C:OP1	17:AN:17:LYS:HB3	1.95	0.65
13:CJ:63:PHE:HB3	17:CN:58:LYS:HA	1.79	0.65
25:DA:1006:C:H5'	34:DN:51:THR:HG23	1.78	0.65
25:DA:2687:U:C4	25:DA:2688:U:C5	2.85	0.65
28:DE:9:VAL:HG22	28:DE:25:VAL:HB	1.77	0.65
28:DE:35:GLN:HG2	28:DE:36:ARG:H	1.60	0.65
40:DT:64:ARG:HB2	40:DT:73:GLU:HG2	1.78	0.65
40:DT:102:ILE:HB	40:DT:110:ILE:HD12	1.79	0.65
1:AA:509:A:O2'	1:AA:510:A:N7	2.30	0.65
1:AA:826:C:H2'	1:AA:827:U:C6	2.31	0.65
17:AN:12:ARG:HD2	17:AN:14:PRO:HG3	1.77	0.65
25:BA:1332:G:N2	25:BA:1609:A:HO2'	1.95	0.65
25:BA:1495:A:O2'	25:BA:1579:A:H5"	1.97	0.65
40:BT:50:ILE:HD11	40:BT:99:LEU:O	1.97	0.65
1:CA:1227:A:N3	1:CA:1227:A:H2'	2.11	0.65
4:CY:202:LEU:HD11	4:CY:204:ARG:HG2	1.79	0.65
14:CK:13:GLN:HG3	14:CK:75:TYR:O	1.96	0.65
25:DA:1210:A:H5'	25:DA:1210:A:H8	1.61	0.65
29:DF:31:HIS:HB2	36:DP:13:ASN:HB3	1.78	0.65
1:AA:668:G:H1'	18:AO:46:HIS:HD2	1.62	0.65
1:AA:1306:A:N6	1:AA:1331:G:H1'	2.11	0.65
8:AE:76:ILE:HG13	8:AE:77:PRO:HD2	1.78	0.65
25:BA:847:U:HO2'	25:BA:848:G:H8	1.43	0.65
25:BA:1416:G:H2'	25:BA:1417:C:H6	1.62	0.65
39:BS:52:SER:HB2	39:BS:55:ALA:HB3	1.77	0.65
40:BT:102:ILE:HB	40:BT:110:ILE:HD12	1.78	0.65
1:CA:259:G:H1	1:CA:267:C:H42	1.44	0.65
1:CA:328:C:H4'	1:CA:329:A:H5'	1.78	0.65
4:CY:184:VAL:HG23	4:CY:189:ALA:HB1	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:CT:90:GLN:O	23:CT:93:GLU:HG2	1.96	0.65
25:DA:1405:U:H2'	25:DA:1406:U:C6	2.32	0.65
25:DA:1602:U:H3'	25:DA:1603:A:H5'	1.78	0.65
25:DA:2820:A:O3'	38:DR:5:LYS:HE3	1.97	0.65
26:DB:66:A:H61	26:DB:107:U:H2'	1.61	0.65
37:DQ:65:PHE:HB2	37:DQ:105:GLU:HB2	1.78	0.65
1:AA:976:G:N2	1:AA:1362:C:H2'	2.11	0.65
1:AA:1346:A:H5"	12:AI:120:ARG:NH1	2.08	0.65
4:AY:201:ARG:HD3	4:AY:323:GLN:HG2	1.79	0.65
5:AB:83:MET:HE3	5:AB:234:PRO:HG2	1.78	0.65
14:AK:13:GLN:HG3	14:AK:75:TYR:O	1.97	0.65
25:BA:137(D):A:H8	25:BA:1408:C:HO2'	1.38	0.65
36:BP:148:LEU:HD13	36:BP:148:LEU:H	1.60	0.65
37:BQ:76:LYS:N	37:BQ:88:GLY:HA2	2.12	0.65
38:BR:52:ILE:HD13	38:BR:79:LEU:HD21	1.77	0.65
38:BR:55:ALA:HA	38:BR:80:PHE:CE1	2.31	0.65
39:BS:24:LEU:HD13	39:BS:82:ILE:HG23	1.79	0.65
7:CD:114:ARG:HA	7:CD:117:ALA:HB3	1.78	0.65
26:DB:80:U:H2'	26:DB:81:G:H21	1.62	0.65
27:DD:159:ALA:HB1	27:DD:198:ASN:O	1.97	0.65
7:AD:128:VAL:HG12	7:AD:129:ASN:HD22	1.62	0.65
15:AL:44:PRO:HD3	15:AL:50:ALA:O	1.97	0.65
20:AQ:80:GLY:O	20:AQ:81:ARG:HG2	1.96	0.65
25:BA:65:C:H2'	25:BA:66:C:H6	1.62	0.65
33:BK:141:ALA:H	33:BK:142:PRO:HD2	1.61	0.65
41:BU:92:ARG:NE	41:BU:94:ASN:HB3	2.12	0.65
45:BY:90:LEU:HG	45:BY:91:GLU:N	2.09	0.65
15:CL:44:PRO:HD3	15:CL:50:ALA:O	1.97	0.65
25:DA:1416:G:H2'	25:DA:1417:C:H6	1.61	0.65
25:DA:2681:C:H5	25:DA:2725:A:N6	1.93	0.65
35:DO:103:ALA:HB1	35:DO:105:GLU:OE1	1.96	0.65
14:AK:57:THR:HG22	14:AK:59:TYR:N	2.12	0.65
17:AN:6:LEU:HD13	17:AN:23:ARG:NH2	2.12	0.65
22:AS:63:THR:HG23	22:AS:65:ASN:H	1.61	0.65
25:BA:2225:A:H4'	25:BA:2226:C:O5'	1.97	0.65
34:BN:143:LEU:HD22	34:BN:145:VAL:HG23	1.79	0.65
47:B0:32:ARG:HG2	47:B0:32:ARG:NH1	2.08	0.65
5:CB:32:ILE:HG12	5:CB:40:HIS:HD2	1.62	0.65
15:CL:56:LYS:HG2	15:CL:66:THR:HG22	1.78	0.65
15:CL:65:VAL:HG11	15:CL:97:TYR:CE1	2.32	0.65
25:DA:2392:A:H2	25:DA:2424:C:H42	1.43	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DD:144:ALA:HB3	27:DD:192:THR:HG23	1.79	0.65
28:DE:111:ARG:HA	38:DR:2:ARG:HE	1.62	0.65
41:DU:92:ARG:NE	41:DU:94:ASN:HB3	2.12	0.65
50:D3:11:SER:OG	50:D3:13:ILE:HG13	1.96	0.65
4:AY:59:ARG:HG2	25:BA:1067:A:C2	2.32	0.64
9:AF:62:TRP:C	9:AF:63:TYR:HD2	2.00	0.64
25:BA:2688:U:O2	25:BA:2688:U:H3'	1.96	0.64
27:BD:25:THR:HG23	27:BD:25:THR:O	1.97	0.64
28:BE:111:ARG:HA	38:BR:2:ARG:HE	1.62	0.64
31:BH:13:LYS:NZ	31:BH:14:GLY:HA2	2.12	0.64
31:BH:127:GLU:HG2	31:BH:128:PRO:HD2	1.78	0.64
36:BP:84:ASN:HB3	36:BP:86:LYS:HG2	1.80	0.64
1:CA:436:C:H2'	1:CA:437:U:H6	1.61	0.64
1:CA:1187:G:H5'	12:CI:113:LYS:HE2	1.77	0.64
25:DA:1270:C:H5"	25:DA:1271:G:C5'	2.27	0.64
33:DK:141:ALA:H	33:DK:142:PRO:HD2	1.62	0.64
50:D3:8:LEU:HD11	50:D3:23:LEU:HD23	1.78	0.64
25:BA:2822:G:O6	38:BR:4:LEU:HD12	1.97	0.64
26:BB:49:C:OP1	39:BS:96:GLY:HA3	1.97	0.64
27:BD:70:TRP:CH2	27:BD:150:LYS:HA	2.32	0.64
31:BH:42:ARG:HB2	31:BH:53:GLU:HB2	1.79	0.64
25:DA:593:G:O2'	55:D8:62:LEU:HD13	1.96	0.64
34:DN:33:GLU:CD	34:DN:34:PRO:HD2	2.18	0.64
36:DP:7:ARG:O	36:DP:10:PRO:HD3	1.97	0.64
29:BF:22:ALA:HB1	29:BF:24:LEU:HD13	1.78	0.64
30:BG:16:ARG:HD3	30:BG:31:VAL:HG21	1.79	0.64
34:BN:65:TRP:HA	34:BN:71:MET:HE1	1.79	0.64
36:BP:58:THR:C	36:BP:61:ARG:HE	2.00	0.64
1:CA:509:A:O2'	1:CA:510:A:N7	2.29	0.64
1:CA:629:G:H2'	1:CA:630:G:C8	2.31	0.64
27:DD:255:LYS:HD2	27:DD:255:LYS:O	1.98	0.64
34:DN:59:GLY:H	34:DN:65:TRP:HZ3	1.44	0.64
34:DN:157:ARG:H	34:DN:158:PRO:CD	2.05	0.64
6:AC:43:LEU:O	6:AC:47:LEU:HB3	1.97	0.64
25:BA:97:C:H5"	49:B2:2:LYS:HE2	1.79	0.64
40:BT:48:ILE:H	40:BT:48:ILE:HD12	1.62	0.64
1:CA:867:G:H2'	1:CA:868:C:H6	1.61	0.64
14:CK:57:THR:HG22	14:CK:59:TYR:N	2.12	0.64
25:DA:2473:U:O2	25:DA:2473:U:H2'	1.95	0.64
33:DK:74:ALA:O	33:DK:78:ILE:HD13	1.97	0.64
35:DO:88:ASN:ND2	35:DO:90:GLN:HG2	2.12	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:675:A:H4'	29:BF:67:GLN:NE2	2.13	0.64
25:BA:1373:A:H2'	25:BA:1374:G:O4'	1.98	0.64
25:BA:2599:G:C8	27:BD:237:GLU:HG3	2.33	0.64
36:BP:7:ARG:O	36:BP:10:PRO:HD3	1.97	0.64
1:CA:68(Q):U:H2'	1:CA:68(R):C:C6	2.33	0.64
25:DA:2346:A:H5"	25:DA:2383:G:H1'	1.79	0.64
30:DG:16:ARG:HD3	30:DG:31:VAL:HG21	1.80	0.64
43:DW:83:LYS:O	43:DW:84:ARG:HD2	1.97	0.64
49:D2:13:ALA:O	49:D2:17:SER:HA	1.97	0.64
53:D6:13:CYS:O	53:D6:21:TYR:HA	1.97	0.64
6:AC:116:VAL:HG21	6:AC:202:ILE:HD11	1.80	0.64
10:AG:78:ARG:HG2	10:AG:79:ARG:N	2.13	0.64
28:BE:130:GLY:O	28:BE:131:ALA:HB3	1.97	0.64
36:BP:23:PRO:HB2	36:BP:33:ARG:CD	2.28	0.64
36:BP:64:LYS:HD2	55:B8:25:MET:SD	2.38	0.64
1:CA:1306:A:N6	1:CA:1331:G:H1'	2.12	0.64
5:CB:51:LEU:HD22	5:CB:55:PHE:HE2	1.63	0.64
6:CC:150:LYS:HG3	6:CC:169:ALA:HB2	1.80	0.64
13:CJ:48:THR:HA	13:CJ:62:HIS:CB	2.26	0.64
25:DA:847:U:HO2'	25:DA:848:G:H8	1.44	0.64
25:DA:1050:A:H2	25:DA:2751:G:C8	2.15	0.64
28:DE:130:GLY:O	28:DE:131:ALA:HB3	1.98	0.64
41:DU:102:GLU:N	41:DU:103:PRO:HD3	2.12	0.64
46:DZ:58:VAL:HA	46:DZ:67:LEU:O	1.98	0.64
13:AJ:48:THR:HA	13:AJ:62:HIS:CB	2.26	0.64
19:AP:55:ARG:O	19:AP:58:TYR:HB3	1.97	0.64
25:BA:1050:A:H2	25:BA:2751:G:C8	2.16	0.64
43:BW:9:TYR:H	43:BW:102:HIS:HD2	1.45	0.64
46:BZ:58:VAL:HA	46:BZ:67:LEU:O	1.98	0.64
49:B2:2:LYS:HZ2	49:B2:2:LYS:H	1.45	0.64
53:B6:13:CYS:O	53:B6:21:TYR:HA	1.97	0.64
25:DA:907:U:H4'	37:DQ:101:ARG:HH22	1.62	0.64
25:DA:1639:U:H2'	25:DA:1640:C:H5"	1.79	0.64
25:DA:2542:A:N3	25:DA:2542:A:H5"	2.13	0.64
29:DF:34:TRP:HB2	36:DP:10:PRO:O	1.97	0.64
42:DV:22:VAL:HG12	42:DV:23:GLU:N	2.13	0.64
43:DW:9:TYR:H	43:DW:102:HIS:HD2	1.46	0.64
54:D7:8:ASN:ND2	54:D7:11:LYS:H	1.96	0.64
28:BE:9:VAL:HG22	28:BE:25:VAL:HB	1.79	0.64
37:BQ:48:GLU:O	37:BQ:52:VAL:HG12	1.97	0.64
46:BZ:104:PHE:HB3	46:BZ:141:VAL:HG11	1.80	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:639:G:O2'	1:CA:640:A:H5'	1.97	0.64
13:CJ:50:ILE:HB	17:CN:41:ARG:NE	2.12	0.64
27:DD:58:HIS:CD2	27:DD:59:LYS:H	2.09	0.64
37:DQ:76:LYS:N	37:DQ:88:GLY:HA2	2.13	0.64
45:DY:29:GLU:HB3	45:DY:38:ILE:HD11	1.79	0.64
48:D1:32:LYS:HG2	48:D1:33:LYS:H	1.61	0.64
1:AA:165:C:H2'	1:AA:166:G:C8	2.33	0.64
1:AA:687:A:H1'	1:AA:688:G:OP2	1.98	0.64
45:BY:97:ARG:O	45:BY:97:ARG:HG2	1.97	0.64
52:B5:40:LYS:HE2	52:B5:46:CYS:HB3	1.80	0.64
1:CA:1313:U:OP1	22:CS:6:LYS:HG3	1.98	0.64
6:CC:175:LEU:HD21	6:CC:201:TYR:HE2	1.62	0.64
7:CD:166:LYS:HD2	7:CD:166:LYS:O	1.97	0.64
12:CI:125:TYR:HD2	12:CI:126:SER:N	1.94	0.64
13:CJ:63:PHE:HA	17:CN:59:ALA:H	1.63	0.64
20:CQ:80:GLY:O	20:CQ:81:ARG:HG2	1.98	0.64
36:DP:47:ASP:HB3	36:DP:48:PRO:O	1.97	0.64
38:DR:38:VAL:HB	38:DR:39:PRO:HD3	1.80	0.64
46:DZ:155:LEU:O	46:DZ:157:LEU:HD12	1.98	0.64
1:AA:68(Q):U:H2'	1:AA:68(R):C:C6	2.33	0.64
41:BU:75:ASN:HD22	41:BU:75:ASN:N	1.86	0.64
45:BY:71:LYS:NZ	45:BY:71:LYS:HB2	2.13	0.64
1:CA:687:A:H1'	1:CA:688:G:OP2	1.98	0.64
14:CK:59:TYR:CZ	14:CK:63:LEU:HD11	2.33	0.64
18:CO:45:VAL:HG23	18:CO:46:HIS:ND1	2.13	0.64
25:DA:17:G:H4'	41:DU:25:TRP:CZ3	2.33	0.64
25:DA:784:A:N7	27:DD:229:VAL:HG21	2.12	0.64
25:DA:2225:A:H4'	25:DA:2226:C:O5'	1.98	0.64
45:DY:71:LYS:HB2	45:DY:71:LYS:NZ	2.13	0.64
49:D2:2:LYS:HZ2	49:D2:2:LYS:H	1.46	0.64
4:AY:202:LEU:HD11	4:AY:204:ARG:HG2	1.79	0.63
25:BA:2394:C:OP1	36:BP:63:PRO:HD2	1.98	0.63
34:BN:63:PRO:HB3	41:BU:68:ALA:HB2	1.79	0.63
41:BU:34:LYS:HE2	41:BU:34:LYS:HA	1.80	0.63
45:BY:81:LYS:HE2	45:BY:97:ARG:HH11	1.63	0.63
1:CA:1306:A:H61	1:CA:1331:G:H1'	1.64	0.63
17:CN:12:ARG:HG2	17:CN:14:PRO:HD3	1.79	0.63
26:DB:49:C:OP1	39:DS:96:GLY:HA3	1.98	0.63
28:DE:77:ILE:HG12	28:DE:195:LEU:CD1	2.28	0.63
31:DH:42:ARG:HB2	31:DH:53:GLU:HB2	1.79	0.63
48:D1:54:ALA:H	48:D1:78:LYS:NZ	1.96	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
52:D5:16:ARG:HD2	52:D5:20:ARG:HH21	1.62	0.63
1:AA:447:G:H2'	1:AA:485:G:N2	2.14	0.63
8:AE:48:ALA:HB2	8:AE:57:LYS:HD3	1.79	0.63
10:AG:115:ARG:O	10:AG:118:VAL:HG22	1.98	0.63
25:BA:844:C:C2'	25:BA:845:G:H5'	2.29	0.63
32:BI:9:LEU:HD12	32:BI:12:LEU:HD23	1.80	0.63
34:BN:148:GLY:HA3	34:BN:149:PRO:O	1.98	0.63
41:BU:102:GLU:N	41:BU:103:PRO:HD3	2.12	0.63
48:B1:54:ALA:H	48:B1:78:LYS:NZ	1.96	0.63
50:B3:8:LEU:HD11	50:B3:23:LEU:HD23	1.80	0.63
52:B5:33:CYS:SG	52:B5:36:CYS:HB3	2.39	0.63
1:CA:38:G:C2	1:CA:397:A:C2	2.86	0.63
1:CA:624:C:O3'	19:CP:10:GLY:HA2	1.99	0.63
7:CD:111:ALA:HB2	7:CD:120:LEU:HD12	1.79	0.63
20:CQ:54:GLY:O	20:CQ:81:ARG:HB2	1.97	0.63
25:DA:1543:A:C8	25:DA:1544:A:H5"	2.33	0.63
25:DA:2286:A:H4'	25:DA:2287:A:O4'	1.98	0.63
30:DG:41:GLN:HG2	30:DG:155:MET:CB	2.25	0.63
25:BA:528:A:H2	25:BA:2043:C:H5'	1.62	0.63
28:BE:117:MET:O	28:BE:121:ASN:HA	1.98	0.63
36:BP:23:PRO:CB	36:BP:33:ARG:HG3	2.24	0.63
38:BR:67:LEU:HD22	38:BR:76:VAL:HG11	1.79	0.63
42:BV:22:VAL:HG12	42:BV:23:GLU:N	2.14	0.63
44:BX:11:PRO:HG2	44:BX:13:LEU:HD21	1.79	0.63
4:CY:333:TYR:HB2	4:CY:342:MET:HE1	1.79	0.63
11:CH:29:SER:HB3	11:CH:32:LYS:HB2	1.80	0.63
25:DA:330:A:HO2'	25:DA:331:A:H8	1.46	0.63
37:DQ:24:GLY:HA3	46:DZ:78:LYS:HB3	1.80	0.63
43:DW:4:LYS:CB	43:DW:106:ILE:HG22	2.28	0.63
4:AY:30:PHE:HE2	4:AY:364:TRP:HZ2	1.44	0.63
8:AE:76:ILE:HG23	8:AE:78:HIS:H	1.63	0.63
25:BA:71:A:H2	44:BX:31:HIS:CE1	2.15	0.63
25:BA:2378:A:H2'	39:BS:21:THR:HG21	1.80	0.63
30:BG:56:ALA:HB2	30:BG:153:ARG:NE	2.14	0.63
1:CA:365:U:H5"	1:CA:366:C:OP1	1.98	0.63
6:CC:175:LEU:HD21	6:CC:201:TYR:CE2	2.34	0.63
7:CD:124:GLY:HA3	7:CD:132:ARG:HD2	1.78	0.63
8:CE:91:LEU:HB3	8:CE:118:ILE:HD11	1.80	0.63
10:CG:78:ARG:HG2	10:CG:79:ARG:N	2.13	0.63
25:DA:896:A:C4	46:DZ:146:ILE:HD12	2.33	0.63
25:DA:1587:A:H2'	25:DA:1588:C:C6	2.33	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DH:127:GLU:HG2	31:DH:128:PRO:HD2	1.80	0.63
1:AA:1313:U:OP1	22:AS:6:LYS:HG3	1.98	0.63
18:AO:45:VAL:HG23	18:AO:46:HIS:ND1	2.14	0.63
25:BA:895:U:H5"	25:BA:896:A:OP1	1.99	0.63
25:BA:1587:A:H2'	25:BA:1588:C:C6	2.33	0.63
39:BS:25:ARG:HG2	39:BS:88:ASP:HB2	1.80	0.63
1:CA:625:G:H2'	1:CA:626:U:H6	1.62	0.63
25:DA:270(S):G:H2'	25:DA:270(T):G:C8	2.33	0.63
25:DA:1916:A:H2'	25:DA:1917:U:O4'	1.98	0.63
25:DA:2345:G:N3	25:DA:2381:C:H2'	2.14	0.63
27:DD:76:PRO:HB2	27:DD:116:GLN:NE2	2.14	0.63
31:DH:30:LYS:HB2	31:DH:79:VAL:HG12	1.79	0.63
1:AA:386:C:C2'	1:AA:387:U:H5'	2.28	0.63
9:AF:37:VAL:HA	9:AF:65:VAL:HG12	1.80	0.63
14:AK:59:TYR:CE1	14:AK:63:LEU:HD21	2.34	0.63
25:BA:1529:A:H62	25:BA:1542:G:N2	1.96	0.63
25:BA:1805:U:O2	27:BD:50:THR:HB	1.99	0.63
1:CA:386:C:C2'	1:CA:387:U:H5'	2.29	0.63
1:CA:668:G:H1'	18:CO:46:HIS:HD2	1.62	0.63
25:DA:2378:A:H2'	39:DS:21:THR:HG21	1.80	0.63
25:DA:2599:G:C8	27:DD:237:GLU:HG3	2.34	0.63
42:DV:28:GLU:HB2	42:DV:31:ALA:HB2	1.80	0.63
25:BA:2250:G:C6	37:BQ:82:ARG:HD2	2.34	0.63
27:BD:58:HIS:CD2	27:BD:59:LYS:H	2.11	0.63
30:BG:41:GLN:HG2	30:BG:155:MET:CB	2.26	0.63
31:BH:156:ALA:HA	31:BH:169:VAL:HG13	1.79	0.63
34:BN:33:GLU:CD	34:BN:34:PRO:HD2	2.18	0.63
34:BN:59:GLY:H	34:BN:65:TRP:HZ3	1.45	0.63
37:BQ:65:PHE:HB2	37:BQ:105:GLU:HB2	1.81	0.63
45:BY:86:ARG:HD3	45:BY:95:LYS:HG3	1.80	0.63
7:CD:30:LYS:C	7:CD:32:ALA:H	2.02	0.63
25:DA:2840:C:H4'	38:DR:53:HIS:CD2	2.33	0.63
29:DF:184:TYR:CE2	29:DF:188:ARG:HD2	2.34	0.63
45:DY:81:LYS:HE2	45:DY:97:ARG:HH11	1.62	0.63
1:AA:328:C:H4'	1:AA:329:A:H5'	1.79	0.63
1:AA:1095:U:H5'	1:AA:1109:C:O2	1.99	0.63
5:AB:32:ILE:HG12	5:AB:40:HIS:HD2	1.63	0.63
13:AJ:21:GLN:O	13:AJ:25:GLU:HG3	1.97	0.63
25:BA:2392:A:H2	25:BA:2424:C:H42	1.46	0.63
25:BA:2840:C:H4'	38:BR:53:HIS:CD2	2.33	0.63
1:CA:447:G:H2'	1:CA:485:G:N2	2.13	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:CP:55:ARG:O	19:CP:58:TYR:HB3	1.99	0.63
5:AB:51:LEU:HD22	5:AB:55:PHE:HE2	1.63	0.63
25:BA:886:C:H2'	25:BA:887:A:O4'	1.98	0.63
25:BA:2294:C:H2'	25:BA:2295:C:H6	1.63	0.63
25:BA:2306:C:H4'	30:BG:136:ARG:NH2	2.13	0.63
25:BA:2345:G:N3	25:BA:2381:C:H2'	2.14	0.63
25:BA:2679:A:H4'	28:BE:165:VAL:HG11	1.81	0.63
29:BF:184:TYR:CE2	29:BF:188:ARG:HD2	2.34	0.63
32:BI:78:THR:O	32:BI:80:PRO:HD3	1.98	0.63
46:BZ:155:LEU:O	46:BZ:157:LEU:HD12	1.99	0.63
1:CA:1056:U:H5'	6:CC:163:ALA:HB2	1.81	0.63
25:DA:71:A:H2	44:DX:31:HIS:CE1	2.15	0.63
25:DA:886:C:H2'	25:DA:887:A:O4'	1.98	0.63
25:DA:996:A:H4'	41:DU:92:ARG:HD3	1.81	0.63
25:DA:1332:G:N2	25:DA:1609:A:HO2'	1.96	0.63
34:DN:65:TRP:HA	34:DN:71:MET:HE1	1.81	0.63
34:DN:143:LEU:HD22	34:DN:145:VAL:HG23	1.81	0.63
36:DP:36:LYS:HD3	36:DP:41:ARG:HG3	1.80	0.63
36:DP:84:ASN:HB3	36:DP:86:LYS:HG2	1.79	0.63
39:DS:52:SER:CB	39:DS:55:ALA:HB3	2.29	0.63
44:DX:11:PRO:HG2	44:DX:13:LEU:HD21	1.81	0.63
1:AA:976:G:H8	1:AA:1358:U:H2'	1.61	0.62
5:AB:24:TRP:CE3	5:AB:26:PRO:HA	2.34	0.62
9:AF:69:GLU:O	9:AF:72:VAL:HG12	1.99	0.62
37:BQ:24:GLY:HA3	46:BZ:78:LYS:HB3	1.80	0.62
43:BW:29:LEU:HD21	43:BW:33:ARG:HH21	1.64	0.62
43:BW:83:LYS:O	43:BW:84:ARG:HD2	1.99	0.62
46:BZ:163:LEU:HD23	46:BZ:163:LEU:H	1.64	0.62
8:CE:48:ALA:HB2	8:CE:57:LYS:HD3	1.81	0.62
9:CF:69:GLU:O	9:CF:72:VAL:HG12	1.99	0.62
29:DF:123:LEU:HD12	29:DF:124:LEU:H	1.63	0.62
32:DI:78:THR:O	32:DI:80:PRO:HD3	1.98	0.62
38:DR:4:LEU:HD13	38:DR:4:LEU:O	1.99	0.62
1:AA:629:G:H2'	1:AA:630:G:C8	2.31	0.62
25:BA:1141:U:C2'	34:BN:86:THR:HG21	2.28	0.62
25:BA:1678:G:H22	25:BA:1989:G:H22	1.47	0.62
25:BA:2687:U:C4	25:BA:2688:U:C5	2.87	0.62
27:BD:76:PRO:HB2	27:BD:116:GLN:HE21	1.63	0.62
28:BE:131:ALA:O	28:BE:133:LYS:N	2.31	0.62
1:CA:165:C:H2'	1:CA:166:G:C8	2.34	0.62
1:CA:1028(H):G:H2'	1:CA:1033:G:H8	1.63	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1060:C:H5"	13:CJ:51:ARG:HG2	1.81	0.62
25:DA:1210:A:H5"	25:DA:1212:G:O4'	1.99	0.62
25:DA:2306:C:H4'	30:DG:136:ARG:NH2	2.14	0.62
36:DP:49:ARG:HH11	36:DP:49:ARG:CG	2.11	0.62
38:DR:63:ARG:HB2	38:DR:80:PHE:CE2	2.33	0.62
40:DT:111:ARG:H	40:DT:111:ARG:HD3	1.64	0.62
41:DU:34:LYS:HE2	41:DU:34:LYS:HA	1.80	0.62
41:DU:95:LEU:HD12	42:DV:11:GLN:HE21	1.64	0.62
46:DZ:104:PHE:HB3	46:DZ:141:VAL:HG11	1.81	0.62
49:D2:2:LYS:H	49:D2:2:LYS:NZ	1.98	0.62
1:AA:38:G:C2	1:AA:397:A:C2	2.88	0.62
1:AA:1148:U:H2'	1:AA:1149:C:O4'	1.99	0.62
1:AA:1306:A:H61	1:AA:1331:G:H1'	1.63	0.62
7:AD:22:LYS:HB2	7:AD:26:CYS:SG	2.38	0.62
25:BA:106:C:H1'	45:BY:2:ARG:NE	2.13	0.62
25:BA:330:A:HO2'	25:BA:331:A:H8	1.48	0.62
27:BD:146:GLU:OE1	27:BD:190:TYR:HB2	1.99	0.62
27:BD:255:LYS:O	27:BD:255:LYS:HD2	2.00	0.62
29:BF:123:LEU:HD12	29:BF:124:LEU:H	1.64	0.62
31:BH:118:PRO:HG2	31:BH:121:ILE:HD13	1.80	0.62
54:B7:8:ASN:ND2	54:B7:11:LYS:H	1.96	0.62
4:CY:203:VAL:CG1	4:CY:214:ARG:HH11	2.13	0.62
25:DA:528:A:H2	25:DA:2043:C:H5'	1.64	0.62
25:DA:2272:U:H5"	25:DA:2273:A:OP1	1.99	0.62
28:DE:117:MET:O	28:DE:121:ASN:HA	1.99	0.62
30:DG:47:LYS:HE3	30:DG:48:GLU:HG2	1.81	0.62
30:DG:56:ALA:HB2	30:DG:153:ARG:NE	2.13	0.62
1:AA:1104:G:H2'	1:AA:1105:A:H8	1.64	0.62
4:AY:333:TYR:HB2	4:AY:342:MET:HE1	1.80	0.62
7:AD:62:GLN:HB3	7:AD:66:ARG:HH11	1.65	0.62
7:AD:166:LYS:HD2	7:AD:166:LYS:O	2.00	0.62
25:BA:1543:A:C8	25:BA:1544:A:H5"	2.35	0.62
29:BF:135:LYS:HB3	29:BF:138:GLU:HG3	1.82	0.62
50:B3:17:LYS:HD3	50:B3:18:ASP:N	2.15	0.62
1:CA:328:C:H4'	1:CA:329:A:C5'	2.29	0.62
1:CA:1118:C:H5'	12:CI:104:ARG:HG3	1.81	0.62
25:DA:65:C:H2'	25:DA:66:C:H6	1.64	0.62
25:DA:379:G:H22	48:D1:20:ARG:HH11	1.47	0.62
25:DA:895:U:H5"	25:DA:896:A:OP1	1.99	0.62
25:DA:1141:U:C2'	34:DN:86:THR:HG21	2.28	0.62
25:DA:2389:G:H5"	25:DA:2390:U:H5'	1.80	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DU:90:VAL:CG2	41:DU:91:ASP:H	1.99	0.62
1:AA:259:G:H1	1:AA:267:C:H42	1.46	0.62
11:AH:29:SER:HB3	11:AH:32:LYS:HB2	1.80	0.62
21:AR:56:THR:HB	21:AR:58:LEU:CD1	2.30	0.62
25:BA:1221:C:H2'	25:BA:1222:C:H6	1.63	0.62
25:BA:2346:A:H5"	25:BA:2383:G:H1'	1.81	0.62
26:BB:70:C:H2'	26:BB:71:C:H6	1.64	0.62
31:BH:30:LYS:HB2	31:BH:79:VAL:HG12	1.81	0.62
42:BV:71:LEU:HD12	42:BV:71:LEU:H	1.63	0.62
4:CY:46:LEU:HD13	33:DK:21:PRO:HG2	1.80	0.62
31:DH:156:ALA:HA	31:DH:169:VAL:HG13	1.80	0.62
32:DI:9:LEU:HD12	32:DI:12:LEU:HD23	1.81	0.62
33:DK:77:LEU:HD12	33:DK:111:LYS:HD2	1.81	0.62
36:DP:51:PHE:O	36:DP:52:GLU:HB2	1.99	0.62
36:DP:64:LYS:HD2	55:D8:25:MET:SD	2.39	0.62
45:DY:86:ARG:HD3	45:DY:95:LYS:HG3	1.80	0.62
53:D6:42:TRP:HA	53:D6:42:TRP:CE3	2.35	0.62
1:AA:1337:G:H5"	1:AA:1338:G:OP1	1.99	0.62
3:AW:23:C:H2'	3:AW:24:U:H6	1.64	0.62
20:AQ:54:GLY:O	20:AQ:81:ARG:HB2	1.98	0.62
25:BA:17:G:H4'	41:BU:25:TRP:CZ3	2.34	0.62
25:BA:271(M):G:H3'	25:BA:271(N):G:C4'	2.29	0.62
25:BA:1405:U:H2'	25:BA:1406:U:C6	2.34	0.62
25:BA:1538:G:H2'	25:BA:1539:G:H8	1.65	0.62
25:BA:1916:A:H2'	25:BA:1917:U:O4'	1.99	0.62
35:BO:86:ILE:H	35:BO:86:ILE:HD12	1.64	0.62
13:CJ:13:HIS:HB3	13:CJ:68:HIS:CE1	2.35	0.62
19:CP:20:VAL:HG21	19:CP:32:TYR:CG	2.34	0.62
36:DP:15:ARG:HG3	36:DP:16:ARG:H	1.63	0.62
1:AA:405:U:H2'	1:AA:405:U:O2	1.99	0.62
4:AY:365:LYS:HD2	4:AY:369:ARG:CZ	2.30	0.62
7:AD:108:LEU:HD21	7:AD:183:GLY:HA3	1.80	0.62
19:AP:13:HIS:O	19:AP:15:PRO:HD3	1.98	0.62
19:AP:58:TYR:O	19:AP:61:SER:HB3	2.00	0.62
21:AR:54:ARG:HD2	21:AR:54:ARG:N	2.14	0.62
25:BA:492:A:H2'	25:BA:493:G:O4'	2.00	0.62
25:BA:593:G:O2'	55:B8:62:LEU:HD13	1.99	0.62
25:BA:896:A:C4	46:BZ:146:ILE:HD12	2.33	0.62
25:BA:2294:C:H2'	25:BA:2295:C:C6	2.35	0.62
25:BA:2542:A:N3	25:BA:2542:A:H5"	2.14	0.62
41:BU:62:ILE:HD12	41:BU:76:TYR:CE1	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:B2:13:ALA:O	49:B2:17:SER:HA	2.00	0.62
9:CF:37:VAL:HG12	9:CF:38:GLU:N	2.13	0.62
25:DA:1538:G:H2'	25:DA:1539:G:H8	1.65	0.62
34:DN:148:GLY:HA3	34:DN:149:PRO:O	1.98	0.62
39:DS:24:LEU:HD13	39:DS:82:ILE:HG23	1.79	0.62
50:D3:17:LYS:HD3	50:D3:18:ASP:N	2.14	0.62
52:D5:40:LYS:HE2	52:D5:46:CYS:HB3	1.80	0.62
6:AC:175:LEU:HD21	6:AC:201:TYR:HE2	1.64	0.62
27:BD:76:PRO:HB2	27:BD:116:GLN:NE2	2.15	0.62
29:BF:65:TRP:HB2	29:BF:66:PRO:HD2	1.79	0.62
36:BP:15:ARG:HG3	36:BP:16:ARG:H	1.63	0.62
40:BT:111:ARG:HD3	40:BT:111:ARG:H	1.65	0.62
1:CA:1104:G:H2'	1:CA:1105:A:H8	1.64	0.62
2:CV:19:U:O4	4:CY:140:THR:HG22	2.00	0.62
4:CY:194:SER:HB3	4:CY:195:PRO:HD3	1.81	0.62
6:CC:47:LEU:HD23	6:CC:52:LEU:HD22	1.82	0.62
11:CH:83:ILE:HG13	11:CH:137:VAL:HG22	1.81	0.62
21:CR:31:LEU:H	21:CR:31:LEU:HD23	1.65	0.62
25:DA:556:G:H2'	25:DA:557:U:C6	2.35	0.62
32:DI:27:ARG:HD3	48:D1:71:TYR:HE1	1.65	0.62
4:AY:194:SER:HB3	4:AY:195:PRO:HD3	1.81	0.62
25:BA:2476:A:H2'	25:BA:2477:C:H5"	1.82	0.62
27:BD:243:GLY:O	27:BD:244:ARG:HB3	1.99	0.62
36:BP:51:PHE:HB3	36:BP:52:GLU:HG2	1.80	0.62
36:BP:51:PHE:O	36:BP:52:GLU:HB2	2.00	0.62
40:BT:51:ARG:HB3	40:BT:62:THR:HG23	1.82	0.62
13:CJ:21:GLN:O	13:CJ:25:GLU:HG3	1.98	0.62
25:DA:573:G:O2'	25:DA:574:C:H3'	1.99	0.62
25:DA:2476:A:H2'	25:DA:2477:C:H5"	1.81	0.62
33:DK:11:GLN:HG2	33:DK:54:PRO:HA	1.81	0.62
48:D1:31:GLY:O	48:D1:32:LYS:HB2	2.00	0.62
1:AA:328:C:H4'	1:AA:329:A:C5'	2.30	0.62
8:AE:75:THR:HG23	8:AE:76:ILE:H	1.65	0.62
13:AJ:13:HIS:HB3	13:AJ:68:HIS:CE1	2.35	0.62
25:BA:270(S):G:H2'	25:BA:270(T):G:C8	2.35	0.62
25:BA:1385:G:H4'	25:BA:1386:C:OP1	1.98	0.62
25:BA:2446:G:H2'	25:BA:2447:G:H5"	1.82	0.62
27:BD:186:HIS:CD2	27:BD:188:GLU:H	2.17	0.62
31:BH:67:LEU:O	31:BH:71:LEU:HD13	2.00	0.62
45:BY:17:SER:CB	45:BY:71:LYS:HD2	2.30	0.62
1:CA:328:C:H1'	1:CA:329:A:OP2	2.00	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CY:365:LYS:HD2	4:CY:369:ARG:CZ	2.29	0.62
9:CF:33:TYR:CE1	9:CF:75:LEU:HA	2.34	0.62
16:CM:66:LEU:HA	16:CM:70:LEU:HD12	1.81	0.62
16:CM:96:LEU:HB3	16:CM:97:PRO:HD2	1.82	0.62
25:DA:1373:A:H2'	25:DA:1374:G:O4'	1.99	0.62
26:DB:70:C:H2'	26:DB:71:C:H6	1.65	0.62
27:DD:146:GLU:OE1	27:DD:190:TYR:HB2	2.00	0.62
30:DG:76:SER:CB	30:DG:83:ARG:HA	2.30	0.62
31:DH:118:PRO:HG2	31:DH:121:ILE:HD13	1.80	0.62
19:AP:20:VAL:HG21	19:AP:32:TYR:CG	2.34	0.61
36:BP:41:ARG:NE	36:BP:41:ARG:CA	2.63	0.61
40:BT:57:PHE:CG	40:BT:58:ASN:N	2.68	0.61
1:CA:165:C:H2'	1:CA:166:G:H8	1.65	0.61
1:CA:619:U:H3	7:CD:135:LEU:HD11	1.65	0.61
1:CA:1148:U:H2'	1:CA:1149:C:O4'	2.00	0.61
1:CA:1366:C:H2'	1:CA:1367:C:H6	1.63	0.61
3:CW:23:C:H2'	3:CW:24:U:H6	1.65	0.61
4:CY:49:PRO:HG3	33:DK:29:GLN:HB2	1.82	0.61
4:CY:144:ASP:O	4:CY:147:GLU:HG2	2.00	0.61
5:CB:24:TRP:CE3	5:CB:26:PRO:HA	2.35	0.61
7:CD:61:LYS:HB2	7:CD:203:VAL:HG13	1.81	0.61
27:DD:186:HIS:CD2	27:DD:188:GLU:H	2.18	0.61
53:D6:11:LEU:HD13	53:D6:12:GLU:N	2.15	0.61
1:AA:980:C:H5'	1:AA:981:U:C5	2.35	0.61
4:AY:203:VAL:CG1	4:AY:214:ARG:HH11	2.13	0.61
16:AM:66:LEU:HA	16:AM:70:LEU:HD12	1.80	0.61
18:AO:64:ARG:HH12	18:AO:68:ARG:HH21	1.48	0.61
21:AR:31:LEU:HD23	21:AR:31:LEU:H	1.65	0.61
25:BA:1210:A:H5"	25:BA:1212:G:O4'	2.01	0.61
25:BA:1275:A:C4	38:BR:16:HIS:ND1	2.68	0.61
55:B8:53:PRO:O	55:B8:57:ARG:HB2	2.00	0.61
1:CA:980:C:H5'	1:CA:981:U:C5	2.35	0.61
1:CA:983:A:H5"	1:CA:984:C:OP2	2.00	0.61
16:CM:81:LEU:O	16:CM:84:ILE:HG22	2.00	0.61
21:CR:54:ARG:N	21:CR:54:ARG:HD2	2.15	0.61
25:DA:1529:A:H62	25:DA:1542:G:N2	1.97	0.61
36:DP:51:PHE:HB3	36:DP:52:GLU:HG2	1.82	0.61
46:DZ:102:LEU:HD11	46:DZ:124:ILE:HD11	1.82	0.61
1:AA:1530:G:OP1	1:AA:1530:G:H4'	1.98	0.61
7:AD:92:VAL:O	7:AD:96:LEU:HD23	2.00	0.61
25:BA:1495:A:N3	25:BA:1496:A:C2	2.69	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2695:C:H2'	25:BA:2696:U:C6	2.35	0.61
27:BD:172:TYR:CD1	27:BD:186:HIS:HA	2.36	0.61
44:BX:57:LEU:CD1	44:BX:78:LYS:HB3	2.30	0.61
25:DA:847:U:O2'	25:DA:848:G:H8	1.83	0.61
29:DF:65:TRP:CH2	29:DF:75:HIS:HD2	2.18	0.61
1:AA:591:U:H2'	1:AA:592:G:H8	1.65	0.61
1:AA:983:A:H5"	1:AA:984:C:OP2	2.00	0.61
5:AB:25:ASN:OD1	5:AB:27:LYS:HG2	2.00	0.61
9:AF:11:ASN:O	9:AF:14:LEU:HD22	2.01	0.61
12:AI:28:VAL:HG11	12:AI:65:VAL:HG12	1.83	0.61
16:AM:27:LYS:HE2	16:AM:31:LYS:HE3	1.81	0.61
25:BA:814:C:H41	36:BP:27:HIS:CE1	2.18	0.61
25:BA:2272:U:H5"	25:BA:2273:A:OP1	2.00	0.61
25:BA:2698:U:H2'	25:BA:2699:C:C6	2.35	0.61
1:CA:591:U:H2'	1:CA:592:G:H8	1.65	0.61
1:CA:1048:G:OP1	17:CN:4:LYS:HB2	2.00	0.61
1:CA:1095:U:H5'	1:CA:1109:C:O2	1.99	0.61
1:CA:1337:G:H5"	1:CA:1338:G:OP1	2.00	0.61
5:CB:91:PRO:HG3	5:CB:154:LEU:HD21	1.83	0.61
25:DA:1221:C:H2'	25:DA:1222:C:H6	1.63	0.61
25:DA:1385:G:H4'	25:DA:1386:C:OP1	1.99	0.61
31:DH:67:LEU:O	31:DH:71:LEU:HD13	2.00	0.61
34:DN:157:ARG:N	34:DN:158:PRO:CD	2.63	0.61
44:DX:84:ALA:HB3	44:DX:87:GLN:NE2	2.03	0.61
1:AA:624:C:O3'	19:AP:10:GLY:HA2	2.01	0.61
25:BA:587:C:C5	36:BP:33:ARG:HD3	2.35	0.61
25:BA:1864(C):A:H2'	25:BA:1864(D):A:C8	2.35	0.61
25:BA:2094:G:H5'	32:BI:25:TYR:CD2	2.36	0.61
27:BD:201:HIS:O	27:BD:204:ILE:HG13	2.01	0.61
28:BE:132:HIS:CD2	28:BE:135:HIS:NE2	2.68	0.61
30:BG:128:ARG:HG2	30:BG:164:GLU:O	2.01	0.61
42:BV:28:GLU:HB2	42:BV:31:ALA:HB2	1.82	0.61
46:BZ:102:LEU:HD11	46:BZ:124:ILE:HD11	1.82	0.61
53:B6:42:TRP:CE3	53:B6:42:TRP:HA	2.35	0.61
1:CA:968:A:H8	1:CA:968:A:OP1	1.83	0.61
4:CY:368:ARG:NH2	4:CY:372:THR:HG21	2.16	0.61
5:CB:25:ASN:OD1	5:CB:27:LYS:HG2	2.00	0.61
9:CF:37:VAL:HA	9:CF:65:VAL:HG12	1.81	0.61
25:DA:2294:C:H2'	25:DA:2295:C:H6	1.66	0.61
25:DA:2393:A:H5'	36:DP:62:LEU:HD12	1.83	0.61
41:DU:62:ILE:HD12	41:DU:76:TYR:CE1	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DX:26:TYR:O	44:DX:81:VAL:HG23	1.99	0.61
7:AD:62:GLN:HB3	7:AD:66:ARG:NH1	2.15	0.61
9:AF:33:TYR:CE1	9:AF:75:LEU:HA	2.35	0.61
12:AI:4:TYR:CZ	12:AI:88:TYR:HB3	2.35	0.61
25:BA:2393:A:H5'	36:BP:62:LEU:HD12	1.82	0.61
26:BB:80:U:H2'	26:BB:81:G:H21	1.64	0.61
25:DA:270(L):U:C2	32:DI:50:ARG:HB2	2.35	0.61
25:DA:871:U:H4'	37:DQ:69:PHE:CE2	2.35	0.61
30:DG:128:ARG:HG2	30:DG:164:GLU:O	2.00	0.61
38:DR:55:ALA:HA	38:DR:80:PHE:HE1	1.65	0.61
46:DZ:163:LEU:HD23	46:DZ:163:LEU:H	1.65	0.61
49:D2:46:GLN:HB2	49:D2:49:LYS:NZ	2.15	0.61
1:AA:55:A:H2	32:DI:89:TYR:CZ	2.18	0.61
13:AJ:37:PRO:HA	13:AJ:71:LEU:O	2.01	0.61
25:BA:379:G:H22	48:B1:20:ARG:HH11	1.47	0.61
25:BA:871:U:H4'	37:BQ:69:PHE:CE2	2.36	0.61
30:BG:47:LYS:HE3	30:BG:48:GLU:HG2	1.80	0.61
41:BU:95:LEU:HD12	42:BV:11:GLN:HE21	1.65	0.61
44:BX:26:TYR:O	44:BX:81:VAL:HG23	2.00	0.61
52:B5:4:HIS:HB2	52:B5:5:PRO:CD	2.23	0.61
4:CY:59:ARG:HG2	25:DA:1067:A:N1	2.16	0.61
11:CH:80:ILE:H	11:CH:80:ILE:CD1	2.10	0.61
19:CP:58:TYR:O	19:CP:61:SER:HB3	2.00	0.61
25:DA:271(M):G:H3'	25:DA:271(N):G:C4'	2.30	0.61
25:DA:2285:C:H5	53:D6:27:LYS:HE3	1.66	0.61
25:DA:2679:A:H4'	28:DE:165:VAL:HG11	1.81	0.61
33:DK:111:LYS:HD3	33:DK:127:ILE:HD11	1.83	0.61
54:D7:19:ARG:HG3	54:D7:19:ARG:NH1	2.12	0.61
1:AA:1064:G:H1'	1:AA:1065:U:OP2	2.00	0.61
25:BA:1126:A:H8	25:BA:1126:A:OP1	1.84	0.61
28:BE:77:ILE:HG12	28:BE:195:LEU:CD1	2.30	0.61
37:BQ:134:ARG:HH21	37:BQ:137:TYR:H	1.48	0.61
1:CA:134:A:N6	19:CP:25:ARG:HH12	1.93	0.61
18:CO:64:ARG:HH12	18:CO:68:ARG:HH21	1.46	0.61
22:CS:10:PHE:HZ	22:CS:37:ARG:HE	1.49	0.61
25:DA:494:G:N2	43:DW:57:ASN:HD21	1.99	0.61
25:DA:1545:A:C2'	25:DA:1546:C:H5'	2.31	0.61
40:DT:51:ARG:HB3	40:DT:62:THR:HG23	1.83	0.61
42:DV:71:LEU:H	42:DV:71:LEU:HD12	1.64	0.61
1:AA:186(J):G:H4'	1:AA:186(K):G:OP2	2.01	0.61
6:AC:175:LEU:HD21	6:AC:201:TYR:CE2	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:256:A:H2'	25:BA:257:A:H8	1.66	0.61
25:BA:573:G:O2'	25:BA:574:C:H3'	2.01	0.61
25:BA:1270:C:H5"	25:BA:1271:G:C5'	2.30	0.61
25:BA:2286:A:H4'	25:BA:2287:A:O4'	2.01	0.61
32:BI:93:THR:HG23	32:BI:119:PRO:HB3	1.82	0.61
49:B2:46:GLN:HB2	49:B2:49:LYS:NZ	2.15	0.61
53:B6:11:LEU:HD13	53:B6:12:GLU:N	2.15	0.61
7:CD:62:GLN:O	7:CD:66:ARG:HB2	2.00	0.61
13:CJ:79:ARG:HH11	13:CJ:82:ILE:HG13	1.66	0.61
25:DA:97:C:H5"	49:D2:2:LYS:HE2	1.81	0.61
25:DA:1126:A:H8	25:DA:1126:A:OP1	1.83	0.61
25:DA:1771:C:O2'	25:DA:1786:A:H8	1.84	0.61
25:DA:2446:G:H2'	25:DA:2447:G:H5"	1.81	0.61
26:DB:89(A):G:C6	26:DB:89(B):A:N6	2.69	0.61
32:DI:93:THR:HG23	32:DI:119:PRO:HB3	1.83	0.61
36:DP:62:LEU:H	36:DP:62:LEU:HD22	1.65	0.61
43:DW:20:VAL:HG11	43:DW:44:ALA:HA	1.83	0.61
55:D8:53:PRO:O	55:D8:57:ARG:HB2	2.01	0.61
1:AA:624:C:H4'	19:AP:10:GLY:HA2	1.83	0.61
16:AM:70:LEU:O	16:AM:74:VAL:HG23	2.01	0.61
25:BA:270(N):G:O2'	25:BA:270(P):C:H5'	2.01	0.61
25:BA:2573:C:OP1	25:BA:2573:C:H3'	2.01	0.61
30:BG:76:SER:CB	30:BG:83:ARG:HA	2.30	0.61
31:BH:51:ARG:HG2	31:BH:52:VAL:N	2.16	0.61
36:BP:29:LYS:N	36:BP:29:LYS:HD2	2.16	0.61
36:BP:62:LEU:HD22	36:BP:62:LEU:H	1.65	0.61
45:BY:29:GLU:HB3	45:BY:38:ILE:HD11	1.81	0.61
46:BZ:182:LYS:O	46:BZ:186:GLU:HG3	2.01	0.61
1:CA:624:C:H4'	19:CP:10:GLY:HA2	1.82	0.61
14:CK:59:TYR:CE1	14:CK:63:LEU:HD21	2.36	0.61
25:DA:289:A:H2'	25:DA:290:G:O4'	2.01	0.61
26:DB:111:U:H2'	26:DB:112:G:C8	2.34	0.61
30:DG:109:VAL:O	30:DG:113:ARG:HG2	2.01	0.61
32:DI:4:ILE:HG22	32:DI:18:VAL:HG22	1.82	0.61
36:DP:112:LEU:HD21	36:DP:114:ILE:HG13	1.83	0.61
51:D4:38:ALA:HB1	51:D4:55:PRO:HA	1.83	0.61
1:AA:165:C:H2'	1:AA:166:G:H8	1.64	0.60
1:AA:1126:U:H1'	1:AA:1280:A:C6	2.37	0.60
1:AA:1347:G:N2	1:AA:1373:G:H2'	2.15	0.60
1:AA:1366:C:H2'	1:AA:1367:C:H6	1.66	0.60
6:AC:47:LEU:HD23	6:AC:52:LEU:HD22	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2681:C:H5	25:BA:2725:A:N6	1.93	0.60
34:BN:119:GLU:H	34:BN:119:GLU:CD	2.05	0.60
36:BP:29:LYS:HD2	36:BP:29:LYS:H	1.66	0.60
42:BV:21:ARG:NE	42:BV:91:TYR:HE1	1.98	0.60
1:CA:141:A:H1'	1:CA:182:U:O2	2.01	0.60
1:CA:186(J):G:H4'	1:CA:186(K):G:OP2	2.01	0.60
11:CH:38:ILE:HD12	11:CH:118:VAL:HG12	1.83	0.60
16:CM:70:LEU:O	16:CM:74:VAL:HG23	2.00	0.60
25:DA:1495:A:N3	25:DA:1496:A:C2	2.69	0.60
25:DA:2695:C:H2'	25:DA:2696:U:C6	2.35	0.60
36:DP:48:PRO:O	36:DP:49:ARG:C	2.40	0.60
1:AA:1118:C:H5'	12:AI:104:ARG:HG3	1.81	0.60
16:AM:96:LEU:HB3	16:AM:97:PRO:HD2	1.81	0.60
25:BA:1536:A:H5"	25:BA:1537:C:OP2	2.01	0.60
25:BA:2307:G:N7	25:BA:2308:G:C6	2.69	0.60
25:BA:2695:C:H2'	25:BA:2696:U:H6	1.66	0.60
48:B1:27:GLU:HB2	48:B1:33:LYS:HZ1	1.66	0.60
1:CA:1064:G:H1'	1:CA:1065:U:OP2	2.00	0.60
4:CY:203:VAL:HG11	4:CY:214:ARG:HH11	1.66	0.60
6:CC:116:VAL:HG21	6:CC:202:ILE:HD11	1.82	0.60
12:CI:4:TYR:CZ	12:CI:88:TYR:HB3	2.35	0.60
21:CR:56:THR:HB	21:CR:58:LEU:CD1	2.31	0.60
25:DA:1864(C):A:H2'	25:DA:1864(D):A:C8	2.36	0.60
28:DE:35:GLN:HG2	28:DE:36:ARG:N	2.16	0.60
30:DG:41:GLN:HB3	30:DG:43:LEU:HD22	1.83	0.60
1:AA:1346:A:N1	1:AA:1374:A:H5"	2.16	0.60
4:AY:42:LEU:HG	4:AY:64:GLU:HB2	1.84	0.60
4:AY:144:ASP:O	4:AY:147:GLU:HG2	2.01	0.60
4:AY:368:ARG:NH2	4:AY:372:THR:HG21	2.16	0.60
8:AE:91:LEU:HB3	8:AE:118:ILE:HD11	1.82	0.60
22:AS:10:PHE:HZ	22:AS:37:ARG:HE	1.49	0.60
25:BA:295:G:H4'	45:BY:2:ARG:NH1	2.16	0.60
27:BD:39:LYS:O	27:BD:40:THR:HG23	2.01	0.60
39:BS:52:SER:CB	39:BS:55:ALA:HB3	2.31	0.60
1:CA:1347:G:N2	1:CA:1373:G:H2'	2.16	0.60
4:CY:251:GLY:HA3	4:CY:255:VAL:HB	1.83	0.60
12:CI:51:ARG:HG2	12:CI:56:LEU:HD12	1.84	0.60
16:CM:27:LYS:HE2	16:CM:31:LYS:HE3	1.81	0.60
16:CM:94:ARG:HD3	16:CM:96:LEU:HD11	1.82	0.60
35:DO:86:ILE:H	35:DO:86:ILE:HD12	1.65	0.60
36:DP:29:LYS:N	36:DP:29:LYS:HD2	2.15	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DS:67:ARG:HG3	39:DS:100:ALA:HB1	1.83	0.60
25:BA:1550:C:H2'	25:BA:1551:C:H6	1.65	0.60
27:BD:133:LEU:HB3	27:BD:173:VAL:HG11	1.83	0.60
27:BD:174:ILE:CD1	27:BD:184:LYS:HG2	2.32	0.60
35:BO:103:ALA:HB1	35:BO:105:GLU:OE1	2.01	0.60
1:CA:386:C:H2'	1:CA:387:U:H5'	1.84	0.60
7:CD:28:SER:HB3	7:CD:29:PRO:HD2	1.82	0.60
25:DA:1092:C:H2'	25:DA:1093:G:H8	1.65	0.60
37:DQ:34:LEU:HD12	37:DQ:130:LYS:O	2.02	0.60
42:DV:21:ARG:NE	42:DV:91:TYR:HE1	1.99	0.60
46:DZ:125:LEU:CD1	46:DZ:164:ALA:HB3	2.31	0.60
1:AA:141:A:H1'	1:AA:182:U:O2	2.00	0.60
4:AY:92:LEU:HD21	4:AY:95:GLU:HB3	1.83	0.60
4:AY:128:ASN:HA	4:AY:189:ALA:HB3	1.83	0.60
4:AY:251:GLY:HA3	4:AY:255:VAL:HB	1.84	0.60
13:AJ:6:ILE:HA	13:AJ:97:GLU:O	2.01	0.60
25:BA:556:G:H2'	25:BA:557:U:C6	2.35	0.60
25:BA:860:U:C5	25:BA:917:A:N7	2.64	0.60
25:BA:1329:U:H5"	25:BA:1330:C:H5	1.66	0.60
25:BA:1615:C:O2'	25:BA:1616:A:H5'	2.01	0.60
1:CA:105:G:H2'	1:CA:106:C:C6	2.36	0.60
1:CA:1241:G:H2'	1:CA:1242:C:C6	2.37	0.60
13:CJ:6:ILE:HA	13:CJ:97:GLU:O	2.01	0.60
25:DA:814:C:H41	36:DP:27:HIS:CE1	2.18	0.60
25:DA:1275:A:C4	38:DR:16:HIS:ND1	2.69	0.60
25:DA:1536:A:H5"	25:DA:1537:C:OP2	2.01	0.60
25:DA:2307:G:N7	25:DA:2308:G:C6	2.70	0.60
27:DD:172:TYR:CD1	27:DD:186:HIS:HA	2.37	0.60
1:AA:105:G:H2'	1:AA:106:C:C6	2.36	0.60
1:AA:914:A:O2'	1:AA:915:A:H5'	2.01	0.60
1:AA:1493:A:N6	25:BA:1913:A:C2	2.69	0.60
7:AD:28:SER:HB3	7:AD:29:PRO:CD	2.29	0.60
12:AI:113:LYS:HG2	12:AI:119:ALA:HA	1.83	0.60
25:BA:2312:U:H4'	30:BG:71:THR:HG23	1.84	0.60
28:BE:105:THR:O	28:BE:196:VAL:HG23	2.02	0.60
35:BO:88:ASN:ND2	35:BO:90:GLN:HG2	2.12	0.60
40:BT:26:ASP:O	40:BT:49:VAL:HG12	2.02	0.60
13:CJ:9:ARG:HG2	13:CJ:69:ASN:OD1	2.02	0.60
17:CN:11:LYS:H	17:CN:11:LYS:HD2	1.67	0.60
25:DA:912:C:O2	25:DA:912:C:H2'	2.02	0.60
25:DA:1503:U:H2'	25:DA:1504:C:C6	2.37	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2294:C:H2'	25:DA:2295:C:C6	2.37	0.60
26:DB:41:U:C4	30:DG:70:VAL:HG23	2.36	0.60
37:DQ:10:ARG:HA	37:DQ:10:ARG:HE	1.66	0.60
46:DZ:128:VAL:HG22	46:DZ:132:ASN:HB2	1.84	0.60
2:AV:19:U:N3	4:AY:139:GLY:HA3	2.11	0.60
4:AY:297:TYR:O	4:AY:301:ARG:HG2	2.01	0.60
12:AI:51:ARG:HG2	12:AI:56:LEU:HD12	1.83	0.60
16:AM:81:LEU:O	16:AM:84:ILE:HG22	2.00	0.60
25:BA:568:U:O4	42:BV:78:LYS:HE3	2.01	0.60
25:BA:1494:A:H2'	25:BA:1494:A:N3	2.16	0.60
27:BD:7:LYS:HG2	27:BD:8:PRO:HD2	1.83	0.60
28:BE:4:ILE:CG1	28:BE:28:ALA:HB1	2.31	0.60
28:BE:36:ARG:HH21	28:BE:88:GLY:HA2	1.67	0.60
5:CB:97:TRP:CH2	5:CB:176:GLU:HG3	2.37	0.60
6:CC:70:VAL:HG12	6:CC:72:LYS:N	2.14	0.60
6:CC:112:SER:HB3	6:CC:115:LEU:HD12	1.84	0.60
25:DA:2698:U:H2'	25:DA:2699:C:C6	2.37	0.60
27:DD:133:LEU:HB3	27:DD:173:VAL:HG11	1.83	0.60
36:DP:23:PRO:CB	36:DP:33:ARG:HG3	2.22	0.60
45:DY:97:ARG:NH1	45:DY:98:VAL:HB	2.17	0.60
1:AA:1117:G:O3'	12:AI:104:ARG:HG3	2.02	0.60
5:AB:17:PHE:CD1	5:AB:44:LEU:HD21	2.36	0.60
5:AB:97:TRP:HH2	5:AB:176:GLU:HG3	1.67	0.60
7:AD:30:LYS:HD3	7:AD:35:ARG:HD2	1.83	0.60
7:AD:126:ILE:HG22	7:AD:127:THR:N	2.16	0.60
9:AF:45:LEU:HD12	9:AF:59:TYR:CD1	2.35	0.60
11:AH:83:ILE:HG13	11:AH:137:VAL:HG22	1.82	0.60
28:BE:36:ARG:HH11	28:BE:85:ASN:HD21	1.50	0.60
53:B6:18:ARG:HG2	53:B6:19:ARG:H	1.66	0.60
5:CB:71:VAL:HG12	5:CB:93:VAL:HB	1.84	0.60
25:DA:602:G:H2'	25:DA:655:A:N6	2.16	0.60
25:DA:1329:U:H5"	25:DA:1330:C:H5	1.65	0.60
25:DA:1899:G:H22	25:DA:1902:C:N4	1.94	0.60
25:DA:2261:C:O2'	25:DA:2262:U:H5'	2.02	0.60
25:DA:2309:A:OP1	25:DA:2309:A:C8	2.55	0.60
25:DA:2312:U:H4'	30:DG:71:THR:HG23	1.83	0.60
28:DE:4:ILE:CG1	28:DE:28:ALA:HB1	2.32	0.60
28:DE:36:ARG:HH11	28:DE:85:ASN:HD21	1.49	0.60
33:DK:76:TYR:HA	33:DK:79:ARG:HE	1.66	0.60
43:DW:83:LYS:C	43:DW:84:ARG:HD2	2.22	0.60
46:DZ:126:VAL:HG12	46:DZ:163:LEU:HA	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:D2:17:SER:HB3	49:D2:18:PRO:CD	2.31	0.60
53:D6:41:PRO:HD2	53:D6:46:HIS:H	1.67	0.60
1:AA:991:U:H4'	1:AA:992:U:OP1	2.00	0.60
1:AA:1056:U:H5'	6:AC:163:ALA:HB2	1.84	0.60
1:AA:1241:G:H2'	1:AA:1242:C:C6	2.37	0.60
19:AP:13:HIS:C	19:AP:15:PRO:HD3	2.22	0.60
25:BA:479:A:N3	25:BA:481:G:H5"	2.17	0.60
25:BA:2202(D):G:H2'	25:BA:2202(E):A:H5"	1.84	0.60
25:BA:2309:A:OP1	25:BA:2309:A:C8	2.54	0.60
30:BG:33:ARG:CZ	30:BG:162:THR:HG21	2.32	0.60
30:BG:109:VAL:O	30:BG:113:ARG:HG2	2.01	0.60
1:CA:619:U:H3	7:CD:135:LEU:CD1	2.15	0.60
1:CA:1009:G:H2'	1:CA:1010:G:H8	1.67	0.60
2:CV:19:U:N3	4:CY:139:GLY:HA3	2.12	0.60
4:CY:128:ASN:HA	4:CY:189:ALA:HB3	1.83	0.60
12:CI:28:VAL:HG11	12:CI:65:VAL:HG12	1.82	0.60
25:DA:483:A:H4'	45:DY:49:VAL:HG22	1.83	0.60
25:DA:539:G:H2'	25:DA:540:C:C6	2.37	0.60
25:DA:1494:A:H2'	25:DA:1494:A:N3	2.16	0.60
25:DA:1608:A:H1'	25:DA:1610:A:OP2	2.01	0.60
27:DD:201:HIS:O	27:DD:204:ILE:HG13	2.02	0.60
42:DV:62:LEU:CD2	42:DV:95:LEU:HB2	2.32	0.60
43:DW:29:LEU:HD21	43:DW:33:ARG:HH21	1.66	0.60
46:DZ:91:LEU:HD22	46:DZ:96:VAL:HG21	1.84	0.60
48:D1:67:ILE:N	48:D1:68:PRO:HD2	2.17	0.60
1:AA:968:A:H8	1:AA:968:A:OP1	1.83	0.60
4:AY:325:ARG:HD2	4:AY:357:LEU:HD21	1.83	0.60
6:AC:17:ASP:HB3	6:AC:21:ARG:HH21	1.67	0.60
6:AC:112:SER:HB3	6:AC:115:LEU:HD12	1.83	0.60
25:BA:996:A:H4'	41:BU:92:ARG:HD3	1.82	0.60
25:BA:1092:C:H2'	25:BA:1093:G:H8	1.66	0.60
25:BA:1796:U:H2'	25:BA:1797:C:C6	2.37	0.60
25:BA:2190:G:H2'	25:BA:2191:G:C8	2.31	0.60
28:BE:35:GLN:HG2	28:BE:36:ARG:N	2.17	0.60
30:BG:121:ASN:HD21	30:BG:123:ASN:HB2	1.67	0.60
36:BP:57:THR:HB	36:BP:59:LEU:H	1.67	0.60
36:BP:80:TYR:HA	36:BP:111:ARG:HB2	1.84	0.60
36:BP:112:LEU:HD21	36:BP:114:ILE:HG13	1.84	0.60
39:BS:15:ARG:O	39:BS:19:LYS:HG3	2.02	0.60
39:BS:95:HIS:O	39:BS:99:LYS:HB3	2.02	0.60
25:DA:270(N):G:O2'	25:DA:270(P):C:H5'	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1331:A:O2'	25:DA:1332:G:H8	1.85	0.60
29:DF:135:LYS:HB3	29:DF:138:GLU:HG3	1.83	0.60
34:DN:119:GLU:CD	34:DN:119:GLU:H	2.04	0.60
44:DX:57:LEU:CD1	44:DX:78:LYS:HB3	2.31	0.60
1:AA:1009:G:H2'	1:AA:1010:G:H8	1.67	0.59
1:AA:1145:C:H4'	1:AA:1146:A:O5'	2.02	0.59
1:AA:1225:A:H2'	1:AA:1225:A:N3	2.17	0.59
8:AE:153:LYS:HE3	8:AE:155:GLU:HB2	1.83	0.59
25:BA:2820:A:O3'	38:BR:5:LYS:HE3	2.02	0.59
26:BB:16:G:C6	26:BB:69:G:C2	2.90	0.59
38:BR:38:VAL:HB	38:BR:39:PRO:HD3	1.84	0.59
38:BR:55:ALA:HA	38:BR:80:PHE:HE1	1.67	0.59
38:BR:57:ARG:HD2	38:BR:59:ASP:OD2	2.01	0.59
4:CY:325:ARG:HD2	4:CY:357:LEU:HD21	1.83	0.59
16:CM:52:GLU:HG2	16:CM:55:ARG:NH2	2.17	0.59
25:DA:558:G:OP1	34:DN:134:PRO:HD2	2.03	0.59
25:DA:1805:U:O2	27:DD:50:THR:HB	2.02	0.59
27:DD:174:ILE:CD1	27:DD:184:LYS:HG2	2.32	0.59
30:DG:77:ILE:H	30:DG:82:LEU:HB2	1.66	0.59
36:DP:91:PHE:HE2	36:DP:95:VAL:HG12	1.66	0.59
37:DQ:20:ALA:HB2	37:DQ:99:PRO:HG2	1.84	0.59
40:DT:57:PHE:CG	40:DT:58:ASN:N	2.69	0.59
25:BA:289:A:H2'	25:BA:290:G:O4'	2.02	0.59
25:BA:2415:G:H2'	25:BA:2416:C:C6	2.36	0.59
30:BG:41:GLN:HB3	30:BG:43:LEU:HD22	1.83	0.59
36:BP:58:THR:C	36:BP:60:MET:N	2.56	0.59
46:BZ:126:VAL:HG12	46:BZ:163:LEU:HA	1.83	0.59
7:CD:31:CYS:C	7:CD:33:MET:H	2.06	0.59
7:CD:88:VAL:O	7:CD:92:VAL:HG23	2.02	0.59
13:CJ:37:PRO:HA	13:CJ:71:LEU:O	2.01	0.59
25:DA:137(D):A:H8	25:DA:1408:C:O2'	1.84	0.59
25:DA:479:A:N3	25:DA:481:G:H5"	2.18	0.59
25:DA:969:U:H2'	25:DA:970:C:C6	2.37	0.59
25:DA:1003:G:O2'	25:DA:1010:A:N1	2.34	0.59
32:DI:125:GLU:HA	32:DI:143:SER:HA	1.84	0.59
34:DN:93:LYS:HE3	34:DN:95:TYR:CE1	2.28	0.59
5:AB:97:TRP:CH2	5:AB:176:GLU:HG3	2.38	0.59
7:AD:112:VAL:HG12	7:AD:116:GLN:CD	2.22	0.59
8:AE:51:VAL:O	8:AE:55:VAL:HG23	2.02	0.59
11:AH:80:ILE:H	11:AH:80:ILE:CD1	2.09	0.59
11:AH:92:ARG:HB3	11:AH:94:TYR:CE2	2.37	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
49:B2:2:LYS:H	49:B2:2:LYS:NZ	1.99	0.59
1:CA:355:C:C4	1:CA:356:A:N7	2.71	0.59
1:CA:1225:A:N3	1:CA:1225:A:H2'	2.17	0.59
4:CY:42:LEU:HG	4:CY:64:GLU:HB2	1.82	0.59
5:CB:17:PHE:CD1	5:CB:44:LEU:HD21	2.37	0.59
9:CF:11:ASN:O	9:CF:14:LEU:HD22	2.02	0.59
25:DA:492:A:H2'	25:DA:493:G:O4'	2.01	0.59
25:DA:1543:A:H5'	25:DA:1543(A):C:OP2	2.02	0.59
25:DA:2573:C:OP1	25:DA:2573:C:H3'	2.02	0.59
25:DA:2584:U:H2'	25:DA:2585:U:H2'	1.83	0.59
30:DG:5:LEU:HD12	30:DG:101:ILE:HG22	1.85	0.59
34:DN:160:LYS:HB3	34:DN:160:LYS:HZ3	1.64	0.59
40:DT:26:ASP:O	40:DT:49:VAL:HG12	2.03	0.59
42:DV:39:LEU:HA	42:DV:47:VAL:CG1	2.32	0.59
19:AP:19:ILE:HG22	19:AP:36:ILE:HD11	1.84	0.59
25:BA:847:U:O2'	25:BA:848:G:H8	1.85	0.59
25:BA:1712(J):G:HO2'	25:BA:1712(K):A:H8	1.48	0.59
47:B0:56:ASP:O	47:B0:57:PHE:HB2	2.01	0.59
51:B4:38:ALA:HB1	51:B4:55:PRO:HA	1.84	0.59
1:CA:1100:C:OP2	5:CB:96:ARG:HG2	2.02	0.59
1:CA:1126:U:H1'	1:CA:1280:A:C6	2.36	0.59
7:CD:173:TRP:HB2	7:CD:187:ARG:HG3	1.84	0.59
8:CE:75:THR:HG23	8:CE:76:ILE:H	1.66	0.59
8:CE:153:LYS:HE3	8:CE:155:GLU:HB2	1.83	0.59
19:CP:19:ILE:HG22	19:CP:36:ILE:HD11	1.84	0.59
25:DA:46:C:OP2	25:DA:215:G:H2'	2.02	0.59
25:DA:1993:U:H4'	28:DE:128:SER:CB	2.33	0.59
26:DB:16:G:C6	26:DB:69:G:C2	2.90	0.59
27:DD:39:LYS:O	27:DD:40:THR:HG23	2.02	0.59
31:DH:13:LYS:HZ2	31:DH:14:GLY:HA2	1.67	0.59
48:D1:45:ASN:HD21	48:D1:47:GLN:HE21	1.50	0.59
1:AA:328:C:H1'	1:AA:329:A:OP2	2.02	0.59
1:AA:386:C:H2'	1:AA:387:U:H5'	1.83	0.59
1:AA:1013:G:H2'	1:AA:1015:A:OP2	2.02	0.59
1:AA:1435:G:H2'	1:AA:1436:U:C6	2.38	0.59
22:AS:6:LYS:HG2	22:AS:7:LYS:HD3	1.85	0.59
25:BA:602:G:H2'	25:BA:655:A:N6	2.17	0.59
25:BA:1022:G:C5	25:BA:1140:C:N4	2.71	0.59
25:BA:1459:G:H2'	25:BA:1459:G:N3	2.18	0.59
25:BA:1503:U:H2'	25:BA:1504:C:C6	2.37	0.59
25:BA:2389:G:H5"	25:BA:2390:U:H5'	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2584:U:H2'	25:BA:2585:U:H2'	1.83	0.59
26:BB:112:G:H2'	26:BB:113:C:C6	2.37	0.59
34:BN:157:ARG:N	34:BN:158:PRO:CD	2.64	0.59
49:B2:14:ARG:HA	49:B2:17:SER:CB	2.33	0.59
1:CA:1346:A:N1	1:CA:1374:A:H5"	2.16	0.59
4:CY:266:HIS:CD2	4:CY:296:LEU:HD21	2.37	0.59
19:CP:13:HIS:O	19:CP:15:PRO:HD3	2.01	0.59
25:DA:1550:C:H2'	25:DA:1551:C:H6	1.66	0.59
28:DE:108:SER:O	28:DE:162:ALA:HA	2.03	0.59
32:DI:133:HIS:CE1	32:DI:135:GLU:HB3	2.37	0.59
36:DP:58:THR:C	36:DP:60:MET:N	2.55	0.59
42:DV:14:VAL:HG13	42:DV:96:ILE:HG13	1.84	0.59
1:AA:736:C:H2'	1:AA:737:A:H8	1.66	0.59
1:AA:1176:A:H2'	1:AA:1177:G:C8	2.37	0.59
4:AY:357:LEU:HG	4:AY:362:LEU:HD21	1.85	0.59
15:AL:23:VAL:HG13	15:AL:97:TYR:CE2	2.26	0.59
25:BA:637:A:H4'	25:BA:638:G:O5'	2.03	0.59
25:BA:832:G:OP1	36:BP:40:SER:HB3	2.02	0.59
25:BA:1309:G:H4'	54:B7:7:PRO:HB2	1.85	0.59
25:BA:2230:G:H1'	48:B1:45:ASN:HB2	1.84	0.59
30:BG:5:LEU:HD12	30:BG:101:ILE:HG22	1.85	0.59
36:BP:91:PHE:HE2	36:BP:95:VAL:HG12	1.66	0.59
42:BV:14:VAL:HG13	42:BV:96:ILE:HG13	1.84	0.59
43:BW:1:MET:CG	43:BW:2:GLU:H	2.16	0.59
1:CA:405:U:O2	1:CA:405:U:H2'	2.02	0.59
25:DA:860:U:C5	25:DA:917:A:N7	2.61	0.59
25:DA:1907:G:H2'	25:DA:1908:C:C6	2.38	0.59
25:DA:2307:G:N7	25:DA:2308:G:C5	2.71	0.59
25:DA:2502:G:C5'	25:DA:2503:A:H5"	2.32	0.59
25:DA:2695:C:H2'	25:DA:2696:U:H6	1.66	0.59
29:DF:63:LYS:HA	29:DF:76:GLY:O	2.03	0.59
36:DP:62:LEU:HD11	55:D8:27:THR:HA	1.84	0.59
45:DY:81:LYS:CD	45:DY:97:ARG:HB3	2.33	0.59
53:D6:18:ARG:HG2	53:D6:19:ARG:H	1.67	0.59
1:AA:201(C):U:H4'	1:AA:216:G:O5'	2.02	0.59
1:AA:262:A:C6	1:AA:263:A:C6	2.91	0.59
1:AA:993:G:N3	1:AA:993:G:H2'	2.17	0.59
25:BA:2307:G:N7	25:BA:2308:G:C5	2.70	0.59
26:BB:7:G:H5"	39:BS:29:PHE:CE2	2.38	0.59
31:BH:13:LYS:HD3	31:BH:14:GLY:N	2.18	0.59
38:BR:12:ARG:CD	38:BR:16:HIS:CD2	2.86	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:BS:67:ARG:HG3	39:BS:100:ALA:HB1	1.84	0.59
46:BZ:125:LEU:CD1	46:BZ:164:ALA:HB3	2.32	0.59
1:CA:1358:U:H5"	1:CA:1359:C:OP2	2.02	0.59
4:CY:297:TYR:O	4:CY:301:ARG:HG2	2.01	0.59
18:CO:40:SER:O	18:CO:44:LYS:HD2	2.02	0.59
26:DB:7:G:H5"	39:DS:29:PHE:CE2	2.37	0.59
32:DI:4:ILE:O	32:DI:4:ILE:HG13	2.03	0.59
36:DP:29:LYS:HD2	36:DP:29:LYS:H	1.68	0.59
36:DP:50:ARG:HG2	36:DP:50:ARG:HH21	1.68	0.59
42:DV:22:VAL:HG12	42:DV:23:GLU:H	1.66	0.59
1:AA:224:C:H2'	1:AA:225:C:C6	2.38	0.59
4:AY:324:ILE:HB	4:AY:338:ARG:HD2	1.85	0.59
6:AC:68:VAL:CG1	6:AC:70:VAL:HG23	2.33	0.59
16:AM:52:GLU:HG2	16:AM:55:ARG:NH2	2.17	0.59
25:BA:46:C:OP2	25:BA:215:G:H2'	2.02	0.59
25:BA:270(K):C:H2'	25:BA:270(L):U:H2'	1.84	0.59
25:BA:912:C:O2	25:BA:912:C:H2'	2.01	0.59
25:BA:1907:G:H2'	25:BA:1908:C:C6	2.37	0.59
25:BA:2285:C:H5	53:B6:27:LYS:HE3	1.68	0.59
29:BF:65:TRP:CH2	29:BF:75:HIS:HD2	2.20	0.59
32:BI:4:ILE:HG22	32:BI:18:VAL:HG22	1.83	0.59
38:BR:63:ARG:HB2	38:BR:80:PHE:CE2	2.36	0.59
50:B3:6:VAL:HG12	50:B3:56:VAL:HG13	1.84	0.59
1:CA:224:C:H2'	1:CA:225:C:C6	2.37	0.59
1:CA:346:G:OP1	40:DT:41:ARG:NH2	2.35	0.59
1:CA:1145:C:H4'	1:CA:1146:A:O5'	2.02	0.59
5:CB:112:VAL:O	5:CB:116:GLU:HG2	2.03	0.59
22:CS:6:LYS:HG2	22:CS:7:LYS:HD3	1.84	0.59
25:DA:137(E):A:H8	25:DA:1595:G:H21	1.50	0.59
25:DA:536:A:H2'	25:DA:537:C:C6	2.38	0.59
25:DA:2415:G:H2'	25:DA:2416:C:C6	2.38	0.59
27:DD:93:ALA:HB2	27:DD:107:ALA:HB2	1.84	0.59
31:DH:123:PHE:CD1	31:DH:123:PHE:N	2.67	0.59
6:AC:70:VAL:HG12	6:AC:72:LYS:N	2.15	0.59
10:AG:50:ILE:HG21	10:AG:58:PRO:HA	1.85	0.59
12:AI:5:TYR:HE2	12:AI:16:ARG:HB3	1.68	0.59
21:AR:50:ILE:HD12	21:AR:70:ILE:HG21	1.85	0.59
25:BA:1493:C:H2'	25:BA:1493:C:O2	2.02	0.59
25:BA:1607:C:H4'	25:BA:1608:A:O5'	2.02	0.59
25:BA:2030:A:H5"	25:BA:2031:A:OP1	2.03	0.59
25:BA:2334:G:H4'	25:BA:2335:A:OP2	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:41:U:C4	30:BG:70:VAL:HG23	2.37	0.59
26:BB:89(A):G:C6	26:BB:89(B):A:N6	2.70	0.59
28:BE:4:ILE:HG12	28:BE:28:ALA:HB1	1.85	0.59
30:BG:7:LEU:HB2	30:BG:104:GLU:HG2	1.85	0.59
35:BO:3:GLN:HB2	35:BO:4:PRO:HD2	1.85	0.59
38:BR:38:VAL:HG22	38:BR:112:ALA:HB2	1.84	0.59
42:BV:39:LEU:HA	42:BV:47:VAL:CG1	2.32	0.59
50:B3:11:SER:OG	50:B3:13:ILE:HG13	2.02	0.59
54:B7:19:ARG:HG3	54:B7:19:ARG:NH1	2.12	0.59
1:CA:736:C:H2'	1:CA:737:A:H8	1.64	0.59
1:CA:1013:G:H2'	1:CA:1015:A:OP2	2.03	0.59
1:CA:1154:G:H2'	1:CA:1155:G:H8	1.68	0.59
4:CY:92:LEU:HD21	4:CY:95:GLU:HB3	1.83	0.59
12:CI:113:LYS:HG2	12:CI:119:ALA:HA	1.84	0.59
25:DA:270(K):C:H2'	25:DA:270(L):U:H2'	1.84	0.59
25:DA:568:U:O4	42:DV:78:LYS:HE3	2.02	0.59
25:DA:1796:U:H2'	25:DA:1797:C:C6	2.38	0.59
25:DA:2202(D):G:H2'	25:DA:2202(E):A:H5"	1.84	0.59
36:DP:50:ARG:CG	36:DP:51:PHE:N	2.65	0.59
42:DV:38:LEU:O	42:DV:39:LEU:HD13	2.02	0.59
46:DZ:182:LYS:O	46:DZ:186:GLU:HG3	2.02	0.59
1:AA:1004:A:N6	1:AA:1025:U:H4'	2.18	0.59
10:AG:74:GLU:HG2	10:AG:91:VAL:HG22	1.85	0.59
13:AJ:9:ARG:HG2	13:AJ:69:ASN:OD1	2.02	0.59
13:AJ:79:ARG:HH11	13:AJ:82:ILE:HG13	1.66	0.59
25:BA:483:A:H4'	45:BY:49:VAL:HG22	1.84	0.59
25:BA:1545:A:C2'	25:BA:1546:C:H5'	2.33	0.59
25:BA:2784:C:H2'	25:BA:2785:C:H6	1.68	0.59
28:BE:108:SER:O	28:BE:162:ALA:HA	2.02	0.59
30:BG:77:ILE:H	30:BG:82:LEU:HB2	1.66	0.59
32:BI:133:HIS:CE1	32:BI:135:GLU:HB3	2.37	0.59
34:BN:93:LYS:HE3	34:BN:95:TYR:CE1	2.28	0.59
43:BW:20:VAL:HG11	43:BW:44:ALA:HA	1.85	0.59
13:CJ:4:ILE:HB	13:CJ:74:ILE:HG12	1.85	0.59
25:DA:1309:G:H4'	54:D7:7:PRO:HB2	1.85	0.59
25:DA:2291:U:H2'	25:DA:2292:C:C6	2.38	0.59
25:DA:2312:U:O2'	30:DG:71:THR:HG21	2.03	0.59
28:DE:36:ARG:HH21	28:DE:88:GLY:HA2	1.67	0.59
30:DG:7:LEU:HB2	30:DG:104:GLU:HG2	1.85	0.59
30:DG:121:ASN:HD21	30:DG:123:ASN:HB2	1.68	0.59
31:DH:13:LYS:HD3	31:DH:13:LYS:C	2.23	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DH:13:LYS:HD3	31:DH:14:GLY:N	2.17	0.59
46:DZ:69:THR:HG22	46:DZ:90:VAL:HG22	1.85	0.59
49:D2:14:ARG:HA	49:D2:17:SER:CB	2.33	0.59
1:AA:1118:C:H1'	1:AA:1179:A:C4	2.38	0.58
7:AD:204:ILE:HG21	8:AE:98:THR:O	2.03	0.58
25:BA:1608:A:H1'	25:BA:1610:A:OP2	2.02	0.58
25:BA:2712(A):A:H5"	25:BA:2713:A:OP2	2.02	0.58
31:BH:13:LYS:HD3	31:BH:13:LYS:C	2.23	0.58
32:BI:125:GLU:HA	32:BI:143:SER:HA	1.83	0.58
36:BP:58:THR:O	36:BP:60:MET:N	2.36	0.58
36:BP:62:LEU:HD11	55:B8:27:THR:HA	1.85	0.58
39:BS:61:ASN:HB3	39:BS:64:GLU:HB2	1.85	0.58
47:B0:62:LEU:O	47:B0:63:VAL:HG13	2.02	0.58
53:B6:41:PRO:HD2	53:B6:46:HIS:H	1.66	0.58
1:CA:475:G:H2'	1:CA:476:G:H8	1.68	0.58
1:CA:993:G:N3	1:CA:993:G:H2'	2.17	0.58
1:CA:1368:G:OP2	12:CI:112:LYS:HD3	2.03	0.58
7:CD:175:SER:OG	7:CD:184:LYS:HB3	2.01	0.58
29:DF:65:TRP:CB	29:DF:66:PRO:HD2	2.33	0.58
1:AA:1358:U:H5"	1:AA:1359:C:OP2	2.03	0.58
1:AA:1368:G:OP2	12:AI:112:LYS:HD3	2.03	0.58
4:AY:39:LEU:HB2	4:AY:68:LEU:HD11	1.84	0.58
5:AB:91:PRO:HG3	5:AB:154:LEU:HD21	1.85	0.58
5:AB:184:VAL:H	5:AB:198:ASP:HB2	1.68	0.58
6:AC:153:VAL:HG12	6:AC:198:VAL:HG22	1.85	0.58
25:BA:2415:G:H2'	25:BA:2416:C:H6	1.68	0.58
30:BG:134:GLY:C	30:BG:135:LEU:HD12	2.24	0.58
37:BQ:10:ARG:HA	37:BQ:10:ARG:HE	1.67	0.58
44:BX:50:LYS:H	44:BX:87:GLN:HE22	1.51	0.58
45:BY:97:ARG:NH1	45:BY:98:VAL:HB	2.17	0.58
46:BZ:13:GLU:HB3	46:BZ:18:LEU:HD11	1.85	0.58
1:CA:965:A:C2	1:CA:969:A:C2	2.92	0.58
15:CL:103:VAL:O	15:CL:106:ALA:HB3	2.03	0.58
16:CM:57:ARG:NH1	51:D4:60:GLU:HB2	2.17	0.58
25:DA:295:G:H4'	45:DY:2:ARG:NH1	2.18	0.58
28:DE:105:THR:O	28:DE:196:VAL:HG23	2.03	0.58
40:DT:100:TYR:HB3	40:DT:103:ARG:NH1	2.17	0.58
1:AA:355:C:C4	1:AA:356:A:N7	2.71	0.58
1:AA:1154:G:H2'	1:AA:1155:G:H8	1.69	0.58
4:AY:49:PRO:HG3	33:BK:29:GLN:HB2	1.86	0.58
4:AY:203:VAL:HG11	4:AY:214:ARG:HH11	1.67	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AL:103:VAL:O	15:AL:106:ALA:HB3	2.03	0.58
22:AS:41:VAL:HB	22:AS:44:MET:HB2	1.85	0.58
26:BB:111:U:H2'	26:BB:112:G:C8	2.34	0.58
36:BP:112:LEU:H	36:BP:128:HIS:CD2	2.21	0.58
38:BR:10:LEU:HD12	38:BR:10:LEU:O	2.02	0.58
45:BY:81:LYS:CD	45:BY:97:ARG:HB3	2.33	0.58
46:BZ:31:ARG:HH11	46:BZ:94:GLU:HG3	1.67	0.58
1:CA:867:G:H2'	1:CA:868:C:C6	2.38	0.58
1:CA:1176:A:H2'	1:CA:1177:G:C8	2.38	0.58
16:CM:99:ARG:HB2	16:CM:101:GLN:NE2	2.19	0.58
25:DA:587:C:C5	36:DP:33:ARG:HD3	2.38	0.58
25:DA:1459:G:H2'	25:DA:1459:G:N3	2.17	0.58
25:DA:1493:C:O2	25:DA:1493:C:H2'	2.02	0.58
25:DA:1657:C:H2'	25:DA:1658:C:H6	1.68	0.58
45:DY:4:LYS:HG2	45:DY:5:MET:HE3	1.86	0.58
1:AA:475:G:H2'	1:AA:476:G:H8	1.68	0.58
5:AB:55:PHE:CD1	5:AB:58:ILE:HD12	2.38	0.58
22:AS:19:VAL:O	22:AS:22:LEU:HB2	2.04	0.58
22:AS:28:LYS:HB2	22:AS:28:LYS:NZ	2.19	0.58
25:BA:494:G:N2	43:BW:57:ASN:HD21	2.01	0.58
25:BA:1331:A:O2'	25:BA:1332:G:H8	1.86	0.58
25:BA:1543:A:H5'	25:BA:1543(A):C:OP2	2.04	0.58
25:BA:1993:U:H4'	28:BE:128:SER:CB	2.33	0.58
27:BD:93:ALA:HB2	27:BD:107:ALA:HB2	1.85	0.58
46:BZ:128:VAL:HG22	46:BZ:132:ASN:HB2	1.85	0.58
48:B1:31:GLY:O	48:B1:32:LYS:HB2	2.03	0.58
48:B1:54:ALA:H	48:B1:78:LYS:HZ3	1.51	0.58
10:CG:50:ILE:HG21	10:CG:58:PRO:HA	1.85	0.58
11:CH:92:ARG:HB3	11:CH:94:TYR:CE2	2.38	0.58
11:CH:101:PRO:HG2	11:CH:133:LEU:HD11	1.84	0.58
28:DE:55:ASN:HB2	28:DE:57:LYS:HG2	1.85	0.58
36:DP:58:THR:O	36:DP:60:MET:N	2.36	0.58
39:DS:15:ARG:O	39:DS:19:LYS:HG3	2.03	0.58
50:D3:6:VAL:HG12	50:D3:56:VAL:HG13	1.85	0.58
54:D7:19:ARG:HH11	54:D7:19:ARG:CB	2.15	0.58
1:AA:1347:G:C8	12:AI:107:ARG:HB3	2.39	0.58
3:AW:41:C:O2	3:AW:41:C:H2'	2.03	0.58
25:BA:558:G:P	34:BN:134:PRO:HD2	2.44	0.58
25:BA:1021:A:C8	25:BA:1022:G:H5"	2.35	0.58
25:BA:1598:C:H5'	44:BX:36:LYS:HB2	1.86	0.58
29:BF:183:VAL:O	29:BF:187:VAL:HG23	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BI:75:LEU:HD12	32:BI:76:THR:H	1.68	0.58
36:BP:49:ARG:HG3	36:BP:49:ARG:NH1	2.12	0.58
1:CA:262:A:C6	1:CA:263:A:C6	2.92	0.58
1:CA:1347:G:C8	12:CI:107:ARG:HB3	2.39	0.58
5:CB:163:PHE:HD1	5:CB:185:ILE:HG13	1.69	0.58
19:CP:50:LYS:HD3	19:CP:51:VAL:N	2.19	0.58
21:CR:56:THR:HB	21:CR:58:LEU:HD13	1.86	0.58
25:DA:2334:G:H4'	25:DA:2335:A:OP2	2.01	0.58
25:DA:2400:G:H2'	25:DA:2401:U:H6	1.68	0.58
36:DP:80:TYR:HA	36:DP:111:ARG:HB2	1.84	0.58
36:DP:112:LEU:H	36:DP:128:HIS:CD2	2.21	0.58
38:DR:10:LEU:HD12	38:DR:10:LEU:O	2.04	0.58
42:DV:2:PHE:CZ	42:DV:13:ARG:HD3	2.38	0.58
43:DW:17:VAL:HG23	43:DW:76:VAL:HG11	1.86	0.58
1:AA:867:G:H2'	1:AA:868:C:C6	2.37	0.58
1:AA:974:A:OP1	17:AN:31:ARG:HD3	2.03	0.58
4:AY:338:ARG:HB3	4:AY:369:ARG:HH22	1.68	0.58
5:AB:70:PHE:O	5:AB:92:TYR:HA	2.03	0.58
9:AF:44:GLY:HA2	9:AF:59:TYR:CE1	2.39	0.58
11:AH:110:ALA:HB3	11:AH:121:ASP:HB3	1.86	0.58
16:AM:94:ARG:HD3	16:AM:96:LEU:HD11	1.85	0.58
25:BA:2579:C:O2'	28:BE:131:ALA:HB2	2.03	0.58
31:BH:84:SER:HA	31:BH:133:VAL:O	2.04	0.58
1:CA:914:A:O2'	1:CA:915:A:H5'	2.04	0.58
1:CA:1117:G:O3'	12:CI:104:ARG:HG3	2.02	0.58
1:CA:1118:C:H1'	1:CA:1179:A:C4	2.38	0.58
1:CA:1281:U:H5'	1:CA:1282:C:H5	1.68	0.58
4:CY:324:ILE:HB	4:CY:338:ARG:HD2	1.85	0.58
5:CB:55:PHE:CD1	5:CB:58:ILE:HD12	2.38	0.58
19:CP:20:VAL:HG23	19:CP:34:GLU:O	2.03	0.58
25:DA:2516:G:C6	25:DA:2517:C:N4	2.72	0.58
31:DH:123:PHE:HD1	31:DH:123:PHE:H	1.47	0.58
48:D1:27:GLU:HB2	48:D1:33:LYS:HZ2	1.66	0.58
1:AA:926:G:H22	2:AV:15:A:H3'	1.68	0.58
1:AA:1373:G:H5"	10:AG:36:LYS:HE2	1.85	0.58
4:AY:266:HIS:CD2	4:AY:296:LEU:HD21	2.38	0.58
5:AB:71:VAL:HG12	5:AB:93:VAL:HB	1.84	0.58
10:AG:79:ARG:HE	10:AG:84:ASN:ND2	2.01	0.58
16:AM:99:ARG:HB2	16:AM:101:GLN:NE2	2.19	0.58
25:BA:2875:C:H4'	40:BT:5:ALA:HB2	1.85	0.58
37:BQ:34:LEU:HD12	37:BQ:130:LYS:O	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BW:83:LYS:C	43:BW:84:ARG:HD2	2.23	0.58
45:BY:4:LYS:HG2	45:BY:5:MET:HE3	1.85	0.58
45:BY:76:CYS:HG	45:BY:77:PRO:HD2	1.67	0.58
12:CI:37:PHE:CE2	12:CI:70:LYS:HD2	2.38	0.58
25:DA:17:G:H4'	41:DU:25:TRP:CH2	2.38	0.58
25:DA:1658:C:OP1	28:DE:132:HIS:CE1	2.56	0.58
25:DA:2402:C:H5'	25:DA:2403:C:OP2	2.04	0.58
25:DA:2789:C:H1'	25:DA:2892:A:H2	1.69	0.58
27:DD:158:ALA:HB3	27:DD:161:THR:CG2	2.31	0.58
28:DE:119:ARG:HD3	28:DE:120:TRP:CE2	2.38	0.58
40:DT:16:ARG:H	40:DT:79:HIS:HD2	1.51	0.58
40:DT:105:LEU:O	40:DT:107:ASP:N	2.37	0.58
55:D8:22:VAL:HB	55:D8:54:GLU:HG2	1.85	0.58
1:AA:137:C:O4'	19:AP:63:GLY:HA3	2.04	0.58
1:AA:975:A:H2	17:AN:34:TYR:HH	1.51	0.58
5:AB:112:VAL:O	5:AB:116:GLU:HG2	2.04	0.58
22:AS:63:THR:HG22	22:AS:66:MET:HG2	1.86	0.58
25:BA:848:G:O6	25:BA:929:G:H2'	2.03	0.58
36:BP:62:LEU:HD13	36:BP:62:LEU:N	2.18	0.58
42:BV:62:LEU:CD2	42:BV:95:LEU:HB2	2.33	0.58
1:CA:1004:A:N6	1:CA:1025:U:H4'	2.18	0.58
6:CC:17:ASP:HB3	6:CC:21:ARG:HH21	1.67	0.58
28:DE:111:ARG:HG2	38:DR:2:ARG:NH2	2.14	0.58
30:DG:106:LEU:HA	30:DG:110:ALA:HB3	1.84	0.58
43:DW:1:MET:CG	43:DW:2:GLU:H	2.16	0.58
48:D1:50:ARG:HG3	48:D1:59:THR:HG22	1.86	0.58
25:BA:1590:U:H2'	25:BA:1591:G:H8	1.69	0.58
25:BA:2543:G:H2'	25:BA:2544:G:C8	2.39	0.58
28:BE:111:ARG:HG2	38:BR:2:ARG:NH2	2.14	0.58
30:BG:106:LEU:HA	30:BG:110:ALA:HB3	1.85	0.58
40:BT:16:ARG:H	40:BT:79:HIS:HD2	1.52	0.58
1:CA:201(C):U:H4'	1:CA:216:G:O5'	2.02	0.58
1:CA:1065:U:H5"	1:CA:1190:G:N2	2.19	0.58
14:CK:98:LEU:HA	14:CK:101:SER:HB3	1.86	0.58
22:CS:41:VAL:HB	22:CS:44:MET:HB2	1.84	0.58
22:CS:44:MET:O	22:CS:47:HIS:HD2	1.87	0.58
25:DA:256:A:H2'	25:DA:257:A:H8	1.68	0.58
25:DA:848:G:O6	25:DA:929:G:H2'	2.04	0.58
25:DA:1937:A:N7	25:DA:1939:U:H2'	2.18	0.58
25:DA:2446:G:C2'	25:DA:2447:G:H5"	2.34	0.58
25:DA:2850:A:OP2	25:DA:2866:U:H5	1.87	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DS:95:HIS:O	39:DS:99:LYS:HB3	2.03	0.58
42:DV:62:LEU:HD21	42:DV:95:LEU:HB2	1.85	0.58
43:DW:18:ARG:NH1	43:DW:76:VAL:O	2.37	0.58
43:DW:46:PHE:O	43:DW:50:VAL:HG12	2.04	0.58
1:AA:1065:U:H5"	1:AA:1190:G:N2	2.19	0.58
6:AC:37:GLN:O	6:AC:40:ARG:HG3	2.04	0.58
12:AI:37:PHE:CE2	12:AI:70:LYS:HD2	2.39	0.58
25:BA:1658:C:OP1	28:BE:132:HIS:CE1	2.56	0.58
25:BA:1980:G:O2'	25:BA:1982:C:OP2	2.21	0.58
25:BA:2400:G:H2'	25:BA:2401:U:H6	1.69	0.58
25:BA:2502:G:C5'	25:BA:2503:A:H5"	2.34	0.58
38:BR:104:ARG:NH1	38:BR:109:ALA:HB3	2.19	0.58
45:BY:30:VAL:HG22	45:BY:37:VAL:HG12	1.86	0.58
48:B1:50:ARG:HG3	48:B1:59:THR:HG22	1.86	0.58
1:CA:265:G:H5'	20:CQ:64:PRO:O	2.04	0.58
1:CA:1435:G:H2'	1:CA:1436:U:C6	2.38	0.58
5:CB:97:TRP:HH2	5:CB:176:GLU:HG3	1.66	0.58
6:CC:37:GLN:O	6:CC:40:ARG:HG3	2.04	0.58
13:CJ:6:ILE:HG12	13:CJ:72:VAL:O	2.04	0.58
19:CP:13:HIS:C	19:CP:15:PRO:HD3	2.23	0.58
25:DA:2022:U:O2'	25:DA:2617:C:H5'	2.04	0.58
29:DF:185:ASP:O	29:DF:189:THR:HG23	2.04	0.58
1:AA:920:U:H2'	1:AA:921:U:C6	2.39	0.57
1:AA:1060:C:H5"	13:AJ:51:ARG:HG2	1.85	0.57
6:AC:35:GLU:O	6:AC:39:ILE:HG13	2.04	0.57
11:AH:86:ILE:HB	11:AH:133:LEU:HD22	1.86	0.57
25:BA:17:G:H4'	41:BU:25:TRP:CH2	2.39	0.57
25:BA:539:G:H2'	25:BA:540:C:C6	2.38	0.57
25:BA:1348:G:C2'	25:BA:1349:A:H5"	2.33	0.57
36:BP:38:GLN:HG3	36:BP:39:LYS:H	1.69	0.57
37:BQ:20:ALA:HB2	37:BQ:99:PRO:HG2	1.85	0.57
42:BV:2:PHE:CZ	42:BV:13:ARG:HD3	2.39	0.57
42:BV:22:VAL:HG12	42:BV:23:GLU:H	1.67	0.57
1:CA:542:G:H5'	7:CD:41:GLY:HA3	1.85	0.57
1:CA:833:U:H2'	1:CA:834:C:H6	1.69	0.57
11:CH:51:VAL:CG1	11:CH:52:ASP:H	2.14	0.57
25:DA:71:A:C2	44:DX:31:HIS:HE1	2.21	0.57
25:DA:1910:G:O2'	25:DA:1911:U:H5'	2.04	0.57
32:DI:75:LEU:HD12	32:DI:76:THR:H	1.68	0.57
39:DS:38:GLN:HB3	39:DS:47:THR:CG2	2.34	0.57
47:D0:56:ASP:O	47:D0:57:PHE:HB2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1028(E):G:H2'	1:AA:1028(F):A:O4'	2.04	0.57
4:AY:199:VAL:O	4:AY:323:GLN:HA	2.05	0.57
7:AD:13:ARG:O	7:AD:39:PRO:HA	2.03	0.57
13:AJ:4:ILE:HB	13:AJ:74:ILE:HG12	1.85	0.57
25:BA:1786:A:H1'	25:BA:1938:A:N6	2.19	0.57
25:BA:2291:U:H2'	25:BA:2292:C:C6	2.39	0.57
27:BD:34:VAL:O	27:BD:35:LYS:HD2	2.03	0.57
42:BV:62:LEU:HD21	42:BV:95:LEU:HB2	1.85	0.57
46:BZ:9:TYR:HD2	46:BZ:37:VAL:HG12	1.69	0.57
46:BZ:91:LEU:HD22	46:BZ:96:VAL:HG21	1.86	0.57
1:CA:1513:A:H2'	1:CA:1514:C:C6	2.39	0.57
5:CB:70:PHE:O	5:CB:92:TYR:HA	2.04	0.57
25:DA:1615:C:O2'	25:DA:1616:A:H5'	2.05	0.57
29:DF:206:ILE:HD12	29:DF:206:ILE:O	2.04	0.57
30:DG:56:ALA:HB2	30:DG:153:ARG:HE	1.69	0.57
30:DG:134:GLY:C	30:DG:135:LEU:HD12	2.24	0.57
36:DP:30:THR:HG22	36:DP:31:ALA:N	2.19	0.57
39:DS:61:ASN:HB3	39:DS:64:GLU:HB2	1.86	0.57
40:DT:107:ASP:HA	40:DT:111:ARG:NH2	2.20	0.57
45:DY:14:LEU:HD23	45:DY:15:VAL:N	2.18	0.57
4:AY:131:LEU:HA	4:AY:222:GLU:O	2.04	0.57
8:AE:43:LEU:HD11	8:AE:132:ALA:HB1	1.86	0.57
11:AH:51:VAL:CG1	11:AH:52:ASP:H	2.12	0.57
14:AK:92:GLU:O	14:AK:96:ARG:HG2	2.04	0.57
20:AQ:22:LEU:HD11	20:AQ:39:SER:HB2	1.86	0.57
25:BA:1832:C:N4	25:BA:1833:U:C4	2.73	0.57
25:BA:2789:C:H1'	25:BA:2892:A:H2	1.69	0.57
26:BB:11:C:O2'	26:BB:12:C:C6	2.56	0.57
33:BK:112:MET:N	33:BK:113:PRO:HD2	2.19	0.57
41:BU:81:HIS:O	41:BU:85:LYS:HB2	2.04	0.57
46:BZ:69:THR:HG22	46:BZ:90:VAL:HG22	1.86	0.57
46:BZ:135:GLU:O	46:BZ:136:PHE:HB3	2.05	0.57
1:CA:389:A:H2'	1:CA:390:C:C5'	2.34	0.57
1:CA:926:G:C6	1:CA:1505:G:C6	2.92	0.57
1:CA:1228:C:OP1	16:CM:115:LYS:HD3	2.04	0.57
25:DA:2394:C:OP1	36:DP:63:PRO:HD2	2.03	0.57
25:DA:2784:C:H2'	25:DA:2785:C:H6	1.68	0.57
38:DR:88:ARG:HG3	38:DR:89:ASP:OD1	2.04	0.57
46:DZ:9:TYR:HD2	46:DZ:37:VAL:HG12	1.69	0.57
47:D0:62:LEU:O	47:D0:63:VAL:HG13	2.04	0.57
53:D6:13:CYS:HB3	53:D6:49:HIS:HB3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:AC:88:ARG:HB3	6:AC:99:VAL:HG21	1.87	0.57
7:AD:59:ARG:HH22	7:AD:66:ARG:NH1	2.02	0.57
25:BA:2516:G:C6	25:BA:2517:C:N4	2.72	0.57
41:BU:92:ARG:HG2	42:BV:11:GLN:HB2	1.86	0.57
1:CA:991:U:H4'	1:CA:992:U:OP1	2.01	0.57
4:CY:319:GLU:HG3	4:CY:320:TRP:H	1.70	0.57
9:CF:44:GLY:HA2	9:CF:59:TYR:CE1	2.39	0.57
12:CI:18:PHE:HD1	12:CI:62:TYR:HD2	1.53	0.57
25:DA:443:A:H1'	25:DA:1201:C:O4'	2.05	0.57
25:DA:528:A:H8	25:DA:528:A:H3'	1.69	0.57
25:DA:587:C:C6	25:DA:671:C:H1'	2.40	0.57
28:DE:132:HIS:CD2	28:DE:135:HIS:NE2	2.72	0.57
6:AC:149:ALA:HA	6:AC:201:TYR:O	2.05	0.57
13:AJ:32:ALA:HB2	13:AJ:76:ASN:HB2	1.86	0.57
22:AS:44:MET:O	22:AS:47:HIS:HD2	1.88	0.57
25:BA:271(M):G:C3'	25:BA:271(N):G:H4'	2.35	0.57
25:BA:1771:C:O2'	25:BA:1786:A:H8	1.88	0.57
25:BA:2894:G:H2'	25:BA:2894:G:N3	2.19	0.57
27:BD:102:LYS:C	27:BD:103:ARG:HG2	2.25	0.57
28:BE:55:ASN:HB2	28:BE:57:LYS:HG2	1.86	0.57
36:BP:47:ASP:HB3	36:BP:48:PRO:HA	1.87	0.57
36:BP:49:ARG:HH11	36:BP:49:ARG:CG	2.10	0.57
53:B6:13:CYS:HB3	53:B6:49:HIS:HB3	1.85	0.57
55:B8:39:LYS:HA	55:B8:42:ARG:NH1	2.19	0.57
1:CA:1494:G:O2'	25:DA:1913:A:OP1	2.22	0.57
4:CY:39:LEU:HB2	4:CY:68:LEU:HD11	1.86	0.57
12:CI:5:TYR:HE2	12:CI:16:ARG:HB3	1.68	0.57
13:CJ:6:ILE:HD11	13:CJ:72:VAL:HB	1.86	0.57
14:CK:92:GLU:O	14:CK:96:ARG:HG2	2.04	0.57
20:CQ:22:LEU:HD11	20:CQ:39:SER:HB2	1.87	0.57
25:DA:1495:A:C4	25:DA:1496:A:C2	2.92	0.57
25:DA:2415:G:H2'	25:DA:2416:C:H6	1.70	0.57
26:DB:90:C:OP2	37:DQ:16:ARG:HD2	2.03	0.57
32:DI:79:ILE:HG13	32:DI:144:VAL:HG22	1.86	0.57
33:DK:112:MET:N	33:DK:113:PRO:CD	2.67	0.57
36:DP:47:ASP:HB3	36:DP:48:PRO:HA	1.84	0.57
38:DR:104:ARG:NH1	38:DR:109:ALA:HB3	2.19	0.57
41:DU:81:HIS:O	41:DU:85:LYS:HB2	2.04	0.57
44:DX:65:ARG:HB2	44:DX:70:LEU:HA	1.86	0.57
1:AA:833:U:H2'	1:AA:834:C:H6	1.68	0.57
5:AB:163:PHE:HD1	5:AB:185:ILE:HG13	1.70	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:558:G:OP1	34:BN:134:PRO:HD2	2.03	0.57
25:BA:2312:U:O2'	30:BG:71:THR:HG21	2.05	0.57
27:BD:158:ALA:HB3	27:BD:161:THR:CG2	2.35	0.57
36:BP:48:PRO:O	36:BP:49:ARG:C	2.43	0.57
37:BQ:58:PHE:O	37:BQ:58:PHE:CD1	2.55	0.57
53:B6:42:TRP:HA	53:B6:42:TRP:HE3	1.70	0.57
1:CA:17:U:O4'	1:CA:1080:A:H1'	2.05	0.57
6:CC:86:VAL:O	6:CC:89:GLU:HB3	2.04	0.57
7:CD:12:CYS:HA	7:CD:19:LEU:HD12	1.86	0.57
18:CO:76:GLU:HA	18:CO:76:GLU:OE2	2.04	0.57
22:CS:19:VAL:O	22:CS:22:LEU:HB2	2.03	0.57
26:DB:78:A:C2	26:DB:99:A:C4	2.92	0.57
31:DH:84:SER:HA	31:DH:133:VAL:O	2.04	0.57
35:DO:3:GLN:HB2	35:DO:4:PRO:HD2	1.85	0.57
36:DP:17:LYS:HG2	36:DP:19:VAL:CG2	2.35	0.57
38:DR:99:LYS:H	38:DR:99:LYS:HD2	1.69	0.57
1:AA:265:G:H5'	20:AQ:64:PRO:O	2.04	0.57
11:AH:38:ILE:HD12	11:AH:118:VAL:HG12	1.85	0.57
13:AJ:6:ILE:HG12	13:AJ:72:VAL:O	2.04	0.57
18:AO:4:THR:OG1	18:AO:7:GLU:HB2	2.05	0.57
24:AU:9:ARG:O	24:AU:13:ILE:HG13	2.04	0.57
25:BA:528:A:H8	25:BA:528:A:H3'	1.69	0.57
25:BA:969:U:H2'	25:BA:970:C:C6	2.39	0.57
25:BA:1912:A:C4'	25:BA:1913:A:OP1	2.53	0.57
37:BQ:134:ARG:HG2	46:BZ:122:ARG:HH12	1.69	0.57
38:BR:88:ARG:HG3	38:BR:89:ASP:OD1	2.05	0.57
48:B1:11:ARG:HD2	48:B1:60:PHE:HD1	1.69	0.57
1:CA:137:C:O4'	19:CP:63:GLY:HA3	2.05	0.57
4:CY:254:GLY:O	4:CY:258:THR:HB	2.04	0.57
24:CU:9:ARG:O	24:CU:13:ILE:HG13	2.05	0.57
25:DA:2250:G:C6	37:DQ:82:ARG:HD2	2.40	0.57
26:DB:112:G:H2'	26:DB:113:C:C6	2.39	0.57
28:DE:49:LEU:HD23	28:DE:81:ILE:HG12	1.87	0.57
7:AD:110:PHE:N	7:AD:110:PHE:CD1	2.73	0.57
25:BA:2850:A:OP2	25:BA:2866:U:H5	1.87	0.57
30:BG:71:THR:HG22	30:BG:89:GLY:C	2.25	0.57
36:BP:30:THR:HG22	36:BP:31:ALA:N	2.19	0.57
36:BP:45:LEU:HD23	36:BP:46:LYS:H	1.69	0.57
38:BR:99:LYS:H	38:BR:99:LYS:HD2	1.69	0.57
45:BY:14:LEU:HD23	45:BY:15:VAL:N	2.19	0.57
1:CA:537:G:H5"	15:CL:112:ARG:NH2	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1130:A:C2	1:CA:1146:A:C4	2.93	0.57
4:CY:267:LEU:HB2	4:CY:268:PRO:HD3	1.87	0.57
11:CH:13:ILE:O	11:CH:17:THR:HG23	2.05	0.57
25:DA:1348:G:C2'	25:DA:1349:A:H5"	2.33	0.57
30:DG:60:LEU:O	30:DG:64:THR:HG22	2.05	0.57
36:DP:57:THR:HB	36:DP:59:LEU:H	1.69	0.57
46:DZ:31:ARG:HH11	46:DZ:94:GLU:HG3	1.68	0.57
47:D0:72:ARG:HH21	47:D0:75:LEU:HD13	1.70	0.57
55:D8:39:LYS:HA	55:D8:42:ARG:NH1	2.20	0.57
2:AV:19:U:C4	4:AY:140:THR:HG22	2.39	0.57
6:AC:76:VAL:HG21	6:AC:103:VAL:HG11	1.87	0.57
19:AP:20:VAL:HG23	19:AP:34:GLU:O	2.05	0.57
25:BA:137(E):A:H8	25:BA:1595:G:H21	1.51	0.57
25:BA:2633:G:O2'	28:BE:61:ARG:HD3	2.05	0.57
29:BF:65:TRP:CB	29:BF:66:PRO:HD2	2.35	0.57
46:BZ:13:GLU:CB	46:BZ:18:LEU:HD11	2.35	0.57
55:B8:14:VAL:CG1	55:B8:22:VAL:HG13	2.35	0.57
1:CA:938:A:N6	1:CA:939:G:C6	2.73	0.57
4:CY:96:GLU:HB3	4:CY:97:ARG:NH2	2.20	0.57
7:CD:122:ARG:O	7:CD:122:ARG:HD3	2.05	0.57
15:CL:82:VAL:HG13	15:CL:99:ILE:HD11	1.87	0.57
16:CM:3:ARG:HD3	51:D4:60:GLU:OE2	2.05	0.57
22:CS:28:LYS:HB2	22:CS:28:LYS:NZ	2.19	0.57
25:DA:1590:U:H2'	25:DA:1591:G:H8	1.69	0.57
25:DA:2030:A:H5"	25:DA:2031:A:OP1	2.05	0.57
45:DY:17:SER:CB	45:DY:71:LYS:HD2	2.33	0.57
45:DY:35:TYR:CE1	45:DY:69:ALA:HB3	2.40	0.57
53:D6:18:ARG:HH22	53:D6:44:ARG:HB2	1.70	0.57
1:AA:389:A:H2'	1:AA:390:C:C5'	2.34	0.57
1:AA:537:G:H5"	15:AL:112:ARG:NH2	2.19	0.57
6:AC:18:TRP:CD1	17:AN:54:PRO:HA	2.40	0.57
7:AD:119:GLN:O	7:AD:123:HIS:CD2	2.58	0.57
25:BA:536:A:H2'	25:BA:537:C:C6	2.40	0.57
25:BA:586:A:H5'	29:BF:89:VAL:HG21	1.86	0.57
28:BE:119:ARG:HD3	28:BE:120:TRP:CE2	2.40	0.57
29:BF:185:ASP:O	29:BF:189:THR:HG23	2.05	0.57
30:BG:55:LYS:HA	30:BG:58:GLN:HE21	1.70	0.57
36:BP:147:LEU:HD13	36:BP:149:GLU:HA	1.87	0.57
1:CA:1373:G:H5"	10:CG:36:LYS:HE2	1.87	0.57
13:CJ:32:ALA:HB2	13:CJ:76:ASN:HB2	1.86	0.57
15:CL:46:LYS:HB3	15:CL:47:PRO:HD3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:637:A:H4'	25:DA:638:G:O5'	2.05	0.57
25:DA:1827:C:C2'	25:DA:1828:G:H5'	2.35	0.57
25:DA:1912:A:C4'	25:DA:1913:A:OP1	2.53	0.57
25:DA:2543:G:H2'	25:DA:2544:G:C8	2.40	0.57
28:DE:4:ILE:HG12	28:DE:28:ALA:HB1	1.86	0.57
33:DK:78:ILE:HD11	33:DK:127:ILE:CG2	2.34	0.57
36:DP:62:LEU:HD13	36:DP:62:LEU:N	2.20	0.57
1:AA:1130:A:C2	1:AA:1146:A:C4	2.93	0.56
4:AY:325:ARG:HG2	4:AY:327:TYR:HE2	1.70	0.56
14:AK:98:LEU:HA	14:AK:101:SER:HB3	1.86	0.56
21:AR:56:THR:HB	21:AR:58:LEU:HD13	1.86	0.56
25:BA:71:A:C2	44:BX:31:HIS:HE1	2.21	0.56
25:BA:1903:G:OP2	27:BD:241:PRO:HB2	2.05	0.56
25:BA:1910:G:O2'	25:BA:1911:U:H5'	2.04	0.56
28:BE:120:TRP:CD2	28:BE:155:LYS:HD3	2.40	0.56
29:BF:164:ARG:HG3	29:BF:175:THR:OG1	2.05	0.56
30:BG:174:GLU:HG2	30:BG:180:PHE:CD1	2.40	0.56
32:BI:67:ARG:HA	32:BI:67:ARG:HE	1.70	0.56
1:CA:657:G:C2	1:CA:658:G:C8	2.93	0.56
4:CY:72:VAL:HA	4:CY:75:PHE:CD2	2.40	0.56
4:CY:338:ARG:HB3	4:CY:369:ARG:HH22	1.68	0.56
7:CD:60:GLU:OE2	7:CD:199:ASN:HB3	2.03	0.56
10:CG:79:ARG:HE	10:CG:84:ASN:ND2	2.02	0.56
11:CH:110:ALA:HB3	11:CH:121:ASP:HB3	1.85	0.56
25:DA:307:G:H21	25:DA:330:A:H62	1.53	0.56
25:DA:1786:A:H1'	25:DA:1938:A:N6	2.20	0.56
25:DA:1903:G:OP2	27:DD:241:PRO:HB2	2.05	0.56
25:DA:2633:G:O2'	28:DE:61:ARG:HD3	2.05	0.56
30:DG:55:LYS:HA	30:DG:58:GLN:HE21	1.69	0.56
30:DG:172:LEU:O	30:DG:172:LEU:HD23	2.05	0.56
36:DP:48:PRO:HG2	36:DP:49:ARG:H	1.70	0.56
36:DP:147:LEU:HD13	36:DP:149:GLU:HA	1.87	0.56
40:DT:51:ARG:HG3	40:DT:98:LYS:HG3	1.87	0.56
44:DX:63:LYS:HD2	44:DX:72:LYS:HA	1.87	0.56
46:DZ:35:ARG:HG2	46:DZ:36:LYS:N	2.20	0.56
55:D8:52:LYS:HA	55:D8:52:LYS:CE	2.25	0.56
1:AA:976:G:P	17:AN:32:SER:H	2.28	0.56
7:AD:201:GLN:HE22	8:AE:116:THR:HB	1.69	0.56
14:AK:20:TYR:CZ	14:AK:83:ILE:HD12	2.40	0.56
25:BA:744:G:OP1	28:BE:132:HIS:HB3	2.05	0.56
30:BG:56:ALA:HB2	30:BG:153:ARG:HE	1.69	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BI:4:ILE:O	32:BI:4:ILE:HG13	2.04	0.56
40:BT:16:ARG:H	40:BT:79:HIS:CD2	2.23	0.56
46:BZ:137:ILE:HG22	46:BZ:138:GLU:N	2.20	0.56
8:CE:106:PRO:O	8:CE:110:LEU:HG	2.05	0.56
25:DA:1021:A:C8	25:DA:1022:G:H5"	2.36	0.56
25:DA:1270:C:H5"	25:DA:1271:G:H5'	1.85	0.56
25:DA:2894:G:H2'	25:DA:2894:G:N3	2.19	0.56
26:DB:116:G:C5'	39:DS:55:ALA:HB1	2.33	0.56
27:DD:34:VAL:O	27:DD:35:LYS:HD2	2.05	0.56
33:DK:93:ARG:HB3	46:DZ:113:ALA:HA	1.86	0.56
40:DT:23:ARG:HB2	40:DT:24:PRO:HD2	1.87	0.56
46:DZ:125:LEU:HD13	46:DZ:164:ALA:HB3	1.86	0.56
1:AA:1513:A:H2'	1:AA:1514:C:C6	2.40	0.56
4:AY:254:GLY:O	4:AY:258:THR:HB	2.05	0.56
4:AY:267:LEU:HB2	4:AY:268:PRO:HD3	1.87	0.56
6:AC:2:GLY:N	6:AC:4:LYS:HZ1	2.03	0.56
13:AJ:8:LEU:HB3	13:AJ:16:LEU:HD21	1.86	0.56
13:AJ:38:ILE:HD12	13:AJ:71:LEU:HD23	1.88	0.56
24:AU:2:GLY:C	24:AU:4:GLY:H	2.07	0.56
25:BA:256:A:H2'	25:BA:257:A:C8	2.40	0.56
25:BA:271(Q):A:N6	25:BA:357(E):U:H3	2.03	0.56
25:BA:389:G:C6	36:BP:71:VAL:HG23	2.40	0.56
25:BA:1495:A:C4	25:BA:1496:A:C2	2.93	0.56
25:BA:2564:A:C2	25:BA:2647:U:H4'	2.40	0.56
25:BA:2784:C:H2'	25:BA:2785:C:C6	2.40	0.56
29:BF:53:THR:C	29:BF:55:GLY:H	2.09	0.56
40:BT:100:TYR:HB3	40:BT:103:ARG:NH1	2.19	0.56
42:BV:38:LEU:HD23	42:BV:39:LEU:N	2.21	0.56
44:BX:39:ILE:O	44:BX:43:VAL:HG12	2.06	0.56
54:B7:8:ASN:C	54:B7:8:ASN:ND2	2.57	0.56
1:CA:194:C:H5"	23:CT:65:LYS:HG2	1.87	0.56
4:CY:131:LEU:HA	4:CY:222:GLU:O	2.04	0.56
4:CY:365:LYS:HB3	4:CY:369:ARG:NH1	2.20	0.56
5:CB:169:LYS:HB3	5:CB:169:LYS:HZ3	1.69	0.56
6:CC:2:GLY:N	6:CC:4:LYS:HZ1	2.04	0.56
6:CC:153:VAL:HG12	6:CC:198:VAL:HG22	1.87	0.56
8:CE:43:LEU:HD11	8:CE:132:ALA:HB1	1.88	0.56
8:CE:51:VAL:O	8:CE:55:VAL:HG23	2.05	0.56
10:CG:12:LEU:HD23	10:CG:12:LEU:H	1.70	0.56
10:CG:57:GLU:CD	10:CG:57:GLU:H	2.09	0.56
23:CT:87:LYS:O	23:CT:91:LEU:HG	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:271(M):G:C3'	25:DA:271(N):G:H4'	2.35	0.56
25:DA:1050:A:C2	25:DA:2751:G:C8	2.93	0.56
25:DA:1587:A:H2'	25:DA:1588:C:H6	1.69	0.56
25:DA:1598:C:H5'	44:DX:36:LYS:HB2	1.87	0.56
25:DA:2875:C:H4'	40:DT:5:ALA:HB2	1.86	0.56
26:DB:7:G:H4'	39:DS:29:PHE:CG	2.41	0.56
28:DE:94:GLU:OE2	28:DE:177:PRO:HB3	2.05	0.56
30:DG:33:ARG:CZ	30:DG:162:THR:HG21	2.34	0.56
32:DI:27:ARG:NH1	48:D1:71:TYR:HD1	2.02	0.56
36:DP:98:GLU:O	36:DP:101:VAL:HG12	2.06	0.56
37:DQ:58:PHE:O	37:DQ:58:PHE:CD1	2.55	0.56
37:DQ:134:ARG:HH21	37:DQ:137:TYR:H	1.53	0.56
37:DQ:134:ARG:HG2	46:DZ:122:ARG:HH12	1.69	0.56
38:DR:84:ALA:HB3	38:DR:85:PRO:HD3	1.88	0.56
42:DV:91:TYR:CD2	42:DV:91:TYR:O	2.58	0.56
44:DX:39:ILE:O	44:DX:43:VAL:HG12	2.05	0.56
45:DY:68:HIS:ND1	45:DY:70:SER:HB3	2.20	0.56
51:D4:38:ALA:CB	51:D4:55:PRO:HA	2.35	0.56
53:D6:42:TRP:HA	53:D6:42:TRP:HE3	1.70	0.56
1:AA:965:A:C2	1:AA:969:A:C2	2.94	0.56
1:AA:977:A:C2'	1:AA:978:A:H5'	2.35	0.56
1:AA:1157:A:H4'	1:AA:1158:C:O5'	2.05	0.56
1:AA:1228:C:OP1	16:AM:115:LYS:HD3	2.05	0.56
6:AC:17:ASP:HB3	6:AC:21:ARG:NH2	2.20	0.56
13:AJ:6:ILE:HD11	13:AJ:72:VAL:HB	1.86	0.56
25:BA:1301:A:H2	25:BA:1626:G:N3	2.03	0.56
25:BA:1937:A:N7	25:BA:1939:U:H2'	2.19	0.56
25:BA:2262:U:H4'	25:BA:2328:A:C2	2.40	0.56
40:BT:105:LEU:O	40:BT:107:ASP:N	2.39	0.56
43:BW:17:VAL:HG23	43:BW:76:VAL:HG11	1.86	0.56
47:B0:32:ARG:HH11	47:B0:32:ARG:CB	2.19	0.56
55:B8:50:LEU:HB2	55:B8:54:GLU:HG3	1.87	0.56
4:CY:27:GLY:HA3	4:CY:364:TRP:HH2	1.70	0.56
5:CB:184:VAL:H	5:CB:198:ASP:HB2	1.69	0.56
6:CC:68:VAL:CG1	6:CC:70:VAL:HG23	2.35	0.56
7:CD:43:HIS:HB3	7:CD:46:LYS:HD2	1.87	0.56
24:CU:2:GLY:C	24:CU:4:GLY:H	2.08	0.56
25:DA:1441:G:H2'	25:DA:1442:G:H8	1.70	0.56
25:DA:2032:G:O2'	28:DE:145:LYS:HE2	2.06	0.56
25:DA:2230:G:H1'	48:D1:45:ASN:HB2	1.85	0.56
25:DA:2564:A:C2	25:DA:2647:U:H4'	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:11:C:O2'	26:DB:12:C:C6	2.57	0.56
27:DD:153:ALA:C	27:DD:154:LYS:HG2	2.26	0.56
36:DP:23:PRO:HB2	36:DP:33:ARG:NE	2.20	0.56
41:DU:108:GLU:O	41:DU:112:ARG:HG2	2.05	0.56
46:DZ:135:GLU:O	46:DZ:136:PHE:HB3	2.05	0.56
46:DZ:144:LEU:HD21	46:DZ:150:LEU:HD21	1.88	0.56
55:D8:37:SER:OG	55:D8:40:GLU:HG3	2.05	0.56
8:AE:106:PRO:O	8:AE:110:LEU:HG	2.06	0.56
25:BA:1946:U:H2'	25:BA:1947:C:C6	2.40	0.56
29:BF:89:VAL:HG12	29:BF:90:PHE:N	2.21	0.56
29:BF:206:ILE:HD12	29:BF:206:ILE:O	2.04	0.56
1:CA:389:A:H2'	1:CA:390:C:H5'	1.87	0.56
1:CA:546:G:P	7:CD:72:GLU:HB2	2.45	0.56
11:CH:86:ILE:HB	11:CH:133:LEU:HD22	1.86	0.56
19:CP:82:GLN:HG2	19:CP:83:GLU:N	2.21	0.56
25:DA:389:G:C6	36:DP:71:VAL:HG23	2.39	0.56
25:DA:394:A:O2'	25:DA:395:U:H5'	2.05	0.56
25:DA:1021:A:H3'	25:DA:1022:G:H5"	1.88	0.56
25:DA:1607:C:H4'	25:DA:1608:A:O5'	2.06	0.56
30:DG:173:LEU:HD22	30:DG:178:PHE:CE1	2.40	0.56
31:DH:51:ARG:HG2	31:DH:52:VAL:N	2.17	0.56
33:DK:12:LEU:HD13	33:DK:23:VAL:HG21	1.87	0.56
36:DP:114:ILE:HD13	36:DP:125:VAL:HG21	1.86	0.56
37:DQ:10:ARG:HA	37:DQ:10:ARG:NE	2.21	0.56
46:DZ:13:GLU:HB3	46:DZ:18:LEU:HD11	1.86	0.56
1:AA:1203:C:OP1	17:AN:3:ARG:HD2	2.05	0.56
4:AY:300:GLU:O	4:AY:304:ARG:HB2	2.06	0.56
6:AC:134:ILE:HD11	6:AC:153:VAL:HG22	1.86	0.56
15:AL:65:VAL:HG11	15:AL:97:TYR:HE1	1.71	0.56
25:BA:1466:G:H2'	25:BA:1547:C:H41	1.70	0.56
25:BA:2334:G:O4'	39:BS:12:PHE:HE2	1.89	0.56
34:BN:116:THR:HG23	34:BN:117:HIS:N	2.20	0.56
36:BP:64:LYS:HB2	55:B8:25:MET:HG3	1.88	0.56
46:BZ:35:ARG:HG2	46:BZ:36:LYS:N	2.20	0.56
46:BZ:78:LYS:O	46:BZ:79:ARG:HB2	2.05	0.56
47:B0:72:ARG:HH21	47:B0:75:LEU:HD13	1.70	0.56
48:B1:67:ILE:N	48:B1:68:PRO:HD2	2.20	0.56
53:B6:18:ARG:HH22	53:B6:44:ARG:HB2	1.70	0.56
1:CA:1004:A:H8	1:CA:1026:G:C6	2.24	0.56
1:CA:1101:A:H1'	1:CA:1102:A:OP2	2.06	0.56
1:CA:1125:U:H3'	1:CA:1126:U:H5	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CB:178:ARG:HH21	11:CH:74:PRO:HG3	1.71	0.56
7:CD:156:GLU:HB3	7:CD:160:GLN:NE2	2.21	0.56
13:CJ:56:HIS:O	13:CJ:58:ASP:N	2.39	0.56
14:CK:21:ILE:HB	14:CK:84:VAL:HG12	1.88	0.56
25:DA:389:G:N1	36:DP:71:VAL:HG23	2.21	0.56
25:DA:1142:A:H4'	34:DN:48:ARG:HH22	1.70	0.56
25:DA:2579:C:O2'	28:DE:131:ALA:HB2	2.06	0.56
34:DN:116:THR:HG23	34:DN:117:HIS:N	2.21	0.56
36:DP:84:ASN:HA	36:DP:115:LEU:O	2.06	0.56
46:DZ:137:ILE:HG22	46:DZ:138:GLU:N	2.20	0.56
48:D1:11:ARG:CB	48:D1:12:PRO:CD	2.76	0.56
7:AD:121:VAL:O	7:AD:134:ASP:HA	2.06	0.56
10:AG:57:GLU:H	10:AG:57:GLU:CD	2.09	0.56
25:BA:307:G:H21	25:BA:330:A:H62	1.53	0.56
25:BA:2032:G:O2'	28:BE:145:LYS:HE2	2.05	0.56
25:BA:2746:U:H2'	25:BA:2747:G:H5'	1.87	0.56
30:BG:172:LEU:O	30:BG:172:LEU:HD23	2.06	0.56
33:BK:7:VAL:HG22	33:BK:8:VAL:H	1.70	0.56
33:BK:106:GLU:HG3	33:BK:107:ILE:N	2.20	0.56
34:BN:40:ASP:O	34:BN:41:ALA:HB2	2.06	0.56
35:BO:68:GLU:HA	35:BO:78:ARG:HB3	1.87	0.56
40:BT:107:ASP:HA	40:BT:111:ARG:NH2	2.19	0.56
46:BZ:52:SER:OG	46:BZ:54:HIS:HD2	1.89	0.56
3:CW:41:C:H2'	3:CW:41:C:O2	2.05	0.56
6:CC:122:GLU:HG3	6:CC:126:ARG:NH2	2.21	0.56
22:CS:63:THR:HG22	22:CS:66:MET:HG2	1.87	0.56
23:CT:84:LEU:O	23:CT:88:VAL:HG23	2.05	0.56
25:DA:296:C:O2'	25:DA:297:C:H5'	2.06	0.56
25:DA:830:G:H4'	25:DA:831:G:OP2	2.05	0.56
25:DA:2287:A:N6	25:DA:2344:U:H3	2.02	0.56
26:DB:63:G:H2'	26:DB:64:C:C6	2.41	0.56
42:DV:24:LYS:HA	42:DV:92:THR:HG23	1.88	0.56
47:D0:32:ARG:HH11	47:D0:32:ARG:CB	2.19	0.56
55:D8:14:VAL:CG1	55:D8:22:VAL:HG13	2.36	0.56
1:AA:358:U:H5"	32:DI:87:LYS:HD2	1.86	0.56
1:AA:389:A:H2'	1:AA:390:C:H5'	1.87	0.56
11:AH:101:PRO:HG2	11:AH:133:LEU:HD11	1.86	0.56
14:AK:21:ILE:HB	14:AK:84:VAL:HG12	1.87	0.56
25:BA:137(D):A:H8	25:BA:1408:C:O2'	1.83	0.56
25:BA:1088:A:H5'	25:BA:1089:G:OP1	2.06	0.56
25:BA:2346:A:H5"	25:BA:2383:G:C1'	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
54:B7:19:ARG:HH11	54:B7:19:ARG:CB	2.18	0.56
55:B8:37:SER:OG	55:B8:40:GLU:HG3	2.06	0.56
1:CA:625:G:H4'	19:CP:16:HIS:CD2	2.41	0.56
1:CA:1298:C:C5	10:CG:114:ARG:HD3	2.41	0.56
4:CY:357:LEU:HG	4:CY:362:LEU:HD21	1.87	0.56
18:CO:4:THR:OG1	18:CO:7:GLU:HB2	2.06	0.56
25:DA:591:C:O2	55:D8:2:PRO:HA	2.06	0.56
25:DA:1639:U:C2'	25:DA:1640:C:H5"	2.36	0.56
29:DF:33:LEU:HD13	29:DF:112:MET:HE2	1.88	0.56
36:DP:41:ARG:HE	36:DP:41:ARG:CA	2.17	0.56
50:D3:19:GLN:HE22	50:D3:52:HIS:HE1	1.54	0.56
1:AA:859:A:H2'	1:AA:860:A:O4'	2.06	0.56
25:BA:1827:C:C2'	25:BA:1828:G:H5'	2.36	0.56
25:BA:2022:U:O2'	25:BA:2617:C:H5'	2.05	0.56
25:BA:2309:A:OP1	25:BA:2309:A:H8	1.89	0.56
26:BB:78:A:C2	26:BB:99:A:C4	2.94	0.56
27:BD:186:HIS:HB3	27:BD:189:CYS:SG	2.46	0.56
31:BH:101:ARG:HD2	31:BH:102:ALA:N	2.21	0.56
33:BK:100:THR:OG1	33:BK:102:GLU:HG2	2.06	0.56
34:BN:127:LYS:HB2	34:BN:140:PHE:HE1	1.71	0.56
39:BS:38:GLN:HB3	39:BS:47:THR:CG2	2.36	0.56
1:CA:591:U:H2'	1:CA:592:G:C8	2.41	0.56
2:CV:19:U:C4	4:CY:140:THR:HG22	2.41	0.56
4:CY:51:LEU:HD11	4:CY:61:VAL:HG21	1.88	0.56
4:CY:101:LYS:HB2	4:CY:102:PRO:HD3	1.88	0.56
4:CY:230:GLU:O	4:CY:230:GLU:HG2	2.06	0.56
8:CE:87:SER:OG	8:CE:125:SER:HB3	2.06	0.56
13:CJ:8:LEU:HB3	13:CJ:16:LEU:HD21	1.87	0.56
21:CR:50:ILE:HD12	21:CR:70:ILE:HG21	1.87	0.56
25:DA:153:C:OP1	48:D1:92:LYS:HE2	2.06	0.56
25:DA:1141(A):U:H6	25:DA:1141(A):U:H3'	1.71	0.56
25:DA:1907:G:H2'	25:DA:1908:C:H6	1.71	0.56
25:DA:2261:C:C5	47:D0:16:SER:HB3	2.41	0.56
25:DA:2723:C:H4'	38:DR:2:ARG:HH12	1.71	0.56
25:DA:2744:G:H21	31:DH:143:GLN:NE2	2.04	0.56
26:DB:82:G:H2'	26:DB:83:G:H8	1.70	0.56
41:DU:92:ARG:HG2	42:DV:11:GLN:HB2	1.88	0.56
46:DZ:52:SER:OG	46:DZ:54:HIS:HD2	1.88	0.56
1:AA:194:C:H5"	23:AT:65:LYS:HG2	1.87	0.56
1:AA:1125:U:H3'	1:AA:1126:U:H5	1.70	0.56
4:AY:27:GLY:HA3	4:AY:364:TRP:HH2	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AY:51:LEU:HD11	4:AY:61:VAL:HG21	1.88	0.56
7:AD:104:VAL:HG11	7:AD:146:ILE:HG12	1.88	0.56
9:AF:3:ARG:HB3	9:AF:93:SER:HB2	1.88	0.56
12:AI:18:PHE:HD1	12:AI:62:TYR:HD2	1.53	0.56
16:AM:89:GLY:O	16:AM:93:ARG:HD2	2.06	0.56
18:AO:40:SER:O	18:AO:44:LYS:HD2	2.05	0.56
19:AP:82:GLN:HG2	19:AP:83:GLU:N	2.21	0.56
25:BA:1110:G:HO2'	25:BA:1111:A:H8	1.53	0.56
25:BA:2446:G:C2'	25:BA:2447:G:H5"	2.36	0.56
26:BB:75:G:H22	46:BZ:73:GLN:HE21	1.54	0.56
26:BB:90:C:OP2	37:BQ:16:ARG:HD2	2.05	0.56
27:BD:145:VAL:HG12	27:BD:146:GLU:O	2.06	0.56
28:BE:116:VAL:HG21	28:BE:122:PHE:CD2	2.41	0.56
30:BG:60:LEU:O	30:BG:64:THR:HG22	2.06	0.56
33:BK:52:ILE:O	33:BK:54:PRO:HD3	2.05	0.56
35:BO:63:VAL:HB	35:BO:102:VAL:HG12	1.88	0.56
36:BP:48:PRO:HG2	36:BP:49:ARG:H	1.71	0.56
42:BV:38:LEU:O	42:BV:39:LEU:HD13	2.06	0.56
42:BV:91:TYR:CD2	42:BV:91:TYR:O	2.58	0.56
45:BY:42:VAL:HG12	45:BY:65:ALA:HB3	1.88	0.56
1:CA:109:A:C6	1:CA:326:G:C6	2.94	0.56
1:CA:977:A:C2'	1:CA:978:A:H5'	2.35	0.56
1:CA:1124:G:H5"	13:CJ:35:SER:HB2	1.88	0.56
1:CA:1152:A:H2'	1:CA:1153:C:C6	2.40	0.56
4:CY:246:ARG:HA	4:CY:259:ASP:HA	1.87	0.56
6:CC:35:GLU:O	6:CC:39:ILE:HG13	2.05	0.56
6:CC:88:ARG:HB3	6:CC:99:VAL:HG21	1.87	0.56
7:CD:201:GLN:NE2	8:CE:116:THR:HB	2.20	0.56
15:CL:23:VAL:O	15:CL:23:VAL:HG12	2.05	0.56
20:CQ:90:ILE:HA	20:CQ:93:GLN:HB2	1.88	0.56
25:DA:1022:G:C5	25:DA:1140:C:N4	2.74	0.56
25:DA:2473:U:O2	25:DA:2473:U:C2'	2.53	0.56
25:DA:2784:C:H2'	25:DA:2785:C:C6	2.41	0.56
1:AA:7:G:H5'	1:AA:298:A:O4'	2.06	0.55
1:AA:657:G:C2	1:AA:658:G:C8	2.94	0.55
1:AA:1004:A:H8	1:AA:1026:G:C6	2.23	0.55
1:AA:1123:A:H4'	13:AJ:36:GLY:HA3	1.88	0.55
1:AA:1281:U:H5'	1:AA:1282:C:H5	1.69	0.55
4:AY:96:GLU:HB3	4:AY:97:ARG:NH2	2.21	0.55
12:AI:74:ILE:HD12	12:AI:74:ILE:H	1.71	0.55
22:AS:25:LYS:HB3	22:AS:27:GLU:CD	2.27	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AT:87:LYS:O	23:AT:91:LEU:HG	2.05	0.55
25:BA:270(Q):C:C5'	32:BI:46:ALA:HB2	2.36	0.55
25:BA:1110:G:O2'	25:BA:1111:A:H8	1.89	0.55
25:BA:1441:G:H2'	25:BA:1442:G:H8	1.69	0.55
29:BF:45:ARG:HG2	29:BF:45:ARG:HH11	1.70	0.55
33:BK:77:LEU:HD23	33:BK:107:ILE:HG23	1.88	0.55
44:BX:31:HIS:CD2	44:BX:33:LYS:H	2.24	0.55
1:CA:458(A):G:H3'	1:CA:458(B):A:C5'	2.36	0.55
25:DA:558:G:P	34:DN:134:PRO:HD2	2.46	0.55
25:DA:1932:A:H2'	25:DA:1933:G:O4'	2.06	0.55
29:DF:6:MET:HG2	29:DF:7:TYR:HD1	1.71	0.55
35:DO:68:GLU:HA	35:DO:78:ARG:HB3	1.87	0.55
36:DP:15:ARG:CG	36:DP:16:ARG:H	2.19	0.55
36:DP:23:PRO:HD2	36:DP:33:ARG:CZ	2.36	0.55
38:DR:12:ARG:CD	38:DR:16:HIS:CD2	2.86	0.55
1:AA:591:U:H2'	1:AA:592:G:C8	2.41	0.55
1:AA:938:A:N6	1:AA:939:G:C6	2.74	0.55
1:AA:1238:A:H2	1:AA:1241:G:N3	2.04	0.55
4:AY:252:GLY:O	4:AY:255:VAL:HG12	2.06	0.55
4:AY:319:GLU:HG3	4:AY:320:TRP:H	1.71	0.55
9:AF:23:LYS:O	9:AF:27:GLN:HG2	2.06	0.55
17:AN:15:LYS:HD2	17:AN:16:PHE:HE2	1.71	0.55
19:AP:50:LYS:HD3	19:AP:51:VAL:N	2.21	0.55
25:BA:1060:U:H4'	25:BA:1061:U:O5'	2.06	0.55
35:BO:90:GLN:O	35:BO:91:LEU:HB2	2.06	0.55
36:BP:50:ARG:HH21	36:BP:50:ARG:HG2	1.71	0.55
41:BU:43:GLY:HA3	42:BV:73:SER:HB3	1.88	0.55
1:CA:1220:G:O3'	22:CS:36:ARG:HD3	2.06	0.55
4:CY:252:GLY:HA2	25:DA:2585:U:H5	1.70	0.55
5:CB:20:GLU:HB2	5:CB:190:THR:OG1	2.07	0.55
13:CJ:78:ASN:O	13:CJ:82:ILE:HG12	2.06	0.55
27:DD:25:THR:HG21	27:DD:82:ILE:H	1.71	0.55
27:DD:175:LEU:HD12	27:DD:185:VAL:HG21	1.88	0.55
29:DF:183:VAL:O	29:DF:187:VAL:HG23	2.05	0.55
36:DP:23:PRO:O	36:DP:33:ARG:HD2	2.06	0.55
41:DU:47:TYR:HA	41:DU:50:ARG:NH2	2.21	0.55
45:DY:14:LEU:HD23	45:DY:15:VAL:C	2.26	0.55
45:DY:81:LYS:CE	45:DY:97:ARG:HD3	2.34	0.55
1:AA:625:G:H2'	1:AA:626:U:C6	2.40	0.55
4:AY:128:ASN:ND2	4:AY:185:LYS:HA	2.22	0.55
8:AE:75:THR:HG23	8:AE:76:ILE:N	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AT:84:LEU:O	23:AT:88:VAL:HG23	2.06	0.55
25:BA:394:A:O2'	25:BA:395:U:H5'	2.06	0.55
25:BA:1273:U:H5'	25:BA:1274:A:OP1	2.06	0.55
25:BA:1506(G):U:H2'	25:BA:1506(H):C:H6	1.71	0.55
25:BA:1590:U:H2'	25:BA:1591:G:C8	2.41	0.55
25:BA:2012:G:H4'	43:BW:96:ILE:HD11	1.87	0.55
25:BA:2341:G:H2'	25:BA:2342:C:O4'	2.06	0.55
28:BE:49:LEU:HD23	28:BE:81:ILE:HG12	1.87	0.55
31:BH:35:VAL:HG21	31:BH:75:ALA:HB2	1.87	0.55
41:BU:49:HIS:HA	41:BU:52:ARG:HB2	1.89	0.55
1:CA:828:A:H2'	1:CA:829:G:O4'	2.06	0.55
1:CA:1145:C:C1'	1:CA:1146:A:OP2	2.53	0.55
1:CA:1362(A):C:H4'	1:CA:1363:A:OP2	2.06	0.55
2:CV:18:G:C2	3:CW:35:A:C2	2.94	0.55
4:CY:300:GLU:O	4:CY:304:ARG:HB2	2.06	0.55
23:CT:72:LEU:HD11	23:CT:77:ALA:HA	1.88	0.55
25:DA:721:C:H2'	25:DA:722:A:C8	2.42	0.55
25:DA:721:C:H2'	25:DA:722:A:H8	1.72	0.55
25:DA:1110:G:O2'	25:DA:1111:A:H8	1.89	0.55
25:DA:1899:G:O2'	25:DA:1900:A:H5"	2.06	0.55
25:DA:2746:U:H2'	25:DA:2747:G:H5'	1.88	0.55
31:DH:154:PRO:HB3	31:DH:163:TYR:CZ	2.41	0.55
36:DP:64:LYS:HB2	55:D8:25:MET:HG3	1.88	0.55
55:D8:50:LEU:HB2	55:D8:54:GLU:HG3	1.88	0.55
1:AA:544:G:H2'	1:AA:545:C:O4'	2.07	0.55
1:AA:1273:G:H2'	1:AA:1274:G:O4'	2.06	0.55
25:BA:1050:A:C2	25:BA:2751:G:C8	2.94	0.55
25:BA:1291:C:H4'	25:BA:1535:U:O2'	2.07	0.55
25:BA:2473:U:O2	25:BA:2473:U:C2'	2.53	0.55
25:BA:2723:C:H4'	38:BR:2:ARG:NH1	2.21	0.55
27:BD:94:LEU:HB2	27:BD:104:TYR:CE1	2.41	0.55
51:B4:38:ALA:CB	51:B4:55:PRO:HA	2.36	0.55
55:B8:22:VAL:HB	55:B8:54:GLU:HG2	1.88	0.55
1:CA:243:A:H1'	1:CA:244:U:OP2	2.06	0.55
1:CA:620:C:C2	7:CD:135:LEU:HD23	2.41	0.55
1:CA:1125:U:H3'	1:CA:1126:U:C5	2.42	0.55
1:CA:1273:G:H2'	1:CA:1274:G:O4'	2.06	0.55
9:CF:45:LEU:HD12	9:CF:59:TYR:CD1	2.35	0.55
11:CH:8:ASP:O	11:CH:12:ARG:HG2	2.06	0.55
25:DA:602:G:H2'	25:DA:655:A:H61	1.70	0.55
25:DA:661:C:O3'	36:DP:18:ARG:HG2	2.05	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1301:A:H2	25:DA:1626:G:N3	2.05	0.55
25:DA:1590:U:H2'	25:DA:1591:G:C8	2.42	0.55
29:DF:45:ARG:HG2	29:DF:45:ARG:HH11	1.71	0.55
35:DO:63:VAL:HB	35:DO:102:VAL:HG12	1.87	0.55
38:DR:60:LEU:HD23	38:DR:61:HIS:N	2.22	0.55
40:DT:16:ARG:H	40:DT:79:HIS:CD2	2.24	0.55
1:AA:458(A):G:H3'	1:AA:458(B):A:C5'	2.36	0.55
1:AA:1220:G:O3'	22:AS:36:ARG:HD3	2.06	0.55
1:AA:1246:C:H2'	1:AA:1247:U:C6	2.41	0.55
5:AB:20:GLU:HB2	5:AB:190:THR:OG1	2.06	0.55
6:AC:86:VAL:O	6:AC:89:GLU:HB3	2.05	0.55
25:BA:443:A:H1'	25:BA:1201:C:O4'	2.06	0.55
25:BA:826:U:H2'	25:BA:828:U:O4'	2.06	0.55
25:BA:1434:A:H61	25:BA:1558:A:N6	2.05	0.55
41:BU:108:GLU:O	41:BU:112:ARG:HG2	2.06	0.55
45:BY:81:LYS:CE	45:BY:97:ARG:HD3	2.34	0.55
46:BZ:125:LEU:HD13	46:BZ:164:ALA:HB3	1.88	0.55
55:B8:50:LEU:HB2	55:B8:54:GLU:CG	2.36	0.55
1:CA:1141:C:H2'	1:CA:1142:G:H8	1.72	0.55
1:CA:1157:A:H4'	1:CA:1158:C:O5'	2.06	0.55
1:CA:1304:G:OP1	24:CU:2:GLY:N	2.40	0.55
4:CY:199:VAL:O	4:CY:323:GLN:HA	2.06	0.55
4:CY:227:VAL:HB	4:CY:304:ARG:HH12	1.72	0.55
4:CY:325:ARG:HG2	4:CY:327:TYR:HE2	1.70	0.55
13:CJ:75:ILE:HG13	13:CJ:76:ASN:N	2.22	0.55
16:CM:89:GLY:O	16:CM:93:ARG:HD2	2.06	0.55
25:DA:27:G:N2	25:DA:512:G:H1'	2.22	0.55
25:DA:481:G:C4	25:DA:507:A:C2	2.95	0.55
25:DA:826:U:H2'	25:DA:828:U:O4'	2.06	0.55
29:DF:89:VAL:HG12	29:DF:90:PHE:N	2.21	0.55
29:DF:205:ARG:O	29:DF:206:ILE:HG23	2.06	0.55
34:DN:40:ASP:O	34:DN:41:ALA:HB2	2.06	0.55
34:DN:127:LYS:HB2	34:DN:140:PHE:HE1	1.72	0.55
41:DU:43:GLY:HA3	42:DV:73:SER:HB3	1.88	0.55
46:DZ:13:GLU:CB	46:DZ:18:LEU:HD11	2.36	0.55
47:D0:23:VAL:HB	47:D0:26:TYR:HE2	1.71	0.55
1:AA:109:A:C6	1:AA:326:G:C6	2.94	0.55
1:AA:1141:C:H2'	1:AA:1142:G:H8	1.72	0.55
4:AY:72:VAL:HA	4:AY:75:PHE:CD2	2.41	0.55
7:AD:59:ARG:HH22	7:AD:66:ARG:HH12	1.53	0.55
13:AJ:32:ALA:H	13:AJ:78:ASN:ND2	2.05	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AL:23:VAL:O	15:AL:23:VAL:HG12	2.07	0.55
18:AO:76:GLU:HA	18:AO:76:GLU:OE2	2.04	0.55
25:BA:153:C:OP1	48:B1:92:LYS:HE2	2.06	0.55
25:BA:528:A:H2	25:BA:2043:C:C5'	2.20	0.55
25:BA:721:C:H2'	25:BA:722:A:C8	2.42	0.55
25:BA:1021:A:H3'	25:BA:1022:G:H5"	1.88	0.55
25:BA:1542:G:H4'	25:BA:1543:A:O4'	2.06	0.55
25:BA:1639:U:C2'	25:BA:1640:C:H5"	2.36	0.55
25:BA:2756:U:H4'	25:BA:2757:A:OP1	2.06	0.55
27:BD:166:GLN:CA	27:BD:166:GLN:HE21	2.20	0.55
27:BD:174:ILE:HD12	27:BD:184:LYS:HG2	1.87	0.55
34:BN:143:LEU:C	34:BN:144:LYS:HD2	2.27	0.55
37:BQ:54:MET:HG3	37:BQ:117:ALA:HB1	1.88	0.55
38:BR:8:ARG:HD3	38:BR:9:LYS:N	2.22	0.55
44:BX:65:ARG:HB2	44:BX:70:LEU:HA	1.88	0.55
1:CA:340:U:H2'	1:CA:341:C:C6	2.42	0.55
1:CA:1172:C:H2'	1:CA:1173:G:C8	2.38	0.55
4:CY:32:ILE:HG12	4:CY:75:PHE:CE1	2.42	0.55
6:CC:17:ASP:HB3	6:CC:21:ARG:NH2	2.20	0.55
21:CR:53:ARG:HD2	21:CR:63:GLN:HB2	1.88	0.55
22:CS:25:LYS:HB3	22:CS:27:GLU:CD	2.27	0.55
25:DA:256:A:H2'	25:DA:257:A:C8	2.42	0.55
25:DA:911:A:C4	37:DQ:9:TYR:OH	2.56	0.55
25:DA:2476:A:H2	25:DA:2477:C:C6	2.25	0.55
44:DX:63:LYS:HZ2	44:DX:72:LYS:HB3	1.71	0.55
1:AA:243:A:H1'	1:AA:244:U:OP2	2.07	0.55
1:AA:1342:C:H1'	12:AI:124:GLN:HE22	1.72	0.55
15:AL:110:LYS:O	15:AL:111:ASP:HB2	2.06	0.55
20:AQ:90:ILE:HA	20:AQ:93:GLN:HB2	1.89	0.55
21:AR:44:LEU:HD22	21:AR:79:LEU:HD22	1.89	0.55
25:BA:2287:A:N1	25:BA:2346:A:C2	2.74	0.55
25:BA:2744:G:H21	31:BH:143:GLN:NE2	2.05	0.55
27:BD:153:ALA:C	27:BD:154:LYS:HG2	2.26	0.55
32:BI:83:ALA:HA	32:BI:89:TYR:CE1	2.42	0.55
48:B1:13:ILE:HG13	48:B1:15:ALA:N	2.21	0.55
1:CA:920:U:H2'	1:CA:921:U:C6	2.41	0.55
1:CA:1369:C:H2'	1:CA:1370:G:C8	2.41	0.55
1:CA:1440(B):G:N7	1:CA:1440(D):A:C2	2.75	0.55
4:CY:77:SER:CB	4:CY:110:LYS:HZ1	2.19	0.55
4:CY:365:LYS:HB3	4:CY:369:ARG:HH12	1.72	0.55
10:CG:74:GLU:HG2	10:CG:91:VAL:HG22	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:CH:50:ARG:H	11:CH:50:ARG:HD2	1.71	0.55
12:CI:71:SER:HA	12:CI:74:ILE:HD13	1.88	0.55
14:CK:58:PRO:HB2	14:CK:93:GLN:HG3	1.89	0.55
18:CO:87:ILE:HG22	18:CO:88:ARG:N	2.19	0.55
21:CR:56:THR:O	21:CR:58:LEU:HD12	2.07	0.55
22:CS:6:LYS:HD2	22:CS:7:LYS:H	1.71	0.55
25:DA:271(Q):A:N6	25:DA:357(E):U:H3	2.04	0.55
25:DA:1088:A:H5'	25:DA:1089:G:OP1	2.06	0.55
25:DA:1291:C:H4'	25:DA:1535:U:O2'	2.06	0.55
25:DA:2420:C:OP2	55:D8:33:ASN:HB3	2.07	0.55
32:DI:67:ARG:HA	32:DI:67:ARG:HE	1.71	0.55
33:DK:101:TRP:O	33:DK:105:LEU:HG	2.07	0.55
39:DS:89:ARG:HD2	39:DS:94:TYR:H	1.72	0.55
40:DT:108:ARG:O	40:DT:111:ARG:HG2	2.07	0.55
42:DV:38:LEU:HD23	42:DV:39:LEU:N	2.22	0.55
46:DZ:78:LYS:O	46:DZ:79:ARG:HB2	2.06	0.55
1:AA:1369:C:H2'	1:AA:1370:G:C8	2.42	0.55
1:AA:1440(B):G:N7	1:AA:1440(D):A:C2	2.75	0.55
4:AY:224:ILE:HG13	4:AY:225:PRO:HD2	1.88	0.55
6:AC:116:VAL:O	6:AC:119:ARG:HB3	2.06	0.55
12:AI:29:ASN:OD1	12:AI:64:THR:HA	2.07	0.55
13:AJ:75:ILE:HG13	13:AJ:76:ASN:N	2.22	0.55
18:AO:17:ARG:CZ	18:AO:77:ARG:HH11	2.20	0.55
22:AS:16:LEU:H	22:AS:16:LEU:HD12	1.72	0.55
25:BA:528:A:H3'	25:BA:528:A:C8	2.42	0.55
25:BA:602:G:H2'	25:BA:655:A:H61	1.72	0.55
25:BA:661:C:O3'	36:BP:18:ARG:HG2	2.07	0.55
25:BA:2261:C:O2'	25:BA:2262:U:H5'	2.07	0.55
25:BA:2402:C:H5'	25:BA:2403:C:OP2	2.07	0.55
27:BD:79:VAL:O	27:BD:113:VAL:HG13	2.07	0.55
27:BD:132:PRO:HD3	27:BD:190:TYR:CZ	2.41	0.55
36:BP:84:ASN:HA	36:BP:115:LEU:O	2.06	0.55
37:BQ:10:ARG:HA	37:BQ:10:ARG:NE	2.21	0.55
43:BW:18:ARG:NH1	43:BW:76:VAL:O	2.40	0.55
46:BZ:4:ARG:NH1	46:BZ:60:GLU:HG3	2.22	0.55
5:CB:17:PHE:H	5:CB:17:PHE:HD2	1.54	0.55
5:CB:154:LEU:HD13	5:CB:155:LEU:H	1.71	0.55
25:DA:993:G:OP1	41:DU:50:ARG:NH2	2.40	0.55
25:DA:1076:C:H1'	33:DK:91:PRO:HD2	1.89	0.55
25:DA:2334:G:O4'	39:DS:12:PHE:HE2	1.90	0.55
30:DG:76:SER:HB3	30:DG:83:ARG:HA	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:828:A:H2'	1:AA:829:G:O4'	2.07	0.55
4:AY:115:TYR:OH	4:AY:359:TRP:HA	2.07	0.55
5:AB:154:LEU:HD13	5:AB:155:LEU:H	1.72	0.55
7:AD:176:LEU:O	7:AD:183:GLY:HA2	2.06	0.55
13:AJ:78:ASN:O	13:AJ:82:ILE:HG12	2.06	0.55
15:AL:82:VAL:HG13	15:AL:99:ILE:HD11	1.88	0.55
18:AO:56:LEU:HD21	25:BA:715:G:C2	2.42	0.55
25:BA:498:G:O2'	45:BY:47:LYS:HD3	2.06	0.55
27:BD:27:THR:HG21	27:BD:83:GLU:HG2	1.89	0.55
29:BF:205:ARG:O	29:BF:206:ILE:HG23	2.07	0.55
32:BI:112:LYS:HD2	32:BI:112:LYS:N	2.20	0.55
40:BT:51:ARG:HG3	40:BT:98:LYS:HG3	1.88	0.55
45:BY:47:LYS:HA	45:BY:60:PHE:CD2	2.41	0.55
50:B3:19:GLN:HE22	50:B3:52:HIS:HE1	1.55	0.55
1:CA:624:C:H4'	19:CP:11:SER:N	2.22	0.55
1:CA:1246:C:H2'	1:CA:1247:U:C6	2.40	0.55
6:CC:134:ILE:HD11	6:CC:153:VAL:HG22	1.88	0.55
8:CE:79:GLU:OE2	11:CH:104:ARG:HA	2.07	0.55
21:CR:44:LEU:HD22	21:CR:79:LEU:HD22	1.89	0.55
22:CS:62:ILE:HD12	22:CS:66:MET:SD	2.47	0.55
25:DA:528:A:H3'	25:DA:528:A:C8	2.41	0.55
25:DA:1019:U:O2'	25:DA:1021:A:H2	1.75	0.55
25:DA:1104:C:H2'	25:DA:1105:U:C6	2.42	0.55
25:DA:1165:U:H2'	25:DA:1166:C:C6	2.42	0.55
25:DA:2341:G:H2'	25:DA:2342:C:O4'	2.07	0.55
25:DA:2712(A):A:H5"	25:DA:2713:A:OP2	2.06	0.55
27:DD:174:ILE:HD12	27:DD:184:LYS:HG2	1.89	0.55
28:DE:51:PHE:CD1	28:DE:52:LEU:HG	2.42	0.55
38:DR:38:VAL:HG22	38:DR:112:ALA:HB2	1.88	0.55
39:DS:38:GLN:HB3	39:DS:47:THR:HG23	1.89	0.55
41:DU:49:HIS:HA	41:DU:52:ARG:HB2	1.89	0.55
48:D1:11:ARG:HD2	48:D1:60:PHE:HD1	1.71	0.55
1:AA:719:C:O2'	21:AR:49:LYS:HB3	2.06	0.55
3:AW:56:C:O2	30:BG:78:SER:HB3	2.06	0.55
6:AC:73:PRO:O	6:AC:76:VAL:HG22	2.07	0.55
25:BA:185:U:H4'	25:BA:218:A:H4'	1.89	0.55
25:BA:311:A:C6	25:BA:328:U:C4	2.95	0.55
25:BA:1061:U:C6	33:BK:9:LYS:HD3	2.42	0.55
30:BG:76:SER:HB3	30:BG:83:ARG:HA	1.89	0.55
31:BH:123:PHE:CD1	31:BH:123:PHE:N	2.66	0.55
39:BS:89:ARG:HD2	39:BS:94:TYR:H	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BW:6:ILE:HG12	43:BW:104:THR:HG23	1.89	0.55
45:BY:68:HIS:ND1	45:BY:70:SER:HB3	2.21	0.55
47:B0:70:GLN:NE2	47:B0:72:ARG:HD3	2.22	0.55
53:B6:36:LEU:HD13	53:B6:50:ARG:NH1	2.22	0.55
1:CA:625:G:H2'	1:CA:626:U:C6	2.42	0.55
1:CA:1238:A:H2	1:CA:1241:G:N3	2.04	0.55
4:CY:252:GLY:HA2	25:DA:2585:U:C5	2.42	0.55
6:CC:149:ALA:HA	6:CC:201:TYR:O	2.07	0.55
7:CD:146:ILE:HD12	7:CD:146:ILE:H	1.71	0.55
16:CM:19:LEU:HD13	16:CM:19:LEU:N	2.22	0.55
25:DA:1076:C:H2'	25:DA:1077:A:H4'	1.89	0.55
25:DA:2287:A:C6	25:DA:2289:G:C4	2.95	0.55
25:DA:2311:A:C2	30:DG:82:LEU:HD21	2.42	0.55
29:DF:67:GLN:O	29:DF:67:GLN:CG	2.48	0.55
30:DG:174:GLU:HG2	30:DG:180:PHE:CD1	2.42	0.55
34:DN:143:LEU:C	34:DN:144:LYS:HD2	2.27	0.55
36:DP:15:ARG:HA	36:DP:15:ARG:NE	2.22	0.55
36:DP:38:GLN:HG3	36:DP:39:LYS:H	1.72	0.55
44:DX:31:HIS:CD2	44:DX:33:LYS:H	2.24	0.55
48:D1:13:ILE:HG13	48:D1:15:ALA:N	2.21	0.55
1:AA:475:G:H2'	1:AA:476:G:C8	2.42	0.54
1:AA:1051:C:H2'	1:AA:1052:U:C6	2.42	0.54
4:AY:32:ILE:HG12	4:AY:75:PHE:CE1	2.42	0.54
7:AD:110:PHE:N	7:AD:110:PHE:HD1	2.04	0.54
10:AG:12:LEU:H	10:AG:12:LEU:HD23	1.72	0.54
13:AJ:9:ARG:HH21	13:AJ:95:GLU:HG2	1.72	0.54
14:AK:57:THR:HG23	14:AK:58:PRO:HD2	1.89	0.54
27:BD:118:VAL:HG22	27:BD:119:ALA:H	1.72	0.54
35:BO:88:ASN:HB3	35:BO:92:GLU:O	2.07	0.54
1:CA:397:A:H5'	1:CA:398:C:OP1	2.07	0.54
12:CI:74:ILE:H	12:CI:74:ILE:HD12	1.72	0.54
25:DA:380:U:H2'	25:DA:381:G:H8	1.72	0.54
25:DA:1003:G:N2	25:DA:1153:C:C2	2.75	0.54
26:DB:75:G:H22	46:DZ:73:GLN:HE21	1.55	0.54
28:DE:120:TRP:CD2	28:DE:155:LYS:HD3	2.42	0.54
29:DF:53:THR:C	29:DF:55:GLY:H	2.11	0.54
33:DK:88:ALA:HB1	33:DK:94:GLU:HG3	1.88	0.54
34:DN:95:TYR:CE2	34:DN:113:MET:HG3	2.42	0.54
1:AA:340:U:H2'	1:AA:341:C:C6	2.41	0.54
1:AA:1190:G:OP1	6:AC:5:ILE:HG23	2.06	0.54
12:AI:71:SER:HA	12:AI:74:ILE:HD13	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:389:G:N1	36:BP:71:VAL:HG23	2.22	0.54
25:BA:481:G:C4	25:BA:507:A:C2	2.96	0.54
25:BA:1021:A:C8	25:BA:1021:A:C3'	2.90	0.54
25:BA:1587:A:H2'	25:BA:1588:C:H6	1.71	0.54
26:BB:81:G:H5'	26:BB:82:G:OP2	2.07	0.54
26:BB:87:G:H21	26:BB:89(A):G:H8	1.55	0.54
44:BX:63:LYS:HD2	44:BX:72:LYS:HA	1.88	0.54
1:CA:475:G:H2'	1:CA:476:G:C8	2.42	0.54
1:CA:859:A:H2'	1:CA:860:A:O4'	2.07	0.54
5:CB:25:ASN:O	5:CB:28:PHE:HB3	2.07	0.54
12:CI:29:ASN:OD1	12:CI:64:THR:HA	2.07	0.54
16:CM:84:ILE:HG13	22:CS:74:PHE:HE1	1.72	0.54
20:CQ:56:VAL:HG23	20:CQ:81:ARG:HG3	1.87	0.54
25:DA:744:G:OP1	28:DE:132:HIS:HB3	2.07	0.54
27:DD:125:ILE:O	27:DD:125:ILE:HG22	2.07	0.54
39:DS:25:ARG:CG	39:DS:88:ASP:HB2	2.37	0.54
52:D5:40:LYS:CE	52:D5:46:CYS:HB3	2.37	0.54
1:AA:1440(F):C:H2'	1:AA:1440(G):C:C6	2.42	0.54
4:AY:101:LYS:HB2	4:AY:102:PRO:HD3	1.88	0.54
4:AY:365:LYS:HB3	4:AY:369:ARG:NH1	2.21	0.54
6:AC:122:GLU:HG3	6:AC:126:ARG:NH2	2.23	0.54
8:AE:101:ILE:CD1	8:AE:119:LEU:HD23	2.36	0.54
13:AJ:56:HIS:O	13:AJ:58:ASP:N	2.39	0.54
25:BA:1142:A:H4'	34:BN:48:ARG:HH22	1.71	0.54
25:BA:1270:C:H5"	25:BA:1271:G:H5'	1.89	0.54
25:BA:1786:A:H4'	25:BA:1787:A:OP2	2.07	0.54
29:BF:6:MET:HG2	29:BF:7:TYR:CD1	2.42	0.54
36:BP:15:ARG:CG	36:BP:16:ARG:H	2.20	0.54
40:BT:105:LEU:HB3	40:BT:110:ILE:CD1	2.36	0.54
1:CA:908:A:H2'	1:CA:909:A:C8	2.42	0.54
1:CA:1123:A:H4'	13:CJ:36:GLY:HA3	1.88	0.54
19:CP:67:THR:HG22	19:CP:68:ASP:H	1.72	0.54
25:DA:444:C:H4'	29:DF:49:ALA:HB2	1.89	0.54
25:DA:524:U:H4'	25:DA:555:U:H4'	1.90	0.54
25:DA:2190:G:H2'	25:DA:2191:G:C8	2.32	0.54
25:DA:2346:A:H5"	25:DA:2383:G:C1'	2.37	0.54
25:DA:2850:A:OP2	25:DA:2866:U:C5	2.60	0.54
26:DB:81:G:C6	26:DB:82:G:C5	2.96	0.54
29:DF:6:MET:HG2	29:DF:7:TYR:CD1	2.42	0.54
30:DG:71:THR:HG22	30:DG:89:GLY:C	2.27	0.54
32:DI:15:VAL:HG12	32:DI:16:GLY:N	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DI:83:ALA:HA	32:DI:89:TYR:CE1	2.41	0.54
38:DR:7:GLY:O	38:DR:8:ARG:HB2	2.07	0.54
46:DZ:43:GLU:O	46:DZ:47:VAL:HG23	2.08	0.54
48:D1:13:ILE:HD11	48:D1:15:ALA:CB	2.38	0.54
53:D6:36:LEU:HD13	53:D6:50:ARG:NH1	2.22	0.54
1:AA:1124:G:H5”	13:AJ:35:SER:HB2	1.89	0.54
5:AB:177:ALA:HB1	5:AB:182:ILE:HB	1.89	0.54
7:AD:189:PRO:HB2	7:AD:194:LEU:HD21	1.89	0.54
21:AR:53:ARG:HD2	21:AR:63:GLN:HB2	1.87	0.54
25:BA:1651:G:H5’	38:BR:39:PRO:HG2	1.89	0.54
25:BA:2850:A:OP2	25:BA:2866:U:C5	2.61	0.54
26:BB:63:G:H2’	26:BB:64:C:C6	2.42	0.54
29:BF:6:MET:HG2	29:BF:7:TYR:HD1	1.72	0.54
44:BX:27:THR:HB	44:BX:80:ILE:HG22	1.90	0.54
44:BX:41:ASN:HD22	44:BX:41:ASN:N	2.06	0.54
47:B0:23:VAL:HB	47:B0:26:TYR:HE2	1.71	0.54
48:B1:45:ASN:HD21	48:B1:47:GLN:HE21	1.53	0.54
4:CY:190:TYR:CD1	4:CY:225:PRO:HD3	2.42	0.54
5:CB:25:ASN:HB3	5:CB:192:SER:O	2.08	0.54
5:CB:55:PHE:HE1	5:CB:218:ALA:HA	1.72	0.54
6:CC:76:VAL:HG21	6:CC:103:VAL:HG11	1.88	0.54
25:DA:185:U:H4’	25:DA:218:A:H4’	1.89	0.54
25:DA:1434:A:H61	25:DA:1558:A:N6	2.05	0.54
25:DA:1946:U:H2’	25:DA:1947:C:C6	2.42	0.54
25:DA:2262:U:H4’	25:DA:2328:A:C2	2.42	0.54
25:DA:2476:A:H2	25:DA:2477:C:C5	2.26	0.54
33:DK:6:ALA:HB3	33:DK:59:ILE:HD12	1.90	0.54
40:DT:105:LEU:HB3	40:DT:110:ILE:CD1	2.37	0.54
41:DU:95:LEU:O	41:DU:98:LEU:HG	2.07	0.54
44:DX:50:LYS:H	44:DX:87:GLN:HE22	1.54	0.54
45:DY:30:VAL:HG22	45:DY:37:VAL:HG12	1.89	0.54
1:AA:458(A):G:H3’	1:AA:458(B):A:H5”	1.89	0.54
1:AA:735:C:H2’	1:AA:736:C:H6	1.70	0.54
1:AA:1269:A:H5’	24:AU:19:GLY:HA2	1.88	0.54
1:AA:1298:C:C5	10:AG:114:ARG:HD3	2.43	0.54
5:AB:55:PHE:HE1	5:AB:218:ALA:HA	1.72	0.54
6:AC:36:ASP:OD1	6:AC:57:ILE:HG13	2.07	0.54
11:AH:50:ARG:H	11:AH:50:ARG:HD2	1.72	0.54
25:BA:830:G:H4’	25:BA:831:G:OP2	2.06	0.54
25:BA:1406:U:H2’	25:BA:1407:C:C6	2.43	0.54
27:BD:25:THR:HG21	27:BD:82:ILE:H	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:154:PRO:HB3	31:BH:163:TYR:CZ	2.43	0.54
33:BK:10:LEU:HD12	33:BK:23:VAL:HG22	1.90	0.54
39:BS:38:GLN:HB3	39:BS:47:THR:HG23	1.88	0.54
40:BT:57:PHE:O	40:BT:59:THR:N	2.40	0.54
13:CJ:9:ARG:HH21	13:CJ:95:GLU:HG2	1.72	0.54
25:DA:1443:G:O2'	25:DA:1444:G:H5'	2.07	0.54
25:DA:2315:G:H2'	25:DA:2316:C:C6	2.41	0.54
35:DO:88:ASN:HB3	35:DO:92:GLU:O	2.07	0.54
4:AY:227:VAL:HB	4:AY:304:ARG:HH12	1.72	0.54
15:AL:69:ILE:HA	15:AL:99:ILE:HG22	1.89	0.54
22:AS:6:LYS:HD2	22:AS:7:LYS:H	1.72	0.54
25:BA:315:G:H2'	25:BA:316:C:C6	2.41	0.54
25:BA:2637:U:H5"	28:BE:82:ARG:HH21	1.73	0.54
27:BD:175:LEU:HD12	27:BD:185:VAL:HG21	1.88	0.54
30:BG:36:LYS:HB3	30:BG:160:VAL:HB	1.90	0.54
32:BI:79:ILE:HG13	32:BI:144:VAL:HG22	1.88	0.54
1:CA:735:C:H2'	1:CA:736:C:H6	1.72	0.54
1:CA:979:C:H3'	1:CA:980:C:C5'	2.37	0.54
1:CA:1342:C:H1'	12:CI:124:GLN:HE22	1.72	0.54
15:CL:116:ARG:HB3	15:CL:121:THR:HB	1.89	0.54
25:DA:204:A:H8	25:DA:204:A:OP1	1.90	0.54
25:DA:480:A:OP2	45:DY:46:LYS:HE2	2.07	0.54
25:DA:1406:U:H2'	25:DA:1407:C:C6	2.43	0.54
25:DA:1506(G):U:H2'	25:DA:1506(H):C:H6	1.72	0.54
26:DB:81:G:H5'	26:DB:82:G:OP2	2.08	0.54
28:DE:37:ARG:HA	28:DE:42:ASP:OD2	2.07	0.54
41:DU:44:ASN:HD22	41:DU:44:ASN:N	2.06	0.54
46:DZ:82:ARG:HB3	46:DZ:82:ARG:HH11	1.71	0.54
47:D0:70:GLN:NE2	47:D0:72:ARG:HD3	2.23	0.54
4:AY:357:LEU:O	4:AY:362:LEU:HD23	2.07	0.54
7:AD:15:GLU:HG2	7:AD:63:LYS:CG	2.37	0.54
16:AM:84:ILE:HG13	22:AS:74:PHE:HE1	1.73	0.54
25:BA:296:C:O2'	25:BA:297:C:H5'	2.07	0.54
25:BA:322:A:OP2	29:BF:169:ASN:HB2	2.07	0.54
25:BA:1104:C:H2'	25:BA:1105:U:C6	2.42	0.54
25:BA:1932:A:H2'	25:BA:1933:G:O4'	2.07	0.54
25:BA:2311:A:C2	30:BG:82:LEU:HD21	2.43	0.54
30:BG:124:SER:HB2	30:BG:131:TYR:CE1	2.42	0.54
31:BH:13:LYS:HZ2	31:BH:14:GLY:HA2	1.73	0.54
31:BH:103:LEU:HD23	31:BH:104:GLU:N	2.23	0.54
38:BR:84:ALA:HB3	38:BR:85:PRO:HD3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BU:91:ASP:O	41:BU:92:ARG:C	2.46	0.54
1:CA:323:U:O3’	23:CT:22:ARG:HG2	2.08	0.54
1:CA:783:C:H2’	1:CA:784:C:H6	1.73	0.54
1:CA:1104:G:C5’	5:CB:111:ARG:HD2	2.37	0.54
6:CC:36:ASP:OD1	6:CC:57:ILE:HG13	2.07	0.54
15:CL:26:LEU:HD13	15:CL:27:LYS:H	1.72	0.54
18:CO:5:LYS:HD3	18:CO:5:LYS:N	2.23	0.54
25:DA:184:C:H2’	25:DA:185:U:C6	2.43	0.54
25:DA:498:G:O2’	45:DY:47:LYS:HD3	2.07	0.54
25:DA:850:C:H5’	50:D3:17:LYS:NZ	2.22	0.54
25:DA:1273:U:H5’	25:DA:1274:A:OP1	2.07	0.54
25:DA:1542:G:H4’	25:DA:1543:A:O4’	2.07	0.54
25:DA:1813:G:H1’	27:DD:50:THR:OG1	2.07	0.54
25:DA:1832:C:N4	25:DA:1833:U:C4	2.76	0.54
25:DA:2309:A:OP1	25:DA:2309:A:H8	1.90	0.54
25:DA:2723:C:H4’	38:DR:2:ARG:NH1	2.21	0.54
27:DD:102:LYS:C	27:DD:103:ARG:HG2	2.28	0.54
29:DF:45:ARG:HG2	29:DF:45:ARG:NH1	2.23	0.54
35:DO:90:GLN:O	35:DO:91:LEU:HB2	2.06	0.54
45:DY:47:LYS:HA	45:DY:60:PHE:CD2	2.43	0.54
46:DZ:4:ARG:NH1	46:DZ:60:GLU:HG3	2.21	0.54
1:AA:1429:C:H2’	1:AA:1430:C:H6	1.72	0.54
3:AW:23:C:H2’	3:AW:24:U:C6	2.43	0.54
17:AN:15:LYS:HD2	17:AN:16:PHE:CE2	2.43	0.54
21:AR:56:THR:O	21:AR:58:LEU:HD12	2.08	0.54
25:BA:591:C:O2	55:B8:2:PRO:HA	2.07	0.54
25:BA:993:G:OP1	41:BU:50:ARG:NH2	2.41	0.54
25:BA:1141(A):U:H3’	25:BA:1141(A):U:H6	1.73	0.54
25:BA:2630:G:H1’	25:BA:2894:G:C1’	2.37	0.54
26:BB:7:G:H4’	39:BS:29:PHE:CG	2.41	0.54
28:BE:132:HIS:CG	28:BE:135:HIS:NE2	2.76	0.54
30:BG:88:ILE:HD12	30:BG:89:GLY:H	1.73	0.54
36:BP:112:LEU:CD2	36:BP:114:ILE:HG13	2.37	0.54
46:BZ:144:LEU:HD21	46:BZ:150:LEU:HD21	1.88	0.54
48:B1:12:PRO:O	48:B1:14:VAL:HG23	2.08	0.54
1:CA:1190:G:OP1	6:CC:5:ILE:HG23	2.07	0.54
13:CJ:32:ALA:H	13:CJ:78:ASN:ND2	2.05	0.54
22:CS:16:LEU:H	22:CS:16:LEU:HD12	1.73	0.54
25:DA:1173:A:N3	25:DA:1173:A:H2’	2.22	0.54
25:DA:1647:G:H3’	25:DA:1647:G:OP2	2.07	0.54
25:DA:2400:G:H2’	25:DA:2401:U:C6	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:DE:36:ARG:HH11	28:DE:85:ASN:ND2	2.06	0.54
30:DG:124:SER:HB2	30:DG:131:TYR:CE1	2.42	0.54
31:DH:101:ARG:HD2	31:DH:102:ALA:N	2.22	0.54
49:D2:53:LEU:O	49:D2:57:ILE:HG13	2.07	0.54
1:AA:820:U:H4'	1:AA:821:G:OP2	2.07	0.54
1:AA:1101:A:H1'	1:AA:1102:A:OP2	2.07	0.54
4:AY:230:GLU:O	4:AY:230:GLU:HG2	2.07	0.54
5:AB:17:PHE:H	5:AB:17:PHE:HD2	1.54	0.54
6:AC:68:VAL:HG12	6:AC:70:VAL:HG23	1.89	0.54
7:AD:63:LYS:O	7:AD:67:ILE:HG13	2.08	0.54
25:BA:27:G:N2	25:BA:512:G:H1'	2.23	0.54
25:BA:721:C:H2'	25:BA:722:A:H8	1.72	0.54
25:BA:1076:C:H2'	25:BA:1077:A:H4'	1.88	0.54
25:BA:1813:G:H1'	27:BD:50:THR:OG1	2.08	0.54
25:BA:2278:A:OP1	37:BQ:10:ARG:HD3	2.08	0.54
25:BA:2400:G:H2'	25:BA:2401:U:C6	2.43	0.54
28:BE:37:ARG:HA	28:BE:42:ASP:OD2	2.07	0.54
32:BI:88:ILE:HD12	32:BI:120:ILE:O	2.08	0.54
33:BK:86:LYS:HD3	33:BK:87:GLY:N	2.23	0.54
34:BN:160:LYS:HB3	34:BN:160:LYS:HZ2	1.71	0.54
49:B2:53:LEU:O	49:B2:57:ILE:HG13	2.08	0.54
1:CA:458(A):G:H3'	1:CA:458(B):A:H5"	1.89	0.54
1:CA:820:U:H4'	1:CA:821:G:OP2	2.08	0.54
1:CA:1440(F):C:H2'	1:CA:1440(G):C:C6	2.43	0.54
4:CY:110:LYS:HB3	4:CY:110:LYS:HZ3	1.73	0.54
4:CY:115:TYR:OH	4:CY:359:TRP:HA	2.08	0.54
9:CF:3:ARG:HB3	9:CF:93:SER:HB2	1.89	0.54
12:CI:11:LYS:C	12:CI:13:ALA:H	2.10	0.54
13:CJ:38:ILE:HD12	13:CJ:71:LEU:HD23	1.88	0.54
22:CS:40:ILE:HB	22:CS:67:VAL:O	2.08	0.54
25:DA:451:C:H4'	29:DF:52:LYS:NZ	2.22	0.54
25:DA:747:U:O2	25:DA:2014:A:H1'	2.08	0.54
25:DA:832:G:OP1	36:DP:40:SER:HB3	2.08	0.54
25:DA:1464:C:H2'	25:DA:1465:G:H8	1.73	0.54
25:DA:1657:C:H2'	25:DA:1658:C:C6	2.43	0.54
25:DA:2392:A:C8	36:DP:60:MET:HG2	2.43	0.54
26:DB:7:G:H5"	39:DS:29:PHE:CD2	2.42	0.54
27:DD:25:THR:HG22	27:DD:82:ILE:O	2.08	0.54
27:DD:130:ALA:HA	27:DD:192:THR:HA	1.89	0.54
28:DE:201:THR:CG2	28:DE:202:LYS:N	2.71	0.54
29:DF:184:TYR:CD2	29:DF:188:ARG:HD2	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:DG:97:ASP:O	30:DG:101:ILE:HG23	2.08	0.54
32:DI:8:PRO:HD3	32:DI:15:VAL:HG23	1.90	0.54
33:DK:27:LEU:HD13	33:DK:32:ALA:HB3	1.89	0.54
49:D2:16:LEU:HB2	49:D2:20:GLU:HG2	1.90	0.54
1:AA:509:A:C2	1:AA:510:A:C2	2.96	0.54
15:AL:26:LEU:HD13	15:AL:27:LYS:H	1.72	0.54
25:BA:1173:A:H2'	25:BA:1173:A:N3	2.22	0.54
25:BA:2645:G:C3'	25:BA:2646:C:H5'	2.38	0.54
27:BD:125:ILE:O	27:BD:125:ILE:HG22	2.08	0.54
30:BG:13:GLU:O	30:BG:14:GLU:HB2	2.07	0.54
35:BO:102:VAL:HB	35:BO:106:LEU:HD12	1.90	0.54
36:BP:16:ARG:CZ	36:BP:18:ARG:HB2	2.38	0.54
36:BP:98:GLU:O	36:BP:101:VAL:HG12	2.08	0.54
46:BZ:9:TYR:OH	46:BZ:61:LEU:HD13	2.08	0.54
46:BZ:82:ARG:HB3	46:BZ:82:ARG:HH11	1.71	0.54
48:B1:46:LEU:HA	48:B1:63:ALA:HA	1.90	0.54
48:B1:56:GLN:NE2	48:B1:87:PRO:HB3	2.23	0.54
52:B5:40:LYS:CE	52:B5:46:CYS:HB3	2.38	0.54
55:B8:52:LYS:HA	55:B8:52:LYS:CE	2.25	0.54
1:CA:637:G:H2'	1:CA:638:G:H8	1.73	0.54
1:CA:1305:G:H5'	24:CU:4:GLY:HA3	1.90	0.54
9:CF:19:LEU:O	9:CF:23:LYS:HG3	2.08	0.54
25:DA:510:C:H2'	25:DA:511:U:O4'	2.07	0.54
25:DA:528:A:H2	25:DA:2043:C:C5'	2.21	0.54
25:DA:1021:A:N6	25:DA:1141:U:H3	2.05	0.54
25:DA:1083:U:O2'	25:DA:1084:A:C8	2.61	0.54
25:DA:2278:A:OP1	37:DQ:10:ARG:HD3	2.08	0.54
25:DA:2756:U:H4'	25:DA:2757:A:OP1	2.06	0.54
33:DK:75:SER:O	33:DK:79:ARG:HG2	2.08	0.54
45:DY:29:GLU:HB3	45:DY:38:ILE:CG1	2.38	0.54
45:DY:42:VAL:HG12	45:DY:65:ALA:HB3	1.89	0.54
55:D8:50:LEU:HB2	55:D8:54:GLU:CG	2.38	0.54
1:AA:368:U:C4	32:DI:89:TYR:HB3	2.42	0.53
1:AA:620:C:H2'	1:AA:621:A:O4'	2.08	0.53
1:AA:1330:U:O4	1:AA:1331:G:C2	2.61	0.53
4:AY:54:ASP:HB3	4:AY:57:ALA:HB3	1.90	0.53
5:AB:25:ASN:O	5:AB:28:PHE:HB3	2.08	0.53
7:AD:146:ILE:N	7:AD:146:ILE:HD12	2.23	0.53
26:BB:82:G:H2'	26:BB:83:G:H8	1.71	0.53
30:BG:97:ASP:O	30:BG:101:ILE:HG23	2.07	0.53
33:BK:129:GLY:C	33:BK:131:ALA:H	2.11	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BV:24:LYS:HA	42:BV:92:THR:HG23	1.89	0.53
44:BX:50:LYS:H	44:BX:87:GLN:NE2	2.05	0.53
46:BZ:97:GLU:HB3	46:BZ:125:LEU:HD21	1.90	0.53
47:B0:27:GLU:HB2	47:B0:69:PHE:HD1	1.73	0.53
1:CA:334:C:H2'	1:CA:335:C:H6	1.74	0.53
1:CA:719:C:O2'	21:CR:49:LYS:HB3	2.08	0.53
1:CA:1051:C:H2'	1:CA:1052:U:C6	2.42	0.53
1:CA:1216:G:OP1	17:CN:2:ALA:HA	2.07	0.53
5:CB:177:ALA:HB1	5:CB:182:ILE:HB	1.90	0.53
9:CF:23:LYS:O	9:CF:27:GLN:HG2	2.08	0.53
13:CJ:5:ARG:O	13:CJ:98:ILE:HA	2.08	0.53
15:CL:110:LYS:O	15:CL:111:ASP:HB2	2.08	0.53
17:CN:7:ILE:HG13	17:CN:8:GLU:N	2.22	0.53
25:DA:1430:C:H2'	25:DA:1431:U:C6	2.43	0.53
25:DA:1466:G:H2'	25:DA:1547:C:H41	1.72	0.53
25:DA:1468(J):G:HO2'	25:DA:1558:A:H2	1.56	0.53
25:DA:2012:G:H4'	43:DW:96:ILE:HD11	1.89	0.53
25:DA:2287:A:N1	25:DA:2346:A:C2	2.76	0.53
29:DF:164:ARG:HG3	29:DF:175:THR:OG1	2.07	0.53
37:DQ:27:VAL:H	37:DQ:134:ARG:NH1	2.06	0.53
54:D7:8:ASN:C	54:D7:8:ASN:ND2	2.57	0.53
1:AA:1073:U:H2'	1:AA:1074:G:H8	1.73	0.53
1:AA:1152:A:H2'	1:AA:1153:C:C6	2.40	0.53
4:AY:246:ARG:HA	4:AY:259:ASP:HA	1.89	0.53
5:AB:178:ARG:HH21	11:AH:74:PRO:HG3	1.73	0.53
7:AD:176:LEU:O	7:AD:177:ASP:HB3	2.08	0.53
11:AH:13:ILE:O	11:AH:17:THR:HG23	2.08	0.53
15:AL:46:LYS:HB3	15:AL:47:PRO:HD3	1.88	0.53
15:AL:82:VAL:CG2	15:AL:106:ALA:HB2	2.36	0.53
25:BA:943:U:OP2	36:BP:38:GLN:CD	2.47	0.53
25:BA:1275:A:C4	38:BR:16:HIS:CE1	2.96	0.53
27:BD:25:THR:HG21	27:BD:81:ALA:HA	1.89	0.53
27:BD:67:PHE:HE2	27:BD:106:ILE:HD11	1.71	0.53
28:BE:51:PHE:CD1	28:BE:52:LEU:HG	2.43	0.53
29:BF:45:ARG:HG2	29:BF:45:ARG:NH1	2.23	0.53
36:BP:23:PRO:HB2	36:BP:33:ARG:NE	2.23	0.53
43:BW:12:ILE:HD13	43:BW:17:VAL:HG12	1.90	0.53
43:BW:46:PHE:O	43:BW:50:VAL:HG12	2.08	0.53
45:BY:14:LEU:HD23	45:BY:15:VAL:C	2.28	0.53
55:B8:34:TRP:HD1	55:B8:35:GLN:H	1.55	0.53
1:CA:7:G:H5'	1:CA:298:A:O4'	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CD:64:LEU:HD23	7:CD:75:PHE:HZ	1.74	0.53
8:CE:75:THR:HG23	8:CE:76:ILE:N	2.22	0.53
22:CS:16:LEU:HA	22:CS:19:VAL:CG1	2.37	0.53
25:DA:2261:C:C6	47:D0:16:SER:HB3	2.43	0.53
29:DF:65:TRP:CZ2	29:DF:75:HIS:HD2	2.26	0.53
30:DG:13:GLU:O	30:DG:14:GLU:HB2	2.08	0.53
41:DU:24:TYR:HB2	41:DU:29:SER:HB3	1.89	0.53
42:DV:6:LYS:O	42:DV:37:VAL:HG21	2.07	0.53
47:D0:27:GLU:HB2	47:D0:69:PHE:HD1	1.73	0.53
50:D3:8:LEU:HA	50:D3:54:VAL:HG12	1.91	0.53
52:D5:40:LYS:NZ	52:D5:46:CYS:H	2.06	0.53
1:AA:397:A:H5'	1:AA:398:C:OP1	2.07	0.53
1:AA:1268:A:H4'	24:AU:20:LYS:HA	1.90	0.53
4:AY:77:SER:HB2	4:AY:110:LYS:HZ1	1.73	0.53
4:AY:325:ARG:NH1	4:AY:362:LEU:HD11	2.24	0.53
7:AD:65:ARG:HG3	7:AD:70:ILE:HG22	1.89	0.53
11:AH:8:ASP:O	11:AH:12:ARG:HG2	2.08	0.53
25:BA:1907:G:H2'	25:BA:1908:C:H6	1.71	0.53
25:BA:2315:G:H2'	25:BA:2316:C:C6	2.43	0.53
25:BA:2359:C:H2'	25:BA:2360:A:O4'	2.08	0.53
25:BA:2517:C:C2	25:BA:2542:A:N1	2.77	0.53
25:BA:2602:A:H4'	25:BA:2603:G:C5'	2.39	0.53
28:BE:117:MET:CE	28:BE:136:ARG:HA	2.39	0.53
36:BP:17:LYS:HG2	36:BP:19:VAL:CG2	2.37	0.53
4:CY:46:LEU:HD22	33:DK:25:PRO:HG3	1.89	0.53
4:CY:224:ILE:HG13	4:CY:225:PRO:HD2	1.89	0.53
4:CY:252:GLY:O	4:CY:255:VAL:HG12	2.08	0.53
25:DA:979:G:H3'	25:DA:980:A:C5'	2.38	0.53
25:DA:1448:G:H2'	25:DA:1448(A):A:C8	2.43	0.53
25:DA:2693:A:H2'	25:DA:2694:G:H8	1.72	0.53
27:DD:94:LEU:HB2	27:DD:104:TYR:CE1	2.43	0.53
27:DD:166:GLN:CA	27:DD:166:GLN:HE21	2.21	0.53
30:DG:36:LYS:HB3	30:DG:160:VAL:HB	1.90	0.53
35:DO:101:PRO:O	35:DO:102:VAL:HG13	2.08	0.53
38:DR:8:ARG:HD3	38:DR:9:LYS:N	2.22	0.53
1:AA:1125:U:H3'	1:AA:1126:U:C5	2.42	0.53
1:AA:1172:C:H2'	1:AA:1173:G:C8	2.39	0.53
4:AY:77:SER:HB2	4:AY:110:LYS:NZ	2.24	0.53
4:AY:243:ASP:HB2	4:AY:263:ARG:HB3	1.89	0.53
6:AC:195:VAL:O	6:AC:196:LEU:HB2	2.09	0.53
7:AD:30:LYS:C	7:AD:32:ALA:N	2.62	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AH:86:ILE:HG21	11:AH:133:LEU:HD13	1.90	0.53
12:AI:11:LYS:C	12:AI:13:ALA:H	2.11	0.53
25:BA:285:C:H2'	25:BA:286:C:C6	2.43	0.53
25:BA:396:G:O4'	48:B1:18:ILE:HD12	2.08	0.53
25:BA:1055:G:H2'	25:BA:1056:G:O4'	2.09	0.53
25:BA:1899:G:O2'	25:BA:1900:A:H5"	2.08	0.53
25:BA:2261:C:C5	47:B0:16:SER:HB3	2.44	0.53
25:BA:2855:C:H2'	25:BA:2856:C:H6	1.74	0.53
26:BB:11:C:H2'	26:BB:12:C:C5	2.44	0.53
27:BD:30:GLU:HG3	27:BD:63:ARG:CZ	2.39	0.53
28:BE:94:GLU:OE2	28:BE:177:PRO:HB3	2.08	0.53
34:BN:122:LEU:O	34:BN:126:VAL:HG22	2.08	0.53
36:BP:114:ILE:HD13	36:BP:125:VAL:HG21	1.91	0.53
37:BQ:27:VAL:H	37:BQ:134:ARG:NH1	2.05	0.53
39:BS:27:SER:HA	39:BS:88:ASP:HB3	1.89	0.53
45:BY:81:LYS:NZ	45:BY:98:VAL:HG12	2.23	0.53
46:BZ:48:PHE:HE2	46:BZ:71:VAL:HG21	1.73	0.53
1:CA:1429:C:H2'	1:CA:1430:C:H6	1.72	0.53
4:CY:229:GLU:HG3	4:CY:230:GLU:N	2.24	0.53
5:CB:204:ASN:HD21	5:CB:207:ALA:N	2.05	0.53
7:CD:30:LYS:HE3	7:CD:35:ARG:CZ	2.39	0.53
9:CF:100:ASN:OD1	21:CR:23:LYS:HG2	2.08	0.53
25:DA:1980:G:O2'	25:DA:1982:C:OP2	2.23	0.53
27:DD:27:THR:HG21	27:DD:83:GLU:HG2	1.89	0.53
27:DD:145:VAL:HG12	27:DD:146:GLU:O	2.09	0.53
42:DV:72:VAL:HG23	42:DV:85:LYS:HB2	1.89	0.53
43:DW:6:ILE:HG12	43:DW:104:THR:HG23	1.89	0.53
44:DX:50:LYS:H	44:DX:87:GLN:NE2	2.07	0.53
48:D1:13:ILE:HD11	48:D1:15:ALA:HB2	1.89	0.53
1:AA:908:A:H2'	1:AA:909:A:C8	2.43	0.53
1:AA:1255:G:O2'	1:AA:1258:G:H1'	2.08	0.53
2:AV:19:U:O4	4:AY:140:THR:HG22	2.07	0.53
4:AY:365:LYS:HB3	4:AY:369:ARG:HH12	1.72	0.53
6:AC:16:ARG:NH1	6:AC:16:ARG:HB2	2.24	0.53
20:AQ:56:VAL:HG23	20:AQ:81:ARG:HG3	1.89	0.53
21:AR:66:LEU:O	21:AR:70:ILE:HG12	2.09	0.53
25:BA:1081:U:P	33:BK:125:ARG:HH21	2.31	0.53
32:BI:88:ILE:HG12	32:BI:144:VAL:HG11	1.91	0.53
36:BP:101:VAL:HA	36:BP:105:LEU:O	2.08	0.53
41:BU:44:ASN:HD22	41:BU:44:ASN:N	2.06	0.53
41:BU:47:TYR:HA	41:BU:50:ARG:NH2	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
50:B3:8:LEU:HA	50:B3:54:VAL:HG12	1.90	0.53
1:CA:168:G:H2'	1:CA:169:C:H5"	1.91	0.53
3:CW:20:U:H3'	3:CW:21:A:H5'	1.90	0.53
4:CY:201:ARG:HB2	4:CY:323:GLN:HG2	1.90	0.53
4:CY:243:ASP:HB2	4:CY:263:ARG:HB3	1.89	0.53
4:CY:357:LEU:O	4:CY:362:LEU:HD23	2.09	0.53
25:DA:1055:G:H2'	25:DA:1056:G:O4'	2.08	0.53
25:DA:1060:U:H4'	25:DA:1061:U:O5'	2.07	0.53
25:DA:1651:G:H5'	38:DR:39:PRO:HG2	1.89	0.53
26:DB:11:C:O2'	26:DB:12:C:O5'	2.27	0.53
26:DB:13:A:O2'	26:DB:14:U:H3'	2.09	0.53
32:DI:112:LYS:HD2	32:DI:112:LYS:N	2.22	0.53
36:DP:101:VAL:HA	36:DP:105:LEU:O	2.08	0.53
36:DP:112:LEU:CD2	36:DP:114:ILE:HG13	2.38	0.53
37:DQ:75:THR:HG22	37:DQ:88:GLY:HA3	1.90	0.53
38:DR:11:ASN:OD1	38:DR:12:ARG:N	2.40	0.53
44:DX:27:THR:HB	44:DX:80:ILE:HG22	1.91	0.53
52:D5:4:HIS:CB	52:D5:5:PRO:CD	2.83	0.53
1:AA:334:C:H2'	1:AA:335:C:H6	1.72	0.53
1:AA:783:C:H2'	1:AA:784:C:H6	1.73	0.53
1:AA:878:G:O4'	11:AH:3:THR:HG21	2.09	0.53
1:AA:1080:A:H5'	8:AE:16:THR:HG21	1.91	0.53
1:AA:1083:U:H5	1:AA:1084:G:C5	2.27	0.53
1:AA:1104:G:H2'	1:AA:1105:A:C8	2.43	0.53
1:AA:1306:A:H1'	1:AA:1332:A:C2	2.44	0.53
5:AB:28:PHE:HD2	5:AB:194:PRO:HD3	1.74	0.53
9:AF:100:ASN:OD1	21:AR:23:LYS:HG2	2.08	0.53
11:AH:29:SER:HB3	11:AH:32:LYS:CB	2.39	0.53
13:AJ:5:ARG:O	13:AJ:98:ILE:HA	2.09	0.53
13:AJ:63:PHE:HA	17:AN:59:ALA:H	1.73	0.53
19:AP:67:THR:HG22	19:AP:68:ASP:H	1.73	0.53
22:AS:18:LYS:O	22:AS:22:LEU:HD23	2.09	0.53
25:BA:65:C:H2'	25:BA:66:C:C6	2.43	0.53
25:BA:480:A:OP2	45:BY:46:LYS:HE2	2.09	0.53
25:BA:619:G:H5"	25:BA:620:G:OP2	2.07	0.53
25:BA:880:G:H1	25:BA:897:C:H42	1.56	0.53
25:BA:1165:U:H2'	25:BA:1166:C:C6	2.43	0.53
25:BA:1464:C:H2'	25:BA:1465:G:H8	1.73	0.53
25:BA:1711:C:H2'	25:BA:1712:C:H6	1.74	0.53
25:BA:2287:A:N6	25:BA:2344:U:H3	2.00	0.53
25:BA:2686:G:C2	25:BA:2724:C:O2	2.62	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2723:C:H4'	38:BR:2:ARG:HH12	1.72	0.53
26:BB:7:G:H5"	39:BS:29:PHE:CD2	2.43	0.53
27:BD:129:ASN:O	27:BD:193:VAL:HG12	2.09	0.53
30:BG:173:LEU:HD22	30:BG:178:PHE:CE1	2.43	0.53
38:BR:2:ARG:HD3	38:BR:5:LYS:HE2	1.90	0.53
47:B0:37:LEU:HD21	47:B0:61:ALA:HB2	1.91	0.53
1:CA:509:A:C2	1:CA:510:A:C2	2.97	0.53
1:CA:620:C:H2'	1:CA:621:A:O4'	2.08	0.53
1:CA:927:G:H1	1:CA:1390:U:H3	1.55	0.53
1:CA:1330:U:O4	1:CA:1331:G:C2	2.61	0.53
7:CD:92:VAL:O	7:CD:96:LEU:HD23	2.09	0.53
25:DA:619:G:H5"	25:DA:620:G:OP2	2.09	0.53
31:DH:35:VAL:HG21	31:DH:75:ALA:HB2	1.89	0.53
39:DS:27:SER:HA	39:DS:88:ASP:HB3	1.90	0.53
4:AY:201:ARG:HB2	4:AY:323:GLN:HG2	1.90	0.53
10:AG:14:PRO:HB3	10:AG:19:GLY:O	2.09	0.53
25:BA:747:U:O2	25:BA:2014:A:H1'	2.07	0.53
25:BA:1021:A:N6	25:BA:1141:U:H3	2.07	0.53
36:BP:59:LEU:HG	55:B8:13:ARG:HH12	1.73	0.53
40:BT:23:ARG:HB2	40:BT:24:PRO:HD2	1.90	0.53
1:CA:186:C:H2'	1:CA:186(A):C:H6	1.73	0.53
1:CA:509:A:C4'	1:CA:510:A:OP1	2.57	0.53
1:CA:833:U:H2'	1:CA:834:C:C6	2.44	0.53
1:CA:1106:G:H5"	6:CC:172:ARG:HG2	1.91	0.53
11:CH:29:SER:HB3	11:CH:32:LYS:CB	2.39	0.53
15:CL:65:VAL:HG11	15:CL:97:TYR:HE1	1.72	0.53
18:CO:42:HIS:O	18:CO:45:VAL:HG22	2.09	0.53
18:CO:54:ARG:O	18:CO:58:MET:HG3	2.09	0.53
19:CP:22:THR:HG22	19:CP:32:TYR:HB2	1.91	0.53
25:DA:603:A:C4	25:DA:655:A:C2	2.96	0.53
25:DA:1488:G:C5	25:DA:1489:U:C5	2.97	0.53
25:DA:1495:A:O4'	25:DA:1495:A:OP1	2.27	0.53
25:DA:1786:A:H4'	25:DA:1787:A:OP2	2.09	0.53
25:DA:2645:G:C3'	25:DA:2646:C:H5'	2.39	0.53
25:DA:2855:C:H2'	25:DA:2856:C:H6	1.73	0.53
27:DD:67:PHE:HE2	27:DD:106:ILE:HD11	1.73	0.53
29:DF:122:LYS:O	29:DF:191:ARG:HG3	2.09	0.53
32:DI:1:MET:HG3	32:DI:23:PRO:HA	1.91	0.53
48:D1:27:GLU:HB2	48:D1:33:LYS:HZ1	1.73	0.53
1:AA:927:G:H1	1:AA:1390:U:H3	1.57	0.53
3:AW:20:U:H3'	3:AW:21:A:H5'	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:AY:229:GLU:HG3	4:AY:230:GLU:N	2.24	0.53
5:AB:221:LEU:HD13	5:AB:221:LEU:O	2.09	0.53
7:AD:15:GLU:HG2	7:AD:63:LYS:HG3	1.91	0.53
8:AE:79:GLU:OE2	11:AH:104:ARG:HA	2.09	0.53
22:AS:40:ILE:HB	22:AS:67:VAL:O	2.09	0.53
25:BA:850:C:H5'	50:B3:17:LYS:NZ	2.21	0.53
25:BA:2261:C:C6	47:B0:16:SER:HB3	2.44	0.53
27:BD:130:ALA:HA	27:BD:192:THR:HA	1.90	0.53
28:BE:9:VAL:HG13	28:BE:25:VAL:O	2.09	0.53
32:BI:15:VAL:HG12	32:BI:16:GLY:N	2.23	0.53
33:BK:7:VAL:HG22	33:BK:8:VAL:N	2.23	0.53
34:BN:95:TYR:CE2	34:BN:113:MET:HG3	2.44	0.53
46:BZ:5:LEU:HD12	46:BZ:47:VAL:HG21	1.91	0.53
46:BZ:43:GLU:O	46:BZ:47:VAL:HG23	2.08	0.53
1:CA:544:G:H2'	1:CA:545:C:O4'	2.08	0.53
1:CA:1226:C:H2'	16:CM:103:THR:HG22	1.91	0.53
5:CB:28:PHE:HD2	5:CB:194:PRO:HD3	1.74	0.53
6:CC:11:ARG:C	6:CC:13:GLY:H	2.12	0.53
6:CC:73:PRO:O	6:CC:76:VAL:HG22	2.09	0.53
11:CH:64:LYS:HG2	11:CH:79:VAL:HG21	1.91	0.53
19:CP:8:ARG:HB2	19:CP:28:ARG:HH12	1.73	0.53
27:DD:79:VAL:O	27:DD:113:VAL:HG13	2.09	0.53
28:DE:25:VAL:C	28:DE:26:ILE:HD13	2.29	0.53
30:DG:86:MET:SD	30:DG:87:PRO:HD3	2.48	0.53
36:DP:45:LEU:HD23	36:DP:46:LYS:H	1.70	0.53
37:DQ:45:GLN:H	37:DQ:45:GLN:CD	2.10	0.53
42:DV:25:LEU:H	42:DV:92:THR:CG2	2.22	0.53
1:AA:323:U:O3'	23:AT:22:ARG:HG2	2.08	0.53
4:AY:91:GLU:O	4:AY:92:LEU:HB2	2.08	0.53
5:AB:25:ASN:HB3	5:AB:192:SER:O	2.09	0.53
8:AE:78:HIS:CE1	8:AE:143:ARG:H	2.17	0.53
13:AJ:50:ILE:HB	17:AN:41:ARG:HE	1.74	0.53
23:AT:72:LEU:HD11	23:AT:77:ALA:HA	1.89	0.53
25:BA:902:C:H2'	25:BA:903:C:H6	1.74	0.53
35:BO:101:PRO:O	35:BO:102:VAL:HG13	2.09	0.53
37:BQ:134:ARG:O	37:BQ:135:ASP:C	2.46	0.53
1:CA:392:G:H2'	1:CA:393:A:C8	2.44	0.53
1:CA:737:A:H2'	1:CA:738:C:C6	2.44	0.53
4:CY:54:ASP:HB3	4:CY:57:ALA:HB3	1.90	0.53
7:CD:9:CYS:SG	7:CD:32:ALA:HB2	2.49	0.53
11:CH:10:LEU:N	11:CH:10:LEU:HD23	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:CM:66:LEU:CA	16:CM:70:LEU:HB2	2.39	0.53
25:DA:1773:A:N7	25:DA:1829:A:H1'	2.24	0.53
25:DA:2637:U:H5"	28:DE:82:ARG:HH21	1.73	0.53
26:DB:11:C:OP1	47:D0:72:ARG:HD2	2.08	0.53
27:DD:7:LYS:HG2	27:DD:8:PRO:HD2	1.89	0.53
27:DD:80:ALA:HB3	27:DD:94:LEU:HD13	1.91	0.53
35:DO:86:ILE:HG22	35:DO:94:ARG:HG3	1.91	0.53
42:DV:28:GLU:HB2	42:DV:31:ALA:CB	2.39	0.53
1:AA:168:G:H2'	1:AA:169:C:H5"	1.90	0.53
1:AA:328:C:H4'	1:AA:329:A:O5'	2.09	0.53
1:AA:833:U:H2'	1:AA:834:C:C6	2.44	0.53
1:AA:1145:C:C1'	1:AA:1146:A:OP2	2.53	0.53
25:BA:979:G:H3'	25:BA:980:A:C5'	2.38	0.53
25:BA:1071:G:O2'	25:BA:1089:G:H2'	2.09	0.53
25:BA:1430:C:H2'	25:BA:1431:U:C6	2.44	0.53
25:BA:1488:G:C5	25:BA:1489:U:C5	2.97	0.53
25:BA:1946:U:H2'	25:BA:1947:C:H6	1.73	0.53
25:BA:2419:U:O4	55:B8:30:ARG:CZ	2.57	0.53
30:BG:126:ASP:O	30:BG:128:ARG:N	2.42	0.53
37:BQ:45:GLN:H	37:BQ:45:GLN:CD	2.11	0.53
40:BT:1:MET:O	40:BT:3:ARG:N	2.42	0.53
45:BY:17:SER:OG	45:BY:18:GLY:N	2.42	0.53
1:CA:1083:U:H5	1:CA:1084:G:C5	2.27	0.53
1:CA:1255:G:O2'	1:CA:1258:G:H1'	2.09	0.53
1:CA:1493:A:C2	25:DA:1913:A:H1'	2.43	0.53
8:CE:79:GLU:HB3	8:CE:92:LYS:HA	1.91	0.53
12:CI:104:ARG:O	12:CI:104:ARG:HD3	2.09	0.53
13:CJ:32:ALA:CB	13:CJ:76:ASN:HB2	2.39	0.53
25:DA:792:G:H5"	25:DA:793:A:H5'	1.91	0.53
25:DA:1172:G:H3'	25:DA:1173:A:C5'	2.39	0.53
25:DA:1592:C:H2'	25:DA:1593:G:H8	1.74	0.53
25:DA:1654:A:OP2	38:DR:3:HIS:CD2	2.62	0.53
25:DA:1711:C:H2'	25:DA:1712:C:H6	1.73	0.53
25:DA:2630:G:H1'	25:DA:2894:G:C1'	2.37	0.53
35:DO:102:VAL:HB	35:DO:106:LEU:HD12	1.89	0.53
36:DP:17:LYS:C	36:DP:19:VAL:H	2.12	0.53
40:DT:1:MET:O	40:DT:3:ARG:N	2.41	0.53
1:AA:838(A):U:O2'	1:AA:838(B):C:H5"	2.09	0.52
4:AY:46:LEU:HD13	33:BK:21:PRO:HG2	1.90	0.52
6:AC:11:ARG:C	6:AC:13:GLY:H	2.12	0.52
7:AD:61:LYS:HA	7:AD:203:VAL:HG22	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:AD:108:LEU:HB3	7:AD:110:PHE:CE1	2.44	0.52
9:AF:19:LEU:O	9:AF:23:LYS:HG3	2.09	0.52
14:AK:58:PRO:HB2	14:AK:93:GLN:HG3	1.91	0.52
22:AS:62:ILE:HD12	22:AS:66:MET:SD	2.49	0.52
25:BA:524:U:H4'	25:BA:555:U:H4'	1.91	0.52
25:BA:603:A:C4	25:BA:655:A:C2	2.97	0.52
25:BA:2364:C:H2'	25:BA:2365:G:O4'	2.10	0.52
25:BA:2469:A:H2	25:BA:2481:G:H21	1.56	0.52
25:BA:2789:C:O3'	25:BA:2790:A:H4'	2.09	0.52
36:BP:23:PRO:HD2	36:BP:33:ARG:CZ	2.39	0.52
38:BR:60:LEU:HD23	38:BR:61:HIS:N	2.25	0.52
45:BY:35:TYR:CE1	45:BY:69:ALA:HB3	2.44	0.52
1:CA:748:C:C1'	1:CA:749:C:OP2	2.56	0.52
1:CA:926:G:H22	2:CV:15:A:H3'	1.74	0.52
1:CA:1325:C:O3'	24:CU:17:THR:HG21	2.09	0.52
7:CD:9:CYS:HB3	7:CD:32:ALA:HB2	1.90	0.52
25:DA:814:C:N4	36:DP:27:HIS:NE2	2.45	0.52
25:DA:860:U:O2	25:DA:860:U:O4'	2.26	0.52
25:DA:1080:C:H5"	33:DK:125:ARG:HH21	1.74	0.52
25:DA:1344:G:H5'	25:DA:1384:A:C6	2.45	0.52
25:DA:2789:C:O3'	25:DA:2790:A:H4'	2.09	0.52
27:DD:31:LYS:HE2	27:DD:102:LYS:HD3	1.91	0.52
36:DP:140:ALA:O	36:DP:141:ALA:HB2	2.09	0.52
41:DU:95:LEU:C	41:DU:97:ASP:H	2.12	0.52
1:AA:186:C:H2'	1:AA:186(A):C:H6	1.74	0.52
1:AA:624:C:H4'	19:AP:11:SER:N	2.24	0.52
1:AA:975:A:H2	17:AN:34:TYR:OH	1.92	0.52
4:AY:190:TYR:CD1	4:AY:225:PRO:HD3	2.43	0.52
5:AB:76:GLN:HG2	5:AB:206:ASP:O	2.10	0.52
7:AD:116:GLN:O	7:AD:120:LEU:HG	2.08	0.52
8:AE:79:GLU:HB3	8:AE:92:LYS:HA	1.91	0.52
19:AP:34:GLU:OE2	19:AP:55:ARG:HD3	2.08	0.52
25:BA:196:A:N3	25:BA:196:A:H2'	2.24	0.52
25:BA:204:A:H8	25:BA:204:A:OP1	1.91	0.52
25:BA:270(Q):C:H5'	32:BI:46:ALA:HB2	1.91	0.52
25:BA:587:C:C6	25:BA:671:C:H1'	2.44	0.52
25:BA:848:G:H2'	25:BA:849:A:C8	2.44	0.52
25:BA:1168:G:C2	25:BA:1182:A:C2	2.97	0.52
25:BA:1647:G:H3'	25:BA:1647:G:OP2	2.10	0.52
25:BA:2287:A:C6	25:BA:2289:G:C4	2.97	0.52
25:BA:2420:C:OP2	55:B8:33:ASN:HB3	2.08	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2645:G:H3'	25:BA:2646:C:H5'	1.91	0.52
38:BR:11:ASN:OD1	38:BR:12:ARG:N	2.38	0.52
41:BU:24:TYR:HB2	41:BU:29:SER:HB3	1.91	0.52
44:BX:40:LYS:O	44:BX:44:GLU:HB2	2.08	0.52
1:CA:192:U:O4'	23:CT:103:GLY:HA2	2.09	0.52
1:CA:1042:G:H2'	1:CA:1043:C:C6	2.45	0.52
1:CA:1327:C:OP1	24:CU:20:LYS:HB3	2.09	0.52
6:CC:195:VAL:O	6:CC:196:LEU:HB2	2.09	0.52
7:CD:120:LEU:HD13	7:CD:126:ILE:HD11	1.91	0.52
15:CL:69:ILE:HA	15:CL:99:ILE:HG22	1.91	0.52
22:CS:63:THR:N	22:CS:66:MET:HE3	2.23	0.52
25:DA:65:C:H2'	25:DA:66:C:C6	2.44	0.52
25:DA:196:A:H2'	25:DA:196:A:N3	2.24	0.52
25:DA:1071:G:O2'	25:DA:1089:G:H2'	2.08	0.52
25:DA:1110:G:HO2'	25:DA:1111:A:H8	1.57	0.52
25:DA:2331:G:H4'	47:D0:43:THR:H	1.74	0.52
27:DD:25:THR:HG21	27:DD:81:ALA:HA	1.91	0.52
36:DP:41:ARG:HH12	36:DP:45:LEU:HD12	1.74	0.52
40:DT:57:PHE:O	40:DT:59:THR:N	2.43	0.52
1:AA:116:A:H61	1:AA:313:A:H1'	1.74	0.52
1:AA:637:G:H2'	1:AA:638:G:H8	1.74	0.52
1:AA:1327:C:OP1	24:AU:20:LYS:HB3	2.09	0.52
15:AL:31:PHE:CB	15:AL:83:LEU:HD11	2.33	0.52
15:AL:40:ARG:HD3	15:AL:41:THR:O	2.10	0.52
20:AQ:50:LYS:HG3	20:AQ:51:TYR:CD1	2.45	0.52
25:BA:203:C:H3'	25:BA:204:A:H5"	1.92	0.52
25:BA:997:G:O2'	25:BA:998:C:H5'	2.09	0.52
25:BA:1443:G:O2'	25:BA:1444:G:H5'	2.09	0.52
25:BA:2331:G:H4'	47:B0:43:THR:H	1.73	0.52
32:BI:8:PRO:HD3	32:BI:15:VAL:HG23	1.90	0.52
32:BI:38:LEU:H	32:BI:38:LEU:HD22	1.74	0.52
36:BP:15:ARG:HA	36:BP:15:ARG:NE	2.23	0.52
41:BU:95:LEU:C	41:BU:97:ASP:H	2.12	0.52
44:BX:43:VAL:HG13	44:BX:51:VAL:HG21	1.91	0.52
1:CA:328:C:H4'	1:CA:329:A:O5'	2.09	0.52
1:CA:814:A:N7	1:CA:816:A:C4	2.77	0.52
1:CA:878:G:O4'	11:CH:3:THR:HG21	2.09	0.52
1:CA:1073:U:H2'	1:CA:1074:G:H8	1.75	0.52
3:CW:61:C:H2'	3:CW:62:C:H6	1.75	0.52
6:CC:68:VAL:HG12	6:CC:70:VAL:HG23	1.91	0.52
14:CK:20:TYR:CZ	14:CK:83:ILE:HD12	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CK:52:GLY:H	14:CK:55:LYS:HE3	1.75	0.52
17:CN:9:LYS:HG3	17:CN:12:ARG:HH21	1.74	0.52
25:DA:195:A:H5"	25:DA:196:A:OP2	2.09	0.52
25:DA:630:G:N2	25:DA:632:A:H3'	2.24	0.52
25:DA:1057:A:H2'	25:DA:1058:G:H8	1.75	0.52
25:DA:1275:A:C4	38:DR:16:HIS:CE1	2.97	0.52
25:DA:1963:U:H4'	25:DA:1964:G:OP1	2.09	0.52
25:DA:2428:G:H5"	25:DA:2429:G:O5'	2.09	0.52
25:DA:2476:A:C2	25:DA:2477:C:C5	2.96	0.52
26:DB:113:C:O2'	39:DS:46:VAL:HG13	2.09	0.52
27:DD:24:ILE:CD1	27:DD:84:TYR:HB2	2.40	0.52
35:DO:112:MET:O	35:DO:115:VAL:HG22	2.10	0.52
41:DU:15:LYS:O	41:DU:19:LYS:HG3	2.09	0.52
1:AA:560:U:H5'	1:AA:566:G:N2	2.24	0.52
1:AA:882:C:O2'	1:AA:883:C:H5'	2.10	0.52
1:AA:1106:G:H5"	6:AC:172:ARG:HG2	1.91	0.52
5:AB:75:LYS:HA	5:AB:78:GLN:HG2	1.90	0.52
7:AD:145:GLU:OE2	7:AD:182:LYS:HD3	2.09	0.52
18:AO:5:LYS:HD3	18:AO:5:LYS:N	2.24	0.52
25:BA:17:G:H2'	25:BA:18:C:C6	2.44	0.52
25:BA:1083:U:O2'	25:BA:1084:A:C8	2.61	0.52
25:BA:1773:A:N7	25:BA:1829:A:H1'	2.24	0.52
29:BF:67:GLN:O	29:BF:67:GLN:CG	2.51	0.52
30:BG:86:MET:SD	30:BG:87:PRO:HD3	2.49	0.52
40:BT:41:ARG:HB3	40:BT:41:ARG:NH1	2.23	0.52
1:CA:974:A:H8	1:CA:974:A:OP1	1.92	0.52
4:CY:358:ILE:HA	4:CY:362:LEU:CB	2.32	0.52
6:CC:116:VAL:O	6:CC:119:ARG:HB3	2.08	0.52
8:CE:33:VAL:HG11	8:CE:109:ILE:HA	1.90	0.52
8:CE:101:ILE:CD1	8:CE:119:LEU:HD23	2.38	0.52
22:CS:18:LYS:O	22:CS:22:LEU:HD23	2.08	0.52
25:DA:1163:G:O2'	25:DA:1164:G:H5'	2.10	0.52
25:DA:1396:U:O2	25:DA:1396:U:H2'	2.09	0.52
27:DD:132:PRO:HD3	27:DD:190:TYR:CZ	2.45	0.52
28:DE:117:MET:CE	28:DE:136:ARG:HA	2.40	0.52
31:DH:103:LEU:HD23	31:DH:104:GLU:N	2.23	0.52
32:DI:88:ILE:HD12	32:DI:120:ILE:O	2.08	0.52
37:DQ:54:MET:HG3	37:DQ:117:ALA:HB1	1.90	0.52
40:DT:41:ARG:HB3	40:DT:41:ARG:NH1	2.25	0.52
49:D2:47:ASN:O	49:D2:49:LYS:N	2.42	0.52
1:AA:353:A:H2'	1:AA:354:G:OP2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:560:U:H4'	1:AA:561:U:O5'	2.09	0.52
1:AA:736:C:OP1	21:AR:68:LYS:HE2	2.10	0.52
1:AA:979:C:H3'	1:AA:980:C:C5'	2.37	0.52
17:AN:12:ARG:HD2	17:AN:14:PRO:CG	2.39	0.52
25:BA:101:G:O2'	25:BA:102:G:P	2.67	0.52
25:BA:543(C):A:C5	25:BA:543(D):A:N6	2.78	0.52
25:BA:819:A:C4	25:BA:1189:A:C2	2.98	0.52
25:BA:1188:U:O2'	25:BA:1189:A:H5'	2.10	0.52
25:BA:2041:U:H2'	25:BA:2042:A:H8	1.74	0.52
28:BE:2:LYS:HB3	28:BE:95:ILE:HD12	1.92	0.52
35:BO:112:MET:O	35:BO:115:VAL:HG22	2.09	0.52
36:BP:108:LYS:C	36:BP:110:TYR:H	2.11	0.52
41:BU:95:LEU:O	41:BU:98:LEU:HG	2.10	0.52
49:B2:37:PHE:O	49:B2:40:SER:HB3	2.10	0.52
55:B8:39:LYS:HA	55:B8:42:ARG:HH12	1.74	0.52
1:CA:781:A:H4'	1:CA:1522:U:O2'	2.09	0.52
5:CB:75:LYS:HA	5:CB:78:GLN:HG2	1.90	0.52
6:CC:83:ARG:O	6:CC:86:VAL:HG22	2.10	0.52
8:CE:57:LYS:O	8:CE:61:TYR:HD2	1.92	0.52
16:CM:19:LEU:HA	16:CM:22:ILE:HG12	1.91	0.52
25:DA:2359:C:H2'	25:DA:2360:A:O4'	2.08	0.52
27:DD:112:GLN:H	27:DD:112:GLN:HE21	1.57	0.52
29:DF:31:HIS:CG	36:DP:13:ASN:ND2	2.78	0.52
31:DH:23:ARG:HD3	31:DH:23:ARG:N	2.20	0.52
36:DP:148:LEU:O	36:DP:149:GLU:HB2	2.09	0.52
44:DX:41:ASN:HD22	44:DX:41:ASN:N	2.06	0.52
1:AA:748:C:C1'	1:AA:749:C:OP2	2.57	0.52
11:AH:127:LEU:H	11:AH:127:LEU:HD22	1.75	0.52
16:AM:19:LEU:HA	16:AM:22:ILE:HG12	1.92	0.52
23:AT:51:GLU:HA	23:AT:54:LYS:HB3	1.92	0.52
25:BA:814:C:N4	36:BP:27:HIS:NE2	2.46	0.52
25:BA:2476:A:H2	25:BA:2477:C:C5	2.27	0.52
30:BG:71:THR:HG22	30:BG:89:GLY:O	2.10	0.52
33:BK:115:LEU:HD23	33:BK:116:ASN:H	1.74	0.52
36:BP:59:LEU:HG	55:B8:13:ARG:NH1	2.25	0.52
40:BT:108:ARG:O	40:BT:111:ARG:HG2	2.10	0.52
41:BU:15:LYS:O	41:BU:19:LYS:HG3	2.09	0.52
42:BV:72:VAL:HG23	42:BV:85:LYS:HB2	1.91	0.52
45:BY:29:GLU:HB3	45:BY:38:ILE:CG1	2.39	0.52
50:B3:2:PRO:HB2	50:B3:59:VAL:O	2.09	0.52
52:B5:36:CYS:SG	52:B5:37:LYS:N	2.80	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:882:C:O2'	1:CA:883:C:H5'	2.09	0.52
1:CA:980:C:O2	17:CN:19:ARG:HA	2.10	0.52
1:CA:1438:G:H2'	1:CA:1439:C:H6	1.74	0.52
5:CB:97:TRP:HH2	5:CB:176:GLU:CG	2.23	0.52
10:CG:14:PRO:HB3	10:CG:19:GLY:O	2.09	0.52
11:CH:69:ARG:HH21	11:CH:77:GLU:HB3	1.75	0.52
13:CJ:61:GLU:HG3	17:CN:58:LYS:NZ	2.24	0.52
25:DA:396:G:O4'	48:D1:18:ILE:HD12	2.09	0.52
25:DA:2704:C:H2'	25:DA:2705:A:O4'	2.10	0.52
25:DA:2787:C:O4'	28:DE:62:PRO:HB3	2.09	0.52
27:DD:118:VAL:HG22	27:DD:119:ALA:H	1.75	0.52
31:DH:94:TYR:CD1	31:DH:107:VAL:HA	2.45	0.52
37:DQ:9:TYR:CD2	37:DQ:9:TYR:O	2.63	0.52
48:D1:8:SER:CB	48:D1:10:LYS:HE2	2.40	0.52
48:D1:46:LEU:HA	48:D1:63:ALA:HA	1.92	0.52
1:AA:1324:A:H2'	1:AA:1325:C:C6	2.45	0.52
8:AE:33:VAL:HG11	8:AE:109:ILE:HA	1.92	0.52
25:BA:528:A:C2	25:BA:2043:C:C5'	2.93	0.52
25:BA:1963:U:H4'	25:BA:1964:G:OP1	2.09	0.52
32:BI:37:VAL:HG11	32:BI:43:ASN:HD22	1.75	0.52
35:BO:25:LEU:HB2	35:BO:38:VAL:HG23	1.91	0.52
1:CA:1323:G:H4'	1:CA:1362(A):C:N3	2.25	0.52
20:CQ:50:LYS:HG3	20:CQ:51:TYR:CD1	2.45	0.52
25:DA:270(Q):C:OP1	32:DI:45:LYS:HD3	2.10	0.52
25:DA:2050:C:H1'	28:DE:156:MET:CE	2.40	0.52
25:DA:2364:C:H2'	25:DA:2365:G:O4'	2.10	0.52
28:DE:132:HIS:CG	28:DE:135:HIS:NE2	2.77	0.52
30:DG:60:LEU:HD11	30:DG:92:VAL:CG1	2.38	0.52
30:DG:88:ILE:HD12	30:DG:89:GLY:H	1.74	0.52
37:DQ:134:ARG:O	37:DQ:135:ASP:C	2.48	0.52
39:DS:33:LYS:C	39:DS:34:HIS:CD2	2.83	0.52
45:DY:81:LYS:NZ	45:DY:98:VAL:HG12	2.24	0.52
48:D1:56:GLN:NE2	48:D1:87:PRO:HB3	2.25	0.52
52:D5:36:CYS:SG	52:D5:37:LYS:N	2.82	0.52
55:D8:53:PRO:O	55:D8:57:ARG:NH1	2.42	0.52
1:AA:600:C:OP1	11:AH:97:VAL:HG12	2.10	0.52
1:AA:626:U:H2'	1:AA:627:G:C8	2.45	0.52
4:AY:358:ILE:CA	4:AY:362:LEU:HB2	2.32	0.52
5:AB:204:ASN:HD21	5:AB:207:ALA:N	2.05	0.52
8:AE:87:SER:OG	8:AE:125:SER:HB3	2.09	0.52
16:AM:19:LEU:HD13	16:AM:19:LEU:N	2.22	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AM:66:LEU:CA	16:AM:70:LEU:HB2	2.39	0.52
20:AQ:59:ILE:HD13	20:AQ:71:PHE:CD1	2.44	0.52
20:AQ:81:ARG:HA	20:AQ:81:ARG:HE	1.74	0.52
25:BA:510:C:H2'	25:BA:511:U:O4'	2.09	0.52
25:BA:1029:A:H5"	37:BQ:128:LYS:HE2	1.92	0.52
25:BA:1495:A:O4'	25:BA:1495:A:OP1	2.28	0.52
25:BA:2311:A:C2	30:BG:44:GLY:HA3	2.45	0.52
27:BD:35:LYS:HG3	27:BD:104:TYR:CD2	2.45	0.52
27:BD:134:ARG:HG3	27:BD:135:PHE:CD1	2.45	0.52
27:BD:218:ARG:HB3	27:BD:219:PRO:HD2	1.91	0.52
28:BE:36:ARG:HH11	28:BE:85:ASN:ND2	2.06	0.52
29:BF:63:LYS:HA	29:BF:76:GLY:O	2.10	0.52
29:BF:167:ALA:HB1	29:BF:173:VAL:HG11	1.92	0.52
30:BG:60:LEU:HD11	30:BG:92:VAL:CG1	2.38	0.52
30:BG:170:ARG:O	30:BG:174:GLU:HG3	2.10	0.52
36:BP:105:LEU:N	36:BP:105:LEU:HD12	2.25	0.52
37:BQ:83:MET:HG2	37:BQ:84:GLY:N	2.24	0.52
1:CA:247:G:O5'	20:CQ:99:SER:HB2	2.10	0.52
1:CA:392:G:H2'	1:CA:393:A:H8	1.75	0.52
1:CA:1001:G:H2'	1:CA:1002:G:O4'	2.10	0.52
13:CJ:61:GLU:HG3	17:CN:58:LYS:HZ1	1.74	0.52
20:CQ:8:GLY:HA3	20:CQ:23:VAL:HG12	1.91	0.52
20:CQ:81:ARG:HA	20:CQ:81:ARG:HE	1.75	0.52
21:CR:66:LEU:O	21:CR:70:ILE:HG12	2.10	0.52
25:DA:101:G:O2'	25:DA:102:G:P	2.68	0.52
25:DA:315:G:H2'	25:DA:316:C:C6	2.45	0.52
25:DA:902:C:H2'	25:DA:903:C:H6	1.73	0.52
25:DA:2419:U:O4	55:D8:30:ARG:CZ	2.58	0.52
25:DA:2884:U:H5	25:DA:2885:C:N1	2.08	0.52
28:DE:11:MET:HB2	28:DE:23:VAL:O	2.09	0.52
29:DF:34:TRP:CH2	36:DP:12:ALA:HB2	2.45	0.52
44:DX:50:LYS:HB2	44:DX:87:GLN:HE22	1.75	0.52
1:AA:115:G:H4'	1:AA:116:A:O5'	2.09	0.52
1:AA:974:A:C8	17:AN:31:ARG:HD3	2.45	0.52
1:AA:1060:C:H2'	1:AA:1061:G:H8	1.75	0.52
1:AA:1478:C:H2'	1:AA:1479:C:C6	2.44	0.52
13:AJ:32:ALA:CB	13:AJ:76:ASN:HB2	2.39	0.52
16:AM:91:ARG:NH1	22:AS:81:ARG:HH12	2.08	0.52
18:AO:61:GLY:O	18:AO:65:ARG:HD2	2.09	0.52
18:AO:87:ILE:HG22	18:AO:88:ARG:N	2.19	0.52
25:BA:142:G:H1'	44:BX:37:THR:HG21	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:860:U:O2	25:BA:860:U:O4'	2.25	0.52
25:BA:1083:U:HO2'	25:BA:1084:A:H8	1.58	0.52
25:BA:2278:A:OP1	37:BQ:11:LYS:HE2	2.10	0.52
27:BD:24:ILE:CD1	27:BD:84:TYR:HB2	2.40	0.52
27:BD:112:GLN:HE21	27:BD:112:GLN:H	1.57	0.52
29:BF:63:LYS:HE2	29:BF:67:GLN:HG2	1.92	0.52
36:BP:23:PRO:O	36:BP:33:ARG:HD2	2.10	0.52
54:B7:24:THR:HG23	54:B7:27:GLY:H	1.75	0.52
1:CA:115:G:H4'	1:CA:116:A:O5'	2.09	0.52
1:CA:626:U:H2'	1:CA:627:G:C8	2.44	0.52
1:CA:838(A):U:O2'	1:CA:838(B):C:H5"	2.10	0.52
3:CW:23:C:H2'	3:CW:24:U:C6	2.43	0.52
4:CY:91:GLU:O	4:CY:92:LEU:HB2	2.08	0.52
5:CB:76:GLN:HG2	5:CB:206:ASP:O	2.10	0.52
6:CC:23:TYR:HA	13:CJ:11:PHE:CE1	2.45	0.52
7:CD:146:ILE:HD12	7:CD:146:ILE:N	2.25	0.52
20:CQ:59:ILE:HD13	20:CQ:71:PHE:CD1	2.45	0.52
25:DA:605:C:H1'	25:DA:657:U:O2'	2.10	0.52
25:DA:2602:A:H4'	25:DA:2603:G:C5'	2.40	0.52
25:DA:2821:A:OP2	38:DR:5:LYS:NZ	2.42	0.52
27:DD:70:TRP:CD1	27:DD:70:TRP:C	2.83	0.52
27:DD:129:ASN:O	27:DD:193:VAL:HG12	2.09	0.52
31:DH:83:TYR:CE1	31:DH:138:LYS:HB2	2.45	0.52
35:DO:88:ASN:HD21	35:DO:90:GLN:CG	2.16	0.52
1:AA:554:C:H2'	1:AA:555:C:C6	2.45	0.52
1:AA:909:A:H2'	1:AA:910:C:O4'	2.09	0.52
5:AB:113:HIS:O	5:AB:117:GLU:HG3	2.10	0.52
18:AO:54:ARG:O	18:AO:58:MET:HG3	2.09	0.52
25:BA:1163:G:O2'	25:BA:1164:G:H5'	2.10	0.52
25:BA:1790:C:O2'	27:BD:209:ALA:HB2	2.10	0.52
25:BA:2050:C:H1'	28:BE:156:MET:CE	2.40	0.52
25:BA:2476:A:H2	25:BA:2477:C:C6	2.28	0.52
25:BA:2692:C:H2'	25:BA:2693:A:H8	1.75	0.52
25:BA:2873:A:C2	38:BR:6:SER:HB2	2.44	0.52
26:BB:13:A:O2'	26:BB:14:U:H3'	2.09	0.52
27:BD:70:TRP:CD1	27:BD:70:TRP:C	2.83	0.52
33:BK:2:LYS:HA	33:BK:2:LYS:HE3	1.91	0.52
37:BQ:9:TYR:CD2	37:BQ:9:TYR:O	2.63	0.52
41:BU:62:ILE:HD12	41:BU:76:TYR:CZ	2.45	0.52
42:BV:6:LYS:O	42:BV:37:VAL:HG21	2.09	0.52
44:BX:84:ALA:HB1	44:BX:85:PRO:HD2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:B8:22:VAL:HG12	55:B8:50:LEU:HD22	1.91	0.52
1:CA:554:C:H2'	1:CA:555:C:C6	2.45	0.52
1:CA:671:G:H2'	1:CA:672:U:C6	2.45	0.52
1:CA:974:A:OP1	17:CN:31:ARG:HD3	2.09	0.52
1:CA:1421:G:C4	1:CA:1480:G:N2	2.78	0.52
14:CK:57:THR:HG23	14:CK:58:PRO:HD2	1.91	0.52
15:CL:31:PHE:CB	15:CL:83:LEU:HD11	2.32	0.52
15:CL:82:VAL:CG2	15:CL:106:ALA:HB2	2.36	0.52
18:CO:61:GLY:O	18:CO:65:ARG:HD2	2.10	0.52
25:DA:1425:G:H2'	25:DA:1426:G:O4'	2.10	0.52
25:DA:1429:G:H2'	25:DA:1430:C:C6	2.45	0.52
25:DA:1678:G:N2	25:DA:1989:G:N2	2.58	0.52
25:DA:2686:G:C2	25:DA:2724:C:O2	2.63	0.52
26:DB:87:G:H21	26:DB:89(A):G:H8	1.54	0.52
28:DE:111:ARG:HD2	28:DE:160:TYR:CE1	2.43	0.52
34:DN:122:LEU:O	34:DN:126:VAL:HG22	2.09	0.52
37:DQ:75:THR:HA	37:DQ:88:GLY:CA	2.40	0.52
1:AA:273:A:N6	1:AA:274:A:N6	2.58	0.51
1:AA:625:G:H4'	19:AP:16:HIS:CD2	2.45	0.51
1:AA:737:A:H2'	1:AA:738:C:C6	2.45	0.51
1:AA:781:A:H4'	1:AA:1522:U:O2'	2.10	0.51
6:AC:81:GLY:O	6:AC:85:ARG:HD3	2.11	0.51
6:AC:83:ARG:O	6:AC:86:VAL:HG22	2.10	0.51
11:AH:69:ARG:HH21	11:AH:77:GLU:HB3	1.74	0.51
16:AM:57:ARG:NH1	51:B4:60:GLU:HB2	2.25	0.51
25:BA:634:C:H2'	25:BA:635:C:C6	2.45	0.51
25:BA:1054:A:H2'	25:BA:1055:G:C8	2.45	0.51
25:BA:2476:A:C2	25:BA:2477:C:C5	2.98	0.51
40:BT:98:LYS:HB3	40:BT:100:TYR:CE1	2.45	0.51
43:BW:1:MET:HG2	43:BW:2:GLU:N	2.25	0.51
43:BW:73:ALA:O	43:BW:106:ILE:HG12	2.11	0.51
47:B0:24:LYS:O	47:B0:25:ARG:HD3	2.10	0.51
48:B1:30:VAL:O	48:B1:30:VAL:HG12	2.10	0.51
53:B6:46:HIS:O	53:B6:47:THR:HG23	2.10	0.51
1:CA:614:A:H2'	1:CA:615:C:C6	2.45	0.51
1:CA:1128:C:O2'	1:CA:1130:A:C8	2.57	0.51
1:CA:1201:A:C1'	1:CA:1202:G:OP2	2.56	0.51
4:CY:128:ASN:ND2	4:CY:185:LYS:HA	2.24	0.51
14:CK:12:ARG:HG2	14:CK:13:GLN:H	1.75	0.51
15:CL:40:ARG:HD3	15:CL:41:THR:O	2.10	0.51
19:CP:53:VAL:HG12	19:CP:79:VAL:HG22	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:196:A:O4'	36:DP:46:LYS:HE2	2.10	0.51
25:DA:203:C:H3'	25:DA:204:A:H5"	1.91	0.51
25:DA:773:U:C5'	27:DD:47:GLY:HA3	2.40	0.51
25:DA:2469:A:H2	25:DA:2481:G:H21	1.56	0.51
36:DP:108:LYS:C	36:DP:110:TYR:H	2.12	0.51
42:DV:21:ARG:NE	42:DV:91:TYR:CE1	2.71	0.51
42:DV:39:LEU:HA	42:DV:47:VAL:HG11	1.92	0.51
42:DV:72:VAL:CG2	42:DV:85:LYS:HB2	2.40	0.51
44:DX:66:LEU:HD23	44:DX:67:GLY:N	2.25	0.51
1:AA:1079:G:O3'	8:AE:14:ARG:NH2	2.44	0.51
1:AA:1478:C:H2'	1:AA:1479:C:H6	1.75	0.51
4:AY:120:LEU:O	4:AY:120:LEU:HD23	2.11	0.51
7:AD:68:TYR:CE2	7:AD:97:LEU:HD22	2.45	0.51
7:AD:195:ALA:HB3	9:CF:17:SER:HA	1.92	0.51
12:AI:8:GLY:HA3	12:AI:76:ALA:O	2.09	0.51
14:AK:12:ARG:HG2	14:AK:13:GLN:H	1.75	0.51
15:AL:6:ILE:O	15:AL:10:VAL:HG23	2.10	0.51
18:AO:82:ILE:O	18:AO:82:ILE:HD13	2.10	0.51
26:BB:11:C:OP1	47:B0:72:ARG:HD2	2.10	0.51
29:BF:192:LEU:HD23	29:BF:193:VAL:N	2.26	0.51
43:BW:40:ASN:O	43:BW:41:LYS:HG2	2.11	0.51
1:CA:560:U:H5'	1:CA:566:G:N2	2.25	0.51
1:CA:794:A:H2'	1:CA:795:C:C6	2.46	0.51
4:CY:32:ILE:O	4:CY:36:GLU:HB2	2.10	0.51
18:CO:82:ILE:O	18:CO:82:ILE:HD13	2.09	0.51
25:DA:911:A:H2'	37:DQ:9:TYR:OH	2.10	0.51
25:DA:2688:U:O2	25:DA:2688:U:C3'	2.59	0.51
29:DF:167:ALA:HB1	29:DF:173:VAL:HG11	1.93	0.51
43:DW:70:TYR:H	43:DW:70:TYR:HD2	1.57	0.51
44:DX:84:ALA:HB1	44:DX:85:PRO:HD2	1.93	0.51
1:AA:68(U):U:H2'	1:AA:68(V):G:C8	2.46	0.51
1:AA:192:U:O4'	23:AT:103:GLY:HA2	2.11	0.51
1:AA:913:A:C1'	1:AA:914:A:OP2	2.58	0.51
1:AA:1016:A:H2'	1:AA:1017:G:O4'	2.10	0.51
1:AA:1042:G:H2'	1:AA:1043:C:C6	2.45	0.51
7:AD:119:GLN:O	7:AD:123:HIS:HD2	1.92	0.51
25:BA:1057:A:H2'	25:BA:1058:G:H8	1.75	0.51
25:BA:1425:G:H2'	25:BA:1426:G:O4'	2.10	0.51
25:BA:2428:G:H5"	25:BA:2429:G:O5'	2.10	0.51
44:BX:10:ALA:HB1	44:BX:11:PRO:HD2	1.93	0.51
48:B1:8:SER:CB	48:B1:10:LYS:HE2	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:134:A:H61	19:CP:25:ARG:NH1	1.99	0.51
1:CA:397:A:N6	1:CA:548:G:C5	2.79	0.51
1:CA:1060:C:H2'	1:CA:1061:G:H8	1.75	0.51
1:CA:1478:C:H2'	1:CA:1479:C:C6	2.45	0.51
13:CJ:32:ALA:H	13:CJ:78:ASN:HD21	1.59	0.51
13:CJ:34:VAL:HG22	13:CJ:74:ILE:HG22	1.92	0.51
25:DA:923:C:H4'	47:D0:29:GLN:HG3	1.91	0.51
25:DA:1408:C:C2	25:DA:1595:G:N2	2.78	0.51
25:DA:2476:A:C2	25:DA:2477:C:C6	2.98	0.51
26:DB:33:G:O2'	26:DB:34:U:H5'	2.11	0.51
28:DE:184:VAL:HG12	28:DE:185:LYS:H	1.74	0.51
49:D2:1:MET:C	49:D2:1:MET:SD	2.88	0.51
49:D2:1:MET:HE1	49:D2:5:GLU:H	1.74	0.51
49:D2:37:PHE:O	49:D2:40:SER:HB3	2.10	0.51
1:AA:954:G:H2'	1:AA:955:U:C6	2.46	0.51
1:AA:974:A:OP1	1:AA:974:A:H8	1.94	0.51
23:AT:39:LYS:O	23:AT:43:LEU:HG	2.10	0.51
25:BA:184:C:H2'	25:BA:185:U:C6	2.46	0.51
26:BB:11:C:O2'	26:BB:12:C:O5'	2.28	0.51
26:BB:30:C:H2'	26:BB:31:C:H5'	1.92	0.51
27:BD:80:ALA:HB3	27:BD:94:LEU:HD13	1.92	0.51
27:BD:102:LYS:O	27:BD:103:ARG:HG2	2.11	0.51
28:BE:184:VAL:HG12	28:BE:185:LYS:H	1.75	0.51
29:BF:101:LEU:O	29:BF:106:ARG:NH1	2.42	0.51
33:BK:33:ASN:O	33:BK:37:PHE:HB2	2.10	0.51
33:BK:77:LEU:HD11	33:BK:111:LYS:HD2	1.92	0.51
35:BO:73:ASP:HB2	40:BT:82:LEU:CD1	2.40	0.51
39:BS:25:ARG:CG	39:BS:88:ASP:HB2	2.40	0.51
4:CY:56:GLU:CD	25:DA:2473:U:C6	2.83	0.51
25:DA:1495:A:N3	25:DA:1495:A:H2'	2.25	0.51
25:DA:2517:C:C2	25:DA:2542:A:N1	2.79	0.51
26:DB:55:U:O2'	26:DB:56:G:H5'	2.10	0.51
29:DF:63:LYS:HE2	29:DF:67:GLN:HG2	1.93	0.51
36:DP:59:LEU:HG	55:D8:13:ARG:HH12	1.75	0.51
48:D1:12:PRO:O	48:D1:14:VAL:HG23	2.10	0.51
1:AA:247:G:O5'	20:AQ:99:SER:HB2	2.10	0.51
1:AA:655:A:C2	1:AA:754:C:N4	2.79	0.51
1:AA:1081:G:N7	8:AE:47:LYS:NZ	2.59	0.51
1:AA:1226:C:H2'	16:AM:103:THR:HG22	1.92	0.51
3:AW:61:C:H2'	3:AW:62:C:H6	1.74	0.51
11:AH:64:LYS:HG2	11:AH:79:VAL:HG21	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AJ:34:VAL:HG22	13:AJ:74:ILE:HG22	1.92	0.51
25:BA:2230:G:H1'	48:B1:45:ASN:CB	2.40	0.51
25:BA:2305:A:C3'	25:BA:2306:C:H5"	2.39	0.51
27:BD:118:VAL:HG22	27:BD:119:ALA:N	2.26	0.51
28:BE:201:THR:HG22	28:BE:203:LYS:H	1.75	0.51
30:BG:50:ALA:O	30:BG:53:LEU:HB3	2.11	0.51
33:BK:129:GLY:HA2	33:BK:132:ARG:HG3	1.91	0.51
36:BP:50:ARG:CG	36:BP:51:PHE:N	2.65	0.51
43:BW:70:TYR:H	43:BW:70:TYR:HD2	1.58	0.51
1:CA:68(U):U:H2'	1:CA:68(V):G:C8	2.46	0.51
1:CA:909:A:H2'	1:CA:910:C:O4'	2.10	0.51
1:CA:1000:A:H2	1:CA:1040:U:H3	1.58	0.51
1:CA:1324:A:H2'	1:CA:1325:C:C6	2.46	0.51
4:CY:343:ARG:HG2	4:CY:345:ASP:OD2	2.10	0.51
7:CD:68:TYR:N	7:CD:68:TYR:CD1	2.78	0.51
11:CH:38:ILE:HD11	11:CH:118:VAL:O	2.10	0.51
16:CM:7:VAL:HG22	30:DG:115:ARG:HA	1.91	0.51
21:CR:59:SER:HB3	21:CR:62:GLU:HG3	1.93	0.51
25:DA:184:C:H2'	25:DA:185:U:H6	1.75	0.51
25:DA:198:C:H5'	25:DA:2244:U:OP1	2.09	0.51
25:DA:528:A:N1	25:DA:2042:A:H2'	2.25	0.51
29:DF:39:TRP:O	29:DF:43:LYS:HG2	2.11	0.51
37:DQ:65:PHE:CD2	37:DQ:105:GLU:HB2	2.45	0.51
42:DV:38:LEU:C	42:DV:39:LEU:HD13	2.30	0.51
44:DX:55:ASN:HB2	44:DX:80:ILE:HG13	1.93	0.51
46:DZ:48:PHE:HE2	46:DZ:71:VAL:HG21	1.75	0.51
1:AA:376:G:OP2	19:AP:67:THR:HG21	2.11	0.51
1:AA:424:G:C2	1:AA:425:G:C8	2.98	0.51
1:AA:614:A:H2'	1:AA:615:C:C6	2.45	0.51
1:AA:957:U:H2'	1:AA:959:A:OP2	2.11	0.51
4:AY:207:PRO:HG2	4:AY:208:PHE:CE1	2.46	0.51
11:AH:10:LEU:N	11:AH:10:LEU:HD23	2.24	0.51
12:AI:104:ARG:O	12:AI:104:ARG:HD3	2.10	0.51
17:AN:36:PHE:O	17:AN:36:PHE:HD1	1.94	0.51
19:AP:53:VAL:HG12	19:AP:79:VAL:HG22	1.93	0.51
22:AS:63:THR:N	22:AS:66:MET:HE3	2.26	0.51
25:BA:1172:G:H3'	25:BA:1173:A:C5'	2.39	0.51
25:BA:1657:C:H2'	25:BA:1658:C:H6	1.76	0.51
25:BA:2758:A:C4	31:BH:67:LEU:HD21	2.46	0.51
25:BA:2858:C:C5	25:BA:2859:G:C5	2.99	0.51
31:BH:127:GLU:CG	31:BH:128:PRO:HD2	2.41	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
42:BV:28:GLU:HB2	42:BV:31:ALA:CB	2.40	0.51
49:B2:16:LEU:HB2	49:B2:20:GLU:HG2	1.91	0.51
49:B2:17:SER:HB3	49:B2:18:PRO:CD	2.32	0.51
1:CA:273:A:N6	1:CA:274:A:N6	2.58	0.51
1:CA:554:C:H2'	1:CA:555:C:H6	1.76	0.51
1:CA:655:A:C2	1:CA:754:C:N4	2.78	0.51
1:CA:1016:A:H2'	1:CA:1017:G:O4'	2.10	0.51
1:CA:1104:G:H2'	1:CA:1105:A:C8	2.43	0.51
16:CM:91:ARG:NH1	22:CS:81:ARG:HH12	2.07	0.51
19:CP:34:GLU:OE2	19:CP:55:ARG:HD3	2.11	0.51
25:DA:285:C:H2'	25:DA:286:C:C6	2.42	0.51
25:DA:997:G:O2'	25:DA:998:C:H5'	2.10	0.51
25:DA:1029:A:H5"	37:DQ:128:LYS:HE2	1.93	0.51
25:DA:1187:G:H5"	42:DV:81:TYR:CE2	2.45	0.51
25:DA:2531:A:H4'	31:DH:157:TYR:CD2	2.46	0.51
25:DA:2712:U:O2'	25:DA:2713:A:H5'	2.11	0.51
25:DA:2892:A:N6	25:DA:2893:G:N1	2.59	0.51
28:DE:9:VAL:HG13	28:DE:25:VAL:O	2.10	0.51
28:DE:201:THR:HG22	28:DE:203:LYS:H	1.76	0.51
30:DG:50:ALA:O	30:DG:53:LEU:HB3	2.09	0.51
31:DH:125:VAL:C	31:DH:127:GLU:H	2.14	0.51
35:DO:73:ASP:HB2	40:DT:82:LEU:CD1	2.41	0.51
37:DQ:23:GLY:CA	37:DQ:98:LYS:HB2	2.41	0.51
39:DS:27:SER:O	39:DS:37:ALA:HA	2.11	0.51
41:DU:70:ARG:HA	41:DU:74:LEU:O	2.10	0.51
1:AA:55:A:H2	32:DI:89:TYR:CE1	2.29	0.51
1:AA:55:A:C2	32:DI:89:TYR:CZ	2.97	0.51
1:AA:364:A:H2'	1:AA:365:U:O2	2.10	0.51
1:AA:926:G:C6	1:AA:1505:G:C6	2.98	0.51
1:AA:949:A:C2	1:AA:1233:G:N3	2.79	0.51
1:AA:1000:A:H2	1:AA:1040:U:H3	1.58	0.51
8:AE:11:ILE:HD11	8:AE:108:ALA:HB3	1.93	0.51
18:AO:44:LYS:HE3	18:AO:44:LYS:CA	2.39	0.51
21:AR:66:LEU:CD1	21:AR:70:ILE:HD11	2.41	0.51
25:BA:1408:C:C2	25:BA:1595:G:N2	2.79	0.51
25:BA:1448:G:H2'	25:BA:1448(A):A:C8	2.45	0.51
29:BF:184:TYR:CD2	29:BF:188:ARG:HD2	2.44	0.51
39:BS:27:SER:O	39:BS:37:ALA:HA	2.11	0.51
55:B8:53:PRO:O	55:B8:57:ARG:NH1	2.44	0.51
1:CA:939:G:H5"	10:CG:102:ARG:NH2	2.26	0.51
1:CA:1102:A:H2'	1:CA:1103:C:C6	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CO:17:ARG:CZ	18:CO:77:ARG:HH11	2.23	0.51
25:DA:760:G:H2'	25:DA:761:A:O4'	2.11	0.51
25:DA:2858:C:C5	25:DA:2859:G:C5	2.98	0.51
26:DB:59:A:H2'	26:DB:60:C:O4'	2.11	0.51
27:DD:5:LYS:HG3	27:DD:17:THR:HG22	1.93	0.51
30:DG:64:THR:OG1	30:DG:94:LEU:HD13	2.09	0.51
30:DG:126:ASP:O	30:DG:128:ARG:N	2.44	0.51
31:DH:169:VAL:HG22	31:DH:169:VAL:O	2.10	0.51
33:DK:40:ALA:HB1	33:DK:67:PHE:CE1	2.46	0.51
40:DT:98:LYS:HB3	40:DT:100:TYR:CE1	2.45	0.51
46:DZ:13:GLU:CD	46:DZ:13:GLU:H	2.14	0.51
48:D1:30:VAL:O	48:D1:30:VAL:HG12	2.11	0.51
55:D8:53:PRO:HA	55:D8:56:GLU:HB2	1.92	0.51
1:AA:123:C:OP1	1:AA:312:C:H5'	2.11	0.51
5:AB:97:TRP:HH2	5:AB:176:GLU:CG	2.24	0.51
14:AK:84:VAL:HG11	14:AK:95:ILE:HD11	1.92	0.51
15:AL:116:ARG:HB3	15:AL:121:THR:HB	1.93	0.51
21:AR:59:SER:HB3	21:AR:62:GLU:HG3	1.93	0.51
25:BA:125:G:H4'	25:BA:126:A:OP2	2.11	0.51
25:BA:380:U:H2'	25:BA:381:G:H8	1.76	0.51
25:BA:868:U:C4	25:BA:869:G:N7	2.79	0.51
25:BA:1003:G:N2	25:BA:1153:C:C2	2.79	0.51
25:BA:1022:G:C6	25:BA:1140:C:C4	2.98	0.51
25:BA:1592:C:H2'	25:BA:1593:G:H8	1.76	0.51
25:BA:2787:C:O4'	28:BE:62:PRO:HB3	2.10	0.51
26:BB:55:U:O2'	26:BB:56:G:H5'	2.10	0.51
27:BD:62:TYR:HA	27:BD:87:ASN:HD21	1.76	0.51
30:BG:64:THR:OG1	30:BG:94:LEU:HD13	2.10	0.51
30:BG:139:LEU:HD23	30:BG:152:LEU:HD21	1.93	0.51
31:BH:92:ILE:HD12	31:BH:92:ILE:N	2.25	0.51
32:BI:82:ARG:HB3	32:BI:89:TYR:CD2	2.46	0.51
41:BU:61:TRP:CH2	41:BU:94:ASN:HB2	2.44	0.51
46:BZ:13:GLU:H	46:BZ:13:GLU:CD	2.14	0.51
55:B8:53:PRO:HA	55:B8:56:GLU:HB2	1.91	0.51
8:CE:76:ILE:HG13	8:CE:77:PRO:CD	2.41	0.51
25:DA:667:U:H2'	25:DA:668:G:O4'	2.11	0.51
25:DA:880:G:H1	25:DA:897:C:H42	1.57	0.51
30:DG:105:LYS:HD3	30:DG:142:PRO:HG3	1.91	0.51
34:DN:38:LEU:HD23	34:DN:157:ARG:HG3	1.93	0.51
34:DN:133:GLY:O	34:DN:137:ARG:HG3	2.11	0.51
36:DP:27:HIS:ND1	36:DP:27:HIS:C	2.62	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DU:61:TRP:CH2	41:DU:94:ASN:HB2	2.45	0.51
44:DX:40:LYS:O	44:DX:44:GLU:HB2	2.11	0.51
1:AA:22:G:H2'	1:AA:23:C:C6	2.46	0.51
1:AA:542:G:H2'	1:AA:543:C:H6	1.76	0.51
6:AC:125:GLU:OE2	6:AC:189:ALA:HA	2.11	0.51
6:AC:181:ASN:ND2	6:AC:204:LEU:HB2	2.26	0.51
15:AL:31:PHE:HE2	15:AL:85:ARG:HG3	1.75	0.51
18:AO:39:LEU:HD13	18:AO:56:LEU:HB2	1.93	0.51
25:BA:301:G:C4	25:BA:302:C:C5	2.99	0.51
25:BA:760:G:H2'	25:BA:761:A:O4'	2.10	0.51
25:BA:1464:C:H2'	25:BA:1465:G:C8	2.46	0.51
25:BA:1654:A:OP2	38:BR:3:HIS:CD2	2.64	0.51
25:BA:1712(J):G:O2'	25:BA:1712(K):A:C8	2.62	0.51
25:BA:2023:G:H5'	25:BA:2617:C:H4'	1.93	0.51
26:BB:81:G:C6	26:BB:82:G:C5	2.98	0.51
28:BE:25:VAL:C	28:BE:26:ILE:HD13	2.31	0.51
30:BG:111:LEU:N	30:BG:112:PRO:HD2	2.25	0.51
38:BR:2:ARG:HD2	38:BR:2:ARG:O	2.10	0.51
39:BS:33:LYS:C	39:BS:34:HIS:CD2	2.84	0.51
44:BX:63:LYS:HZ2	44:BX:72:LYS:HB3	1.74	0.51
47:B0:53:MET:HG3	47:B0:59:LEU:HD23	1.92	0.51
1:CA:1306:A:H1'	1:CA:1332:A:C2	2.46	0.51
4:CY:77:SER:HB2	4:CY:110:LYS:NZ	2.24	0.51
5:CB:163:PHE:HA	5:CB:185:ILE:O	2.11	0.51
15:CL:31:PHE:HE2	15:CL:85:ARG:HG3	1.76	0.51
25:DA:848:G:H2'	25:DA:849:A:C8	2.45	0.51
25:DA:868:U:C4	25:DA:869:G:N7	2.79	0.51
25:DA:2230:G:H1'	48:D1:45:ASN:CB	2.41	0.51
25:DA:2285:C:C5	53:D6:27:LYS:HE3	2.46	0.51
27:DD:270:ILE:C	27:DD:270:ILE:HD12	2.31	0.51
30:DG:11:TYR:O	30:DG:16:ARG:N	2.44	0.51
30:DG:170:ARG:O	30:DG:174:GLU:HG3	2.11	0.51
32:DI:11:ASN:HB2	32:DI:12:LEU:HD22	1.93	0.51
35:DO:25:LEU:HB2	35:DO:38:VAL:HG23	1.92	0.51
36:DP:17:LYS:O	36:DP:19:VAL:N	2.44	0.51
36:DP:105:LEU:HD12	36:DP:105:LEU:N	2.26	0.51
41:DU:91:ASP:O	41:DU:92:ARG:C	2.47	0.51
46:DZ:97:GLU:HB3	46:DZ:125:LEU:HD21	1.92	0.51
1:AA:974:A:C8	17:AN:31:ARG:CD	2.94	0.51
20:AQ:8:GLY:HA3	20:AQ:23:VAL:HG12	1.92	0.51
25:BA:26:G:C6	25:BA:27:G:N1	2.79	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1190:G:C5'	36:BP:35:HIS:HA	2.31	0.51
25:BA:1927:A:C6	25:BA:1928:A:C6	2.99	0.51
25:BA:2531:A:H2	25:BA:2658:C:O2	1.93	0.51
26:BB:33:G:O2'	26:BB:34:U:H5'	2.11	0.51
28:BE:111:ARG:HB2	28:BE:160:TYR:O	2.10	0.51
28:BE:132:HIS:HA	28:BE:135:HIS:CE1	2.46	0.51
29:BF:65:TRP:CZ2	29:BF:75:HIS:HD2	2.29	0.51
34:BN:38:LEU:HD23	34:BN:157:ARG:HG3	1.93	0.51
35:BO:79:PHE:HD2	40:BT:72:VAL:HG22	1.76	0.51
42:BV:39:LEU:HA	42:BV:47:VAL:HG11	1.92	0.51
42:BV:72:VAL:CG2	42:BV:85:LYS:HB2	2.41	0.51
49:B2:47:ASN:O	49:B2:49:LYS:N	2.44	0.51
52:B5:40:LYS:NZ	52:B5:46:CYS:H	2.09	0.51
1:CA:913:A:C1'	1:CA:914:A:OP2	2.58	0.51
1:CA:954:G:H2'	1:CA:955:U:C6	2.46	0.51
5:CB:221:LEU:O	5:CB:221:LEU:HD13	2.11	0.51
10:CG:69:VAL:O	10:CG:69:VAL:HG12	2.11	0.51
21:CR:66:LEU:CD1	21:CR:70:ILE:HD11	2.40	0.51
25:DA:26:G:C6	25:DA:27:G:N1	2.78	0.51
25:DA:212:G:O2'	25:DA:213:A:H5'	2.11	0.51
25:DA:301:G:C4	25:DA:302:C:C5	2.99	0.51
25:DA:320:A:H2'	29:DF:136:THR:HG21	1.93	0.51
25:DA:543(C):A:C5	25:DA:543(D):A:N6	2.78	0.51
25:DA:634:C:H2'	25:DA:635:C:C6	2.46	0.51
25:DA:819:A:C4	25:DA:1189:A:C2	2.99	0.51
25:DA:1405:U:H2'	25:DA:1406:U:H6	1.73	0.51
25:DA:2041:U:H2'	25:DA:2042:A:H8	1.76	0.51
25:DA:2050:C:H1'	28:DE:156:MET:HE2	1.92	0.51
25:DA:2791:C:H4'	25:DA:2792:G:OP1	2.10	0.51
26:DB:30:C:H2'	26:DB:31:C:H5'	1.92	0.51
28:DE:111:ARG:HB2	28:DE:160:TYR:O	2.11	0.51
32:DI:77:LEU:HD12	32:DI:140:LEU:HD21	1.92	0.51
42:DV:51:VAL:HG12	42:DV:52:VAL:N	2.26	0.51
46:DZ:9:TYR:OH	46:DZ:61:LEU:HD13	2.10	0.51
55:D8:22:VAL:HG12	55:D8:50:LEU:HD22	1.93	0.51
1:AA:179:A:H2'	1:AA:180:U:C6	2.47	0.50
1:AA:509:A:C4'	1:AA:510:A:OP1	2.58	0.50
7:AD:49:ARG:NH1	7:AD:50:ARG:H	2.08	0.50
8:AE:10:MET:HG3	8:AE:13:ILE:HD11	1.93	0.50
8:AE:41:VAL:HG21	8:AE:113:ALA:CB	2.41	0.50
8:AE:57:LYS:O	8:AE:61:TYR:HD2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:AL:6:ILE:HD12	15:AL:7:ASN:N	2.23	0.50
25:BA:247:G:O6	55:B8:12:LYS:HE3	2.11	0.50
25:BA:1268:A:C2	25:BA:2013:A:C4	2.99	0.50
25:BA:2563:U:O2	25:BA:2565:A:H8	1.95	0.50
28:BE:111:ARG:HD2	28:BE:160:TYR:CE1	2.41	0.50
28:BE:134:ILE:HA	28:BE:137:HIS:CD2	2.46	0.50
28:BE:176:ILE:N	28:BE:176:ILE:HD12	2.26	0.50
35:BO:31:LYS:HB3	35:BO:32:TYR:CE1	2.46	0.50
37:BQ:65:PHE:CD2	37:BQ:105:GLU:HB2	2.45	0.50
37:BQ:89:ASN:C	37:BQ:92:GLY:H	2.14	0.50
45:BY:20:TYR:CE1	45:BY:42:VAL:HA	2.46	0.50
1:CA:179:A:H2'	1:CA:180:U:C6	2.46	0.50
1:CA:1057:G:H4'	6:CC:197:GLY:H	1.76	0.50
1:CA:1315:U:C4	1:CA:1316:G:C6	2.99	0.50
6:CC:16:ARG:HB2	6:CC:16:ARG:NH1	2.25	0.50
23:CT:39:LYS:O	23:CT:43:LEU:HG	2.10	0.50
25:DA:528:A:C2	25:DA:2043:C:C5'	2.94	0.50
25:DA:1790:C:O2'	27:DD:209:ALA:HB2	2.10	0.50
25:DA:1946:U:H2'	25:DA:1947:C:H6	1.76	0.50
27:DD:27:THR:HG23	27:DD:27:THR:O	2.11	0.50
28:DE:2:LYS:HB3	28:DE:95:ILE:HD12	1.93	0.50
28:DE:134:ILE:HA	28:DE:137:HIS:CD2	2.46	0.50
32:DI:37:VAL:HG11	32:DI:43:ASN:HD22	1.76	0.50
43:DW:65:LEU:HD12	43:DW:68:ARG:NE	2.26	0.50
53:D6:46:HIS:O	53:D6:47:THR:HG23	2.10	0.50
1:AA:1238:A:H2'	1:AA:1238:A:N3	2.26	0.50
1:AA:1315:U:C4	1:AA:1316:G:C6	3.00	0.50
6:AC:23:TYR:HA	13:AJ:11:PHE:CE1	2.46	0.50
7:AD:194:LEU:HD22	7:AD:194:LEU:N	2.26	0.50
14:AK:33:THR:HA	14:AK:40:ILE:HG12	1.93	0.50
17:AN:23:ARG:HD3	17:AN:29:ARG:O	2.11	0.50
25:BA:1558:A:C1'	25:BA:1559:G:OP2	2.57	0.50
26:BB:113:C:O2'	39:BS:46:VAL:HG13	2.11	0.50
27:BD:94:LEU:HD11	27:BD:96:HIS:CE1	2.47	0.50
30:BG:105:LYS:HD3	30:BG:142:PRO:HG3	1.92	0.50
31:BH:94:TYR:CD1	31:BH:107:VAL:HA	2.47	0.50
1:CA:1238:A:N3	1:CA:1238:A:H2'	2.26	0.50
1:CA:1362:C:H2'	1:CA:1362(A):C:H5"	1.93	0.50
1:CA:1478:C:H2'	1:CA:1479:C:H6	1.76	0.50
18:CO:35:ARG:HG2	18:CO:59:MET:HE1	1.94	0.50
25:DA:125:G:H4'	25:DA:126:A:OP2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:247:G:O6	55:D8:12:LYS:HE3	2.11	0.50
25:DA:1108:U:H2'	25:DA:1109:C:O4'	2.11	0.50
25:DA:1268:A:C2	25:DA:2013:A:C4	3.00	0.50
25:DA:2645:G:H3'	25:DA:2646:C:H5'	1.92	0.50
25:DA:2692:C:H2'	25:DA:2693:A:H8	1.76	0.50
27:DD:35:LYS:HG3	27:DD:104:TYR:CD2	2.45	0.50
32:DI:38:LEU:H	32:DI:38:LEU:HD22	1.75	0.50
34:DN:95:TYR:CD2	34:DN:113:MET:HG3	2.46	0.50
34:DN:135:LEU:C	34:DN:135:LEU:HD23	2.31	0.50
35:DO:73:ASP:HB2	40:DT:82:LEU:HD12	1.94	0.50
37:DQ:83:MET:HG2	37:DQ:84:GLY:N	2.24	0.50
1:AA:392:G:H2'	1:AA:393:A:C8	2.46	0.50
1:AA:671:G:H2'	1:AA:672:U:C6	2.47	0.50
1:AA:794:A:H2'	1:AA:795:C:C6	2.47	0.50
1:AA:1438:G:H2'	1:AA:1439:C:H6	1.76	0.50
4:AY:343:ARG:HG2	4:AY:345:ASP:OD2	2.11	0.50
6:AC:90:GLU:O	6:AC:93:LYS:HB3	2.12	0.50
7:AD:76:ARG:HG3	7:AD:207:TYR:CE1	2.46	0.50
19:AP:22:THR:HG22	19:AP:32:TYR:HB2	1.92	0.50
23:AT:72:LEU:HD21	23:AT:76:ALA:C	2.32	0.50
25:BA:572:A:H5"	25:BA:573:G:OP2	2.11	0.50
25:BA:855:G:C2	25:BA:856:C:O2	2.64	0.50
25:BA:1778:U:H2'	25:BA:1784:A:N6	2.26	0.50
25:BA:2704:C:H2'	25:BA:2705:A:O4'	2.11	0.50
25:BA:2712:U:O2'	25:BA:2713:A:H5'	2.11	0.50
25:BA:2892:A:N6	25:BA:2893:G:N1	2.59	0.50
26:BB:82:G:O2'	26:BB:83:G:H5'	2.12	0.50
32:BI:1:MET:HG3	32:BI:23:PRO:HA	1.92	0.50
33:BK:104:VAL:HG13	33:BK:127:ILE:HB	1.94	0.50
36:BP:27:HIS:ND1	36:BP:27:HIS:C	2.60	0.50
37:BQ:75:THR:HA	37:BQ:88:GLY:CA	2.41	0.50
44:BX:50:LYS:HB2	44:BX:87:GLN:HE22	1.76	0.50
46:BZ:163:LEU:H	46:BZ:163:LEU:CD2	2.25	0.50
1:CA:186(B):C:H2'	1:CA:186(C):G:H8	1.76	0.50
4:CY:89:MET:CA	4:CY:97:ARG:HG3	2.39	0.50
6:CC:81:GLY:O	6:CC:85:ARG:HD3	2.11	0.50
12:CI:15:ALA:HB2	12:CI:65:VAL:HG23	1.93	0.50
16:CM:39:ILE:HD11	16:CM:55:ARG:HH21	1.76	0.50
18:CO:39:LEU:HD13	18:CO:56:LEU:HB2	1.93	0.50
25:DA:2693:A:H2'	25:DA:2694:G:C8	2.46	0.50
27:DD:218:ARG:HB3	27:DD:219:PRO:HD2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:DF:12:LEU:HD13	29:DF:124:LEU:HD11	1.93	0.50
31:DH:43:VAL:HG23	31:DH:44:VAL:H	1.76	0.50
39:DS:22:GLY:O	39:DS:23:ARG:HG3	2.12	0.50
1:AA:664:G:H22	1:AA:741:G:H1	1.59	0.50
1:AA:1001:G:H2'	1:AA:1002:G:O4'	2.10	0.50
1:AA:1320:C:H42	22:AS:36:ARG:HG3	1.77	0.50
13:AJ:51:ARG:H	13:AJ:60:ARG:HA	1.77	0.50
14:AK:52:GLY:H	14:AK:55:LYS:HE3	1.76	0.50
25:BA:942:G:H5'	36:BP:35:HIS:CB	2.39	0.50
25:BA:1468(J):G:H2'	25:BA:1468(K):G:H8	1.76	0.50
25:BA:1929:G:H4'	25:BA:1930:G:OP1	2.10	0.50
25:BA:2688:U:C5	25:BA:2720:U:OP2	2.64	0.50
27:BD:25:THR:HG21	27:BD:81:ALA:CA	2.41	0.50
28:BE:59:VAL:O	28:BE:59:VAL:HG12	2.12	0.50
29:BF:122:LYS:O	29:BF:191:ARG:HG3	2.11	0.50
30:BG:117:PHE:O	30:BG:118:ARG:HG3	2.11	0.50
31:BH:19:VAL:HG12	31:BH:20:ALA:N	2.26	0.50
31:BH:23:ARG:HD3	31:BH:23:ARG:N	2.21	0.50
31:BH:169:VAL:O	31:BH:169:VAL:HG22	2.11	0.50
34:BN:43:GLY:HA2	34:BN:84:ARG:HG3	1.92	0.50
41:BU:70:ARG:HA	41:BU:74:LEU:O	2.11	0.50
44:BX:55:ASN:HB2	44:BX:80:ILE:HG13	1.93	0.50
45:BY:42:VAL:HG12	45:BY:42:VAL:O	2.11	0.50
49:B2:1:MET:O	49:B2:3:LEU:N	2.45	0.50
1:CA:266:G:H4'	1:CA:267:C:H5"	1.92	0.50
1:CA:279:A:C5	20:CQ:98:LEU:HD13	2.46	0.50
1:CA:811:C:H4'	1:CA:900:A:N6	2.25	0.50
4:CY:120:LEU:HD23	4:CY:120:LEU:O	2.11	0.50
13:CJ:4:ILE:HG22	13:CJ:74:ILE:HD11	1.94	0.50
25:DA:75:G:H4'	49:D2:55:ARG:NH2	2.26	0.50
25:DA:245:G:O6	55:D8:8:LYS:HE3	2.11	0.50
25:DA:534:U:O2'	41:DU:49:HIS:CD2	2.65	0.50
25:DA:902:C:H2'	25:DA:903:C:C6	2.46	0.50
25:DA:943:U:OP2	36:DP:38:GLN:CD	2.50	0.50
25:DA:1054:A:H2'	25:DA:1055:G:C8	2.46	0.50
25:DA:1356:G:H2'	25:DA:1357:U:H6	1.76	0.50
25:DA:1418:G:H8	25:DA:1418:G:O5'	1.95	0.50
25:DA:2058:A:N6	25:DA:2059:A:N6	2.60	0.50
26:DB:11:C:H2'	26:DB:12:C:C5	2.46	0.50
26:DB:75:G:H21	46:DZ:85:HIS:CE1	2.29	0.50
31:DH:19:VAL:HG12	31:DH:20:ALA:N	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DI:29:TYR:O	32:DI:32:PRO:HD2	2.11	0.50
1:AA:792:A:H4'	1:AA:793:U:O5'	2.12	0.50
4:AY:32:ILE:O	4:AY:36:GLU:HB2	2.11	0.50
19:AP:55:ARG:HB3	19:AP:55:ARG:NH1	2.26	0.50
25:BA:1288:U:H1'	25:BA:1647:G:N2	2.27	0.50
25:BA:1324:G:C4	25:BA:1328:G:O6	2.64	0.50
25:BA:1678:G:N2	25:BA:1989:G:N2	2.60	0.50
25:BA:1751:C:H2'	25:BA:1752:C:H6	1.77	0.50
25:BA:1952:A:C4	35:BO:22:ILE:HD12	2.46	0.50
25:BA:2789:C:H1'	25:BA:2892:A:C2	2.46	0.50
27:BD:25:THR:HG22	27:BD:82:ILE:O	2.11	0.50
28:BE:11:MET:HB2	28:BE:23:VAL:O	2.11	0.50
28:BE:201:THR:CG2	28:BE:202:LYS:N	2.74	0.50
30:BG:11:TYR:O	30:BG:16:ARG:N	2.45	0.50
36:BP:140:ALA:O	36:BP:141:ALA:HB2	2.11	0.50
44:BX:66:LEU:HD23	44:BX:67:GLY:N	2.27	0.50
51:B4:40:ILE:HG13	51:B4:57:ILE:HG21	1.94	0.50
1:CA:624:C:H4'	19:CP:11:SER:H	1.77	0.50
7:CD:156:GLU:O	7:CD:160:GLN:HG3	2.12	0.50
10:CG:26:PHE:O	10:CG:30:ILE:HG12	2.11	0.50
10:CG:100:ALA:O	10:CG:104:LEU:HD23	2.11	0.50
11:CH:127:LEU:HD22	11:CH:127:LEU:H	1.76	0.50
12:CI:8:GLY:HA3	12:CI:76:ALA:O	2.11	0.50
12:CI:114:TYR:N	12:CI:114:TYR:CD2	2.79	0.50
15:CL:17:VAL:HG23	15:CL:18:ARG:N	2.24	0.50
19:CP:55:ARG:HB3	19:CP:55:ARG:NH1	2.26	0.50
23:CT:51:GLU:HA	23:CT:54:LYS:HB3	1.92	0.50
25:DA:1188:U:O2'	25:DA:1189:A:H5'	2.12	0.50
25:DA:2023:G:H5'	25:DA:2617:C:H4'	1.93	0.50
25:DA:2443:C:O2'	25:DA:2444:G:H5'	2.11	0.50
25:DA:2563:U:H4'	35:DO:28:SER:HA	1.93	0.50
27:DD:134:ARG:HG3	27:DD:135:PHE:CD1	2.46	0.50
28:DE:59:VAL:HG12	28:DE:59:VAL:O	2.11	0.50
28:DE:132:HIS:HA	28:DE:135:HIS:CE1	2.47	0.50
29:DF:192:LEU:HD23	29:DF:193:VAL:N	2.25	0.50
30:DG:71:THR:HG22	30:DG:89:GLY:O	2.12	0.50
32:DI:88:ILE:HG12	32:DI:144:VAL:HG11	1.93	0.50
37:DQ:134:ARG:HG2	46:DZ:122:ARG:NH1	2.26	0.50
38:DR:10:LEU:HB2	38:DR:17:ARG:HE	1.77	0.50
41:DU:62:ILE:HD12	41:DU:76:TYR:CZ	2.47	0.50
41:DU:92:ARG:O	41:DU:94:ASN:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DW:73:ALA:O	43:DW:106:ILE:HG12	2.11	0.50
44:DX:10:ALA:HB1	44:DX:11:PRO:HD2	1.94	0.50
46:DZ:51:ALA:HB1	46:DZ:57:ILE:HD11	1.93	0.50
1:AA:105:G:H2'	1:AA:106:C:H6	1.76	0.50
1:AA:1259:C:C4	1:AA:1260:C:O2	2.65	0.50
8:AE:76:ILE:CG2	8:AE:93:PRO:HG3	2.39	0.50
10:AG:48:LYS:O	10:AG:52:GLU:HG3	2.11	0.50
10:AG:69:VAL:O	10:AG:69:VAL:HG12	2.12	0.50
19:AP:19:ILE:N	19:AP:19:ILE:HD12	2.26	0.50
25:BA:195:A:H5"	25:BA:196:A:OP2	2.12	0.50
25:BA:528:A:C2	25:BA:2043:C:H4'	2.46	0.50
25:BA:588:U:H2'	25:BA:589:C:C6	2.47	0.50
25:BA:605:C:H1'	25:BA:657:U:O2'	2.12	0.50
25:BA:1119:C:O2'	25:BA:1120:G:H5'	2.11	0.50
25:BA:1187:G:H5"	42:BV:81:TYR:CE2	2.47	0.50
27:BD:5:LYS:HG3	27:BD:17:THR:HG22	1.93	0.50
29:BF:33:LEU:HD13	29:BF:112:MET:HE2	1.92	0.50
33:BK:100:THR:HG22	33:BK:139:VAL:HG23	1.94	0.50
36:BP:148:LEU:O	36:BP:149:GLU:HB2	2.10	0.50
1:CA:22:G:H2'	1:CA:23:C:C6	2.46	0.50
1:CA:563:A:N7	1:CA:567:G:H1'	2.26	0.50
1:CA:949:A:C2	1:CA:1233:G:N3	2.79	0.50
1:CA:1076:C:C2	1:CA:1082:G:N2	2.80	0.50
1:CA:1169:A:C6	1:CA:1170:A:C6	3.00	0.50
1:CA:1238:A:C8	1:CA:1303:C:H1'	2.47	0.50
5:CB:113:HIS:O	5:CB:117:GLU:HG3	2.11	0.50
13:CJ:51:ARG:H	13:CJ:60:ARG:HA	1.76	0.50
23:CT:72:LEU:HD21	23:CT:76:ALA:C	2.31	0.50
27:DD:25:THR:HG21	27:DD:81:ALA:CA	2.42	0.50
30:DG:111:LEU:HD22	30:DG:117:PHE:CE1	2.47	0.50
43:DW:1:MET:HG2	43:DW:2:GLU:N	2.25	0.50
47:D0:51:VAL:N	47:D0:62:LEU:HD12	2.26	0.50
1:AA:324:G:N2	1:AA:327:A:C8	2.80	0.50
1:AA:392:G:H2'	1:AA:393:A:H8	1.77	0.50
16:AM:84:ILE:HG13	22:AS:74:PHE:CE1	2.47	0.50
18:AO:42:HIS:O	18:AO:45:VAL:HG22	2.12	0.50
20:AQ:33:GLY:O	20:AQ:34:LYS:C	2.50	0.50
25:BA:155(A):U:H3'	25:BA:155(B):U:C5'	2.42	0.50
26:BB:116:G:C5'	39:BS:55:ALA:HB1	2.34	0.50
27:BD:131:LEU:HA	27:BD:190:TYR:CE2	2.47	0.50
28:BE:69:LYS:HG2	28:BE:69:LYS:O	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:16:SER:CB	31:BH:27:LYS:HB2	2.42	0.50
37:BQ:27:VAL:HB	37:BQ:134:ARG:HD2	1.94	0.50
37:BQ:75:THR:HG22	37:BQ:88:GLY:HA3	1.92	0.50
38:BR:63:ARG:O	38:BR:67:LEU:HD23	2.11	0.50
38:BR:99:LYS:H	38:BR:99:LYS:CD	2.24	0.50
39:BS:57:LYS:HD2	39:BS:57:LYS:C	2.32	0.50
39:BS:57:LYS:HD2	39:BS:58:LEU:N	2.26	0.50
43:BW:50:VAL:HG22	43:BW:105:VAL:HG23	1.94	0.50
53:B6:14:THR:HA	53:B6:20:ASN:O	2.12	0.50
1:CA:105:G:H2'	1:CA:106:C:H6	1.76	0.50
1:CA:613:C:OP1	7:CD:84:LYS:HD2	2.12	0.50
1:CA:1440(J):C:O2'	1:CA:1440(K):G:N2	2.45	0.50
7:CD:12:CYS:SG	7:CD:21:LEU:HD11	2.52	0.50
25:DA:588:U:H2'	25:DA:589:C:C6	2.46	0.50
25:DA:1288:U:H1'	25:DA:1647:G:N2	2.27	0.50
25:DA:2531:A:H2	25:DA:2658:C:O2	1.94	0.50
25:DA:2873:A:C2	38:DR:6:SER:HB2	2.46	0.50
31:DH:116:GLU:HG3	31:DH:116:GLU:O	2.11	0.50
35:DO:31:LYS:HB3	35:DO:32:TYR:CE1	2.47	0.50
35:DO:79:PHE:HD2	40:DT:72:VAL:HG22	1.77	0.50
36:DP:6:LEU:N	36:DP:6:LEU:HD23	2.26	0.50
43:DW:50:VAL:HG22	43:DW:105:VAL:HG23	1.94	0.50
47:D0:24:LYS:O	47:D0:25:ARG:HD3	2.12	0.50
1:AA:15:G:C2	1:AA:16:A:C4	2.99	0.50
1:AA:279:A:C5	20:AQ:98:LEU:HD13	2.47	0.50
4:AY:252:GLY:HA2	25:BA:2585:U:H5	1.77	0.50
5:AB:121:LEU:O	5:AB:127:ILE:HD11	2.12	0.50
7:AD:9:CYS:SG	7:AD:32:ALA:HB2	2.52	0.50
11:AH:38:ILE:HD11	11:AH:118:VAL:O	2.12	0.50
25:BA:245:G:O6	55:B8:8:LYS:HE3	2.11	0.50
25:BA:271(B):G:H4'	25:BA:271(C):U:H5'	1.94	0.50
25:BA:667:U:H2'	25:BA:668:G:O4'	2.12	0.50
25:BA:911:A:H2'	37:BQ:9:TYR:OH	2.12	0.50
25:BA:1006:C:O2	34:BN:129:MET:HG2	2.12	0.50
25:BA:1024:G:C3'	25:BA:1025:G:H5"	2.36	0.50
28:BE:112:GLY:O	28:BE:159:HIS:HA	2.11	0.50
36:BP:17:LYS:O	36:BP:19:VAL:N	2.45	0.50
37:BQ:134:ARG:HG2	46:BZ:122:ARG:NH1	2.26	0.50
38:BR:7:GLY:O	38:BR:8:ARG:HB2	2.11	0.50
39:BS:22:GLY:O	39:BS:23:ARG:HG3	2.12	0.50
43:BW:26:GLY:HA2	43:BW:71:VAL:O	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
51:B4:48:ILE:HG22	51:B4:49:GLU:N	2.27	0.50
1:CA:671:G:H2'	1:CA:672:U:H6	1.77	0.50
1:CA:936:C:H2'	1:CA:937:A:O4'	2.11	0.50
1:CA:957:U:H2'	1:CA:959:A:OP2	2.12	0.50
1:CA:1081:G:N7	8:CE:47:LYS:NZ	2.59	0.50
1:CA:1158:C:C5	1:CA:1160:G:C8	3.00	0.50
1:CA:1493:A:N6	25:DA:1913:A:C2	2.80	0.50
4:CY:325:ARG:NH1	4:CY:362:LEU:HD11	2.25	0.50
7:CD:63:LYS:O	7:CD:67:ILE:HG13	2.12	0.50
7:CD:64:LEU:HD13	7:CD:198:VAL:HG21	1.92	0.50
11:CH:80:ILE:HD12	11:CH:80:ILE:N	2.24	0.50
25:DA:1006:C:O2	34:DN:129:MET:HG2	2.12	0.50
25:DA:1024:G:OP2	25:DA:1025:G:H3'	2.12	0.50
25:DA:1692:U:H2'	25:DA:1694:C:C5	2.47	0.50
25:DA:2723:C:O3'	38:DR:2:ARG:NH2	2.44	0.50
27:DD:62:TYR:HA	27:DD:87:ASN:HD21	1.77	0.50
28:DE:23:VAL:HA	28:DE:184:VAL:O	2.11	0.50
30:DG:139:LEU:HD23	30:DG:152:LEU:HD21	1.94	0.50
36:DP:16:ARG:CZ	36:DP:18:ARG:HB2	2.39	0.50
36:DP:79:ARG:O	36:DP:111:ARG:HB2	2.12	0.50
44:DX:63:LYS:HZ1	44:DX:72:LYS:HB3	1.77	0.50
46:DZ:163:LEU:H	46:DZ:163:LEU:CD2	2.25	0.50
1:AA:266:G:H4'	1:AA:267:C:H5"	1.93	0.50
1:AA:1158:C:C5	1:AA:1160:G:C8	3.00	0.50
1:AA:1169:A:C6	1:AA:1170:A:C6	3.00	0.50
4:AY:26:SER:HA	4:AY:29:ILE:HB	1.93	0.50
4:AY:96:GLU:HB3	4:AY:97:ARG:CZ	2.41	0.50
5:AB:47:THR:HG23	5:AB:202:PRO:HG2	1.93	0.50
7:AD:192:GLU:H	7:AD:192:GLU:CD	2.15	0.50
12:AI:114:TYR:H	12:AI:114:TYR:HD2	1.59	0.50
13:AJ:4:ILE:HG22	13:AJ:74:ILE:HD11	1.94	0.50
16:AM:52:GLU:O	16:AM:56:LEU:HD23	2.12	0.50
25:BA:84:A:H5"	45:BY:9:LYS:HD2	1.94	0.50
25:BA:242:G:C8	55:B8:5:LYS:HG2	2.47	0.50
25:BA:725:G:C6	25:BA:726:G:N1	2.80	0.50
25:BA:2262:U:H4'	25:BA:2328:A:H2	1.76	0.50
25:BA:2529:G:H5"	25:BA:2530:A:H5"	1.94	0.50
25:BA:2668:G:H2'	25:BA:2669:G:H8	1.76	0.50
28:BE:55:ASN:HD22	28:BE:57:LYS:HE2	1.77	0.50
28:BE:154:LYS:HD2	28:BE:155:LYS:H	1.77	0.50
31:BH:43:VAL:HG23	31:BH:44:VAL:H	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:115:LEU:HA	36:BP:134:ALA:CB	2.42	0.50
42:BV:51:VAL:HG12	42:BV:52:VAL:N	2.27	0.50
45:BY:81:LYS:HZ3	45:BY:98:VAL:HG12	1.76	0.50
54:B7:9:ARG:HE	54:B7:47:ARG:HB2	1.76	0.50
1:CA:574:A:H5"	1:CA:575:G:OP2	2.12	0.50
5:CB:162:ILE:HD12	5:CB:162:ILE:O	2.12	0.50
11:CH:68:ARG:HG2	11:CH:69:ARG:N	2.27	0.50
12:CI:46:ALA:O	12:CI:49:PRO:HD2	2.12	0.50
25:DA:311:A:C6	25:DA:328:U:C4	3.00	0.50
25:DA:1040:C:H2'	25:DA:1041:C:C6	2.47	0.50
25:DA:1290:C:H2'	25:DA:1291:C:H6	1.76	0.50
25:DA:1464:C:H2'	25:DA:1465:G:C8	2.46	0.50
25:DA:2202(A):U:O4'	27:DD:151:LYS:HE2	2.12	0.50
25:DA:2278:A:OP1	37:DQ:11:LYS:HE2	2.12	0.50
25:DA:2311:A:C2	30:DG:44:GLY:HA3	2.46	0.50
25:DA:2668:G:H2'	25:DA:2669:G:H8	1.76	0.50
29:DF:32:LEU:HD23	29:DF:32:LEU:C	2.32	0.50
30:DG:117:PHE:O	30:DG:118:ARG:HG3	2.11	0.50
32:DI:82:ARG:HB3	32:DI:89:TYR:CD2	2.46	0.50
33:DK:100:THR:OG1	33:DK:102:GLU:HG3	2.12	0.50
44:DX:31:HIS:ND1	44:DX:32:PRO:HD2	2.27	0.50
47:D0:53:MET:HG3	47:D0:59:LEU:HD23	1.94	0.50
53:D6:14:THR:HA	53:D6:20:ASN:O	2.12	0.50
1:AA:429:U:H1'	1:AA:430:A:H5"	1.94	0.49
1:AA:523:A:N1	15:AL:91:ASP:HB2	2.27	0.49
1:AA:936:C:H2'	1:AA:937:A:O4'	2.12	0.49
1:AA:1073:U:H2'	1:AA:1074:G:C8	2.46	0.49
1:AA:1369:C:OP2	12:AI:111:ARG:HA	2.12	0.49
4:AY:132:THR:HG22	4:AY:181:GLN:HG3	1.94	0.49
10:AG:100:ALA:O	10:AG:104:LEU:HD23	2.12	0.49
11:AH:4:ASP:HB2	11:AH:89:PRO:HG2	1.93	0.49
11:AH:68:ARG:HG2	11:AH:69:ARG:N	2.26	0.49
13:AJ:32:ALA:H	13:AJ:78:ASN:HD21	1.58	0.49
22:AS:16:LEU:HA	22:AS:19:VAL:CG1	2.36	0.49
25:BA:94:G:N3	49:B2:47:ASN:OD1	2.45	0.49
25:BA:196:A:O4'	36:BP:46:LYS:HE2	2.12	0.49
25:BA:1344:G:H5'	25:BA:1384:A:C6	2.46	0.49
25:BA:1495:A:N3	25:BA:1495:A:H2'	2.26	0.49
25:BA:2302:G:O2'	25:BA:2303:G:H5'	2.12	0.49
25:BA:2723:C:O3'	38:BR:2:ARG:NH2	2.45	0.49
27:BD:31:LYS:HE2	27:BD:102:LYS:HD3	1.92	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:94:LEU:HB2	27:BD:104:TYR:HE1	1.77	0.49
29:BF:129:PHE:O	29:BF:132:VAL:HG13	2.13	0.49
31:BH:116:GLU:HG3	31:BH:116:GLU:O	2.11	0.49
32:BI:91:SER:OG	32:BI:119:PRO:HB2	2.12	0.49
35:BO:86:ILE:HG22	35:BO:94:ARG:HG3	1.93	0.49
36:BP:41:ARG:HH12	36:BP:45:LEU:HD12	1.76	0.49
36:BP:131:SER:HB3	36:BP:134:ALA:HB3	1.94	0.49
37:BQ:27:VAL:HB	37:BQ:134:ARG:CD	2.42	0.49
48:B1:13:ILE:HD11	48:B1:15:ALA:CB	2.41	0.49
49:B2:12:GLU:C	49:B2:14:ARG:N	2.65	0.49
1:CA:67:C:H2'	1:CA:68:G:H8	1.73	0.49
1:CA:376:G:OP2	19:CP:67:THR:HG21	2.11	0.49
1:CA:453:A:H2'	1:CA:454:C:C6	2.47	0.49
1:CA:1084:G:OP1	1:CA:1086:U:C2	2.65	0.49
1:CA:1127:G:H21	1:CA:1147:C:N4	2.10	0.49
4:CY:26:SER:HA	4:CY:29:ILE:HB	1.94	0.49
4:CY:59:ARG:C	4:CY:59:ARG:HD3	2.32	0.49
8:CE:10:MET:HG3	8:CE:13:ILE:HD11	1.94	0.49
9:CF:82:ARG:HB2	9:CF:85:VAL:HG23	1.94	0.49
10:CG:65:ALA:HB1	10:CG:127:ALA:HB3	1.94	0.49
13:CJ:16:LEU:O	13:CJ:16:LEU:HD13	2.12	0.49
14:CK:33:THR:HA	14:CK:40:ILE:HG12	1.93	0.49
14:CK:84:VAL:HG11	14:CK:95:ILE:HD11	1.94	0.49
15:CL:6:ILE:O	15:CL:10:VAL:HG23	2.12	0.49
23:CT:46:GLU:O	23:CT:46:GLU:HG2	2.11	0.49
25:DA:580:C:H2'	25:DA:581:C:C6	2.47	0.49
25:DA:627:A:N6	36:DP:115:LEU:HD13	2.27	0.49
25:DA:918:A:N3	26:DB:80:U:O2'	2.41	0.49
25:DA:1778:U:H2'	25:DA:1784:A:N6	2.27	0.49
25:DA:2202(E):A:O2'	25:DA:2202(F):U:O5'	2.30	0.49
25:DA:2298:A:H2'	25:DA:2299:G:O4'	2.12	0.49
28:DE:112:GLY:O	28:DE:159:HIS:HA	2.11	0.49
29:DF:13:SER:OG	29:DF:14:PRO:HD2	2.12	0.49
29:DF:46:ARG:HG2	29:DF:46:ARG:HH11	1.77	0.49
30:DG:86:MET:N	30:DG:87:PRO:CD	2.75	0.49
36:DP:49:ARG:HG3	36:DP:49:ARG:NH1	2.14	0.49
38:DR:2:ARG:HD2	38:DR:2:ARG:O	2.11	0.49
44:DX:43:VAL:HG13	44:DX:51:VAL:HG21	1.92	0.49
1:AA:693:G:C6	1:AA:694:A:C6	3.00	0.49
1:AA:1238:A:C8	1:AA:1303:C:H1'	2.47	0.49
1:AA:1421:G:C4	1:AA:1480:G:N2	2.80	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:AB:75:LYS:C	5:AB:75:LYS:HD3	2.32	0.49
10:AG:65:ALA:HB1	10:AG:127:ALA:HB3	1.93	0.49
10:AG:70:LYS:CG	10:AG:96:GLN:HB3	2.43	0.49
10:AG:73:MET:HA	10:AG:91:VAL:HG23	1.94	0.49
19:AP:8:ARG:HB2	19:AP:28:ARG:HH12	1.76	0.49
25:BA:902:C:H2'	25:BA:903:C:C6	2.46	0.49
25:BA:922:U:H2'	25:BA:923:C:C6	2.47	0.49
25:BA:1356:G:H2'	25:BA:1357:U:H6	1.77	0.49
25:BA:1396:U:O2	25:BA:1396:U:H2'	2.11	0.49
25:BA:2693:A:H2'	25:BA:2694:G:H8	1.77	0.49
27:BD:112:GLN:HE21	27:BD:112:GLN:N	2.10	0.49
30:BG:86:MET:N	30:BG:87:PRO:CD	2.75	0.49
34:BN:95:TYR:CD2	34:BN:113:MET:HG3	2.47	0.49
34:BN:127:LYS:HB2	34:BN:140:PHE:CD1	2.47	0.49
34:BN:135:LEU:HD23	34:BN:135:LEU:C	2.33	0.49
35:BO:88:ASN:HD21	35:BO:90:GLN:CG	2.17	0.49
40:BT:117:ASP:O	40:BT:121:ILE:HG13	2.13	0.49
51:B4:40:ILE:HD12	51:B4:40:ILE:N	2.28	0.49
1:CA:35:G:C2	1:CA:550:G:C2	3.00	0.49
1:CA:116:A:H61	1:CA:313:A:H1'	1.75	0.49
1:CA:321:A:N7	1:CA:328:C:C6	2.80	0.49
1:CA:429:U:H1'	1:CA:430:A:H5"	1.94	0.49
1:CA:560:U:H4'	1:CA:561:U:O5'	2.08	0.49
1:CA:1203:C:OP1	17:CN:3:ARG:HD3	2.13	0.49
1:CA:1320:C:H42	22:CS:36:ARG:HG3	1.76	0.49
6:CC:90:GLU:O	6:CC:93:LYS:HB3	2.13	0.49
25:DA:155(A):U:H3'	25:DA:155(B):U:C5'	2.42	0.49
25:DA:910:A:H62	37:DQ:12:GLN:HA	1.77	0.49
25:DA:1057:A:H2'	25:DA:1058:G:C8	2.47	0.49
25:DA:1252:G:C2	25:DA:1253:A:C2	3.01	0.49
25:DA:1324:G:C4	25:DA:1328:G:O6	2.65	0.49
25:DA:1468(J):G:H2'	25:DA:1468(K):G:H8	1.76	0.49
25:DA:2082:A:H2'	25:DA:2083:G:O4'	2.12	0.49
27:DD:94:LEU:HB2	27:DD:104:TYR:HE1	1.77	0.49
28:DE:111:ARG:HA	38:DR:2:ARG:NE	2.26	0.49
33:DK:115:LEU:HD23	33:DK:116:ASN:H	1.77	0.49
36:DP:131:SER:HB3	36:DP:134:ALA:HB3	1.94	0.49
41:DU:92:ARG:CD	41:DU:94:ASN:HB3	2.43	0.49
49:D2:1:MET:O	49:D2:3:LEU:N	2.45	0.49
55:D8:61:LEU:O	55:D8:63:PRO:CD	2.56	0.49
1:AA:186(B):C:H2'	1:AA:186(C):G:H8	1.76	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:397:A:N6	1:AA:548:G:C5	2.79	0.49
1:AA:574:A:H5"	1:AA:575:G:OP2	2.12	0.49
1:AA:909:A:OP1	15:AL:20:LYS:HE2	2.13	0.49
1:AA:1366:C:H2'	1:AA:1367:C:C6	2.47	0.49
8:AE:76:ILE:HG13	8:AE:77:PRO:CD	2.40	0.49
8:AE:148:VAL:HG21	11:AH:107:LEU:HD22	1.94	0.49
8:AE:152:ARG:HD3	11:AH:42:GLU:O	2.12	0.49
9:AF:82:ARG:HB2	9:AF:85:VAL:HG23	1.93	0.49
20:AQ:53:LEU:HD12	20:AQ:54:GLY:H	1.77	0.49
21:AR:87:ARG:HD2	21:AR:87:ARG:C	2.33	0.49
25:BA:979:G:H3'	25:BA:980:A:H5"	1.94	0.49
25:BA:1024:G:OP2	25:BA:1025:G:H3'	2.13	0.49
25:BA:1057:A:H2'	25:BA:1058:G:C8	2.47	0.49
25:BA:2058:A:N6	25:BA:2059:A:N6	2.59	0.49
25:BA:2531:A:H4'	31:BH:157:TYR:CD2	2.46	0.49
25:BA:2884:U:H5	25:BA:2885:C:N1	2.09	0.49
26:BB:75:G:H21	46:BZ:85:HIS:CE1	2.30	0.49
27:BD:270:ILE:C	27:BD:270:ILE:HD12	2.32	0.49
28:BE:23:VAL:HA	28:BE:184:VAL:O	2.12	0.49
28:BE:111:ARG:HA	38:BR:2:ARG:NE	2.27	0.49
29:BF:34:TRP:CZ2	36:BP:12:ALA:HB2	2.47	0.49
29:BF:102:PRO:HB2	29:BF:105:VAL:HG23	1.95	0.49
33:BK:33:ASN:OD1	33:BK:35:MET:HB3	2.13	0.49
37:BQ:23:GLY:CA	37:BQ:98:LYS:HB2	2.40	0.49
47:B0:51:VAL:N	47:B0:62:LEU:HD12	2.28	0.49
1:CA:44:G:N2	1:CA:399:G:C4	2.81	0.49
1:CA:410:G:OP2	7:CD:25:ARG:HG3	2.12	0.49
1:CA:737:A:H2'	1:CA:738:C:H6	1.76	0.49
1:CA:1429:C:H2'	1:CA:1430:C:C6	2.48	0.49
17:CN:53:LEU:O	17:CN:56:VAL:HB	2.12	0.49
25:DA:705:A:C2	25:DA:727:A:H1'	2.47	0.49
25:DA:760:G:H4'	25:DA:1776:G:OP1	2.12	0.49
25:DA:1015:G:O2'	25:DA:1016:G:H5'	2.12	0.49
25:DA:1543:A:H5'	25:DA:1543(A):C:P	2.53	0.49
25:DA:1592:C:H2'	25:DA:1593:G:C8	2.47	0.49
25:DA:2202(D):G:C2'	25:DA:2202(E):A:H5"	2.43	0.49
25:DA:2577:A:H5"	25:DA:2578:G:H5'	1.94	0.49
25:DA:2789:C:H1'	25:DA:2892:A:C2	2.46	0.49
26:DB:41:U:O4	30:DG:70:VAL:HG23	2.12	0.49
27:DD:112:GLN:HE21	27:DD:112:GLN:N	2.10	0.49
34:DN:118:PRO:HD2	34:DN:119:GLU:OE1	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:30:THR:CG2	36:DP:31:ALA:N	2.75	0.49
36:DP:128:HIS:CE1	36:DP:148:LEU:HD21	2.47	0.49
44:DX:24:GLY:HA3	44:DX:82:GLN:HE22	1.77	0.49
46:DZ:5:LEU:HD12	46:DZ:47:VAL:HG21	1.93	0.49
46:DZ:137:ILE:HD12	46:DZ:137:ILE:N	2.27	0.49
48:D1:13:ILE:O	48:D1:14:VAL:CB	2.60	0.49
1:AA:381:C:H2'	1:AA:382:A:O4'	2.13	0.49
1:AA:1057:G:H4'	6:AC:197:GLY:H	1.77	0.49
1:AA:1102:A:H2'	1:AA:1103:C:C6	2.46	0.49
1:AA:1201:A:C1'	1:AA:1202:G:OP2	2.53	0.49
4:AY:299:LEU:O	4:AY:299:LEU:HD13	2.13	0.49
5:AB:207:ALA:O	5:AB:211:ILE:HG13	2.13	0.49
7:AD:9:CYS:HB3	7:AD:32:ALA:CB	2.43	0.49
9:AF:60:PHE:C	9:AF:61:LEU:HD12	2.32	0.49
16:AM:39:ILE:CG1	16:AM:56:LEU:HD21	2.35	0.49
25:BA:118:A:OP2	25:BA:119:A:H5"	2.13	0.49
25:BA:923:C:H4'	47:B0:29:GLN:HG3	1.93	0.49
25:BA:1506(D):A:H2'	25:BA:1506(E):G:O4'	2.12	0.49
25:BA:1712(J):G:O2'	25:BA:1712(K):A:H8	1.94	0.49
30:BG:71:THR:N	30:BG:89:GLY:O	2.41	0.49
34:BN:118:PRO:HD2	34:BN:119:GLU:OE1	2.13	0.49
48:B1:13:ILE:HD11	48:B1:15:ALA:HB2	1.93	0.49
1:CA:123:C:OP1	1:CA:312:C:H5'	2.12	0.49
1:CA:1360:A:H2'	1:CA:1361:G:O4'	2.12	0.49
4:CY:96:GLU:HB3	4:CY:97:ARG:CZ	2.41	0.49
5:CB:19:HIS:CD2	5:CB:20:GLU:HG2	2.47	0.49
5:CB:47:THR:HG23	5:CB:202:PRO:HG2	1.95	0.49
6:CC:181:ASN:ND2	6:CC:204:LEU:HB2	2.27	0.49
16:CM:84:ILE:HG13	22:CS:74:PHE:CE1	2.47	0.49
21:CR:66:LEU:HD11	21:CR:70:ILE:HD11	1.93	0.49
25:DA:469:G:O6	54:D7:37:LYS:HE2	2.12	0.49
25:DA:1000:A:H62	25:DA:1154:G:H2'	1.76	0.49
25:DA:1506(D):A:H2'	25:DA:1506(E):G:O4'	2.12	0.49
27:DD:24:ILE:HD13	27:DD:84:TYR:HB2	1.93	0.49
27:DD:37:LEU:HD12	27:DD:38:LYS:H	1.77	0.49
30:DG:86:MET:HG3	30:DG:87:PRO:HD3	1.95	0.49
32:DI:15:VAL:C	32:DI:17:GLN:H	2.14	0.49
47:D0:37:LEU:HD21	47:D0:61:ALA:HB2	1.93	0.49
51:D4:40:ILE:HG13	51:D4:57:ILE:HG21	1.94	0.49
55:D8:39:LYS:HA	55:D8:42:ARG:HH12	1.76	0.49
1:AA:327:A:C2	1:AA:329:A:C4	3.01	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:363:A:H62	15:AL:27:LYS:HE3	1.78	0.49
1:AA:554:C:H2'	1:AA:555:C:H6	1.76	0.49
1:AA:1052:U:C4	1:AA:1200:C:N3	2.81	0.49
1:AA:1360:A:H2'	1:AA:1361:G:O4'	2.11	0.49
1:AA:1440(F):C:H2'	1:AA:1440(G):C:H6	1.76	0.49
1:AA:1440(J):C:O2'	1:AA:1440(K):G:N2	2.46	0.49
8:AE:12:LEU:HD13	8:AE:31:LEU:HB3	1.94	0.49
8:AE:43:LEU:HD23	8:AE:44:GLY:N	2.27	0.49
17:AN:27:CYS:SG	17:AN:28:GLY:N	2.86	0.49
25:BA:543(C):A:C6	25:BA:543(D):A:N6	2.80	0.49
25:BA:2202(A):U:O4'	27:BD:151:LYS:HE2	2.12	0.49
32:BI:15:VAL:C	32:BI:17:GLN:H	2.15	0.49
36:BP:105:LEU:O	36:BP:106:LEU:HB2	2.12	0.49
37:BQ:43:THR:HA	37:BQ:94:VAL:HG12	1.94	0.49
43:BW:65:LEU:HD12	43:BW:68:ARG:NE	2.26	0.49
44:BX:89:ILE:O	44:BX:93:GLU:HG2	2.13	0.49
1:CA:321:A:C2	1:CA:333:G:C2	3.00	0.49
1:CA:424:G:C2	1:CA:425:G:C8	3.01	0.49
1:CA:693:G:C6	1:CA:694:A:C6	3.00	0.49
1:CA:792:A:H4'	1:CA:793:U:O5'	2.11	0.49
1:CA:1028(H):G:H2'	1:CA:1033:G:C8	2.44	0.49
1:CA:1073:U:H2'	1:CA:1074:G:C8	2.48	0.49
1:CA:1350:A:C6	1:CA:1351:U:N3	2.80	0.49
1:CA:1367:C:O2'	13:CJ:48:THR:HG21	2.13	0.49
10:CG:70:LYS:CG	10:CG:96:GLN:HB3	2.41	0.49
16:CM:19:LEU:H	16:CM:19:LEU:HD22	1.78	0.49
16:CM:66:LEU:C	16:CM:70:LEU:HB2	2.32	0.49
25:DA:962:G:C6	25:DA:963:U:C4	3.00	0.49
25:DA:1494:A:N3	25:DA:1494:A:C2'	2.75	0.49
25:DA:2506:U:H3'	25:DA:2506:U:H6	1.77	0.49
30:DG:111:LEU:N	30:DG:112:PRO:HD2	2.27	0.49
32:DI:62:LYS:O	32:DI:66:GLU:HG3	2.11	0.49
40:DT:117:ASP:O	40:DT:121:ILE:HG13	2.12	0.49
50:D3:2:PRO:HB2	50:D3:59:VAL:O	2.12	0.49
51:D4:48:ILE:HG22	51:D4:49:GLU:N	2.27	0.49
1:AA:737:A:H2'	1:AA:738:C:H6	1.77	0.49
1:AA:804:U:H5"	1:AA:805:C:OP2	2.13	0.49
1:AA:1125:U:H3	13:AJ:5:ARG:NH2	2.11	0.49
7:AD:31:CYS:O	7:AD:31:CYS:SG	2.70	0.49
10:AG:12:LEU:HD21	10:AG:21:VAL:HB	1.94	0.49
13:AJ:74:ILE:HD13	13:AJ:74:ILE:N	2.25	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:780:G:N2	25:BA:783:A:H62	2.06	0.49
25:BA:1172:G:HO2'	25:BA:1174:U:H5	1.59	0.49
25:BA:2285:C:OP1	53:B6:30:THR:HG21	2.13	0.49
27:BD:70:TRP:CZ2	27:BD:150:LYS:HD3	2.47	0.49
32:BI:67:ARG:HH21	32:BI:70:GLU:HG3	1.77	0.49
33:BK:2:LYS:HG3	33:BK:3:LYS:N	2.25	0.49
34:BN:116:THR:HG23	34:BN:117:HIS:H	1.78	0.49
34:BN:133:GLY:O	34:BN:137:ARG:HG3	2.12	0.49
55:B8:6:THR:HG21	55:B8:64:TYR:HD1	1.77	0.49
1:CA:736:C:OP1	21:CR:68:LYS:HE2	2.13	0.49
1:CA:1127:G:H21	1:CA:1147:C:H42	1.60	0.49
4:CY:159:ARG:NH2	4:CY:352:GLY:HA3	2.28	0.49
5:CB:27:LYS:HE3	5:CB:193:ASP:HB2	1.95	0.49
10:CG:48:LYS:O	10:CG:52:GLU:HG3	2.12	0.49
11:CH:4:ASP:HB2	11:CH:89:PRO:HG2	1.93	0.49
12:CI:114:TYR:H	12:CI:114:TYR:HD2	1.58	0.49
18:CO:8:LYS:O	18:CO:12:ILE:HG13	2.13	0.49
19:CP:19:ILE:N	19:CP:19:ILE:HD12	2.28	0.49
23:CT:72:LEU:HD11	23:CT:77:ALA:CB	2.42	0.49
25:DA:1119:C:O2'	25:DA:1120:G:H5'	2.12	0.49
25:DA:1168:G:C2	25:DA:1182:A:C2	2.99	0.49
25:DA:1172:G:N2	25:DA:1178:C:H42	2.11	0.49
25:DA:1204:A:N1	25:DA:1241:A:C2	2.81	0.49
25:DA:1920:C:O2	25:DA:1920:C:H2'	2.13	0.49
25:DA:2688:U:C5	25:DA:2720:U:OP2	2.66	0.49
31:DH:16:SER:CB	31:DH:27:LYS:HB2	2.42	0.49
36:DP:115:LEU:HA	36:DP:134:ALA:CB	2.43	0.49
38:DR:63:ARG:O	38:DR:67:LEU:HD23	2.13	0.49
51:D4:40:ILE:HD12	51:D4:40:ILE:N	2.28	0.49
1:AA:232:G:H1'	1:AA:262:A:N1	2.28	0.49
1:AA:1350:A:C6	1:AA:1351:U:N3	2.81	0.49
4:AY:205:PRO:HD3	4:AY:330:ASP:OD2	2.13	0.49
5:AB:69:LEU:HD23	5:AB:155:LEU:HD22	1.95	0.49
8:AE:20:GLN:O	8:AE:23:GLY:O	2.30	0.49
15:AL:5:THR:N	15:AL:8:GLN:HE21	2.05	0.49
16:AM:66:LEU:C	16:AM:70:LEU:HB2	2.33	0.49
21:AR:45:SER:HB2	21:AR:51:LEU:HD21	1.94	0.49
23:AT:69:GLY:O	23:AT:73:HIS:CD2	2.66	0.49
25:BA:580:C:H2'	25:BA:581:C:C6	2.47	0.49
25:BA:966:G:C6	25:BA:967:C:N4	2.81	0.49
25:BA:1015:G:O2'	25:BA:1016:G:H5'	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2202(D):G:C2'	25:BA:2202(E):A:H5"	2.43	0.49
27:BD:231:HIS:CG	27:BD:232:PRO:HD2	2.48	0.49
28:BE:61:ARG:C	28:BE:63:LEU:H	2.15	0.49
29:BF:39:TRP:O	29:BF:43:LYS:HG2	2.12	0.49
32:BI:5:LEU:HD23	32:BI:5:LEU:N	2.27	0.49
33:BK:66:THR:HG22	33:BK:68:VAL:HG23	1.94	0.49
36:BP:96:THR:O	36:BP:100:LEU:HD23	2.13	0.49
39:BS:26:LEU:HG	39:BS:39:ILE:CD1	2.42	0.49
46:BZ:14:LYS:O	46:BZ:18:LEU:HD13	2.12	0.49
1:CA:1369:C:OP2	12:CI:111:ARG:HA	2.11	0.49
1:CA:1502:A:C8	1:CA:1505:G:N2	2.80	0.49
8:CE:12:LEU:HD13	8:CE:31:LEU:HB3	1.95	0.49
13:CJ:51:ARG:HG3	17:CN:45:ARG:CZ	2.43	0.49
16:CM:13:LYS:HA	16:CM:44:ARG:HH11	1.77	0.49
25:DA:2238:G:H2'	25:DA:2238:G:N3	2.27	0.49
25:DA:2758:A:C4	31:DH:67:LEU:HD21	2.47	0.49
27:DD:70:TRP:CZ2	27:DD:150:LYS:HD3	2.47	0.49
28:DE:5:LEU:N	28:DE:5:LEU:HD23	2.27	0.49
30:DG:106:LEU:HA	30:DG:110:ALA:CB	2.42	0.49
32:DI:97:ILE:O	32:DI:101:LEU:N	2.35	0.49
35:DO:96:THR:O	35:DO:97:ARG:C	2.51	0.49
38:DR:97:VAL:HG22	38:DR:114:VAL:HG22	1.95	0.49
46:DZ:39:VAL:HG21	46:DZ:44:PHE:HD2	1.78	0.49
54:D7:9:ARG:HE	54:D7:47:ARG:HB2	1.77	0.49
55:D8:6:THR:HG21	55:D8:64:TYR:HD1	1.76	0.49
1:AA:836:G:H1	1:AA:850:U:H3	1.60	0.49
5:AB:184:VAL:HG12	5:AB:197:VAL:HG13	1.94	0.49
6:AC:48:TYR:C	6:AC:50:ALA:H	2.16	0.49
6:AC:154:SER:O	6:AC:196:LEU:HD12	2.13	0.49
12:AI:46:ALA:O	12:AI:49:PRO:HD2	2.13	0.49
19:AP:49:LEU:HD12	19:AP:50:LYS:H	1.78	0.49
25:BA:634:C:H2'	25:BA:635:C:H6	1.78	0.49
25:BA:792:G:H5"	25:BA:793:A:H5'	1.95	0.49
25:BA:910:A:H62	37:BQ:12:GLN:HA	1.78	0.49
25:BA:918:A:N3	26:BB:80:U:O2'	2.41	0.49
25:BA:1485:G:H2'	25:BA:1486:A:H8	1.78	0.49
25:BA:1864(C):A:H2'	25:BA:1864(D):A:H8	1.77	0.49
25:BA:2476:A:C2	25:BA:2477:C:C6	3.00	0.49
25:BA:2637:U:H5"	28:BE:82:ARG:NH2	2.27	0.49
28:BE:116:VAL:HG21	28:BE:122:PHE:CE2	2.47	0.49
30:BG:106:LEU:HA	30:BG:110:ALA:CB	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:BH:125:VAL:C	31:BH:127:GLU:H	2.15	0.49
32:BI:77:LEU:HD12	32:BI:140:LEU:HD21	1.95	0.49
42:BV:25:LEU:H	42:BV:92:THR:CG2	2.25	0.49
1:CA:224:C:H2'	1:CA:225:C:H6	1.76	0.49
1:CA:364:A:H2'	1:CA:365:U:O2	2.12	0.49
1:CA:1463:C:H2'	1:CA:1464:G:H8	1.78	0.49
5:CB:44:LEU:H	5:CB:44:LEU:CD1	2.14	0.49
5:CB:75:LYS:HD3	5:CB:75:LYS:C	2.33	0.49
20:CQ:100:LYS:HD3	20:CQ:100:LYS:N	2.28	0.49
25:DA:118:A:OP2	25:DA:119:A:H5"	2.12	0.49
25:DA:844:C:H2'	25:DA:845:G:C5'	2.41	0.49
25:DA:917:A:H2'	25:DA:918:A:O4'	2.13	0.49
25:DA:1021:A:C8	25:DA:1021:A:C3'	2.90	0.49
25:DA:1190:G:C5'	36:DP:35:HIS:HA	2.32	0.49
25:DA:2784:C:H1'	28:DE:37:ARG:NH1	2.25	0.49
27:DD:85:ASP:OD1	27:DD:88:ARG:NH1	2.44	0.49
28:DE:57:LYS:HG3	28:DE:58:ARG:N	2.23	0.49
29:DF:65:TRP:CH2	29:DF:75:HIS:CD2	3.00	0.49
29:DF:203:GLN:OE1	29:DF:207:GLY:HA3	2.13	0.49
34:DN:157:ARG:O	34:DN:157:ARG:HG2	2.13	0.49
36:DP:59:LEU:HG	55:D8:13:ARG:NH1	2.28	0.49
36:DP:75:ILE:H	36:DP:75:ILE:HD12	1.78	0.49
41:DU:91:ASP:OD2	41:DU:96:ALA:HB2	2.13	0.49
43:DW:12:ILE:HD13	43:DW:17:VAL:HG12	1.94	0.49
47:D0:53:MET:HA	47:D0:58:THR:O	2.12	0.49
55:D8:34:TRP:HD1	55:D8:35:GLN:H	1.54	0.49
1:AA:1127:G:H21	1:AA:1147:C:N4	2.11	0.49
4:AY:59:ARG:C	4:AY:59:ARG:HD3	2.33	0.49
5:AB:162:ILE:HD12	5:AB:162:ILE:O	2.12	0.49
11:AH:26:VAL:HG23	11:AH:27:PRO:HD2	1.95	0.49
16:AM:13:LYS:HA	16:AM:44:ARG:HH11	1.78	0.49
16:AM:39:ILE:HD11	16:AM:55:ARG:HH21	1.76	0.49
25:BA:760:G:H4'	25:BA:1776:G:OP1	2.13	0.49
25:BA:917:A:H2'	25:BA:918:A:O4'	2.13	0.49
25:BA:2298:A:H2'	25:BA:2299:G:O4'	2.12	0.49
25:BA:2884:U:C5	25:BA:2885:C:C6	3.01	0.49
26:BB:33:G:C2	26:BB:50:G:C2	3.01	0.49
27:BD:37:LEU:HD12	27:BD:38:LYS:H	1.77	0.49
45:BY:47:LYS:HA	45:BY:60:PHE:CE2	2.48	0.49
49:B2:10:LEU:O	49:B2:13:ALA:HB3	2.13	0.49
1:CA:116:A:C8	1:CA:116:A:OP2	2.66	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:542:G:H2'	1:CA:543:C:H6	1.78	0.49
1:CA:545:C:H5'	7:CD:72:GLU:CG	2.37	0.49
1:CA:1412:C:H2'	1:CA:1413:A:C8	2.48	0.49
1:CA:1440(F):C:H2'	1:CA:1440(G):C:H6	1.76	0.49
5:CB:69:LEU:HD23	5:CB:155:LEU:HD22	1.95	0.49
10:CG:12:LEU:HD21	10:CG:21:VAL:HB	1.95	0.49
11:CH:86:ILE:HG21	11:CH:133:LEU:HD13	1.93	0.49
25:DA:17:G:H2'	25:DA:18:C:C6	2.48	0.49
25:DA:443:A:N7	29:DF:45:ARG:HG3	2.27	0.49
25:DA:839:U:H2'	25:DA:840:C:C6	2.48	0.49
25:DA:855:G:C2	25:DA:856:C:O2	2.66	0.49
25:DA:866:A:H2'	25:DA:866:A:N3	2.28	0.49
25:DA:1678:G:H8	25:DA:1678:G:OP2	1.96	0.49
25:DA:1929:G:H4'	25:DA:1930:G:OP1	2.13	0.49
25:DA:2476:A:C2'	25:DA:2477:C:H5"	2.43	0.49
25:DA:2884:U:H5	25:DA:2885:C:C2	2.31	0.49
27:DD:118:VAL:HG22	27:DD:119:ALA:N	2.28	0.49
28:DE:176:ILE:HD12	28:DE:176:ILE:N	2.28	0.49
29:DF:187:VAL:HG12	36:DP:6:LEU:HA	1.94	0.49
31:DH:16:SER:HB2	31:DH:27:LYS:HB2	1.94	0.49
37:DQ:27:VAL:HB	37:DQ:134:ARG:CD	2.43	0.49
39:DS:57:LYS:HD2	39:DS:57:LYS:C	2.33	0.49
45:DY:20:TYR:CE1	45:DY:42:VAL:HA	2.47	0.49
49:D2:1:MET:O	49:D2:2:LYS:C	2.51	0.49
1:AA:224:C:H2'	1:AA:225:C:H6	1.77	0.49
1:AA:243:A:C2	1:AA:246:A:C8	3.01	0.49
1:AA:321:A:N7	1:AA:328:C:C6	2.81	0.49
1:AA:1084:G:OP1	1:AA:1086:U:C2	2.66	0.49
8:AE:51:VAL:HB	8:AE:52:PRO:CD	2.41	0.49
25:BA:620:G:N3	25:BA:620:G:H5"	2.28	0.49
25:BA:1022:G:H1'	25:BA:1023:U:OP2	2.13	0.49
25:BA:1040:C:H2'	25:BA:1041:C:C6	2.47	0.49
25:BA:1495:A:OP1	25:BA:1495:A:H8	1.96	0.49
25:BA:1856:G:H2'	25:BA:1857:G:O4'	2.13	0.49
25:BA:2285:C:C5	53:B6:27:LYS:HE3	2.47	0.49
25:BA:2447:G:H4'	25:BA:2448:A:O5'	2.12	0.49
26:BB:48:A:H2'	26:BB:49:C:C6	2.48	0.49
26:BB:59:A:H2'	26:BB:60:C:O4'	2.12	0.49
27:BD:77:ALA:CB	27:BD:97:TYR:HA	2.43	0.49
31:BH:16:SER:HB2	31:BH:27:LYS:HB2	1.95	0.49
33:BK:93:ARG:HB3	46:BZ:113:ALA:HA	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:79:ARG:O	36:BP:111:ARG:HB2	2.13	0.49
40:BT:50:ILE:O	40:BT:99:LEU:HD12	2.13	0.49
49:B2:1:MET:SD	49:B2:1:MET:C	2.92	0.49
1:CA:194:C:H2'	1:CA:195:A:H5"	1.95	0.49
1:CA:390:C:H4'	19:CP:28:ARG:NH2	2.25	0.49
1:CA:539:A:H2'	1:CA:540:G:C8	2.47	0.49
1:CA:804:U:H5"	1:CA:805:C:OP2	2.12	0.49
4:CY:130:ILE:O	4:CY:223:VAL:HA	2.13	0.49
4:CY:132:THR:HG22	4:CY:181:GLN:HG3	1.95	0.49
5:CB:27:LYS:HG3	5:CB:27:LYS:O	2.13	0.49
20:CQ:12:SER:HB3	20:CQ:20:THR:HB	1.95	0.49
22:CS:4:SER:O	22:CS:5:LEU:HB3	2.13	0.49
23:CT:50:GLU:HA	23:CT:100:ILE:HG13	1.95	0.49
25:DA:1712(J):G:O2'	25:DA:1712(K):A:H8	1.95	0.49
25:DA:1952:A:C4	35:DO:22:ILE:HD12	2.48	0.49
25:DA:2393:A:C5'	36:DP:62:LEU:HB3	2.42	0.49
27:DD:30:GLU:HG3	27:DD:63:ARG:CZ	2.42	0.49
27:DD:133:LEU:HA	27:DD:136:ILE:HD12	1.94	0.49
28:DE:129:HIS:H	28:DE:129:HIS:CD2	2.31	0.49
29:DF:28:ILE:O	29:DF:30:PRO:HD3	2.12	0.49
33:DK:62:ASP:C	33:DK:63:ARG:HE	2.16	0.49
39:DS:26:LEU:HG	39:DS:39:ILE:CD1	2.43	0.49
42:DV:5:VAL:HG23	42:DV:37:VAL:O	2.13	0.49
43:DW:51:LEU:HD23	43:DW:105:VAL:HG11	1.95	0.49
1:AA:22:G:H4'	1:AA:885:G:C8	2.48	0.48
1:AA:453:A:H2'	1:AA:454:C:C6	2.48	0.48
1:AA:1127:G:H21	1:AA:1147:C:H42	1.61	0.48
1:AA:1127:G:H1	1:AA:1145:C:N4	2.11	0.48
1:AA:1502:A:H5'	1:AA:1504:G:N7	2.28	0.48
4:AY:92:LEU:HD22	4:AY:97:ARG:HE	1.78	0.48
4:AY:130:ILE:O	4:AY:223:VAL:HA	2.13	0.48
25:BA:276:C:H2'	25:BA:277:A:H8	1.77	0.48
25:BA:543(C):A:C8	25:BA:543(D):A:N7	2.81	0.48
25:BA:844:C:H2'	25:BA:845:G:C5'	2.43	0.48
25:BA:1081:U:H4'	33:BK:117:THR:HG23	1.95	0.48
25:BA:2791:C:H4'	25:BA:2792:G:OP1	2.11	0.48
27:BD:27:THR:O	27:BD:27:THR:HG23	2.12	0.48
27:BD:133:LEU:HD23	27:BD:136:ILE:HD12	1.94	0.48
31:BH:30:LYS:HB3	31:BH:136:ILE:HG21	1.95	0.48
32:BI:62:LYS:O	32:BI:66:GLU:HG3	2.12	0.48
36:BP:17:LYS:C	36:BP:19:VAL:H	2.15	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:128:HIS:CE1	36:BP:148:LEU:HD21	2.48	0.48
38:BR:97:VAL:HG22	38:BR:114:VAL:HG22	1.95	0.48
42:BV:1:MET:HB3	42:BV:42:GLY:HA3	1.95	0.48
44:BX:63:LYS:HD2	44:BX:72:LYS:HG3	1.95	0.48
1:CA:66:G:H2'	1:CA:66:G:N3	2.27	0.48
1:CA:818:G:HO2'	1:CA:819:A:H5'	1.77	0.48
1:CA:1125:U:H3	13:CJ:5:ARG:NH2	2.11	0.48
1:CA:1490:C:C2'	1:CA:1491:G:H5'	2.43	0.48
5:CB:121:LEU:O	5:CB:127:ILE:HD11	2.12	0.48
8:CE:147:ASP:HA	8:CE:150:ARG:CZ	2.43	0.48
9:CF:60:PHE:C	9:CF:61:LEU:HD12	2.33	0.48
25:DA:276:C:H2'	25:DA:277:A:H8	1.77	0.48
25:DA:924:C:H2'	25:DA:925:C:C6	2.48	0.48
25:DA:1751:C:H2'	25:DA:1752:C:H6	1.77	0.48
25:DA:2789:C:H5'	25:DA:2790:A:OP1	2.13	0.48
25:DA:2815:C:H5'	52:D5:29:ILE:HG13	1.95	0.48
27:DD:94:LEU:HD11	27:DD:96:HIS:CE1	2.47	0.48
29:DF:198:ALA:O	29:DF:201:VAL:HG12	2.13	0.48
32:DI:27:ARG:NH1	48:D1:71:TYR:CD1	2.80	0.48
38:DR:2:ARG:HD3	38:DR:5:LYS:HE2	1.95	0.48
39:DS:57:LYS:HD2	39:DS:58:LEU:N	2.28	0.48
43:DW:88:ARG:HD3	43:DW:94:ASP:OD1	2.13	0.48
45:DY:42:VAL:HG12	45:DY:42:VAL:O	2.13	0.48
1:AA:186(G):C:H2'	1:AA:186(H):U:O4'	2.12	0.48
1:AA:201(B):U:H4'	1:AA:216:G:C2	2.48	0.48
1:AA:393:A:C2	1:AA:394:G:C8	3.01	0.48
1:AA:1076:C:C2	1:AA:1082:G:N2	2.81	0.48
1:AA:1468:A:H2'	1:AA:1469:G:O4'	2.14	0.48
5:AB:27:LYS:HG3	5:AB:27:LYS:O	2.13	0.48
6:AC:64:VAL:O	6:AC:100:ALA:HB3	2.14	0.48
17:AN:6:LEU:CD1	17:AN:23:ARG:HH22	2.25	0.48
24:AU:24:ARG:HG3	24:AU:25:LYS:H	1.78	0.48
25:BA:1754:C:H2'	25:BA:1755:A:O4'	2.14	0.48
25:BA:2202(E):A:O2'	25:BA:2202(F):U:O5'	2.31	0.48
27:BD:24:ILE:HD13	27:BD:84:TYR:HB2	1.94	0.48
27:BD:147:LEU:HD22	27:BD:155:LEU:HD11	1.95	0.48
27:BD:155:LEU:HD23	27:BD:177:LEU:HD22	1.96	0.48
29:BF:181:LEU:CD2	29:BF:186:ILE:HD11	2.43	0.48
30:BG:135:LEU:O	30:BG:154:GLY:HA3	2.13	0.48
37:BQ:75:THR:HA	37:BQ:89:ASN:H	1.78	0.48
46:BZ:137:ILE:N	46:BZ:137:ILE:HD12	2.28	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
48:B1:40:ARG:HD3	48:B1:40:ARG:C	2.33	0.48
49:B2:1:MET:HE1	49:B2:5:GLU:H	1.76	0.48
1:CA:15:G:C2	1:CA:16:A:C4	3.02	0.48
1:CA:68(U):U:H2'	1:CA:68(V):G:H8	1.77	0.48
1:CA:186(G):C:H2'	1:CA:186(H):U:O4'	2.12	0.48
1:CA:192:U:H2'	1:CA:193:C:C6	2.46	0.48
1:CA:363:A:H62	15:CL:27:LYS:HE3	1.78	0.48
1:CA:375:U:OP1	19:CP:69:THR:HG21	2.14	0.48
1:CA:428:G:H4'	1:CA:429:U:OP1	2.12	0.48
1:CA:600:C:OP1	11:CH:97:VAL:HG12	2.12	0.48
1:CA:978:A:H5"	1:CA:979:C:OP2	2.13	0.48
1:CA:1137:C:H4'	1:CA:1138:G:C2	2.48	0.48
1:CA:1329:A:P	16:CM:28:ALA:HB3	2.53	0.48
1:CA:1378:C:H5	1:CA:1379:G:C8	2.31	0.48
4:CY:110:LYS:HB3	4:CY:110:LYS:NZ	2.29	0.48
4:CY:358:ILE:CA	4:CY:362:LEU:HB2	2.32	0.48
6:CC:48:TYR:C	6:CC:50:ALA:H	2.16	0.48
7:CD:68:TYR:N	7:CD:68:TYR:HD1	2.11	0.48
8:CE:148:VAL:HG21	11:CH:107:LEU:HD22	1.94	0.48
12:CI:114:TYR:N	12:CI:114:TYR:HD2	2.11	0.48
25:DA:922:U:H2'	25:DA:923:C:C6	2.47	0.48
25:DA:2862:G:H2'	25:DA:2863:C:H6	1.78	0.48
26:DB:82:G:O2'	26:DB:83:G:H5'	2.12	0.48
32:DI:122:GLU:HB2	32:DI:126:TYR:OH	2.13	0.48
33:DK:8:VAL:HG22	33:DK:9:LYS:N	2.26	0.48
34:DN:43:GLY:HA2	34:DN:84:ARG:HG3	1.93	0.48
37:DQ:110:THR:OG1	37:DQ:113:GLN:HB2	2.13	0.48
39:DS:25:ARG:HD3	39:DS:88:ASP:OD1	2.13	0.48
43:DW:33:ARG:O	43:DW:37:ARG:HB2	2.12	0.48
47:D0:10:THR:O	47:D0:12:ASN:HB2	2.13	0.48
1:AA:57:G:H2'	1:AA:58:C:C6	2.48	0.48
1:AA:375:U:OP1	19:AP:69:THR:HG21	2.14	0.48
1:AA:981:U:H5'	17:AN:21:TYR:CZ	2.48	0.48
1:AA:1137:C:H4'	1:AA:1138:G:C2	2.48	0.48
5:AB:163:PHE:HA	5:AB:185:ILE:O	2.13	0.48
6:AC:119:ARG:O	6:AC:122:GLU:HB3	2.12	0.48
14:AK:59:TYR:O	14:AK:63:LEU:HG	2.13	0.48
20:AQ:11:VAL:HG21	20:AQ:88:TYR:CD2	2.49	0.48
22:AS:4:SER:O	22:AS:5:LEU:HB3	2.13	0.48
23:AT:46:GLU:HG2	23:AT:46:GLU:O	2.14	0.48
25:BA:57:C:H2'	25:BA:58:G:O4'	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1494:A:N3	25:BA:1494:A:C2'	2.75	0.48
25:BA:2404:C:C2'	25:BA:2405:G:H5'	2.44	0.48
25:BA:2784:C:H1'	28:BE:37:ARG:NH1	2.24	0.48
27:BD:33:LEU:CD1	27:BD:102:LYS:HD2	2.43	0.48
30:BG:16:ARG:CD	30:BG:31:VAL:HG21	2.43	0.48
33:BK:88:ALA:HB2	33:BK:96:VAL:HG13	1.94	0.48
36:BP:30:THR:CG2	36:BP:31:ALA:N	2.76	0.48
46:BZ:39:VAL:HG21	46:BZ:44:PHE:HD2	1.78	0.48
4:CY:207:PRO:HG2	4:CY:208:PHE:CE1	2.47	0.48
6:CC:14:ILE:CG1	6:CC:15:THR:N	2.74	0.48
6:CC:125:GLU:OE2	6:CC:189:ALA:HA	2.14	0.48
14:CK:59:TYR:O	14:CK:63:LEU:HG	2.13	0.48
15:CL:5:THR:N	15:CL:8:GLN:HE21	2.08	0.48
16:CM:52:GLU:O	16:CM:56:LEU:HD23	2.13	0.48
23:CT:85:MET:HB2	23:CT:104:LEU:HD21	1.94	0.48
25:DA:476:G:H4'	25:DA:502:A:N1	2.28	0.48
25:DA:583:G:OP2	41:DU:10:ARG:HD2	2.13	0.48
25:DA:942:G:H5'	36:DP:35:HIS:CB	2.38	0.48
25:DA:1775:U:H2'	25:DA:1776:G:O5'	2.13	0.48
25:DA:2637:U:H5"	28:DE:82:ARG:NH2	2.28	0.48
26:DB:108:C:H5'	26:DB:109:G:OP1	2.13	0.48
27:DD:127:VAL:HA	27:DD:193:VAL:CG1	2.37	0.48
29:DF:72:ARG:O	29:DF:73:ALA:O	2.31	0.48
36:DP:94:GLU:HG2	36:DP:95:VAL:N	2.28	0.48
37:DQ:75:THR:HA	37:DQ:89:ASN:H	1.78	0.48
43:DW:82:LEU:HB3	43:DW:84:ARG:NH1	2.28	0.48
46:DZ:8:TYR:HB2	46:DZ:38:TYR:CE2	2.47	0.48
46:DZ:72:ARG:HG2	46:DZ:89:PHE:HB2	1.94	0.48
48:D1:46:LEU:O	48:D1:46:LEU:HD23	2.13	0.48
49:D2:12:GLU:C	49:D2:14:ARG:N	2.64	0.48
49:D2:41:ILE:C	49:D2:41:ILE:HD12	2.33	0.48
49:D2:47:ASN:O	49:D2:50:ILE:HG13	2.13	0.48
1:AA:134:A:H61	19:AP:25:ARG:NH1	1.98	0.48
1:AA:666:G:H5'	1:AA:726:C:H1'	1.95	0.48
1:AA:671:G:H2'	1:AA:672:U:H6	1.78	0.48
4:AY:282:ILE:H	4:AY:282:ILE:HD12	1.79	0.48
4:AY:317:PRO:C	4:AY:319:GLU:H	2.17	0.48
5:AB:7:VAL:HG12	5:AB:11:LEU:HD11	1.95	0.48
10:AG:26:PHE:O	10:AG:30:ILE:HG12	2.13	0.48
10:AG:46:ALA:O	10:AG:50:ILE:HG12	2.13	0.48
15:AL:41:THR:OG1	15:AL:51:LEU:HB3	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:AQ:100:LYS:HD3	20:AQ:100:LYS:N	2.28	0.48
25:BA:198:C:H5'	25:BA:2244:U:OP1	2.13	0.48
25:BA:212:G:O2'	25:BA:213:A:H5'	2.14	0.48
25:BA:335:C:H2'	25:BA:336:C:H6	1.78	0.48
25:BA:528:A:N1	25:BA:2042:A:H2'	2.28	0.48
25:BA:1311:G:O6	54:B7:48:LYS:HE3	2.13	0.48
25:BA:2306:C:C5	25:BA:2307:G:H1'	2.49	0.48
29:BF:148:LEU:HD23	29:BF:191:ARG:HH11	1.79	0.48
40:BT:57:PHE:O	40:BT:58:ASN:C	2.52	0.48
44:BX:31:HIS:ND1	44:BX:32:PRO:HD2	2.27	0.48
1:CA:872:A:H2'	1:CA:872:A:N3	2.29	0.48
10:CG:47:CYS:O	10:CG:50:ILE:HB	2.14	0.48
11:CH:26:VAL:HG23	11:CH:27:PRO:HD2	1.96	0.48
16:CM:54:VAL:HG22	16:CM:57:ARG:HH21	1.79	0.48
17:CN:3:ARG:O	17:CN:7:ILE:HG23	2.14	0.48
20:CQ:37:LYS:C	20:CQ:38:ARG:HD2	2.33	0.48
25:DA:94:G:N3	49:D2:47:ASN:OD1	2.46	0.48
25:DA:265:A:H1'	25:DA:266:G:O4'	2.12	0.48
25:DA:1022:G:H1'	25:DA:1023:U:OP2	2.12	0.48
25:DA:1172:G:HO2'	25:DA:1174:U:H5	1.58	0.48
25:DA:1819:A:H5"	27:DD:161:THR:HG21	1.95	0.48
25:DA:2086:U:H2'	25:DA:2087:G:C8	2.48	0.48
26:DB:10:C:C2	26:DB:11:C:C5	3.02	0.48
28:DE:69:LYS:HG2	28:DE:69:LYS:O	2.13	0.48
28:DE:92:THR:O	28:DE:95:ILE:HG12	2.13	0.48
31:DH:127:GLU:CG	31:DH:128:PRO:HD2	2.41	0.48
32:DI:8:PRO:HD3	32:DI:15:VAL:CG2	2.44	0.48
34:DN:31:GLN:OE1	34:DN:31:GLN:HA	2.14	0.48
38:DR:49:ASP:OD1	38:DR:95:THR:HB	2.13	0.48
39:DS:22:GLY:C	39:DS:23:ARG:HG3	2.34	0.48
43:DW:65:LEU:HD12	43:DW:68:ARG:HE	1.79	0.48
44:DX:9:LEU:HD23	44:DX:30:VAL:C	2.32	0.48
46:DZ:137:ILE:CG2	46:DZ:138:GLU:N	2.77	0.48
48:D1:35:THR:HB	48:D1:36:GLY:H	1.32	0.48
48:D1:62:VAL:HG22	48:D1:63:ALA:N	2.28	0.48
55:D8:34:TRP:O	55:D8:35:GLN:HB2	2.13	0.48
1:AA:428:G:H4'	1:AA:429:U:OP1	2.14	0.48
1:AA:524:G:H2'	1:AA:525:C:C6	2.49	0.48
1:AA:539:A:H2'	1:AA:540:G:C8	2.49	0.48
1:AA:1119:C:H2'	1:AA:1120:G:C8	2.48	0.48
1:AA:1378:C:H5	1:AA:1379:G:C8	2.31	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1502:A:C8	1:AA:1505:G:N2	2.81	0.48
4:AY:159:ARG:NH2	4:AY:352:GLY:HA3	2.28	0.48
12:AI:114:TYR:HD2	12:AI:114:TYR:N	2.11	0.48
25:BA:2702:U:H4'	25:BA:2703:C:OP1	2.14	0.48
25:BA:2716:U:O2'	25:BA:2717:G:H5'	2.13	0.48
25:BA:2815:C:H5'	52:B5:29:ILE:HG13	1.95	0.48
27:BD:182:LEU:HA	27:BD:182:LEU:HD13	1.73	0.48
32:BI:8:PRO:HD3	32:BI:15:VAL:CG2	2.44	0.48
32:BI:11:ASN:HB2	32:BI:12:LEU:HD22	1.94	0.48
32:BI:122:GLU:HB2	32:BI:126:TYR:OH	2.13	0.48
46:BZ:144:LEU:HD21	46:BZ:150:LEU:HD11	1.95	0.48
55:B8:34:TRP:O	55:B8:35:GLN:HB2	2.13	0.48
1:CA:37:U:O2'	1:CA:500:G:H4'	2.14	0.48
1:CA:57:G:H2'	1:CA:58:C:C6	2.48	0.48
1:CA:327:A:C2	1:CA:329:A:C4	3.01	0.48
1:CA:381:C:H2'	1:CA:382:A:O4'	2.13	0.48
1:CA:1052:U:C4	1:CA:1200:C:N3	2.81	0.48
5:CB:135:GLN:O	5:CB:139:LYS:HG2	2.14	0.48
5:CB:184:VAL:HG12	5:CB:197:VAL:HG13	1.95	0.48
18:CO:44:LYS:HE3	18:CO:44:LYS:CA	2.40	0.48
23:CT:73:HIS:O	23:CT:76:ALA:HB3	2.14	0.48
25:DA:102:G:H4'	25:DA:102:G:OP1	2.14	0.48
25:DA:154:G:C2	25:DA:173:G:C2	3.02	0.48
25:DA:643:A:C2	25:DA:644:A:C4	3.01	0.48
25:DA:674:G:H1'	29:DF:74:ARG:HD3	1.95	0.48
25:DA:966:G:C6	25:DA:967:C:N4	2.81	0.48
25:DA:1204:A:N1	25:DA:1241:A:H2	2.12	0.48
25:DA:1311:G:O6	54:D7:48:LYS:HE3	2.14	0.48
25:DA:1850:G:C6	25:DA:1851:U:C4	3.02	0.48
25:DA:1937:A:C8	25:DA:1939:U:H2'	2.49	0.48
25:DA:2306:C:C5	25:DA:2307:G:H1'	2.48	0.48
30:DG:135:LEU:O	30:DG:154:GLY:HA3	2.13	0.48
37:DQ:89:ASN:C	37:DQ:92:GLY:H	2.17	0.48
45:DY:17:SER:OG	45:DY:18:GLY:N	2.45	0.48
1:AA:35:G:C2	1:AA:550:G:C2	3.02	0.48
1:AA:872:A:N3	1:AA:872:A:H2'	2.29	0.48
8:AE:57:LYS:O	8:AE:61:TYR:CD2	2.66	0.48
8:AE:126:ARG:HA	8:AE:131:ILE:HD11	1.94	0.48
23:AT:50:GLU:HA	23:AT:100:ILE:HG13	1.96	0.48
25:BA:525:U:H5'	25:BA:556:G:OP1	2.14	0.48
25:BA:773:U:C5'	27:BD:47:GLY:HA3	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1680:U:O2	25:BA:1763:G:H8	1.97	0.48
25:BA:1963:U:O2	25:BA:1963:U:C2'	2.61	0.48
25:BA:2037:G:C6	25:BA:2038:G:C6	3.02	0.48
25:BA:2041:U:H2'	25:BA:2042:A:C8	2.48	0.48
25:BA:2308:G:O2'	25:BA:2309:A:OP2	2.24	0.48
25:BA:2392:A:C8	36:BP:60:MET:HG2	2.48	0.48
27:BD:232:PRO:HG2	27:BD:248:SER:O	2.13	0.48
30:BG:64:THR:HG23	30:BG:66:GLN:H	1.78	0.48
30:BG:86:MET:HG3	30:BG:87:PRO:HD3	1.95	0.48
33:BK:57:ILE:HG22	33:BK:58:THR:N	2.28	0.48
36:BP:46:LYS:HB3	36:BP:52:GLU:HG3	1.95	0.48
39:BS:22:GLY:C	39:BS:23:ARG:HG3	2.34	0.48
1:CA:232:G:H1'	1:CA:262:A:N1	2.27	0.48
1:CA:685:G:O2'	1:CA:686:U:H5'	2.14	0.48
1:CA:830:G:C2	1:CA:831:U:C2	3.02	0.48
1:CA:1342:C:H1'	12:CI:124:GLN:NE2	2.29	0.48
1:CA:1468:A:H2'	1:CA:1469:G:O4'	2.13	0.48
6:CC:64:VAL:O	6:CC:100:ALA:HB3	2.13	0.48
7:CD:105:VAL:HG21	7:CD:126:ILE:HG13	1.96	0.48
12:CI:111:ARG:HD2	17:CN:61:TRP:NE1	2.28	0.48
20:CQ:33:GLY:O	20:CQ:34:LYS:C	2.52	0.48
25:DA:543(C):A:C6	25:DA:543(D):A:N6	2.81	0.48
25:DA:1530:G:N1	25:DA:1542:G:N2	2.62	0.48
25:DA:1754:C:OP1	40:DT:96:ARG:NH1	2.40	0.48
25:DA:2302:G:O2'	25:DA:2303:G:H5'	2.14	0.48
25:DA:2308:G:O2'	25:DA:2309:A:OP2	2.22	0.48
33:DK:38:VAL:HG12	33:DK:39:LYS:HD2	1.94	0.48
35:DO:119:PRO:HB2	40:DT:68:TYR:CD1	2.49	0.48
36:DP:85:LEU:HA	36:DP:88:LEU:HB3	1.94	0.48
37:DQ:27:VAL:HB	37:DQ:134:ARG:HD2	1.94	0.48
43:DW:26:GLY:HA2	43:DW:71:VAL:O	2.13	0.48
48:D1:65:SER:OG	48:D1:66:HIS:HD2	1.96	0.48
1:AA:35:G:C5	1:AA:36:C:C4	3.02	0.48
1:AA:811:C:H4'	1:AA:900:A:N6	2.28	0.48
1:AA:1320:C:N4	22:AS:36:ARG:HG3	2.29	0.48
5:AB:19:HIS:CD2	5:AB:20:GLU:HG2	2.48	0.48
11:AH:17:THR:HG22	11:AH:63:LEU:HD13	1.96	0.48
16:AM:3:ARG:HG2	16:AM:9:ILE:HD13	1.96	0.48
23:AT:85:MET:HB2	23:AT:104:LEU:HD21	1.95	0.48
25:BA:1172:G:N2	25:BA:1178:C:H42	2.11	0.48
25:BA:1204:A:N1	25:BA:1241:A:H2	2.11	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1541:U:H5”	25:BA:1543:A:OP1	2.13	0.48
25:BA:2243:U:H2’	25:BA:2244:U:C6	2.49	0.48
25:BA:2579:C:O2’	28:BE:131:ALA:CB	2.62	0.48
25:BA:2862:G:H2’	25:BA:2863:C:H6	1.77	0.48
29:BF:12:LEU:HD13	29:BF:124:LEU:HD11	1.95	0.48
29:BF:13:SER:OG	29:BF:14:PRO:HD2	2.14	0.48
32:BI:87:LYS:NZ	32:BI:87:LYS:HB2	2.29	0.48
32:BI:130:TYR:O	32:BI:132:PRO:HD3	2.13	0.48
36:BP:135:LEU:CD1	36:BP:139:LYS:HD2	2.44	0.48
37:BQ:37:LEU:O	37:BQ:99:PRO:HB3	2.13	0.48
41:BU:92:ARG:CD	41:BU:94:ASN:HB3	2.43	0.48
42:BV:13:ARG:CZ	42:BV:15:GLU:HG2	2.44	0.48
42:BV:38:LEU:C	42:BV:39:LEU:HD13	2.34	0.48
45:BY:8:LYS:HD3	45:BY:13:VAL:HG21	1.96	0.48
46:BZ:137:ILE:CG2	46:BZ:138:GLU:N	2.76	0.48
49:B2:1:MET:O	49:B2:2:LYS:C	2.51	0.48
1:CA:22:G:H4’	1:CA:885:G:C8	2.49	0.48
1:CA:1077:G:N1	1:CA:1081:G:C6	2.82	0.48
6:CC:119:ARG:O	6:CC:122:GLU:HB3	2.12	0.48
7:CD:88:VAL:HG13	8:CE:97:GLY:HA2	1.95	0.48
7:CD:190:ASP:O	7:CD:194:LEU:HD23	2.14	0.48
12:CI:69:GLY:O	12:CI:73:GLN:HG3	2.14	0.48
20:CQ:53:LEU:HD12	20:CQ:54:GLY:H	1.79	0.48
24:CU:24:ARG:HG3	24:CU:25:LYS:H	1.78	0.48
25:DA:620:G:H5”	25:DA:620:G:N3	2.28	0.48
27:DD:33:LEU:CD1	27:DD:102:LYS:HD2	2.43	0.48
27:DD:231:HIS:CG	27:DD:232:PRO:HD2	2.49	0.48
28:DE:201:THR:HG22	28:DE:202:LYS:H	1.78	0.48
38:DR:21:TYR:OH	38:DR:43:GLU:HG2	2.13	0.48
43:DW:40:ASN:O	43:DW:41:LYS:HG2	2.13	0.48
45:DY:29:GLU:HB3	45:DY:38:ILE:CD1	2.43	0.48
49:D2:49:LYS:O	49:D2:53:LEU:HB2	2.13	0.48
1:AA:44:G:N2	1:AA:399:G:C4	2.82	0.48
1:AA:814:A:N7	1:AA:816:A:C4	2.81	0.48
1:AA:1053:G:N7	1:AA:1200:C:H5”	2.29	0.48
1:AA:1262:C:OP2	24:AU:25:LYS:HE3	2.14	0.48
4:AY:241:ARG:HH21	4:AY:265:VAL:HG11	1.79	0.48
13:AJ:16:LEU:O	13:AJ:16:LEU:HD13	2.14	0.48
25:BA:126:A:O5’	54:B7:19:ARG:HG2	2.14	0.48
25:BA:409:C:O2’	25:BA:410:G:H5’	2.13	0.48
25:BA:554:U:O2’	25:BA:555:U:H5’	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1290:C:H2'	25:BA:1291:C:H6	1.78	0.48
25:BA:2082:A:H2'	25:BA:2083:G:O4'	2.12	0.48
25:BA:2681:C:H4'	25:BA:2682:U:H5'	1.96	0.48
26:BB:9:G:C6	26:BB:10:C:C4	3.02	0.48
28:BE:129:HIS:H	28:BE:129:HIS:CD2	2.32	0.48
29:BF:53:THR:C	29:BF:55:GLY:N	2.67	0.48
38:BR:79:LEU:O	38:BR:79:LEU:HD22	2.13	0.48
38:BR:103:ARG:NH1	38:BR:108:GLY:O	2.47	0.48
42:BV:5:VAL:HG23	42:BV:37:VAL:O	2.13	0.48
43:BW:29:LEU:HG	43:BW:33:ARG:HE	1.78	0.48
44:BX:34:ALA:HA	44:BX:38:GLU:OE2	2.13	0.48
47:B0:37:LEU:O	47:B0:38:VAL:HG23	2.14	0.48
48:B1:40:ARG:NH2	48:B1:42:GLN:HG2	2.28	0.48
49:B2:47:ASN:O	49:B2:50:ILE:HG13	2.14	0.48
7:CD:15:GLU:HB3	7:CD:63:LYS:HE2	1.96	0.48
8:CE:11:ILE:HB	8:CE:31:LEU:HD22	1.96	0.48
8:CE:90:VAL:O	8:CE:120:THR:HA	2.14	0.48
8:CE:126:ARG:HA	8:CE:131:ILE:HD11	1.95	0.48
8:CE:152:ARG:HD3	11:CH:42:GLU:O	2.13	0.48
10:CG:73:MET:HA	10:CG:91:VAL:HG23	1.94	0.48
19:CP:43:LYS:HA	19:CP:48:TRP:HB3	1.96	0.48
21:CR:45:SER:HB2	21:CR:51:LEU:HD21	1.96	0.48
25:DA:335:C:H2'	25:DA:336:C:H6	1.79	0.48
25:DA:794:G:H2'	25:DA:795:C:C6	2.49	0.48
25:DA:851:U:O2'	50:D3:45:GLY:HA3	2.13	0.48
25:DA:889:C:O2'	25:DA:890:A:P	2.72	0.48
25:DA:979:G:H3'	25:DA:980:A:H5"	1.95	0.48
25:DA:1070:A:H2'	25:DA:1097:U:H5'	1.96	0.48
25:DA:1104:C:H2'	25:DA:1105:U:H6	1.78	0.48
25:DA:1443:G:C2'	25:DA:1444:G:H5'	2.44	0.48
25:DA:1711:C:H2'	25:DA:1712:C:C6	2.49	0.48
25:DA:1864(C):A:H2'	25:DA:1864(D):A:H8	1.77	0.48
25:DA:2823:A:OP1	28:DE:113:PHE:HB2	2.12	0.48
27:DD:21:PHE:HB3	27:DD:24:ILE:HD12	1.96	0.48
27:DD:235:GLY:O	27:DD:237:GLU:N	2.47	0.48
28:DE:116:VAL:HG21	28:DE:122:PHE:CD2	2.48	0.48
32:DI:29:TYR:C	32:DI:32:PRO:HD2	2.34	0.48
33:DK:101:TRP:CE2	33:DK:105:LEU:HD11	2.49	0.48
42:DV:13:ARG:CZ	42:DV:15:GLU:HG2	2.43	0.48
49:D2:10:LEU:O	49:D2:13:ALA:HB3	2.14	0.48
52:D5:40:LYS:CD	52:D5:46:CYS:HB3	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:563:A:N7	1:AA:567:G:H1'	2.28	0.48
1:AA:1314:C:N4	22:AS:4:SER:N	2.61	0.48
1:AA:1412:C:H2'	1:AA:1413:A:C8	2.49	0.48
1:AA:1490:C:C2'	1:AA:1491:G:H5'	2.43	0.48
4:AY:125:ALA:O	4:AY:188:ASN:HA	2.14	0.48
19:AP:59:TRP:HA	19:AP:62:VAL:HG22	1.96	0.48
25:BA:270(U):C:H2'	25:BA:270(V):G:C8	2.49	0.48
25:BA:1204:A:N1	25:BA:1241:A:C2	2.81	0.48
25:BA:1288:U:C2	25:BA:1327:C:O2	2.67	0.48
25:BA:1529:A:N6	25:BA:1542:G:N2	2.61	0.48
25:BA:2688:U:O2	25:BA:2688:U:C3'	2.61	0.48
27:BD:133:LEU:HA	27:BD:136:ILE:HD12	1.96	0.48
29:BF:203:GLN:OE1	29:BF:207:GLY:HA3	2.14	0.48
30:BG:111:LEU:HD22	30:BG:117:PHE:CE1	2.48	0.48
31:BH:54:ARG:HB3	31:BH:65:HIS:HD2	1.79	0.48
32:BI:98:ALA:CB	32:BI:111:PRO:HB3	2.44	0.48
34:BN:160:LYS:HB3	34:BN:160:LYS:HZ3	1.79	0.48
36:BP:51:PHE:O	36:BP:52:GLU:CB	2.62	0.48
45:BY:13:VAL:HG11	45:BY:72:VAL:HB	1.95	0.48
50:B3:19:GLN:O	50:B3:23:LEU:HD13	2.14	0.48
1:CA:243:A:C2	1:CA:246:A:C8	3.02	0.48
1:CA:524:G:H2'	1:CA:525:C:C6	2.48	0.48
1:CA:1493:A:C4	4:CY:137:ALA:HA	2.49	0.48
5:CB:207:ALA:O	5:CB:211:ILE:HG13	2.13	0.48
8:CE:11:ILE:HD11	8:CE:108:ALA:HB3	1.95	0.48
8:CE:57:LYS:O	8:CE:61:TYR:CD2	2.66	0.48
15:CL:6:ILE:HD12	15:CL:7:ASN:N	2.24	0.48
15:CL:69:ILE:HD13	15:CL:76:LEU:HD23	1.95	0.48
20:CQ:5:VAL:HG13	20:CQ:59:ILE:O	2.13	0.48
25:DA:84:A:H5"	45:DY:9:LYS:HD2	1.95	0.48
25:DA:725:G:C6	25:DA:726:G:N1	2.82	0.48
25:DA:1022:G:C6	25:DA:1140:C:C4	3.02	0.48
25:DA:1396:U:O2	25:DA:1396:U:H5"	2.13	0.48
25:DA:2516:G:C5	25:DA:2517:C:C4	3.02	0.48
25:DA:2529:G:H5"	25:DA:2530:A:H5"	1.94	0.48
27:DD:133:LEU:HD23	27:DD:136:ILE:HD12	1.96	0.48
27:DD:186:HIS:HB3	27:DD:189:CYS:SG	2.53	0.48
28:DE:51:PHE:HB3	28:DE:77:ILE:CG2	2.44	0.48
28:DE:61:ARG:C	28:DE:63:LEU:H	2.17	0.48
29:DF:102:PRO:HB2	29:DF:105:VAL:HG23	1.96	0.48
34:DN:119:GLU:O	34:DN:123:GLU:HG3	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DT:90:GLN:HE21	40:DT:90:GLN:CA	2.24	0.48
43:DW:15:ARG:CZ	52:D5:20:ARG:NH1	2.77	0.48
45:DY:13:VAL:HG11	45:DY:72:VAL:HB	1.95	0.48
1:AA:37:U:O2'	1:AA:500:G:H4'	2.14	0.48
1:AA:624:C:H4'	19:AP:11:SER:H	1.79	0.48
1:AA:1115:C:C2'	1:AA:1116:C:H5'	2.44	0.48
1:AA:1362:C:H2'	1:AA:1362(A):C:H5"	1.95	0.48
12:AI:15:ALA:HB2	12:AI:65:VAL:HG23	1.94	0.48
20:AQ:37:LYS:C	20:AQ:38:ARG:HD2	2.34	0.48
25:BA:1429:G:H2'	25:BA:1430:C:C6	2.48	0.48
25:BA:1468:C:H2'	25:BA:1468(A):A:H8	1.79	0.48
25:BA:2506:U:H3'	25:BA:2506:U:H6	1.78	0.48
25:BA:2821:A:OP2	38:BR:5:LYS:NZ	2.47	0.48
27:BD:127:VAL:HA	27:BD:193:VAL:CG1	2.40	0.48
27:BD:235:GLY:O	27:BD:237:GLU:N	2.47	0.48
29:BF:182:ASN:O	29:BF:186:ILE:HG13	2.14	0.48
35:BO:73:ASP:HB2	40:BT:82:LEU:HD12	1.94	0.48
35:BO:119:PRO:HB2	40:BT:68:TYR:CD1	2.48	0.48
44:BX:9:LEU:HD23	44:BX:30:VAL:C	2.34	0.48
47:B0:10:THR:O	47:B0:12:ASN:HB2	2.13	0.48
1:CA:68(P):C:H2'	1:CA:68(Q):U:C6	2.49	0.48
1:CA:981:U:H5'	17:CN:21:TYR:CE1	2.49	0.48
1:CA:1004:A:C8	1:CA:1026:G:C5	3.02	0.48
1:CA:1259:C:C4	1:CA:1260:C:O2	2.66	0.48
4:CY:241:ARG:HH21	4:CY:265:VAL:HG11	1.78	0.48
7:CD:93:PHE:O	7:CD:97:LEU:HG	2.13	0.48
8:CE:41:VAL:HG21	8:CE:113:ALA:CB	2.44	0.48
8:CE:43:LEU:HD23	8:CE:44:GLY:N	2.28	0.48
19:CP:59:TRP:HA	19:CP:62:VAL:HG22	1.95	0.48
20:CQ:60:ILE:HG23	20:CQ:62:SER:OG	2.13	0.48
25:DA:1856:G:H2'	25:DA:1857:G:O4'	2.13	0.48
26:DB:48:A:H2'	26:DB:49:C:C6	2.49	0.48
29:DF:155:LEU:HD12	29:DF:174:VAL:HB	1.96	0.48
32:DI:1:MET:HB2	32:DI:21:VAL:O	2.14	0.48
36:DP:6:LEU:HG	36:DP:8:PRO:HD2	1.95	0.48
41:DU:92:ARG:NE	41:DU:95:LEU:HG	2.29	0.48
45:DY:27:VAL:HG23	45:DY:27:VAL:O	2.14	0.48
50:D3:19:GLN:O	50:D3:23:LEU:HD13	2.13	0.48
1:AA:646:U:C4	1:AA:647:C:N4	2.82	0.47
1:AA:939:G:H5"	10:AG:102:ARG:NH2	2.28	0.47
1:AA:1004:A:C8	1:AA:1026:G:C6	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1084:G:C5	1:AA:1085:U:C4	3.02	0.47
1:AA:1117:G:H21	1:AA:1180:A:H1'	1.79	0.47
1:AA:1227:A:H2	1:AA:1228:C:N1	2.12	0.47
3:AW:65:C:H2'	3:AW:66:C:C6	2.49	0.47
8:AE:102:ALA:HA	8:AE:120:THR:OG1	2.15	0.47
9:AF:8:ILE:HD11	9:AF:79:LEU:HD13	1.95	0.47
13:AJ:74:ILE:HG12	13:AJ:74:ILE:O	2.14	0.47
15:AL:86:GLY:HA2	15:AL:97:TYR:HD2	1.79	0.47
19:AP:43:LYS:HA	19:AP:48:TRP:HB3	1.95	0.47
25:BA:839:U:H2'	25:BA:840:C:C6	2.48	0.47
25:BA:909:A:H2'	25:BA:912:C:H5	1.78	0.47
25:BA:924:C:H2'	25:BA:925:C:C6	2.49	0.47
25:BA:1104:C:H2'	25:BA:1105:U:H6	1.78	0.47
25:BA:1775:U:H2'	25:BA:1776:G:O5'	2.13	0.47
25:BA:1857:G:C6	25:BA:1858:G:N1	2.82	0.47
25:BA:2025:C:H2'	25:BA:2026:C:C6	2.49	0.47
25:BA:2516:G:C5	25:BA:2517:C:C4	3.02	0.47
26:BB:10:C:C2	26:BB:11:C:C5	3.02	0.47
31:BH:83:TYR:CE1	31:BH:138:LYS:HB2	2.49	0.47
49:B2:46:GLN:HB2	49:B2:49:LYS:HZ2	1.78	0.47
1:CA:438:G:H4'	7:CD:123:HIS:CE1	2.49	0.47
1:CA:664:G:H22	1:CA:741:G:H1	1.61	0.47
1:CA:1152:A:OP1	13:CJ:68:HIS:CD2	2.67	0.47
1:CA:1366:C:H2'	1:CA:1367:C:C6	2.45	0.47
1:CA:1502:A:H5'	1:CA:1504:G:N7	2.28	0.47
7:CD:188:LEU:HA	7:CD:189:PRO:HD2	1.76	0.47
11:CH:101:PRO:HG2	11:CH:133:LEU:CD1	2.44	0.47
15:CL:41:THR:OG1	15:CL:51:LEU:HB3	2.14	0.47
20:CQ:85:VAL:O	20:CQ:89:LEU:HG	2.14	0.47
25:DA:876:C:H2'	25:DA:877:U:O4'	2.13	0.47
25:DA:1348:G:H1	25:DA:1598:C:H42	1.61	0.47
25:DA:1485:G:H2'	25:DA:1486:A:H8	1.77	0.47
25:DA:1773:A:C5	25:DA:1829:A:H1'	2.49	0.47
25:DA:2884:U:C5	25:DA:2885:C:C6	3.01	0.47
26:DB:13:A:C2'	26:DB:14:U:H5"	2.45	0.47
26:DB:13:A:H2'	26:DB:14:U:H5"	1.95	0.47
28:DE:55:ASN:HD22	28:DE:57:LYS:HE2	1.78	0.47
28:DE:154:LYS:HD2	28:DE:155:LYS:H	1.80	0.47
31:DH:94:TYR:HE2	31:DH:160:LYS:HB3	1.78	0.47
32:DI:67:ARG:HH21	32:DI:70:GLU:HG3	1.78	0.47
33:DK:21:PRO:HA	33:DK:24:GLY:H	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:41:ARG:NE	36:DP:41:ARG:CA	2.62	0.47
38:DR:78:LYS:O	38:DR:83:ILE:HG12	2.13	0.47
39:DS:26:LEU:HA	39:DS:38:GLN:O	2.14	0.47
41:DU:8:VAL:HG12	41:DU:11:ARG:NH2	2.29	0.47
45:DY:8:LYS:HD3	45:DY:13:VAL:HG21	1.95	0.47
48:D1:57:GLU:HG2	48:D1:58:ILE:N	2.29	0.47
54:D7:19:ARG:NH1	54:D7:19:ARG:HB3	2.29	0.47
1:AA:558:G:H2'	1:AA:559:A:H2	1.80	0.47
1:AA:831:U:H2'	1:AA:832:C:H6	1.79	0.47
1:AA:1350:A:H8	1:AA:1350:A:O5'	1.97	0.47
4:AY:92:LEU:CD2	4:AY:95:GLU:HB3	2.44	0.47
4:AY:94:ALA:HA	4:AY:98:GLU:HB3	1.95	0.47
12:AI:7:THR:O	12:AI:83:ARG:HD2	2.14	0.47
25:BA:794:G:H2'	25:BA:795:C:C6	2.49	0.47
25:BA:1000:A:H62	25:BA:1154:G:H2'	1.79	0.47
25:BA:1418:G:H8	25:BA:1418:G:O5'	1.96	0.47
25:BA:2238:G:H2'	25:BA:2238:G:N3	2.29	0.47
25:BA:2476:A:C2'	25:BA:2477:C:H5"	2.44	0.47
29:BF:198:ALA:O	29:BF:201:VAL:HG12	2.14	0.47
34:BN:109:PRO:HG2	34:BN:112:LYS:HG3	1.96	0.47
36:BP:148:LEU:HD13	36:BP:148:LEU:N	2.27	0.47
37:BQ:81:VAL:HG12	37:BQ:82:ARG:HB2	1.95	0.47
41:BU:92:ARG:O	41:BU:94:ASN:N	2.46	0.47
43:BW:33:ARG:O	43:BW:37:ARG:HB2	2.14	0.47
44:BX:43:VAL:HG11	44:BX:81:VAL:HG11	1.95	0.47
46:BZ:48:PHE:CE2	46:BZ:71:VAL:HG21	2.49	0.47
52:B5:6:VAL:HG22	52:B5:7:PRO:CD	2.44	0.47
1:CA:255:G:H1'	20:CQ:16:GLN:NE2	2.29	0.47
1:CA:345:C:H5'	40:DT:41:ARG:CZ	2.44	0.47
1:CA:663:A:O2'	1:CA:664:G:H5'	2.14	0.47
1:CA:1119:C:H2'	1:CA:1120:G:C8	2.49	0.47
1:CA:1352:C:H2'	1:CA:1353:G:C8	2.49	0.47
4:CY:92:LEU:HD22	4:CY:97:ARG:HE	1.78	0.47
8:CE:101:ILE:O	8:CE:101:ILE:HG12	2.15	0.47
21:CR:87:ARG:HD2	21:CR:87:ARG:C	2.33	0.47
24:CU:22:ARG:HG2	24:CU:23:PRO:HD2	1.96	0.47
25:DA:126:A:O5'	54:D7:19:ARG:HG2	2.14	0.47
25:DA:271(B):G:H4'	25:DA:271(C):U:H5'	1.95	0.47
25:DA:528:A:C2	25:DA:2043:C:H4'	2.49	0.47
25:DA:634:C:H2'	25:DA:635:C:H6	1.78	0.47
25:DA:1063:G:H1'	33:DK:133:SER:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1356:G:H2'	25:DA:1357:U:C6	2.49	0.47
25:DA:1541:U:H5"	25:DA:1543:A:OP1	2.14	0.47
25:DA:1712(J):G:O2'	25:DA:1712(K):A:C8	2.62	0.47
29:DF:101:LEU:O	29:DF:106:ARG:NH1	2.42	0.47
31:DH:92:ILE:HD12	31:DH:92:ILE:N	2.26	0.47
36:DP:50:ARG:HG2	36:DP:50:ARG:NH2	2.29	0.47
39:DS:66:ALA:HA	39:DS:69:VAL:CG1	2.44	0.47
40:DT:74:ARG:HD3	40:DT:76:PHE:CZ	2.49	0.47
48:D1:40:ARG:NH2	48:D1:42:GLN:HG2	2.30	0.47
1:AA:68(U):U:H2'	1:AA:68(V):G:H8	1.78	0.47
1:AA:194:C:H2'	1:AA:195:A:H5"	1.96	0.47
1:AA:353:A:C2'	1:AA:354:G:OP2	2.62	0.47
1:AA:623:C:C4	1:AA:624:C:C5	3.02	0.47
1:AA:1077:G:N1	1:AA:1081:G:C6	2.83	0.47
1:AA:1342:C:H1'	12:AI:124:GLN:NE2	2.29	0.47
1:AA:1414:U:O2	1:AA:1487:G:N2	2.47	0.47
1:AA:1429:C:H2'	1:AA:1430:C:C6	2.47	0.47
8:AE:147:ASP:HA	8:AE:150:ARG:CZ	2.44	0.47
12:AI:70:LYS:NZ	12:AI:70:LYS:HB2	2.30	0.47
15:AL:65:VAL:HG12	15:AL:66:THR:O	2.14	0.47
23:AT:72:LEU:HD11	23:AT:77:ALA:CB	2.44	0.47
25:BA:322:A:O4'	25:BA:340:A:H1'	2.15	0.47
25:BA:553:G:C5	25:BA:554:U:C5	3.03	0.47
25:BA:611(F):A:C4	29:BF:180:GLY:HA2	2.48	0.47
25:BA:973:A:O4'	25:BA:1188:U:C6	2.67	0.47
25:BA:1079:C:H4'	33:BK:132:ARG:NH1	2.29	0.47
25:BA:1711:C:H2'	25:BA:1712:C:C6	2.50	0.47
25:BA:1899:G:H21	25:BA:1902:C:N4	2.00	0.47
25:BA:2794(B):U:H2'	25:BA:2794(C):C:H5'	1.97	0.47
25:BA:2815:C:O2'	52:B5:43:HIS:CD2	2.67	0.47
27:BD:71:ASP:OD2	27:BD:71:ASP:N	2.47	0.47
29:BF:36:VAL:HG11	29:BF:183:VAL:HG21	1.96	0.47
32:BI:98:ALA:HB2	32:BI:111:PRO:HB3	1.96	0.47
33:BK:19:PRO:O	33:BK:24:GLY:HA2	2.13	0.47
33:BK:74:ALA:HA	33:BK:77:LEU:HD13	1.96	0.47
38:BR:104:ARG:HH12	38:BR:109:ALA:HB3	1.79	0.47
41:BU:92:ARG:NE	41:BU:95:LEU:HG	2.29	0.47
46:BZ:30:ASN:OD1	46:BZ:33:LEU:HB3	2.14	0.47
49:B2:49:LYS:O	49:B2:53:LEU:HB2	2.15	0.47
1:CA:353:A:H2'	1:CA:354:G:OP2	2.13	0.47
1:CA:1258:G:H2'	1:CA:1259:C:C6	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:CM:3:ARG:HG2	16:CM:9:ILE:HD13	1.96	0.47
25:DA:993:G:H1'	42:DV:89:GLN:OE1	2.15	0.47
25:DA:1327:C:N4	25:DA:1328:G:N1	2.63	0.47
25:DA:2025:C:H2'	25:DA:2026:C:C6	2.49	0.47
26:DB:33:G:C2	26:DB:50:G:C2	3.03	0.47
26:DB:78:A:O3'	37:DQ:21:THR:HG22	2.14	0.47
30:DG:86:MET:CG	30:DG:87:PRO:HD3	2.44	0.47
32:DI:53:ALA:HB1	32:DI:57:ARG:HH22	1.79	0.47
38:DR:104:ARG:HH12	38:DR:109:ALA:HB3	1.79	0.47
40:DT:105:LEU:O	40:DT:107:ASP:OD1	2.32	0.47
44:DX:89:ILE:O	44:DX:93:GLU:HG2	2.14	0.47
45:DY:90:LEU:N	45:DY:90:LEU:HD23	2.29	0.47
1:AA:474:G:H5'	19:AP:81:ARG:HG3	1.96	0.47
1:AA:1101:A:C4'	1:AA:1102:A:O5'	2.50	0.47
1:AA:1352:C:H2'	1:AA:1353:G:C8	2.50	0.47
5:AB:233:SER:HB2	5:AB:234:PRO:HD2	1.95	0.47
10:AG:47:CYS:O	10:AG:50:ILE:HB	2.14	0.47
25:BA:664:C:H4'	25:BA:941:A:OP1	2.14	0.47
25:BA:866:A:N3	25:BA:866:A:H2'	2.29	0.47
25:BA:1592:C:H2'	25:BA:1593:G:C8	2.49	0.47
25:BA:1952:A:C5	35:BO:22:ILE:HD12	2.49	0.47
25:BA:2378:A:C2'	39:BS:21:THR:HG21	2.44	0.47
25:BA:2472:G:H2'	25:BA:2475:C:H42	1.80	0.47
25:BA:2612:C:H2'	25:BA:2613:U:O5'	2.14	0.47
26:BB:78:A:O3'	37:BQ:21:THR:HG22	2.14	0.47
28:BE:195:LEU:HD23	28:BE:196:VAL:N	2.28	0.47
29:BF:28:ILE:O	29:BF:30:PRO:HD3	2.14	0.47
29:BF:107:LYS:HB3	29:BF:206:ILE:HG21	1.97	0.47
29:BF:123:LEU:HD12	29:BF:124:LEU:N	2.29	0.47
32:BI:67:ARG:HA	32:BI:67:ARG:NE	2.28	0.47
32:BI:114:LEU:O	32:BI:116:LEU:N	2.44	0.47
36:BP:14:LYS:O	36:BP:15:ARG:HB2	2.14	0.47
1:CA:516:U:H3'	1:CA:517:G:C8	2.49	0.47
1:CA:542:G:H5'	7:CD:41:GLY:CA	2.44	0.47
1:CA:618:C:N3	1:CA:622:A:N6	2.62	0.47
1:CA:1106:G:H2'	1:CA:1107:C:H6	1.79	0.47
1:CA:1227:A:H2	1:CA:1228:C:N1	2.12	0.47
1:CA:1320:C:N4	22:CS:36:ARG:HG3	2.28	0.47
6:CC:114:PRO:HA	6:CC:185:GLY:HA3	1.95	0.47
25:DA:205:G:O2'	25:DA:206:U:OP2	2.33	0.47
25:DA:270(U):C:H2'	25:DA:270(V):G:C8	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:896:A:H5'	25:DA:897:C:P	2.54	0.47
25:DA:910:A:C6	25:DA:911:A:C6	3.03	0.47
25:DA:1024:G:C3'	25:DA:1025:G:H5"	2.38	0.47
25:DA:1889:A:H2'	25:DA:1890:A:C8	2.50	0.47
25:DA:2572:A:C8	28:DE:144:ARG:HB3	2.49	0.47
25:DA:2702:U:H4'	25:DA:2703:C:OP1	2.13	0.47
25:DA:2716:U:O2'	25:DA:2717:G:H5'	2.15	0.47
25:DA:2871:C:H5"	25:DA:2872:G:OP1	2.15	0.47
27:DD:77:ALA:CB	27:DD:97:TYR:HA	2.44	0.47
27:DD:102:LYS:O	27:DD:103:ARG:HG2	2.15	0.47
32:DI:91:SER:OG	32:DI:119:PRO:HB2	2.13	0.47
38:DR:4:LEU:C	38:DR:6:SER:N	2.68	0.47
38:DR:29:LEU:O	38:DR:75:LEU:HD21	2.14	0.47
38:DR:48:VAL:C	38:DR:50:HIS:N	2.68	0.47
42:DV:1:MET:HB3	42:DV:42:GLY:HA3	1.95	0.47
45:DY:47:LYS:HA	45:DY:60:PHE:CE2	2.49	0.47
54:D7:24:THR:HG23	54:D7:27:GLY:H	1.79	0.47
1:AA:66:G:H2'	1:AA:66:G:N3	2.29	0.47
1:AA:551:U:H5'	15:AL:118:LYS:HE2	1.96	0.47
1:AA:618:C:N3	1:AA:622:A:N6	2.61	0.47
1:AA:685:G:O2'	1:AA:686:U:H5'	2.14	0.47
1:AA:1125:U:H5"	1:AA:1126:U:H5	1.80	0.47
1:AA:1261:A:H5"	24:AU:25:LYS:HE2	1.95	0.47
5:AB:27:LYS:HE3	5:AB:193:ASP:HB2	1.96	0.47
7:AD:106:TYR:CE1	7:AD:113:SER:HA	2.49	0.47
10:AG:105:VAL:O	10:AG:108:ALA:HB3	2.14	0.47
12:AI:114:TYR:N	12:AI:114:TYR:CD2	2.79	0.47
13:AJ:61:GLU:HG3	17:AN:58:LYS:HE2	1.96	0.47
16:AM:19:LEU:H	16:AM:19:LEU:HD22	1.78	0.47
25:BA:876:C:H2'	25:BA:877:U:O4'	2.15	0.47
25:BA:1396:U:O2	25:BA:1396:U:H5"	2.14	0.47
25:BA:1712(Q):G:C2	25:BA:1746:G:C8	3.03	0.47
25:BA:1773:A:C5	25:BA:1829:A:H1'	2.48	0.47
25:BA:1913:A:C2'	25:BA:1914:C:OP2	2.62	0.47
25:BA:1971:A:C2	27:BD:241:PRO:HD3	2.50	0.47
25:BA:2649:U:H2'	25:BA:2650:U:C6	2.50	0.47
25:BA:2742:C:O2'	25:BA:2743:C:H5'	2.14	0.47
25:BA:2774:C:H2'	25:BA:2775:A:O4'	2.15	0.47
25:BA:2789:C:H5'	25:BA:2790:A:OP1	2.14	0.47
25:BA:2889:C:H2'	25:BA:2890:G:O4'	2.14	0.47
29:BF:155:LEU:HD12	29:BF:174:VAL:HB	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:BI:67:ARG:HA	32:BI:70:GLU:HB2	1.95	0.47
33:BK:52:ILE:HG12	33:BK:76:TYR:CD1	2.49	0.47
34:BN:157:ARG:O	34:BN:157:ARG:HG2	2.13	0.47
37:BQ:80:GLU:OE2	37:BQ:80:GLU:CA	2.63	0.47
41:BU:92:ARG:HE	41:BU:95:LEU:HG	1.79	0.47
42:BV:77:ALA:O	42:BV:79:VAL:HG23	2.14	0.47
43:BW:75:TYR:CE2	43:BW:104:THR:HB	2.49	0.47
46:BZ:8:TYR:HB2	46:BZ:38:TYR:CE2	2.50	0.47
46:BZ:31:ARG:NH1	46:BZ:94:GLU:HG3	2.28	0.47
49:B2:41:ILE:C	49:B2:41:ILE:HD12	2.35	0.47
1:CA:909:A:OP1	15:CL:20:LYS:HE2	2.15	0.47
1:CA:1051:C:C4	1:CA:1052:U:C4	3.02	0.47
1:CA:1227:A:C2	1:CA:1228:C:C2	3.02	0.47
3:CW:65:C:H2'	3:CW:66:C:C6	2.49	0.47
7:CD:25:ARG:HH22	7:CD:35:ARG:HH12	1.62	0.47
10:CG:46:ALA:O	10:CG:50:ILE:HG12	2.14	0.47
12:CI:105:ASP:OD2	12:CI:107:ARG:HD3	2.14	0.47
25:DA:572:A:H5"	25:DA:573:G:OP2	2.14	0.47
25:DA:1261:C:H2'	25:DA:1262:A:O5'	2.15	0.47
25:DA:1529:A:N6	25:DA:1542:G:N2	2.61	0.47
25:DA:2389:G:H5"	25:DA:2390:U:O4'	2.15	0.47
25:DA:2462:U:H1'	25:DA:2491:U:O4	2.14	0.47
27:DD:31:LYS:O	27:DD:36:PRO:HD3	2.15	0.47
28:DE:131:ALA:HB1	28:DE:134:ILE:HD11	1.97	0.47
28:DE:175:VAL:C	28:DE:176:ILE:HD12	2.34	0.47
32:DI:67:ARG:HA	32:DI:67:ARG:NE	2.29	0.47
34:DN:127:LYS:HB2	34:DN:140:PHE:CD1	2.48	0.47
36:DP:148:LEU:HD13	36:DP:148:LEU:N	2.27	0.47
37:DQ:43:THR:HA	37:DQ:94:VAL:HG12	1.96	0.47
37:DQ:43:THR:OG1	37:DQ:46:GLN:HG3	2.15	0.47
37:DQ:55:VAL:HG22	37:DQ:56:ARG:N	2.29	0.47
38:DR:9:LYS:HE2	38:DR:43:GLU:OE2	2.15	0.47
45:DY:14:LEU:HD23	45:DY:14:LEU:C	2.34	0.47
49:D2:28:LYS:HE3	49:D2:56:GLN:NE2	2.30	0.47
55:D8:14:VAL:HG13	55:D8:22:VAL:HG13	1.97	0.47
1:AA:600:C:H2'	1:AA:601:C:C6	2.49	0.47
8:AE:90:VAL:O	8:AE:120:THR:HA	2.14	0.47
9:AF:76:ALA:O	9:AF:80:ARG:HG3	2.14	0.47
25:BA:1218:C:O2'	25:BA:1219:G:H5'	2.13	0.47
25:BA:1543:A:H5'	25:BA:1543(A):C:P	2.54	0.47
25:BA:1983:C:H4'	25:BA:2606:C:H4'	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2050:C:H1'	28:BE:156:MET:HE1	1.96	0.47
25:BA:2563:U:H4'	35:BO:28:SER:HA	1.96	0.47
25:BA:2693:A:H2'	25:BA:2694:G:C8	2.49	0.47
26:BB:13:A:H2'	26:BB:14:U:H5"	1.96	0.47
26:BB:108:C:H5'	26:BB:109:G:OP1	2.14	0.47
32:BI:120:ILE:HD12	32:BI:120:ILE:N	2.29	0.47
36:BP:6:LEU:HG	36:BP:8:PRO:HD2	1.96	0.47
36:BP:125:VAL:HG22	36:BP:144:GLU:HB3	1.96	0.47
37:BQ:110:THR:OG1	37:BQ:113:GLN:HB2	2.15	0.47
38:BR:21:TYR:OH	38:BR:43:GLU:HG2	2.14	0.47
43:BW:29:LEU:HD22	43:BW:69:LEU:HD11	1.95	0.47
1:CA:532:A:OP2	1:CA:532:A:O4'	2.33	0.47
4:CY:364:TRP:O	4:CY:368:ARG:HB2	2.15	0.47
5:CB:7:VAL:HG12	5:CB:11:LEU:HD11	1.96	0.47
6:CC:29:TYR:CD2	17:CN:36:PHE:HE1	2.32	0.47
7:CD:8:VAL:HG21	7:CD:115:ARG:HH21	1.80	0.47
12:CI:118:LYS:O	12:CI:119:ALA:HB3	2.15	0.47
19:CP:49:LEU:HD12	19:CP:50:LYS:H	1.80	0.47
25:DA:389:G:N1	36:DP:70:GLN:HG3	2.30	0.47
25:DA:525:U:H5'	25:DA:556:G:OP1	2.15	0.47
25:DA:1154:G:H8	25:DA:1154:G:O5'	1.98	0.47
25:DA:1952:A:C5	35:DO:22:ILE:HD12	2.50	0.47
25:DA:2027:G:H2'	25:DA:2028:U:O4'	2.15	0.47
25:DA:2037:G:C6	25:DA:2038:G:C6	3.02	0.47
25:DA:2774:C:H2'	25:DA:2775:A:O4'	2.14	0.47
25:DA:2794(B):U:H2'	25:DA:2794(C):C:H5'	1.97	0.47
25:DA:2853:C:H2'	25:DA:2854:G:H8	1.79	0.47
28:DE:101:ARG:NH2	28:DE:171:GLU:HB2	2.27	0.47
29:DF:129:PHE:O	29:DF:132:VAL:HG13	2.14	0.47
31:DH:30:LYS:HB3	31:DH:136:ILE:HG21	1.96	0.47
36:DP:135:LEU:CD1	36:DP:139:LYS:HD2	2.45	0.47
38:DR:99:LYS:H	38:DR:99:LYS:CD	2.26	0.47
42:DV:38:LEU:HD12	42:DV:57:VAL:HG12	1.97	0.47
46:DZ:144:LEU:HD21	46:DZ:150:LEU:HD11	1.95	0.47
47:D0:37:LEU:O	47:D0:38:VAL:HG23	2.14	0.47
49:D2:38:GLN:O	49:D2:41:ILE:HG13	2.14	0.47
1:AA:68(E):G:C2	1:AA:68(V):G:C2	3.03	0.47
1:AA:68(P):C:H2'	1:AA:68(Q):U:C6	2.49	0.47
1:AA:517:G:N1	1:AA:533:A:OP2	2.48	0.47
1:AA:532:A:O4'	1:AA:532:A:OP2	2.32	0.47
1:AA:1004:A:C8	1:AA:1026:G:C5	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1128:C:O2'	1:AA:1130:A:C8	2.57	0.47
1:AA:1152:A:OP1	13:AJ:68:HIS:CD2	2.68	0.47
1:AA:1329:A:P	16:AM:28:ALA:HB3	2.54	0.47
4:AY:60:LYS:O	4:AY:60:LYS:HD3	2.14	0.47
4:AY:364:TRP:O	4:AY:368:ARG:HB2	2.14	0.47
5:AB:36:ARG:HB2	5:AB:41:ILE:HD11	1.96	0.47
6:AC:113:ALA:HB3	6:AC:114:PRO:HD3	1.95	0.47
6:AC:127:ARG:HE	6:AC:127:ARG:HB2	1.52	0.47
14:AK:34:ASP:HB2	14:AK:35:PRO:HD2	1.96	0.47
15:AL:85:ARG:HB2	15:AL:100:VAL:CG2	2.45	0.47
20:AQ:12:SER:HB3	20:AQ:20:THR:HB	1.97	0.47
21:AR:66:LEU:HD11	21:AR:70:ILE:HD11	1.95	0.47
22:AS:50:ALA:CB	22:AS:57:HIS:HB3	2.43	0.47
25:BA:75:G:H4'	49:B2:55:ARG:NH2	2.29	0.47
25:BA:154:G:C2	25:BA:173:G:C2	3.03	0.47
25:BA:242:G:N7	55:B8:5:LYS:HG2	2.29	0.47
25:BA:265:A:H1'	25:BA:266:G:O4'	2.15	0.47
25:BA:270(N):G:C2	25:BA:270(P):C:C2	3.03	0.47
25:BA:276:C:H2'	25:BA:277:A:C8	2.49	0.47
25:BA:330:A:H2	25:BA:1210:A:HO2'	0.73	0.47
25:BA:469:G:O6	54:B7:37:LYS:HE2	2.14	0.47
25:BA:530:G:C5	25:BA:2022:U:H5"	2.50	0.47
25:BA:534:U:O2'	41:BU:49:HIS:CD2	2.68	0.47
25:BA:674:G:H1'	29:BF:74:ARG:HD3	1.97	0.47
25:BA:705:A:C2	25:BA:727:A:H1'	2.49	0.47
25:BA:797:C:H2'	25:BA:798:G:O4'	2.15	0.47
25:BA:889:C:O2'	25:BA:890:A:P	2.72	0.47
25:BA:1083:U:H2'	25:BA:1085:A:OP2	2.14	0.47
25:BA:1252:G:C2	25:BA:1253:A:C2	3.02	0.47
25:BA:1506(I):U:H2'	25:BA:1506(J):G:C8	2.50	0.47
25:BA:2285:C:OP2	53:B6:27:LYS:HD2	2.15	0.47
25:BA:2389:G:H5"	25:BA:2390:U:O4'	2.15	0.47
25:BA:2393:A:C5'	36:BP:62:LEU:HB3	2.43	0.47
26:BB:11:C:H2'	26:BB:12:C:C6	2.48	0.47
28:BE:5:LEU:N	28:BE:5:LEU:HD23	2.30	0.47
29:BF:46:ARG:HG2	29:BF:46:ARG:HH11	1.78	0.47
29:BF:104:LYS:O	29:BF:108:LYS:HG3	2.15	0.47
30:BG:86:MET:CG	30:BG:87:PRO:HD3	2.45	0.47
32:BI:29:TYR:O	32:BI:32:PRO:HD2	2.14	0.47
34:BN:31:GLN:HA	34:BN:31:GLN:OE1	2.14	0.47
39:BS:25:ARG:HD2	39:BS:27:SER:OG	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:BT:13:ARG:C	40:BT:15:VAL:H	2.16	0.47
43:BW:51:LEU:HD23	43:BW:105:VAL:HG11	1.95	0.47
43:BW:82:LEU:HB3	43:BW:84:ARG:NH1	2.30	0.47
45:BY:49:VAL:HB	45:BY:50:ARG:H	1.50	0.47
46:BZ:51:ALA:HB1	46:BZ:57:ILE:HD11	1.95	0.47
48:B1:57:GLU:HG2	48:B1:58:ILE:N	2.30	0.47
49:B2:38:GLN:O	49:B2:41:ILE:HG13	2.14	0.47
52:B5:42:PRO:HB2	52:B5:43:HIS:CD2	2.49	0.47
1:CA:201(B):U:H4'	1:CA:216:G:C2	2.49	0.47
1:CA:339:C:OP2	35:DO:97:ARG:NH1	2.47	0.47
1:CA:523:A:N1	15:CL:91:ASP:HB2	2.29	0.47
1:CA:551:U:H5'	15:CL:118:LYS:HE2	1.96	0.47
1:CA:1125:U:H5"	1:CA:1126:U:H5	1.80	0.47
1:CA:1157:A:C6	1:CA:1180:A:C6	3.03	0.47
1:CA:1262:C:H2'	1:CA:1263:C:C6	2.50	0.47
1:CA:1396:A:H4'	1:CA:1397:C:H5"	1.97	0.47
4:CY:47:GLU:O	33:DK:29:GLN:HB3	2.14	0.47
4:CY:92:LEU:CD2	4:CY:95:GLU:HB3	2.44	0.47
4:CY:94:ALA:HA	4:CY:98:GLU:HB3	1.96	0.47
5:CB:17:PHE:CD2	5:CB:17:PHE:N	2.82	0.47
7:CD:158:ILE:O	7:CD:162:LEU:HG	2.14	0.47
9:CF:8:ILE:HG22	9:CF:10:LEU:HD12	1.97	0.47
9:CF:63:TYR:CD2	9:CF:63:TYR:N	2.81	0.47
14:CK:34:ASP:HB2	14:CK:35:PRO:HD2	1.97	0.47
15:CL:65:VAL:HG12	15:CL:66:THR:O	2.15	0.47
17:CN:45:ARG:O	17:CN:49:HIS:HD2	1.98	0.47
19:CP:28:ARG:HG2	19:CP:29:ASP:OD1	2.15	0.47
22:CS:20:LEU:HD23	22:CS:23:ASN:ND2	2.30	0.47
22:CS:51:VAL:O	22:CS:57:HIS:HA	2.15	0.47
23:CT:80:ARG:O	23:CT:84:LEU:HB2	2.15	0.47
25:DA:57:C:H2'	25:DA:58:G:O4'	2.14	0.47
25:DA:409:C:O2'	25:DA:410:G:H5'	2.14	0.47
25:DA:442:G:H1'	29:DF:48:THR:HG21	1.97	0.47
25:DA:527:C:H4'	25:DA:528:A:O5'	2.15	0.47
25:DA:543(C):A:C8	25:DA:543(D):A:N7	2.82	0.47
25:DA:553:G:C5	25:DA:554:U:C5	3.03	0.47
25:DA:554:U:O2'	25:DA:555:U:H5'	2.15	0.47
25:DA:784:A:H5'	25:DA:785:G:OP1	2.14	0.47
25:DA:952:G:P	37:DQ:16:ARG:HH22	2.37	0.47
25:DA:1002:G:H2'	25:DA:1003:G:O4'	2.15	0.47
25:DA:1083:U:H2'	25:DA:1085:A:OP2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1101:U:H2'	25:DA:1102:C:C6	2.49	0.47
25:DA:1842:G:H2'	25:DA:1843:C:C6	2.50	0.47
25:DA:1864(B):C:O2	25:DA:1864(B):C:C2'	2.61	0.47
25:DA:2285:C:OP1	53:D6:30:THR:HG21	2.13	0.47
25:DA:2593:U:H2'	25:DA:2594:C:C6	2.49	0.47
28:DE:117:MET:HE3	28:DE:136:ARG:HA	1.96	0.47
28:DE:195:LEU:HD23	28:DE:196:VAL:N	2.29	0.47
29:DF:45:ARG:HH11	29:DF:45:ARG:CG	2.28	0.47
29:DF:148:LEU:HD23	29:DF:191:ARG:HH11	1.78	0.47
30:DG:91:ARG:HB3	30:DG:91:ARG:NH1	2.29	0.47
30:DG:130:ASN:OD1	30:DG:160:VAL:HG13	2.15	0.47
31:DH:30:LYS:HB3	31:DH:136:ILE:CG2	2.45	0.47
31:DH:54:ARG:HB3	31:DH:65:HIS:HD2	1.78	0.47
34:DN:116:THR:HG23	34:DN:117:HIS:H	1.79	0.47
36:DP:105:LEU:O	36:DP:106:LEU:HB2	2.13	0.47
38:DR:10:LEU:HB2	38:DR:17:ARG:NE	2.30	0.47
40:DT:13:ARG:C	40:DT:15:VAL:H	2.18	0.47
40:DT:24:PRO:HB2	40:DT:99:LEU:HD11	1.97	0.47
40:DT:111:ARG:HD3	40:DT:111:ARG:N	2.28	0.47
41:DU:92:ARG:HE	41:DU:95:LEU:HG	1.80	0.47
44:DX:12:VAL:HG12	44:DX:27:THR:O	2.14	0.47
44:DX:43:VAL:HG11	44:DX:81:VAL:HG11	1.95	0.47
46:DZ:31:ARG:NH1	46:DZ:94:GLU:HG3	2.30	0.47
50:D3:12:PRO:HB2	50:D3:20:LYS:HD3	1.97	0.47
1:AA:256:U:C2	1:AA:257:G:C8	3.02	0.47
1:AA:779:C:H2'	1:AA:780:A:O4'	2.15	0.47
1:AA:919:A:O2'	1:AA:920:U:H5'	2.15	0.47
1:AA:1125:U:HO2'	1:AA:1126:U:P	2.37	0.47
1:AA:1227:A:C2	1:AA:1228:C:C2	3.02	0.47
1:AA:1367:C:O2'	13:AJ:48:THR:HG21	2.14	0.47
1:AA:1463:C:H2'	1:AA:1464:G:H8	1.80	0.47
3:AW:40:C:C4	3:AW:41:C:H5	2.33	0.47
4:AY:59:ARG:HD3	4:AY:59:ARG:O	2.15	0.47
4:AY:89:MET:CA	4:AY:97:ARG:HG3	2.39	0.47
4:AY:110:LYS:HB3	4:AY:110:LYS:NZ	2.29	0.47
9:AF:14:LEU:HG	9:AF:15:ASP:O	2.15	0.47
11:AH:42:GLU:HG3	11:AH:109:ILE:HD12	1.97	0.47
13:AJ:49:VAL:CG1	17:AN:41:ARG:HB2	2.45	0.47
14:AK:69:ALA:HB1	14:AK:103:LEU:HD23	1.97	0.47
15:AL:5:THR:HG23	15:AL:8:GLN:HG3	1.96	0.47
18:AO:8:LYS:O	18:AO:12:ILE:HG13	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:AP:6:LEU:HD12	19:AP:6:LEU:N	2.30	0.47
20:AQ:13:ASP:OD1	20:AQ:13:ASP:N	2.48	0.47
23:AT:61:SER:O	23:AT:65:LYS:HG3	2.15	0.47
25:BA:142:G:H1'	44:BX:37:THR:CG2	2.45	0.47
25:BA:500:G:N2	25:BA:502:A:H3'	2.29	0.47
25:BA:583:G:OP2	41:BU:10:ARG:HD2	2.14	0.47
25:BA:1070:A:H2'	25:BA:1097:U:H5'	1.96	0.47
25:BA:1188:U:H4'	42:BV:79:VAL:HG13	1.97	0.47
25:BA:1327:C:N4	25:BA:1328:G:N1	2.63	0.47
25:BA:1530:G:N1	25:BA:1542:G:N2	2.63	0.47
25:BA:2593:U:H2'	25:BA:2594:C:C6	2.49	0.47
36:BP:6:LEU:N	36:BP:6:LEU:HD23	2.29	0.47
46:BZ:72:ARG:HG2	46:BZ:89:PHE:HB2	1.95	0.47
48:B1:35:THR:HB	48:B1:36:GLY:H	1.34	0.47
1:CA:517:G:N1	1:CA:533:A:OP2	2.46	0.47
1:CA:559:A:H5"	1:CA:560:U:C3'	2.42	0.47
1:CA:779:C:H2'	1:CA:780:A:O4'	2.14	0.47
1:CA:819:A:H4'	1:CA:820:U:OP2	2.15	0.47
1:CA:831:U:H2'	1:CA:832:C:H6	1.79	0.47
1:CA:1084:G:C5	1:CA:1085:U:C4	3.02	0.47
1:CA:1314:C:N4	22:CS:4:SER:N	2.62	0.47
1:CA:1490:C:H2'	1:CA:1491:G:H5'	1.97	0.47
4:CY:59:ARG:HD3	4:CY:59:ARG:O	2.15	0.47
4:CY:317:PRO:C	4:CY:319:GLU:H	2.18	0.47
5:CB:36:ARG:HB2	5:CB:41:ILE:HD11	1.97	0.47
10:CG:105:VAL:O	10:CG:108:ALA:HB3	2.15	0.47
11:CH:20:TYR:HE2	11:CH:75:ARG:HH12	1.63	0.47
18:CO:44:LYS:NZ	25:DA:715:G:H22	2.13	0.47
23:CT:61:SER:O	23:CT:65:LYS:HG3	2.14	0.47
25:DA:797:C:H2'	25:DA:798:G:O4'	2.15	0.47
25:DA:973:A:O4'	25:DA:1188:U:C6	2.68	0.47
25:DA:1963:U:O2	25:DA:1963:U:C2'	2.62	0.47
25:DA:2287:A:C4	25:DA:2289:G:C8	3.03	0.47
25:DA:2836:U:C4	25:DA:2883:A:N6	2.82	0.47
25:DA:2852:G:C6	25:DA:2853:C:C4	3.03	0.47
26:DB:50:G:OP2	39:DS:62:LYS:HE3	2.14	0.47
27:DD:11:PRO:C	27:DD:13:ARG:H	2.18	0.47
30:DG:113:ARG:HD2	30:DG:140:ILE:O	2.15	0.47
32:DI:120:ILE:N	32:DI:120:ILE:HD12	2.30	0.47
33:DK:145:LYS:HG2	33:DK:146:ASP:N	2.30	0.47
36:DP:55:ARG:HG3	36:DP:56:SER:N	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:DU:90:VAL:HG13	41:DU:91:ASP:N	2.29	0.47
43:DW:4:LYS:HE2	43:DW:6:ILE:HD11	1.97	0.47
44:DX:63:LYS:HD2	44:DX:72:LYS:HG3	1.96	0.47
55:D8:32:LEU:HG	55:D8:36:LYS:HD2	1.97	0.47
1:AA:730:G:C5	1:AA:731:G:H1'	2.50	0.47
1:AA:974:A:C8	17:AN:31:ARG:NE	2.83	0.47
1:AA:1004:A:N3	1:AA:1004:A:H5"	2.30	0.47
1:AA:1215:G:C2	1:AA:1216:G:C8	3.03	0.47
7:AD:155:LEU:HD22	7:AD:156:GLU:OE2	2.15	0.47
7:AD:170:VAL:HG22	7:AD:171:GLY:H	1.80	0.47
8:AE:80:ILE:HD11	8:AE:91:LEU:HD12	1.97	0.47
8:AE:142:LEU:O	8:AE:143:ARG:HD3	2.14	0.47
9:AF:55:ASP:HA	9:AF:56:PRO:HD3	1.79	0.47
14:AK:120:ARG:HA	14:AK:121:PRO:HD3	1.78	0.47
23:AT:50:GLU:HA	23:AT:100:ILE:CG1	2.45	0.47
25:BA:389:G:N1	36:BP:70:GLN:HG3	2.30	0.47
25:BA:630:G:N2	25:BA:632:A:H3'	2.30	0.47
25:BA:960:A:H5"	25:BA:961:C:OP2	2.15	0.47
25:BA:1657:C:H2'	25:BA:1658:C:C6	2.50	0.47
25:BA:1920:C:O2	25:BA:1920:C:H2'	2.14	0.47
27:BD:31:LYS:O	27:BD:36:PRO:HD3	2.15	0.47
29:BF:65:TRP:CH2	29:BF:75:HIS:CD2	3.03	0.47
30:BG:113:ARG:HD2	30:BG:140:ILE:O	2.15	0.47
34:BN:49:LEU:O	34:BN:53:ILE:HG13	2.15	0.47
35:BO:39:ILE:O	35:BO:39:ILE:HG13	2.14	0.47
36:BP:41:ARG:HE	36:BP:41:ARG:CA	2.18	0.47
37:BQ:20:ALA:HA	37:BQ:98:LYS:HB3	1.96	0.47
40:BT:111:ARG:HD3	40:BT:111:ARG:N	2.29	0.47
42:BV:14:VAL:CG1	42:BV:96:ILE:HG13	2.44	0.47
44:BX:24:GLY:HA3	44:BX:82:GLN:HE22	1.80	0.47
45:BY:29:GLU:HB3	45:BY:38:ILE:CD1	2.45	0.47
1:CA:730:G:C5	1:CA:731:G:H1'	2.50	0.47
4:CY:125:ALA:O	4:CY:188:ASN:HA	2.14	0.47
6:CC:113:ALA:HB3	6:CC:114:PRO:HD3	1.97	0.47
6:CC:154:SER:O	6:CC:196:LEU:HD12	2.14	0.47
7:CD:140:VAL:HG12	7:CD:141:ARG:N	2.30	0.47
12:CI:117:HIS:HB2	12:CI:121:ARG:HD2	1.97	0.47
14:CK:120:ARG:HA	14:CK:121:PRO:HD3	1.77	0.47
15:CL:86:GLY:HA2	15:CL:97:TYR:HD2	1.79	0.47
19:CP:6:LEU:N	19:CP:6:LEU:HD12	2.30	0.47
25:DA:1288:U:C2	25:DA:1327:C:O2	2.68	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1913:A:C2'	25:DA:1914:C:OP2	2.62	0.47
25:DA:2447:G:H4'	25:DA:2448:A:O5'	2.13	0.47
25:DA:2742:C:O2'	25:DA:2743:C:H5'	2.14	0.47
26:DB:11:C:H2'	26:DB:12:C:C6	2.50	0.47
27:DD:71:ASP:OD2	27:DD:71:ASP:N	2.47	0.47
29:DF:123:LEU:HD12	29:DF:124:LEU:N	2.29	0.47
29:DF:148:LEU:HD23	29:DF:191:ARG:NH1	2.30	0.47
43:DW:29:LEU:HD22	43:DW:69:LEU:HD11	1.96	0.47
49:D2:46:GLN:HB2	49:D2:49:LYS:HZ2	1.80	0.47
50:D3:19:GLN:NE2	50:D3:52:HIS:HE1	2.12	0.47
52:D5:36:CYS:HB2	52:D5:49:CYS:SG	2.55	0.47
1:AA:511:C:O3'	7:AD:43:HIS:CE1	2.68	0.47
1:AA:692:U:O2	1:AA:694:A:C8	2.68	0.47
1:AA:819:A:H4'	1:AA:820:U:OP2	2.15	0.47
1:AA:862:C:O2'	1:AA:863:U:H5'	2.15	0.47
1:AA:1051:C:C4	1:AA:1052:U:C4	3.03	0.47
1:AA:1157:A:C6	1:AA:1180:A:C6	3.03	0.47
1:AA:1329:A:O2'	1:AA:1330:U:H5'	2.14	0.47
10:AG:69:VAL:HG21	10:AG:104:LEU:HD21	1.97	0.47
16:AM:40:ASN:ND2	16:AM:43:THR:HG23	2.30	0.47
22:AS:51:VAL:O	22:AS:57:HIS:HA	2.15	0.47
23:AT:73:HIS:O	23:AT:76:ALA:HB3	2.15	0.47
25:BA:102:G:H4'	25:BA:102:G:OP1	2.15	0.47
25:BA:658:C:H2'	25:BA:659:C:C6	2.50	0.47
25:BA:833:U:H5"	36:BP:48:PRO:HB3	1.97	0.47
25:BA:1356:G:H2'	25:BA:1357:U:C6	2.50	0.47
25:BA:1692:U:H2'	25:BA:1694:C:C5	2.50	0.47
25:BA:2572:A:C8	28:BE:144:ARG:HB3	2.49	0.47
27:BD:77:ALA:HB2	27:BD:97:TYR:HA	1.97	0.47
28:BE:117:MET:HE3	28:BE:136:ARG:HA	1.97	0.47
28:BE:131:ALA:HB1	28:BE:134:ILE:HD11	1.96	0.47
30:BG:32:PRO:HB2	30:BG:172:LEU:CD1	2.38	0.47
38:BR:78:LYS:O	38:BR:83:ILE:HG12	2.15	0.47
39:BS:66:ALA:HA	39:BS:69:VAL:CG1	2.44	0.47
41:BU:90:VAL:HG13	41:BU:91:ASP:N	2.30	0.47
45:BY:71:LYS:HB2	45:BY:71:LYS:HZ3	1.80	0.47
49:B2:7:ARG:HA	49:B2:10:LEU:HD12	1.97	0.47
53:B6:30:THR:O	53:B6:32:ASN:N	2.48	0.47
1:CA:474:G:H5'	19:CP:81:ARG:HG3	1.95	0.47
1:CA:646:U:C4	1:CA:647:C:N4	2.83	0.47
1:CA:1053:G:H4'	1:CA:1055:A:OP1	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CY:60:LYS:O	4:CY:60:LYS:HD3	2.15	0.47
8:CE:13:ILE:HD12	8:CE:13:ILE:N	2.30	0.47
8:CE:102:ALA:HA	8:CE:120:THR:OG1	2.15	0.47
12:CI:7:THR:O	12:CI:83:ARG:HD2	2.14	0.47
25:DA:142:G:H1'	44:DX:37:THR:HG21	1.96	0.47
25:DA:850:C:O2'	50:D3:46:ASN:ND2	2.48	0.47
25:DA:1218:C:O2'	25:DA:1219:G:H5'	2.14	0.47
25:DA:1495:A:OP1	25:DA:1495:A:H8	1.97	0.47
25:DA:2579:C:O2'	28:DE:131:ALA:CB	2.63	0.47
25:DA:2889:C:H2'	25:DA:2890:G:O4'	2.14	0.47
26:DB:82:G:C4	26:DB:83:G:C8	3.03	0.47
36:DP:14:LYS:O	36:DP:15:ARG:HB2	2.15	0.47
36:DP:32:THR:O	36:DP:33:ARG:O	2.32	0.47
48:D1:44:PRO:O	48:D1:46:LEU:N	2.47	0.47
1:AA:116:A:OP2	1:AA:116:A:C8	2.68	0.46
1:AA:939:G:H2'	1:AA:940:C:H6	1.80	0.46
1:AA:1106:G:H2'	1:AA:1107:C:H6	1.79	0.46
1:AA:1152:A:H5'	13:AJ:13:HIS:CD2	2.49	0.46
1:AA:1294:G:H2'	1:AA:1295:G:C8	2.50	0.46
4:AY:193:LEU:O	4:AY:223:VAL:HG21	2.16	0.46
4:AY:345:ASP:O	4:AY:349:VAL:HG23	2.15	0.46
4:AY:357:LEU:HG	4:AY:362:LEU:CD2	2.44	0.46
5:AB:181:PHE:O	5:AB:183:PRO:HD3	2.16	0.46
6:AC:114:PRO:HA	6:AC:185:GLY:HA3	1.96	0.46
8:AE:101:ILE:O	8:AE:101:ILE:HG12	2.13	0.46
19:AP:45:THR:HB	19:AP:46:PRO:HD2	1.97	0.46
24:AU:2:GLY:C	24:AU:4:GLY:N	2.69	0.46
25:BA:476:G:H4'	25:BA:502:A:N1	2.31	0.46
25:BA:775:G:C5	25:BA:794:G:C8	3.03	0.46
25:BA:833:U:H2'	25:BA:834:C:C6	2.50	0.46
25:BA:1162:G:O2'	42:BV:90:PRO:HG2	2.15	0.46
27:BD:34:VAL:C	27:BD:35:LYS:HD2	2.35	0.46
28:BE:57:LYS:HG3	28:BE:58:ARG:N	2.25	0.46
29:BF:153:SER:OG	29:BF:190:GLU:HG3	2.16	0.46
30:BG:141:PHE:HB3	30:BG:142:PRO:HD2	1.98	0.46
31:BH:30:LYS:HB3	31:BH:136:ILE:CG2	2.45	0.46
32:BI:31:LEU:HD13	32:BI:31:LEU:HA	1.80	0.46
38:BR:2:ARG:HD3	38:BR:5:LYS:CE	2.46	0.46
43:BW:88:ARG:HD3	43:BW:94:ASP:OD1	2.15	0.46
47:B0:53:MET:HA	47:B0:58:THR:O	2.15	0.46
48:B1:62:VAL:HG22	48:B1:63:ALA:N	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
55:B8:14:VAL:HG13	55:B8:22:VAL:HG13	1.96	0.46
55:B8:61:LEU:O	55:B8:63:PRO:CD	2.57	0.46
1:CA:523:A:H61	15:CL:91:ASP:HB2	1.79	0.46
1:CA:666:G:H5'	1:CA:726:C:H1'	1.96	0.46
1:CA:892:A:O2'	1:CA:1415:G:H4'	2.15	0.46
1:CA:932:C:H2'	1:CA:933:G:C8	2.50	0.46
1:CA:1127:G:H1	1:CA:1145:C:N4	2.13	0.46
1:CA:1194:U:H4'	8:CE:22:GLY:CA	2.45	0.46
5:CB:17:PHE:HD2	5:CB:17:PHE:N	2.13	0.46
6:CC:110:ASN:O	6:CC:141:VAL:HG22	2.15	0.46
11:CH:113:SER:H	11:CH:134:ILE:HG12	1.80	0.46
14:CK:69:ALA:HB1	14:CK:103:LEU:HD23	1.96	0.46
24:CU:2:GLY:C	24:CU:4:GLY:N	2.69	0.46
25:DA:379:G:H22	48:D1:20:ARG:NH1	2.11	0.46
25:DA:606:U:H4'	25:DA:658:C:H4'	1.97	0.46
25:DA:1175:G:N7	25:DA:1177:A:C4	2.84	0.46
25:DA:2649:U:H2'	25:DA:2650:U:C6	2.50	0.46
26:DB:79:C:H2'	26:DB:80:U:O4'	2.15	0.46
31:DH:98:LEU:HB2	31:DH:125:VAL:HG23	1.97	0.46
33:DK:109:LYS:HG2	33:DK:120:LEU:HD11	1.97	0.46
35:DO:31:LYS:HB3	35:DO:32:TYR:CD1	2.51	0.46
48:D1:40:ARG:C	48:D1:40:ARG:HD3	2.34	0.46
53:D6:30:THR:O	53:D6:32:ASN:N	2.48	0.46
1:AA:540:G:H2'	1:AA:541:G:O4'	2.15	0.46
1:AA:939:G:H2'	1:AA:940:C:C6	2.50	0.46
4:AY:23:TRP:NE1	4:AY:360:ALA:HB1	2.31	0.46
4:AY:358:ILE:HA	4:AY:362:LEU:CB	2.32	0.46
5:AB:211:ILE:O	5:AB:215:LEU:HB2	2.16	0.46
7:AD:3:ARG:HD3	7:AD:115:ARG:HD2	1.98	0.46
8:AE:11:ILE:HB	8:AE:31:LEU:HD22	1.97	0.46
12:AI:8:GLY:O	12:AI:76:ALA:HB1	2.15	0.46
16:AM:54:VAL:HG22	16:AM:57:ARG:HH21	1.79	0.46
25:BA:783:A:H2'	25:BA:785:G:OP1	2.15	0.46
25:BA:806:C:P	36:BP:39:LYS:HD3	2.55	0.46
25:BA:846:C:H4'	25:BA:847:U:O5'	2.15	0.46
25:BA:851:U:O2'	50:B3:45:GLY:HA3	2.14	0.46
25:BA:952:G:P	37:BQ:16:ARG:HH22	2.37	0.46
25:BA:1167:U:C2	25:BA:1183:G:N2	2.83	0.46
25:BA:1506(C):A:H2'	25:BA:1506(D):A:C8	2.51	0.46
25:BA:1655:A:C8	25:BA:1656:C:C5	3.03	0.46
25:BA:1819:A:H5"	27:BD:161:THR:HG21	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1971:A:N3	27:BD:241:PRO:HD3	2.30	0.46
25:BA:2077:A:H1'	25:BA:2435:A:O4'	2.15	0.46
30:BG:16:ARG:N	30:BG:17:PRO:HD2	2.29	0.46
30:BG:133:LEU:N	30:BG:133:LEU:HD23	2.31	0.46
32:BI:29:TYR:C	32:BI:32:PRO:HD2	2.35	0.46
37:BQ:8:LYS:HE2	37:BQ:93:TYR:CE2	2.50	0.46
38:BR:10:LEU:HB2	38:BR:17:ARG:HE	1.79	0.46
38:BR:11:ASN:O	38:BR:12:ARG:CB	2.63	0.46
41:BU:54:LYS:O	41:BU:58:ARG:HG3	2.15	0.46
41:BU:62:ILE:HD11	41:BU:93:LYS:HG2	1.98	0.46
46:BZ:128:VAL:CG2	46:BZ:132:ASN:HB2	2.46	0.46
48:B1:13:ILE:O	48:B1:14:VAL:CB	2.62	0.46
50:B3:4:LEU:HG	50:B3:39:ASP:HB2	1.97	0.46
1:CA:256:U:C2	1:CA:257:G:C8	3.04	0.46
1:CA:393:A:C2	1:CA:394:G:C8	3.03	0.46
1:CA:913:A:H4'	1:CA:914:A:O5'	2.16	0.46
1:CA:1004:A:N3	1:CA:1004:A:H5"	2.31	0.46
1:CA:1071:C:H5"	8:CE:49:PRO:HG2	1.96	0.46
1:CA:1189:C:H5"	6:CC:5:ILE:HG21	1.98	0.46
3:CW:19:G:H3'	3:CW:20:U:C2	2.50	0.46
4:CY:23:TRP:NE1	4:CY:360:ALA:HB1	2.30	0.46
7:CD:158:ILE:HG22	7:CD:159:ARG:N	2.30	0.46
8:CE:20:GLN:O	8:CE:23:GLY:O	2.32	0.46
23:CT:69:GLY:O	23:CT:73:HIS:CD2	2.68	0.46
25:DA:531:C:H4'	25:DA:532:A:H5"	1.97	0.46
25:DA:1161:C:O2'	42:DV:23:GLU:HG2	2.15	0.46
25:DA:1496:A:C8	25:DA:1577:C:O2'	2.67	0.46
25:DA:1754:C:H2'	25:DA:1755:A:O4'	2.14	0.46
25:DA:1983:C:H4'	25:DA:2606:C:H4'	1.97	0.46
25:DA:2243:U:H2'	25:DA:2244:U:C6	2.49	0.46
25:DA:2637:U:C4	25:DA:2638:G:C6	3.03	0.46
27:DD:142:VAL:HG23	27:DD:193:VAL:HA	1.98	0.46
27:DD:155:LEU:HD23	27:DD:177:LEU:HD22	1.97	0.46
29:DF:36:VAL:HG11	29:DF:183:VAL:HG21	1.97	0.46
36:DP:112:LEU:H	36:DP:128:HIS:HD2	1.62	0.46
37:DQ:20:ALA:HA	37:DQ:98:LYS:HB3	1.96	0.46
44:DX:50:LYS:HB3	44:DX:84:ALA:HB2	1.96	0.46
46:DZ:94:GLU:CD	46:DZ:94:GLU:H	2.18	0.46
48:D1:82:LEU:O	48:D1:83:GLU:HB2	2.14	0.46
50:D3:52:HIS:H	50:D3:52:HIS:CD2	2.33	0.46
1:AA:255:G:H2'	1:AA:256:U:H6	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:430:A:OP1	7:AD:9:CYS:HB2	2.16	0.46
1:AA:1396:A:H4'	1:AA:1397:C:H5"	1.96	0.46
5:AB:17:PHE:HD2	5:AB:17:PHE:N	2.13	0.46
9:AF:11:ASN:HB2	9:AF:86:ARG:NH2	2.31	0.46
19:AP:28:ARG:HG2	19:AP:29:ASP:OD1	2.15	0.46
20:AQ:5:VAL:HG13	20:AQ:59:ILE:O	2.15	0.46
20:AQ:60:ILE:HG23	20:AQ:62:SER:OG	2.15	0.46
25:BA:993:G:H1'	42:BV:89:GLN:OE1	2.15	0.46
25:BA:1002:G:H2'	25:BA:1003:G:O4'	2.14	0.46
25:BA:1094:U:H2'	25:BA:1096:A:OP2	2.16	0.46
25:BA:1101:U:H2'	25:BA:1102:C:C6	2.50	0.46
25:BA:1754:C:OP1	40:BT:96:ARG:NH1	2.41	0.46
25:BA:1850:G:C6	25:BA:1851:U:C4	3.03	0.46
29:BF:50:SER:HA	29:BF:92:PRO:O	2.14	0.46
35:BO:31:LYS:HB3	35:BO:32:TYR:CD1	2.51	0.46
38:BR:2:ARG:CZ	38:BR:2:ARG:N	2.78	0.46
46:BZ:74:VAL:HG22	46:BZ:86:VAL:HG13	1.98	0.46
1:CA:115:G:H1'	1:CA:116:A:OP2	2.15	0.46
1:CA:992:U:C5'	1:CA:993:G:OP1	2.62	0.46
1:CA:1117:G:H21	1:CA:1180:A:H1'	1.79	0.46
4:CY:205:PRO:HD3	4:CY:330:ASP:OD2	2.14	0.46
5:CB:233:SER:HB2	5:CB:234:PRO:HD2	1.96	0.46
7:CD:111:ALA:HA	7:CD:161:ASN:HD22	1.80	0.46
7:CD:141:ARG:HB3	7:CD:142:PRO:HD2	1.98	0.46
8:CE:78:HIS:CE1	8:CE:143:ARG:H	2.18	0.46
13:CJ:74:ILE:HG12	13:CJ:74:ILE:O	2.15	0.46
25:DA:276:C:H2'	25:DA:277:A:C8	2.50	0.46
25:DA:1061:U:C4	33:DK:9:LYS:HB3	2.49	0.46
25:DA:1144:G:H2'	25:DA:1145:C:C6	2.50	0.46
25:DA:1506(I):U:H2'	25:DA:1506(J):G:C8	2.50	0.46
25:DA:1541:U:O3'	25:DA:1543:A:OP1	2.33	0.46
25:DA:1543(A):C:OP1	25:DA:1543(A):C:H6	1.98	0.46
25:DA:1590:U:C2	25:DA:1591:G:C8	3.03	0.46
25:DA:1712(Q):G:C2	25:DA:1746:G:C8	3.04	0.46
25:DA:2041:U:H2'	25:DA:2042:A:C8	2.49	0.46
26:DB:11:C:O2'	26:DB:12:C:O4'	2.34	0.46
27:DD:130:ALA:C	27:DD:131:LEU:HD23	2.35	0.46
29:DF:116:ASP:OD2	36:DP:5:ASP:HB3	2.15	0.46
29:DF:181:LEU:CD2	29:DF:186:ILE:HD11	2.44	0.46
30:DG:141:PHE:HB3	30:DG:142:PRO:HD2	1.98	0.46
31:DH:83:TYR:CD1	31:DH:138:LYS:HB2	2.49	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:51:PHE:O	36:DP:52:GLU:CB	2.62	0.46
41:DU:92:ARG:O	41:DU:93:LYS:C	2.54	0.46
1:AA:1258:G:H2'	1:AA:1259:C:C6	2.51	0.46
1:AA:1362(A):C:H4'	1:AA:1363:A:OP2	2.15	0.46
3:AW:19:G:H3'	3:AW:20:U:C2	2.50	0.46
5:AB:218:ALA:O	5:AB:222:ILE:HG12	2.15	0.46
6:AC:40:ARG:O	6:AC:44:GLU:HG2	2.15	0.46
6:AC:110:ASN:O	6:AC:141:VAL:HG22	2.15	0.46
7:AD:173:TRP:CD1	7:AD:174:LEU:HG	2.50	0.46
8:AE:11:ILE:CG1	8:AE:31:LEU:HD22	2.46	0.46
11:AH:20:TYR:HE2	11:AH:75:ARG:HH12	1.63	0.46
11:AH:86:ILE:CB	11:AH:133:LEU:HD22	2.43	0.46
15:AL:69:ILE:HD13	15:AL:76:LEU:HD23	1.96	0.46
25:BA:205:G:O2'	25:BA:206:U:OP2	2.33	0.46
25:BA:1443:G:C2'	25:BA:1444:G:H5'	2.45	0.46
25:BA:2593:U:H2'	25:BA:2594:C:H6	1.81	0.46
25:BA:2836:U:C4	25:BA:2883:A:N6	2.84	0.46
26:BB:82:G:C4	26:BB:83:G:C8	3.04	0.46
29:BF:124:LEU:HB3	29:BF:193:VAL:HG22	1.98	0.46
34:BN:119:GLU:O	34:BN:123:GLU:HG3	2.16	0.46
50:B3:19:GLN:NE2	50:B3:52:HIS:HE1	2.13	0.46
1:CA:68(K):U:O2	1:CA:68(N):U:H5	1.98	0.46
1:CA:375:U:C4	1:CA:376:G:N7	2.83	0.46
1:CA:836:G:H1	1:CA:850:U:H3	1.61	0.46
1:CA:939:G:H2'	1:CA:940:C:H6	1.81	0.46
1:CA:973:G:OP1	13:CJ:57:LYS:HE2	2.14	0.46
5:CB:51:LEU:O	5:CB:55:PHE:HD2	1.99	0.46
5:CB:73:THR:HA	5:CB:94:ASN:O	2.15	0.46
5:CB:218:ALA:O	5:CB:222:ILE:HG12	2.16	0.46
7:CD:60:GLU:CD	7:CD:199:ASN:H	2.18	0.46
9:CF:14:LEU:HG	9:CF:15:ASP:O	2.15	0.46
10:CG:115:ARG:O	10:CG:119:ARG:HG3	2.15	0.46
12:CI:70:LYS:HB2	12:CI:70:LYS:NZ	2.30	0.46
13:CJ:5:ARG:HG3	13:CJ:73:ASP:OD1	2.16	0.46
20:CQ:11:VAL:HG21	20:CQ:88:TYR:CD2	2.50	0.46
25:DA:751:A:C6	25:DA:789:A:C5	3.04	0.46
25:DA:1993:U:H5"	28:DE:128:SER:HB2	1.97	0.46
26:DB:116:G:H4'	39:DS:55:ALA:HA	1.98	0.46
30:DG:11:TYR:OH	30:DG:33:ARG:HG3	2.16	0.46
39:DS:101:LEU:HD13	39:DS:101:LEU:C	2.36	0.46
41:DU:54:LYS:O	41:DU:58:ARG:HG3	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:DW:57:ASN:O	43:DW:61:ASN:HB2	2.16	0.46
50:D3:4:LEU:HG	50:D3:39:ASP:HB2	1.96	0.46
1:AA:68(K):U:O2	1:AA:68(N):U:H5	1.97	0.46
1:AA:186:C:H2'	1:AA:186(A):C:C6	2.50	0.46
1:AA:559:A:H5"	1:AA:560:U:C3'	2.43	0.46
1:AA:978:A:H5"	1:AA:979:C:OP2	2.15	0.46
1:AA:1108:G:H5'	6:AC:176:HIS:CD2	2.50	0.46
1:AA:1490:C:H2'	1:AA:1491:G:H5'	1.96	0.46
5:AB:135:GLN:O	5:AB:139:LYS:HG2	2.15	0.46
12:AI:105:ASP:OD2	12:AI:107:ARG:HD3	2.15	0.46
22:AS:63:THR:H	22:AS:66:MET:HG3	1.81	0.46
25:BA:784:A:H5'	25:BA:785:G:OP1	2.16	0.46
25:BA:1175:G:N7	25:BA:1177:A:C4	2.84	0.46
27:BD:30:GLU:CD	27:BD:63:ARG:HH21	2.19	0.46
28:BE:92:THR:O	28:BE:95:ILE:HG12	2.15	0.46
28:BE:175:VAL:C	28:BE:176:ILE:HD12	2.36	0.46
32:BI:37:VAL:CG1	32:BI:43:ASN:HD22	2.29	0.46
33:BK:144:VAL:HG13	33:BK:145:LYS:H	1.79	0.46
42:BV:39:LEU:O	42:BV:40:LEU:HB2	2.15	0.46
45:BY:90:LEU:HD23	45:BY:90:LEU:N	2.29	0.46
48:B1:82:LEU:O	48:B1:83:GLU:HB2	2.15	0.46
1:CA:355:C:H5'	1:CA:389:A:OP2	2.16	0.46
1:CA:895:G:C6	1:CA:896:C:C4	3.03	0.46
1:CA:1004:A:C8	1:CA:1026:G:C6	3.02	0.46
1:CA:1057:G:C2	1:CA:1204:A:N3	2.84	0.46
1:CA:1115:C:C2'	1:CA:1116:C:H5'	2.45	0.46
1:CA:1152:A:H5'	13:CJ:13:HIS:CD2	2.50	0.46
4:CY:132:THR:HG22	4:CY:181:GLN:CG	2.46	0.46
4:CY:345:ASP:O	4:CY:349:VAL:HG23	2.15	0.46
5:CB:16:HIS:CD2	5:CB:209:ARG:HB3	2.51	0.46
8:CE:11:ILE:CG1	8:CE:31:LEU:HD22	2.45	0.46
9:CF:76:ALA:O	9:CF:80:ARG:HG3	2.15	0.46
23:CT:50:GLU:HA	23:CT:100:ILE:CG1	2.45	0.46
25:DA:46:C:OP2	25:DA:215:G:H5"	2.15	0.46
25:DA:833:U:H2'	25:DA:834:C:C6	2.50	0.46
25:DA:1927:A:C6	25:DA:1928:A:C6	3.03	0.46
25:DA:2681:C:H4'	25:DA:2682:U:H5'	1.97	0.46
29:DF:31:HIS:CG	36:DP:13:ASN:HD22	2.33	0.46
29:DF:34:TRP:HH2	36:DP:16:ARG:HD3	1.80	0.46
33:DK:101:TRP:CD1	33:DK:101:TRP:C	2.88	0.46
34:DN:59:GLY:C	34:DN:61:HIS:H	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
40:DT:100:TYR:HD2	40:DT:103:ARG:HH12	1.62	0.46
43:DW:75:TYR:CE2	43:DW:104:THR:HB	2.50	0.46
1:AA:68(F):C:N4	1:AA:68(T):G:H1	2.13	0.46
1:AA:251:G:N2	1:AA:253:U:C5	2.84	0.46
1:AA:600:C:H2'	1:AA:601:C:H6	1.80	0.46
1:AA:828:A:H5"	1:AA:859:A:C2	2.51	0.46
1:AA:914:A:C2'	1:AA:915:A:H5'	2.45	0.46
1:AA:1262:C:H2'	1:AA:1263:C:C6	2.50	0.46
4:AY:132:THR:HG22	4:AY:181:GLN:CG	2.46	0.46
5:AB:149:LEU:O	5:AB:153:ARG:HG2	2.15	0.46
10:AG:153:HIS:HD2	10:AG:154:TYR:CG	2.34	0.46
18:AO:47:LYS:H	18:AO:47:LYS:HD2	1.81	0.46
20:AQ:23:VAL:HG21	20:AQ:42:TYR:HE1	1.81	0.46
22:AS:20:LEU:HD23	22:AS:23:ASN:ND2	2.30	0.46
23:AT:80:ARG:O	23:AT:84:LEU:HB2	2.16	0.46
25:BA:608:A:C6	25:BA:609:A:C6	3.04	0.46
25:BA:1937:A:C8	25:BA:1939:U:H2'	2.51	0.46
25:BA:2823:A:OP1	28:BE:113:PHE:HB2	2.16	0.46
26:BB:43:C:H2'	26:BB:44:G:H5'	1.98	0.46
26:BB:75:G:H22	46:BZ:73:GLN:NE2	2.14	0.46
27:BD:25:THR:HG22	27:BD:82:ILE:H	1.79	0.46
27:BD:204:ILE:O	27:BD:204:ILE:HD12	2.15	0.46
28:BE:101:ARG:NH2	28:BE:171:GLU:HB2	2.27	0.46
30:BG:11:TYR:OH	30:BG:33:ARG:HG3	2.16	0.46
30:BG:41:GLN:HB3	30:BG:43:LEU:CD2	2.45	0.46
30:BG:91:ARG:HB3	30:BG:91:ARG:NH1	2.31	0.46
30:BG:120:LEU:HB3	30:BG:131:TYR:OH	2.15	0.46
31:BH:12:PRO:HD2	31:BH:49:VAL:HG12	1.97	0.46
36:BP:94:GLU:HG2	36:BP:95:VAL:N	2.31	0.46
39:BS:16:ASN:O	39:BS:20:ARG:HG2	2.15	0.46
40:BT:16:ARG:NH2	40:BT:81:PRO:HA	2.22	0.46
40:BT:77:PRO:O	40:BT:83:ILE:HD11	2.16	0.46
40:BT:115:ARG:HB2	40:BT:116:ALA:H	1.56	0.46
42:BV:38:LEU:HD12	42:BV:57:VAL:HG12	1.96	0.46
42:BV:39:LEU:HA	42:BV:47:VAL:HG13	1.98	0.46
51:B4:40:ILE:HA	51:B4:57:ILE:HB	1.98	0.46
1:CA:35:G:C5	1:CA:36:C:C4	3.03	0.46
1:CA:558:G:H2'	1:CA:559:A:H2	1.80	0.46
1:CA:600:C:H2'	1:CA:601:C:C6	2.51	0.46
4:CY:265:VAL:HA	4:CY:272:THR:HA	1.97	0.46
7:CD:171:GLY:C	7:CD:173:TRP:H	2.19	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:CL:85:ARG:HB2	15:CL:100:VAL:CG2	2.45	0.46
16:CM:7:VAL:HG13	30:DG:115:ARG:HB3	1.98	0.46
18:CO:47:LYS:H	18:CO:47:LYS:HD2	1.81	0.46
22:CS:41:VAL:HG12	22:CS:43:GLU:H	1.81	0.46
25:DA:271(R):C:H42	25:DA:357(D):G:H1	1.64	0.46
25:DA:357:A:H2'	25:DA:357(A):U:C6	2.51	0.46
25:DA:846:C:H4'	25:DA:847:U:O5'	2.15	0.46
25:DA:956:G:OP2	37:DQ:14:ARG:NH2	2.49	0.46
25:DA:1641:A:H2'	25:DA:1642:G:O4'	2.15	0.46
25:DA:2404:C:C2'	25:DA:2405:G:H5'	2.45	0.46
25:DA:2862:G:C5	25:DA:2863:C:C5	3.03	0.46
29:DF:107:LYS:HB3	29:DF:206:ILE:HG21	1.97	0.46
29:DF:153:SER:OG	29:DF:190:GLU:HG3	2.16	0.46
30:DG:177:GLY:O	30:DG:179:PRO:HD3	2.15	0.46
32:DI:99:GLU:O	32:DI:103:ARG:HB2	2.16	0.46
32:DI:109:ILE:HD13	32:DI:109:ILE:H	1.81	0.46
40:DT:50:ILE:O	40:DT:99:LEU:HD12	2.15	0.46
42:DV:14:VAL:CG1	42:DV:96:ILE:HG13	2.45	0.46
52:D5:42:PRO:HB2	52:D5:43:HIS:CD2	2.50	0.46
1:AA:115:G:H1'	1:AA:116:A:OP2	2.15	0.46
1:AA:255:G:H1'	20:AQ:16:GLN:NE2	2.31	0.46
6:AC:29:TYR:CD2	17:AN:36:PHE:CE1	3.04	0.46
8:AE:12:LEU:C	8:AE:12:LEU:HD22	2.36	0.46
11:AH:12:ARG:NH2	11:AH:27:PRO:HD3	2.31	0.46
11:AH:20:TYR:HA	11:AH:65:TYR:CZ	2.50	0.46
12:AI:69:GLY:O	12:AI:73:GLN:HG3	2.15	0.46
15:AL:65:VAL:HG11	15:AL:97:TYR:CD1	2.50	0.46
24:AU:22:ARG:HG2	24:AU:23:PRO:HD2	1.97	0.46
25:BA:46:C:OP2	25:BA:215:G:H5"	2.15	0.46
25:BA:956:G:OP2	37:BQ:14:ARG:NH2	2.49	0.46
25:BA:1263:U:H1'	52:B5:10:LYS:HG3	1.97	0.46
25:BA:1405:U:H2'	25:BA:1406:U:H6	1.78	0.46
25:BA:2487:G:H2'	25:BA:2488:A:C8	2.50	0.46
25:BA:2577:A:H5"	25:BA:2578:G:H5'	1.97	0.46
25:BA:2712:U:H1'	25:BA:2712(A):A:H8	1.73	0.46
27:BD:85:ASP:OD1	27:BD:88:ARG:NH1	2.43	0.46
36:BP:75:ILE:H	36:BP:75:ILE:HD12	1.80	0.46
36:BP:105:LEU:HD12	36:BP:105:LEU:H	1.80	0.46
38:BR:9:LYS:HE2	38:BR:43:GLU:OE2	2.16	0.46
38:BR:10:LEU:HB2	38:BR:17:ARG:NE	2.31	0.46
40:BT:50:ILE:CD1	40:BT:99:LEU:HB2	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
41:BU:91:ASP:OD2	41:BU:96:ALA:HB2	2.15	0.46
44:BX:12:VAL:HG12	44:BX:27:THR:O	2.16	0.46
46:BZ:70:LEU:O	46:BZ:88:PHE:HA	2.16	0.46
1:CA:68(E):G:C2	1:CA:68(V):G:C2	3.03	0.46
1:CA:129(A):G:N2	1:CA:186(I):U:H5"	2.31	0.46
1:CA:976:G:OP1	17:CN:31:ARG:HB2	2.16	0.46
1:CA:1234:C:O2'	1:CA:1235:U:H5'	2.15	0.46
3:CW:40:C:C4	3:CW:41:C:H5	2.34	0.46
4:CY:357:LEU:HG	4:CY:362:LEU:CD2	2.45	0.46
7:CD:67:ILE:HG22	7:CD:114:ARG:HH12	1.80	0.46
11:CH:86:ILE:CB	11:CH:133:LEU:HD22	2.45	0.46
12:CI:8:GLY:O	12:CI:76:ALA:HB1	2.16	0.46
13:CJ:74:ILE:HD13	13:CJ:74:ILE:N	2.26	0.46
21:CR:37:VAL:O	21:CR:41:LYS:HB3	2.16	0.46
25:DA:324:A:N6	25:DA:338:G:O2'	2.47	0.46
25:DA:655:A:C2'	25:DA:656:G:H5'	2.46	0.46
25:DA:1494:A:O2'	25:DA:1495:A:P	2.74	0.46
25:DA:1680:U:O2	25:DA:1763:G:H8	1.98	0.46
25:DA:2285:C:OP2	53:D6:27:LYS:HD2	2.16	0.46
25:DA:2822:G:H8	25:DA:2822:G:O5'	1.99	0.46
27:DD:147:LEU:HD22	27:DD:155:LEU:HD11	1.97	0.46
30:DG:16:ARG:CD	30:DG:31:VAL:HG21	2.44	0.46
30:DG:41:GLN:HB3	30:DG:43:LEU:CD2	2.46	0.46
32:DI:67:ARG:HA	32:DI:70:GLU:HB2	1.97	0.46
32:DI:87:LYS:HB2	32:DI:87:LYS:NZ	2.30	0.46
32:DI:98:ALA:CB	32:DI:111:PRO:HB3	2.46	0.46
33:DK:100:THR:HG22	33:DK:139:VAL:CG2	2.46	0.46
34:DN:49:LEU:O	34:DN:53:ILE:HG13	2.15	0.46
35:DO:88:ASN:N	35:DO:92:GLU:O	2.42	0.46
42:DV:61:VAL:O	42:DV:61:VAL:CG2	2.64	0.46
48:D1:23:LYS:HB3	48:D1:23:LYS:HE2	1.58	0.46
1:AA:355:C:H5'	1:AA:389:A:OP2	2.15	0.46
1:AA:663:A:O2'	1:AA:664:G:H5'	2.15	0.46
1:AA:892:A:O2'	1:AA:1415:G:H4'	2.15	0.46
1:AA:1493:A:N9	4:AY:137:ALA:HA	2.31	0.46
4:AY:251:GLY:HA2	25:BA:2602:A:N7	2.31	0.46
10:AG:24:THR:O	10:AG:27:ILE:HB	2.16	0.46
15:AL:17:VAL:HG23	15:AL:18:ARG:N	2.25	0.46
17:AN:37:PHE:CD2	17:AN:37:PHE:N	2.84	0.46
20:AQ:85:VAL:O	20:AQ:89:LEU:HG	2.15	0.46
22:AS:41:VAL:HG12	22:AS:43:GLU:H	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:511:U:H5”	25:BA:512:G:OP2	2.16	0.46
25:BA:568:U:O4	42:BV:78:LYS:CE	2.64	0.46
25:BA:661:C:O4’	36:BP:16:ARG:HG2	2.15	0.46
25:BA:910:A:C6	25:BA:911:A:C6	3.04	0.46
25:BA:962:G:C6	25:BA:963:U:C4	3.04	0.46
25:BA:1327:C:H2’	25:BA:1328:G:O4’	2.16	0.46
25:BA:2462:U:H1’	25:BA:2491:U:O4	2.16	0.46
25:BA:2473:U:H2’	25:BA:2474:C:H5’	1.98	0.46
25:BA:2822:G:O5’	25:BA:2822:G:H8	1.98	0.46
26:BB:41:U:O4	30:BG:70:VAL:HG23	2.15	0.46
27:BD:21:PHE:HB3	27:BD:24:ILE:HD12	1.97	0.46
29:BF:45:ARG:HH11	29:BF:45:ARG:CG	2.29	0.46
30:BG:111:LEU:O	30:BG:114:ILE:HB	2.16	0.46
32:BI:99:GLU:O	32:BI:103:ARG:HB2	2.16	0.46
35:BO:96:THR:O	35:BO:97:ARG:C	2.52	0.46
41:BU:95:LEU:HD13	42:BV:4:ILE:HD12	1.97	0.46
44:BX:55:ASN:HB2	44:BX:80:ILE:CG1	2.46	0.46
45:BY:27:VAL:HG23	45:BY:27:VAL:O	2.16	0.46
1:CA:990:C:OP1	4:CY:93:PRO:HB3	2.16	0.46
1:CA:1251:A:H2’	1:CA:1252:A:C8	2.51	0.46
1:CA:1329:A:O2’	1:CA:1330:U:H5’	2.15	0.46
1:CA:1350:A:O5’	1:CA:1350:A:H8	1.97	0.46
10:CG:23:VAL:O	10:CG:27:ILE:HG12	2.16	0.46
13:CJ:33:GLN:O	13:CJ:75:ILE:HG12	2.16	0.46
14:CK:87:THR:O	14:CK:87:THR:HG22	2.16	0.46
15:CL:5:THR:HG23	15:CL:8:GLN:HG3	1.97	0.46
15:CL:63:TYR:HB3	15:CL:64:GLU:H	1.62	0.46
15:CL:65:VAL:HG11	15:CL:97:TYR:CD1	2.50	0.46
20:CQ:13:ASP:OD1	20:CQ:13:ASP:N	2.49	0.46
25:DA:81:G:N3	45:DY:2:ARG:NH2	2.63	0.46
25:DA:242:G:C8	55:D8:5:LYS:HG2	2.51	0.46
25:DA:380:U:H2’	25:DA:381:G:C8	2.49	0.46
25:DA:813:U:C4	36:DP:27:HIS:CE1	3.03	0.46
25:DA:1191:G:OP1	36:DP:35:HIS:CD2	2.69	0.46
25:DA:1506(C):A:H2’	25:DA:1506(D):A:C8	2.51	0.46
25:DA:1530:G:C2	25:DA:1542:G:N2	2.84	0.46
25:DA:2025:C:C2	25:DA:2026:C:C5	3.04	0.46
25:DA:2563:U:O2	25:DA:2565:A:H8	1.97	0.46
27:DD:131:LEU:HA	27:DD:190:TYR:CE2	2.51	0.46
29:DF:9:ILE:O	29:DF:9:ILE:HG12	2.16	0.46
30:DG:88:ILE:HG13	30:DG:89:GLY:N	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DI:130:TYR:O	32:DI:132:PRO:HD3	2.16	0.46
37:DQ:8:LYS:HE2	37:DQ:93:TYR:CE2	2.51	0.46
38:DR:48:VAL:C	38:DR:50:HIS:H	2.18	0.46
38:DR:79:LEU:O	38:DR:79:LEU:HD22	2.16	0.46
44:DX:55:ASN:HB2	44:DX:80:ILE:CG1	2.45	0.46
48:D1:60:PHE:CD1	48:D1:91:LYS:HE3	2.51	0.46
49:D2:17:SER:CB	49:D2:18:PRO:HD3	2.40	0.46
1:AA:375:U:C4	1:AA:376:G:N7	2.84	0.46
1:AA:516:U:H3'	1:AA:517:G:C8	2.51	0.46
1:AA:523:A:H61	15:AL:91:ASP:HB2	1.80	0.46
1:AA:1504:G:H3'	1:AA:1504:G:P	2.56	0.46
4:AY:145:TRP:CE2	4:AY:202:LEU:HB2	2.51	0.46
5:AB:118:LEU:HD13	5:AB:142:LEU:HB2	1.98	0.46
9:AF:63:TYR:N	9:AF:63:TYR:CD2	2.83	0.46
10:AG:50:ILE:O	10:AG:54:THR:HG22	2.16	0.46
11:AH:113:SER:H	11:AH:134:ILE:HG12	1.81	0.46
22:AS:29:ARG:HD3	22:AS:48:THR:HB	1.98	0.46
25:BA:324:A:N6	25:BA:338:G:O2'	2.47	0.46
25:BA:527:C:H4'	25:BA:528:A:O5'	2.16	0.46
25:BA:606:U:H4'	25:BA:658:C:H4'	1.96	0.46
25:BA:706:A:H2'	25:BA:707:G:O4'	2.16	0.46
25:BA:896:A:H5'	25:BA:897:C:P	2.54	0.46
25:BA:1144:G:H2'	25:BA:1145:C:C6	2.50	0.46
25:BA:1419:A:O2'	25:BA:1420:U:H2'	2.16	0.46
25:BA:2794(E):A:H2'	25:BA:2802:G:O4'	2.15	0.46
25:BA:2884:U:H5	25:BA:2885:C:C2	2.33	0.46
26:BB:11:C:O2'	26:BB:12:C:O4'	2.34	0.46
31:BH:98:LEU:HB2	31:BH:125:VAL:HG23	1.97	0.46
32:BI:82:ARG:HD2	32:BI:89:TYR:CE2	2.45	0.46
32:BI:95:LYS:O	32:BI:99:GLU:HB3	2.16	0.46
38:BR:49:ASP:OD1	38:BR:95:THR:HB	2.15	0.46
48:B1:27:GLU:HB2	48:B1:33:LYS:HZ2	1.80	0.46
48:B1:51:VAL:HG12	48:B1:58:ILE:O	2.16	0.46
52:B5:4:HIS:CB	52:B5:5:PRO:CD	2.85	0.46
52:B5:42:PRO:HB2	52:B5:43:HIS:HD2	1.81	0.46
1:CA:1124:G:C5'	13:CJ:35:SER:HB2	2.46	0.46
1:CA:1215:G:C2	1:CA:1216:G:C8	3.03	0.46
7:CD:4:TYR:HE1	7:CD:66:ARG:NE	2.03	0.46
12:CI:48:GLU:N	12:CI:49:PRO:CD	2.79	0.46
25:DA:270(N):G:C2	25:DA:270(P):C:C2	3.03	0.46
25:DA:1403:C:O2	25:DA:1403:C:H2'	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2392:A:H8	36:DP:60:MET:HG2	1.80	0.46
25:DA:2487:G:H2'	25:DA:2488:A:C8	2.50	0.46
25:DA:2794(E):A:H2'	25:DA:2802:G:O4'	2.15	0.46
28:DE:116:VAL:HG21	28:DE:122:PHE:CE2	2.51	0.46
29:DF:104:LYS:O	29:DF:108:LYS:HG3	2.15	0.46
33:DK:66:THR:CG2	33:DK:68:VAL:HG23	2.45	0.46
39:DS:25:ARG:HD2	39:DS:27:SER:OG	2.15	0.46
47:D0:31:VAL:HG11	47:D0:67:VAL:HG23	1.98	0.46
55:D8:7:HIS:HD2	55:D8:60:LEU:HD13	1.81	0.46
1:AA:112:G:C2	1:AA:330:C:N4	2.84	0.46
1:AA:386:C:O2'	1:AA:387:U:H5'	2.15	0.46
1:AA:509:A:H4'	1:AA:510:A:OP1	2.13	0.46
4:AY:142:ALA:HB2	4:AY:217:SER:HB2	1.97	0.46
5:AB:44:LEU:H	5:AB:44:LEU:CD1	2.16	0.46
5:AB:80:ILE:HG21	5:AB:211:ILE:HG22	1.98	0.46
9:AF:86:ARG:O	9:AF:87:ARG:HG2	2.16	0.46
13:AJ:33:GLN:O	13:AJ:75:ILE:HG12	2.16	0.46
19:AP:12:LYS:C	19:AP:14:ASN:H	2.19	0.46
25:BA:328:U:H4'	45:BY:68:HIS:ND1	2.30	0.46
25:BA:1543(A):C:H6	25:BA:1543(A):C:OP1	1.98	0.46
25:BA:1842:G:H2'	25:BA:1843:C:C6	2.51	0.46
25:BA:1993:U:H5"	28:BE:128:SER:HB2	1.98	0.46
25:BA:2320:A:C8	25:BA:2333:A:N6	2.84	0.46
25:BA:2853:C:H2'	25:BA:2854:G:H8	1.81	0.46
25:BA:2872:G:O2'	25:BA:2873:A:H5'	2.16	0.46
26:BB:73:A:C4	26:BB:104:A:C2	3.04	0.46
26:BB:116:G:H4'	39:BS:55:ALA:HA	1.98	0.46
27:BD:270:ILE:O	27:BD:271:ILE:HG13	2.16	0.46
30:BG:174:GLU:HG2	30:BG:180:PHE:CE1	2.50	0.46
37:BQ:55:VAL:HG22	37:BQ:56:ARG:N	2.30	0.46
38:BR:4:LEU:C	38:BR:6:SER:N	2.69	0.46
39:BS:73:LEU:O	39:BS:77:ALA:N	2.49	0.46
41:BU:8:VAL:HG12	41:BU:11:ARG:NH2	2.31	0.46
48:B1:44:PRO:O	48:B1:46:LEU:N	2.48	0.46
1:CA:154:C:H2'	1:CA:155:C:C6	2.51	0.46
1:CA:505:G:C6	1:CA:535:A:C2	3.04	0.46
1:CA:623:C:C4	1:CA:624:C:C5	3.04	0.46
1:CA:675:A:H2'	1:CA:676:A:O4'	2.16	0.46
1:CA:1052:U:C2	1:CA:1200:C:N4	2.84	0.46
1:CA:1510:U:H2'	1:CA:1511:G:C8	2.51	0.46
4:CY:227:VAL:HG11	4:CY:308:LEU:HD21	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CY:282:ILE:H	4:CY:282:ILE:HD12	1.79	0.46
5:CB:149:LEU:O	5:CB:153:ARG:HG2	2.16	0.46
7:CD:64:LEU:HD23	7:CD:75:PHE:CZ	2.51	0.46
7:CD:76:ARG:HG3	7:CD:207:TYR:CE2	2.51	0.46
14:CK:20:TYR:HB2	14:CK:31:THR:HG23	1.98	0.46
15:CL:109:VAL:HG23	15:CL:119:TYR:HB3	1.97	0.46
25:DA:775:G:C5	25:DA:794:G:C8	3.04	0.46
25:DA:1487:G:C2	25:DA:1488:G:C8	3.03	0.46
25:DA:2378:A:C2'	39:DS:21:THR:HG21	2.45	0.46
26:DB:43:C:H2'	26:DB:44:G:H5'	1.98	0.46
30:DG:16:ARG:N	30:DG:17:PRO:HD2	2.31	0.46
30:DG:47:LYS:HA	30:DG:88:ILE:CG2	2.46	0.46
38:DR:103:ARG:NH1	38:DR:108:GLY:O	2.50	0.46
41:DU:69:CYS:SG	41:DU:79:PHE:HB2	2.56	0.46
41:DU:92:ARG:HD2	41:DU:94:ASN:HB3	1.98	0.46
42:DV:39:LEU:HD12	42:DV:47:VAL:HG11	1.97	0.46
44:DX:76:ARG:NH1	44:DX:76:ARG:HB2	2.30	0.46
1:AA:39:G:C2	1:AA:40:C:C6	3.04	0.45
1:AA:67:C:H2'	1:AA:68:G:H8	1.74	0.45
1:AA:300:A:H1'	1:AA:565:U:O2	2.16	0.45
1:AA:374:A:C6	1:AA:375:U:C4	3.04	0.45
1:AA:973:G:OP1	13:AJ:57:LYS:HE2	2.16	0.45
1:AA:1291:G:C6	1:AA:1292:U:C4	3.04	0.45
5:AB:36:ARG:HD3	5:AB:41:ILE:HD12	1.97	0.45
6:AC:121:ALA:HB1	6:AC:188:LEU:O	2.16	0.45
6:AC:134:ILE:HG23	6:AC:151:VAL:HB	1.98	0.45
6:AC:164:ARG:HG2	6:AC:165:THR:N	2.29	0.45
10:AG:59:LEU:O	10:AG:63:LYS:HG3	2.16	0.45
11:AH:25:ASP:OD1	11:AH:60:ARG:HG3	2.16	0.45
11:AH:101:PRO:HG2	11:AH:133:LEU:CD1	2.46	0.45
16:AM:4:ILE:C	16:AM:6:GLY:H	2.20	0.45
20:AQ:43:LEU:HB3	20:AQ:69:LYS:HG2	1.97	0.45
25:BA:643:A:C2	25:BA:644:A:C4	3.04	0.45
25:BA:1641:A:H2'	25:BA:1642:G:O4'	2.15	0.45
25:BA:2781:A:H5"	25:BA:2782:G:H5'	1.98	0.45
26:BB:108:C:H5'	26:BB:109:G:P	2.56	0.45
29:BF:34:TRP:HB2	36:BP:10:PRO:O	2.15	0.45
30:BG:19:LEU:HD11	30:BG:172:LEU:HG	1.97	0.45
30:BG:88:ILE:HG13	30:BG:89:GLY:N	2.30	0.45
36:BP:91:PHE:CE2	36:BP:95:VAL:HG12	2.49	0.45
46:BZ:94:GLU:H	46:BZ:94:GLU:CD	2.20	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:56:U:H2'	1:CA:57:G:C8	2.51	0.45
1:CA:186:C:H2'	1:CA:186(A):C:C6	2.50	0.45
1:CA:757:U:H2'	1:CA:758:G:O4'	2.16	0.45
1:CA:1065:U:H5"	1:CA:1190:G:H21	1.81	0.45
5:CB:36:ARG:HD3	5:CB:41:ILE:HD12	1.98	0.45
6:CC:12:LEU:HD11	17:CN:51:GLY:HA2	1.97	0.45
8:CE:51:VAL:HB	8:CE:52:PRO:CD	2.43	0.45
11:CH:20:TYR:HA	11:CH:65:TYR:CZ	2.51	0.45
25:DA:18:C:O3'	41:DU:23:GLY:HA2	2.16	0.45
25:DA:270(U):C:H2'	25:DA:270(V):G:H8	1.81	0.45
25:DA:459:U:H4'	54:D7:40:TRP:CZ3	2.51	0.45
25:DA:2077:A:H1'	25:DA:2435:A:O4'	2.15	0.45
25:DA:2446:G:C3'	25:DA:2447:G:H5"	2.46	0.45
27:DD:238:GLY:O	27:DD:240:ALA:N	2.49	0.45
40:DT:26:ASP:HB2	40:DT:90:GLN:O	2.16	0.45
42:DV:39:LEU:HA	42:DV:47:VAL:HG13	1.98	0.45
43:DW:29:LEU:HG	43:DW:33:ARG:HE	1.81	0.45
45:DY:6:HIS:CD2	45:DY:35:TYR:CE2	3.05	0.45
45:DY:56:PRO:HB2	45:DY:57:GLN:H	1.50	0.45
46:DZ:14:LYS:O	46:DZ:18:LEU:HD13	2.16	0.45
46:DZ:182:LYS:HB3	46:DZ:186:GLU:OE2	2.16	0.45
48:D1:23:LYS:HG3	48:D1:25:LYS:HE2	1.98	0.45
48:D1:51:VAL:HG12	48:D1:58:ILE:O	2.16	0.45
50:D3:52:HIS:ND1	50:D3:53:LEU:HD13	2.32	0.45
55:D8:32:LEU:HD23	55:D8:33:ASN:H	1.81	0.45
1:AA:485:G:O2'	1:AA:486:U:OP2	2.33	0.45
1:AA:687:A:H4'	1:AA:688:G:O5'	2.16	0.45
1:AA:1052:U:C2	1:AA:1200:C:N4	2.84	0.45
1:AA:1371:G:H5"	12:AI:69:GLY:N	2.32	0.45
1:AA:1508:G:H2'	1:AA:1509:C:C6	2.51	0.45
4:AY:94:ALA:HA	4:AY:98:GLU:CB	2.46	0.45
7:AD:138:TYR:CD1	7:AD:138:TYR:C	2.90	0.45
8:AE:48:ALA:HB2	8:AE:57:LYS:CD	2.46	0.45
16:AM:29:ARG:HB3	16:AM:64:TRP:CZ2	2.51	0.45
21:AR:79:LEU:HA	21:AR:80:PRO:HD3	1.81	0.45
25:BA:655:A:C2'	25:BA:656:G:H5'	2.45	0.45
25:BA:2016:U:H1'	52:B5:6:VAL:HG22	1.98	0.45
25:BA:2027:G:H2'	25:BA:2028:U:O4'	2.16	0.45
27:BD:25:THR:O	27:BD:26:LYS:C	2.55	0.45
27:BD:35:LYS:H	27:BD:36:PRO:HD2	1.81	0.45
31:BH:94:TYR:HE2	31:BH:160:LYS:HB3	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:85:LEU:HA	36:BP:88:LEU:HB3	1.97	0.45
42:BV:21:ARG:NE	42:BV:91:TYR:CE1	2.71	0.45
45:BY:55:TYR:HA	45:BY:56:PRO:HD3	1.79	0.45
52:B5:40:LYS:CD	52:B5:46:CYS:HB3	2.46	0.45
1:CA:68(Y):C:H2'	1:CA:101:A:O4'	2.15	0.45
1:CA:192:U:O2'	1:CA:193:C:H5'	2.16	0.45
1:CA:251:G:N2	1:CA:253:U:C5	2.84	0.45
1:CA:255:G:H2'	1:CA:256:U:H6	1.82	0.45
1:CA:622:A:C8	1:CA:623:C:C6	3.04	0.45
1:CA:883:C:C2'	1:CA:884:U:H5'	2.46	0.45
1:CA:1291:G:C6	1:CA:1292:U:C4	3.04	0.45
1:CA:1371:G:C6	1:CA:1372:U:C4	3.04	0.45
4:CY:145:TRP:CE2	4:CY:202:LEU:HB2	2.51	0.45
4:CY:193:LEU:O	4:CY:223:VAL:HG21	2.16	0.45
4:CY:299:LEU:HD13	4:CY:299:LEU:O	2.16	0.45
8:CE:136:MET:HB3	8:CE:140:ARG:HH21	1.81	0.45
10:CG:153:HIS:HD2	10:CG:154:TYR:CG	2.34	0.45
25:DA:77:C:OP1	49:D2:3:LEU:HD11	2.16	0.45
25:DA:530:G:C5	25:DA:2022:U:H5"	2.51	0.45
25:DA:1083:U:HO2'	25:DA:1084:A:H8	1.62	0.45
25:DA:2612:C:H2'	25:DA:2613:U:O5'	2.15	0.45
26:DB:9:G:C6	26:DB:10:C:C4	3.04	0.45
26:DB:63:G:H2'	26:DB:64:C:H6	1.81	0.45
27:DD:31:LYS:HG3	27:DD:33:LEU:CG	2.38	0.45
28:DE:120:TRP:CD1	28:DE:155:LYS:HB3	2.52	0.45
30:DG:131:TYR:HE2	30:DG:133:LEU:HD13	1.81	0.45
33:DK:22:PRO:O	33:DK:25:PRO:HD2	2.16	0.45
45:DY:81:LYS:HZ3	45:DY:98:VAL:HG12	1.81	0.45
46:DZ:74:VAL:HG22	46:DZ:86:VAL:HG13	1.97	0.45
48:D1:54:ALA:H	48:D1:78:LYS:HZ3	1.61	0.45
48:D1:94:LEU:O	48:D1:95:LEU:OXT	2.34	0.45
52:D5:6:VAL:CG2	52:D5:7:PRO:HD2	2.44	0.45
1:AA:192:U:O2'	1:AA:193:C:H5'	2.16	0.45
1:AA:299:G:H2'	1:AA:300:A:C8	2.51	0.45
1:AA:390:C:H4'	19:AP:28:ARG:NH2	2.26	0.45
1:AA:1065:U:H5"	1:AA:1190:G:H21	1.80	0.45
1:AA:1124:G:C5'	13:AJ:35:SER:HB2	2.46	0.45
8:AE:5:ASP:N	8:AE:5:ASP:OD1	2.49	0.45
25:BA:244:A:C2	25:BA:255:A:C5	3.05	0.45
25:BA:1014:U:H2'	25:BA:1015:G:C8	2.51	0.45
25:BA:2086:U:H2'	25:BA:2087:G:C8	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:120:TRP:CD1	28:BE:155:LYS:HB3	2.51	0.45
30:BG:131:TYR:HE2	30:BG:133:LEU:HD13	1.82	0.45
32:BI:53:ALA:HB1	32:BI:57:ARG:HH22	1.80	0.45
32:BI:97:ILE:O	32:BI:101:LEU:N	2.36	0.45
36:BP:135:LEU:HD11	36:BP:139:LYS:HD2	1.99	0.45
42:BV:99:ILE:H	42:BV:99:ILE:CD1	2.24	0.45
44:BX:62:LYS:C	44:BX:63:LYS:HD3	2.37	0.45
46:BZ:94:GLU:HB2	46:BZ:95:PRO:HD2	1.98	0.45
1:CA:386:C:O2'	1:CA:387:U:H5'	2.15	0.45
1:CA:523:A:N6	15:CL:52:ARG:HH12	2.11	0.45
1:CA:880:C:H2'	1:CA:881:G:H8	1.80	0.45
1:CA:900:A:H2'	1:CA:901:A:C8	2.51	0.45
1:CA:939:G:H2'	1:CA:940:C:C6	2.51	0.45
4:CY:94:ALA:HA	4:CY:98:GLU:CB	2.47	0.45
6:CC:79:ARG:HH12	6:CC:82:GLU:HB2	1.82	0.45
8:CE:12:LEU:C	8:CE:12:LEU:HD22	2.36	0.45
9:CF:8:ILE:HD11	9:CF:79:LEU:HD13	1.99	0.45
20:CQ:23:VAL:CG2	20:CQ:42:TYR:HE1	2.30	0.45
25:DA:97:C:O2'	25:DA:98:G:H5'	2.16	0.45
25:DA:706:A:H2'	25:DA:707:G:O4'	2.16	0.45
25:DA:1411:C:H2'	25:DA:1412:A:C8	2.52	0.45
25:DA:1441:G:H2'	25:DA:1442:G:C8	2.51	0.45
25:DA:2262:U:H4'	25:DA:2328:A:H2	1.79	0.45
25:DA:2853:C:H2'	25:DA:2854:G:C8	2.51	0.45
29:DF:108:LYS:HE2	29:DF:108:LYS:HB3	1.82	0.45
29:DF:194:MET:HE3	29:DF:199:TRP:HD1	1.81	0.45
42:DV:39:LEU:O	42:DV:40:LEU:HB2	2.16	0.45
43:DW:24:ILE:HD13	43:DW:36:LEU:HD11	1.99	0.45
45:DY:7:VAL:HB	45:DY:8:LYS:NZ	2.30	0.45
48:D1:65:SER:OG	48:D1:66:HIS:CD2	2.69	0.45
55:D8:29:LYS:HD2	55:D8:44:LYS:HB2	1.98	0.45
55:D8:29:LYS:HD2	55:D8:44:LYS:CB	2.46	0.45
1:AA:112:G:OP1	19:AP:27:LYS:HD2	2.17	0.45
1:AA:255:G:C4	1:AA:256:U:C5	3.05	0.45
1:AA:377:G:O2'	1:AA:378:G:H5'	2.16	0.45
1:AA:662:G:O2'	1:AA:836:G:H5'	2.17	0.45
1:AA:1270:C:H2'	1:AA:1271:G:C8	2.52	0.45
1:AA:1510:U:H2'	1:AA:1511:G:C8	2.52	0.45
2:AV:18:G:C2	3:AW:35:A:C2	3.04	0.45
3:AW:37:A:C4	3:AW:38:A:C8	3.04	0.45
5:AB:16:HIS:CD2	5:AB:209:ARG:HB3	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:AE:110:LEU:HD13	8:AE:118:ILE:HD13	1.99	0.45
10:AG:101:LEU:O	10:AG:105:VAL:HG23	2.17	0.45
12:AI:48:GLU:N	12:AI:49:PRO:CD	2.79	0.45
17:AN:7:ILE:O	17:AN:11:LYS:HG3	2.16	0.45
25:BA:195:A:C8	25:BA:197:A:OP1	2.69	0.45
25:BA:311:A:C8	25:BA:332:A:N7	2.84	0.45
25:BA:492:A:C2'	25:BA:493:G:H5'	2.47	0.45
25:BA:627:A:N6	36:BP:115:LEU:HD13	2.31	0.45
25:BA:1310:G:OP2	54:B7:9:ARG:CZ	2.65	0.45
25:BA:2192:G:H2'	25:BA:2193:G:H8	1.81	0.45
25:BA:2258:C:H4'	25:BA:2259:G:OP2	2.17	0.45
25:BA:2287:A:C4	25:BA:2289:G:C8	3.04	0.45
25:BA:2480:C:H2'	25:BA:2481:G:H5'	1.99	0.45
26:BB:79:C:H2'	26:BB:80:U:O4'	2.16	0.45
27:BD:107:ALA:HA	27:BD:108:PRO:HD3	1.80	0.45
30:BG:148:MET:HA	30:BG:148:MET:CE	2.47	0.45
30:BG:177:GLY:O	30:BG:179:PRO:HD3	2.16	0.45
31:BH:121:ILE:N	31:BH:121:ILE:HD12	2.32	0.45
32:BI:101:LEU:C	32:BI:103:ARG:H	2.19	0.45
32:BI:109:ILE:H	32:BI:109:ILE:HD13	1.81	0.45
32:BI:130:TYR:CE2	32:BI:132:PRO:HG3	2.52	0.45
42:BV:32:THR:HG23	42:BV:58:VAL:HG13	1.99	0.45
45:BY:14:LEU:HD23	45:BY:14:LEU:C	2.36	0.45
48:B1:94:LEU:O	48:B1:95:LEU:OXT	2.34	0.45
50:B3:15:TYR:CE1	50:B3:53:LEU:HD11	2.51	0.45
50:B3:52:HIS:H	50:B3:52:HIS:CD2	2.33	0.45
1:CA:408:A:H4'	7:CD:112:VAL:HG11	1.98	0.45
1:CA:975:A:C8	1:CA:1357:A:H2	2.34	0.45
1:CA:1083:U:H5	1:CA:1084:G:C6	2.35	0.45
4:CY:220:GLY:HA3	4:CY:316:ARG:NH1	2.31	0.45
5:CB:118:LEU:HD13	5:CB:142:LEU:HB2	1.99	0.45
9:CF:33:TYR:HE1	9:CF:75:LEU:HA	1.81	0.45
20:CQ:23:VAL:HG21	20:CQ:42:TYR:HE1	1.80	0.45
25:DA:661:C:O4'	36:DP:16:ARG:HG2	2.16	0.45
25:DA:1857:G:C6	25:DA:1858:G:N1	2.84	0.45
25:DA:1993:U:C5'	28:DE:128:SER:HB2	2.47	0.45
25:DA:2202(C):G:N2	25:DA:2202(D):G:H5'	2.30	0.45
25:DA:2305:A:C3'	25:DA:2306:C:H5"	2.40	0.45
25:DA:2726:U:H5'	25:DA:2726:U:O2	2.16	0.45
27:DD:43:ARG:HB2	27:DD:48:ARG:O	2.17	0.45
27:DD:77:ALA:HB2	27:DD:97:TYR:HA	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DI:37:VAL:CG1	32:DI:43:ASN:HD22	2.29	0.45
32:DI:98:ALA:HB2	32:DI:111:PRO:HB3	1.99	0.45
34:DN:109:PRO:HG2	34:DN:112:LYS:HG3	1.97	0.45
43:DW:12:ILE:HB	43:DW:42:ARG:HH12	1.81	0.45
46:DZ:128:VAL:CG2	46:DZ:132:ASN:HB2	2.45	0.45
55:D8:36:LYS:O	55:D8:37:SER:C	2.55	0.45
1:AA:294:U:C2	1:AA:295:C:C5	3.03	0.45
1:AA:321:A:C2	1:AA:333:G:C2	3.04	0.45
1:AA:349:A:O2'	1:AA:350:G:H5'	2.17	0.45
1:AA:529:G:O6	15:AL:48:ASN:ND2	2.49	0.45
1:AA:619:U:O2	7:AD:135:LEU:HD22	2.16	0.45
1:AA:1096:C:H2'	1:AA:1097:C:H6	1.81	0.45
1:AA:1251:A:H2'	1:AA:1252:A:C8	2.52	0.45
1:AA:1529:G:H4'	1:AA:1530:G:OP2	2.17	0.45
5:AB:169:LYS:HB3	5:AB:169:LYS:HZ3	1.81	0.45
7:AD:112:VAL:HG12	7:AD:116:GLN:NE2	2.31	0.45
17:AN:25:VAL:HG23	17:AN:38:GLY:O	2.16	0.45
21:AR:34:TYR:C	21:AR:35:ARG:HG2	2.37	0.45
25:BA:184:C:H2'	25:BA:185:U:H6	1.81	0.45
25:BA:1185:C:H5"	25:BA:1186:G:OP1	2.16	0.45
25:BA:1541:U:O3'	25:BA:1543:A:OP1	2.34	0.45
26:BB:6:C:C2	26:BB:115:G:N2	2.85	0.45
29:BF:185:ASP:HA	29:BF:188:ARG:CD	2.44	0.45
30:BG:139:LEU:C	30:BG:141:PHE:H	2.20	0.45
40:BT:74:ARG:HD3	40:BT:76:PHE:CZ	2.51	0.45
40:BT:100:TYR:HD2	40:BT:103:ARG:HH12	1.61	0.45
43:BW:12:ILE:HB	43:BW:42:ARG:HH12	1.82	0.45
44:BX:50:LYS:HB3	44:BX:84:ALA:HB2	1.97	0.45
45:BY:4:LYS:H	45:BY:4:LYS:HD3	1.82	0.45
47:B0:32:ARG:HH11	47:B0:32:ARG:HB3	1.81	0.45
47:B0:49:LYS:H	47:B0:80:HIS:CE1	2.34	0.45
55:B8:23:VAL:HG12	55:B8:49:VAL:HG12	1.98	0.45
55:B8:32:LEU:HG	55:B8:36:LYS:HD2	1.97	0.45
1:CA:648:A:O2'	1:CA:649:G:H5'	2.16	0.45
1:CA:1053:G:N7	1:CA:1200:C:H5"	2.31	0.45
1:CA:1213:A:N6	1:CA:1215:G:N3	2.65	0.45
1:CA:1230:C:O2'	1:CA:1231:G:H5'	2.17	0.45
1:CA:1504:G:P	1:CA:1504:G:H3'	2.56	0.45
4:CY:39:LEU:HD13	4:CY:68:LEU:HD21	1.99	0.45
4:CY:119:LEU:C	4:CY:119:LEU:HD23	2.37	0.45
5:CB:181:PHE:O	5:CB:183:PRO:HD3	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CD:30:LYS:C	7:CD:32:ALA:N	2.68	0.45
8:CE:7:GLU:HG2	8:CE:112:LEU:HD22	1.99	0.45
8:CE:142:LEU:O	8:CE:143:ARG:HD3	2.16	0.45
10:CG:50:ILE:O	10:CG:54:THR:HG22	2.17	0.45
10:CG:69:VAL:O	10:CG:71:PRO:HD3	2.17	0.45
11:CH:20:TYR:HA	11:CH:65:TYR:CE2	2.52	0.45
11:CH:109:ILE:HG12	11:CH:110:ALA:N	2.31	0.45
19:CP:12:LYS:C	19:CP:14:ASN:H	2.20	0.45
25:DA:340:A:H2'	25:DA:341:G:O4'	2.17	0.45
25:DA:504:U:O2	25:DA:504:U:O4'	2.34	0.45
25:DA:627:A:H4'	25:DA:628:G:OP1	2.17	0.45
25:DA:773:U:H5'	27:DD:47:GLY:HA3	1.97	0.45
25:DA:1094:U:H2'	25:DA:1096:A:OP2	2.16	0.45
25:DA:1419:A:O2'	25:DA:1420:U:H2'	2.16	0.45
26:DB:17:C:H2'	26:DB:18:G:O4'	2.17	0.45
27:DD:61:LEU:HD13	27:DD:61:LEU:HA	1.76	0.45
30:DG:64:THR:HG23	30:DG:66:GLN:H	1.81	0.45
32:DI:7:GLU:CD	32:DI:8:PRO:HD2	2.37	0.45
35:DO:86:ILE:HD12	35:DO:86:ILE:N	2.31	0.45
36:DP:85:LEU:HA	36:DP:88:LEU:CB	2.47	0.45
39:DS:16:ASN:O	39:DS:20:ARG:HG2	2.16	0.45
45:DY:11:ASP:H	45:DY:27:VAL:HG22	1.81	0.45
46:DZ:25:PRO:O	46:DZ:85:HIS:HA	2.17	0.45
46:DZ:128:VAL:HG21	46:DZ:161:VAL:HG22	1.98	0.45
51:D4:40:ILE:HA	51:D4:57:ILE:HB	1.98	0.45
55:D8:23:VAL:HG12	55:D8:49:VAL:HG12	1.98	0.45
55:D8:55:ALA:O	55:D8:59:LYS:HG2	2.16	0.45
1:AA:192:U:H2'	1:AA:193:C:C6	2.47	0.45
1:AA:975:A:C8	1:AA:1357:A:H2	2.34	0.45
4:AY:220:GLY:HA3	4:AY:316:ARG:NH1	2.32	0.45
4:AY:252:GLY:HA2	25:BA:2585:U:C5	2.51	0.45
5:AB:51:LEU:O	5:AB:55:PHE:HD2	1.99	0.45
6:AC:36:ASP:HA	6:AC:39:ILE:HD12	1.98	0.45
12:AI:118:LYS:O	12:AI:119:ALA:HB3	2.16	0.45
15:AL:99:ILE:HD12	15:AL:99:ILE:HA	1.82	0.45
21:AR:43:PHE:C	21:AR:51:LEU:HD12	2.36	0.45
25:BA:247:G:H4'	25:BA:386:G:C5	2.51	0.45
25:BA:270(U):C:H2'	25:BA:270(V):G:H8	1.82	0.45
25:BA:504:U:O2	25:BA:504:U:O4'	2.33	0.45
25:BA:627:A:H4'	25:BA:628:G:OP1	2.15	0.45
25:BA:813:U:H2'	25:BA:814:C:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2306:C:H4'	30:BG:136:ARG:HH22	1.80	0.45
25:BA:2600:A:O2'	25:BA:2601:C:H5'	2.16	0.45
25:BA:2726:U:H5'	25:BA:2726:U:O2	2.17	0.45
29:BF:176:LEU:HD12	29:BF:177:ALA:N	2.32	0.45
32:BI:1:MET:HB2	32:BI:21:VAL:O	2.16	0.45
33:BK:14:ALA:HB3	33:BK:50:ASP:HA	1.97	0.45
36:BP:49:ARG:NH1	36:BP:49:ARG:CG	2.76	0.45
42:BV:100:ARG:HG3	42:BV:100:ARG:O	2.16	0.45
43:BW:29:LEU:HD22	43:BW:69:LEU:CD1	2.47	0.45
44:BX:62:LYS:O	44:BX:63:LYS:HD3	2.17	0.45
46:BZ:145:GLU:H	46:BZ:148:ASP:HB2	1.82	0.45
1:CA:68(F):C:N4	1:CA:68(T):G:H1	2.14	0.45
1:CA:603:U:H2'	1:CA:604:G:H8	1.81	0.45
1:CA:716:A:H1'	14:CK:118:GLY:HA2	1.98	0.45
1:CA:1508:G:H2'	1:CA:1509:C:C6	2.52	0.45
4:CY:348:ASN:O	4:CY:351:ASP:HB3	2.17	0.45
7:CD:59:ARG:HE	7:CD:59:ARG:CA	2.13	0.45
10:CG:59:LEU:O	10:CG:63:LYS:HG3	2.17	0.45
11:CH:17:THR:HG22	11:CH:63:LEU:HD13	1.99	0.45
16:CM:4:ILE:C	16:CM:6:GLY:H	2.20	0.45
16:CM:29:ARG:HB3	16:CM:64:TRP:CZ2	2.51	0.45
16:CM:40:ASN:ND2	16:CM:43:THR:HG23	2.31	0.45
16:CM:91:ARG:HH11	22:CS:81:ARG:HH12	1.64	0.45
20:CQ:43:LEU:HB3	20:CQ:69:LYS:HG2	1.99	0.45
25:DA:298:G:OP2	45:DY:85:VAL:HG22	2.15	0.45
25:DA:909:A:H2'	25:DA:912:C:H5	1.81	0.45
25:DA:1138:G:H2'	25:DA:1139:G:O4'	2.17	0.45
25:DA:1172:G:H3'	25:DA:1173:A:H5"	1.99	0.45
25:DA:1655:A:C8	25:DA:1656:C:C5	3.04	0.45
25:DA:2010:G:H5"	43:DW:42:ARG:HB2	1.98	0.45
25:DA:2712:U:H1'	25:DA:2712(A):A:H8	1.72	0.45
26:DB:91:C:OP1	37:DQ:19:GLY:HA2	2.17	0.45
27:DD:33:LEU:N	27:DD:33:LEU:HD23	2.32	0.45
30:DG:148:MET:HA	30:DG:148:MET:CE	2.47	0.45
31:DH:55:PRO:HG2	31:DH:61:HIS:CD2	2.52	0.45
32:DI:62:LYS:HE3	32:DI:136:VAL:HG21	1.98	0.45
32:DI:113:ARG:HD2	32:DI:131:LYS:O	2.17	0.45
34:DN:94:ILE:HA	34:DN:109:PRO:HA	1.98	0.45
37:DQ:110:THR:HB	37:DQ:112:GLU:OE1	2.17	0.45
44:DX:34:ALA:HA	44:DX:38:GLU:OE2	2.17	0.45
48:D1:86:SER:HA	48:D1:89:GLU:OE2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:675:A:H2'	1:AA:676:A:O4'	2.17	0.45
1:AA:1440:C:H2'	1:AA:1440(A):G:O4'	2.16	0.45
3:AW:12:G:H1'	25:BA:1923:U:O2'	2.17	0.45
4:AY:355:MET:O	4:AY:359:TRP:HB2	2.17	0.45
5:AB:73:THR:HA	5:AB:94:ASN:O	2.15	0.45
17:AN:32:SER:O	17:AN:40:CYS:HA	2.16	0.45
25:BA:459:U:H4'	54:B7:40:TRP:CZ3	2.52	0.45
25:BA:483:A:C8	25:BA:484:C:C5	3.05	0.45
25:BA:509:C:H5'	25:BA:510:C:OP2	2.17	0.45
25:BA:1378:A:O2'	25:BA:1380:G:N7	2.36	0.45
25:BA:1496:A:C8	25:BA:1577:C:O2'	2.69	0.45
25:BA:1590:U:C2	25:BA:1591:G:C8	3.04	0.45
25:BA:2307:G:H2'	25:BA:2307:G:N3	2.32	0.45
25:BA:2393:A:C5'	36:BP:62:LEU:HD12	2.46	0.45
30:BG:151:ALA:HB3	30:BG:153:ARG:NH1	2.32	0.45
34:BN:92:GLN:O	34:BN:94:ILE:HG23	2.16	0.45
39:BS:26:LEU:HA	39:BS:38:GLN:O	2.16	0.45
41:BU:90:VAL:CG2	41:BU:91:ASP:H	2.01	0.45
43:BW:15:ARG:CZ	52:B5:20:ARG:NH1	2.79	0.45
43:BW:65:LEU:HD12	43:BW:68:ARG:HE	1.80	0.45
46:BZ:128:VAL:HG21	46:BZ:161:VAL:HG22	1.99	0.45
46:BZ:182:LYS:HB3	46:BZ:186:GLU:OE2	2.17	0.45
55:B8:55:ALA:O	55:B8:59:LYS:HG2	2.17	0.45
1:CA:323:U:O4'	23:CT:19:SER:HB2	2.17	0.45
1:CA:687:A:H4'	1:CA:688:G:O5'	2.17	0.45
5:CB:52:GLU:O	5:CB:56:ARG:HG3	2.16	0.45
5:CB:70:PHE:O	5:CB:71:VAL:HG13	2.17	0.45
7:CD:122:ARG:HD3	7:CD:122:ARG:C	2.36	0.45
20:CQ:54:GLY:HA3	20:CQ:82:MET:SD	2.57	0.45
25:DA:53:A:H2'	25:DA:54:G:O4'	2.16	0.45
25:DA:328:U:H4'	45:DY:68:HIS:ND1	2.31	0.45
25:DA:509:C:H5'	25:DA:510:C:OP2	2.16	0.45
25:DA:783:A:H2'	25:DA:785:G:OP1	2.16	0.45
25:DA:1045:A:N6	25:DA:1111:A:H2'	2.32	0.45
25:DA:1485:G:O2'	25:DA:1486:A:H5'	2.16	0.45
25:DA:2393:A:C5'	36:DP:62:LEU:HD12	2.45	0.45
25:DA:2480:C:H2'	25:DA:2481:G:H5'	1.98	0.45
25:DA:2593:U:H2'	25:DA:2594:C:H6	1.81	0.45
32:DI:37:VAL:HG12	32:DI:38:LEU:N	2.31	0.45
32:DI:82:ARG:HD2	32:DI:89:TYR:CE2	2.45	0.45
32:DI:130:TYR:CE2	32:DI:132:PRO:HG3	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:57:THR:HB	36:DP:58:THR:H	1.25	0.45
36:DP:148:LEU:HD22	36:DP:149:GLU:H	1.82	0.45
37:DQ:62:GLY:HA2	46:DZ:116:VAL:HG21	1.97	0.45
43:DW:8:ARG:O	43:DW:9:TYR:HB2	2.17	0.45
44:DX:24:GLY:O	44:DX:83:VAL:HG22	2.16	0.45
45:DY:6:HIS:ND1	45:DY:6:HIS:N	2.64	0.45
46:DZ:125:LEU:HB3	46:DZ:165:VAL:CG1	2.47	0.45
52:D5:42:PRO:HB2	52:D5:43:HIS:HD2	1.82	0.45
1:AA:622:A:C8	1:AA:623:C:C6	3.04	0.45
1:AA:757:U:H2'	1:AA:758:G:O4'	2.16	0.45
1:AA:880:C:H2'	1:AA:881:G:H8	1.82	0.45
1:AA:900:A:H2'	1:AA:901:A:C8	2.52	0.45
1:AA:1057:G:C2	1:AA:1204:A:N3	2.85	0.45
1:AA:1083:U:H5	1:AA:1084:G:C6	2.34	0.45
1:AA:1371:G:C6	1:AA:1372:U:C4	3.05	0.45
12:AI:117:HIS:HB2	12:AI:121:ARG:HD2	1.97	0.45
14:AK:20:TYR:CE2	14:AK:83:ILE:HD12	2.51	0.45
25:BA:773:U:H5'	27:BD:47:GLY:HA3	1.99	0.45
25:BA:1172:G:H3'	25:BA:1173:A:H5"	1.99	0.45
25:BA:1678:G:H8	25:BA:1678:G:OP2	1.99	0.45
25:BA:2223:G:OP1	27:BD:172:TYR:OH	2.30	0.45
25:BA:2533:A:H2'	25:BA:2534:A:O4'	2.17	0.45
27:BD:79:VAL:HG21	27:BD:111:LEU:HD21	1.98	0.45
29:BF:148:LEU:HD23	29:BF:191:ARG:NH1	2.31	0.45
31:BH:43:VAL:O	31:BH:44:VAL:HB	2.17	0.45
32:BI:37:VAL:HG12	32:BI:38:LEU:N	2.32	0.45
37:BQ:110:THR:HB	37:BQ:112:GLU:OE1	2.17	0.45
41:BU:92:ARG:HD2	41:BU:94:ASN:HB3	1.98	0.45
48:B1:40:ARG:HH21	48:B1:42:GLN:HG2	1.82	0.45
1:CA:600:C:H2'	1:CA:601:C:H6	1.81	0.45
1:CA:862:C:O2'	1:CA:863:U:H5'	2.16	0.45
1:CA:914:A:C2'	1:CA:915:A:H5'	2.46	0.45
1:CA:1108:G:H5'	6:CC:176:HIS:CD2	2.51	0.45
1:CA:1371:G:H5"	12:CI:69:GLY:N	2.32	0.45
4:CY:279:ARG:CZ	25:DA:2602:A:N7	2.80	0.45
7:CD:13:ARG:HH12	7:CD:36:ARG:HH11	1.65	0.45
12:CI:28:VAL:CG1	12:CI:65:VAL:HG12	2.47	0.45
12:CI:97:LYS:N	12:CI:98:PRO:CD	2.80	0.45
16:CM:7:VAL:CG1	30:DG:115:ARG:HB3	2.46	0.45
21:CR:70:ILE:O	21:CR:74:ARG:HG3	2.17	0.45
25:DA:658:C:H2'	25:DA:659:C:C6	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1271:G:C2'	25:DA:1618:A:OP1	2.65	0.45
25:DA:1558:A:C1'	25:DA:1559:G:OP2	2.57	0.45
25:DA:2815:C:O2'	52:D5:43:HIS:CD2	2.69	0.45
26:DB:73:A:C4	26:DB:104:A:C2	3.05	0.45
26:DB:108:C:H5'	26:DB:109:G:P	2.56	0.45
29:DF:176:LEU:HD12	29:DF:177:ALA:N	2.31	0.45
30:DG:32:PRO:HA	30:DG:162:THR:OG1	2.16	0.45
30:DG:120:LEU:HB3	30:DG:131:TYR:OH	2.16	0.45
32:DI:101:LEU:C	32:DI:103:ARG:H	2.19	0.45
32:DI:114:LEU:O	32:DI:116:LEU:N	2.45	0.45
35:DO:4:PRO:O	35:DO:5:GLN:HB2	2.16	0.45
37:DQ:75:THR:HA	37:DQ:88:GLY:HA3	1.99	0.45
37:DQ:81:VAL:HG12	37:DQ:82:ARG:HB2	1.99	0.45
41:DU:90:VAL:HG21	42:DV:40:LEU:HD23	1.99	0.45
45:DY:27:VAL:O	45:DY:27:VAL:CG2	2.64	0.45
1:AA:323:U:O4'	23:AT:19:SER:HB2	2.17	0.45
1:AA:603:U:H2'	1:AA:604:G:H8	1.82	0.45
1:AA:716:A:H1'	14:AK:118:GLY:HA2	1.97	0.45
1:AA:932:C:H2'	1:AA:933:G:C8	2.51	0.45
1:AA:1053:G:H4'	1:AA:1055:A:OP1	2.17	0.45
1:AA:1324:A:H2'	1:AA:1325:C:H6	1.81	0.45
6:AC:78:GLY:HA3	6:AC:79:ARG:HH11	1.82	0.45
8:AE:13:ILE:HD12	8:AE:13:ILE:N	2.32	0.45
8:AE:36:ASP:O	8:AE:37:ARG:HB2	2.16	0.45
10:AG:115:ARG:O	10:AG:119:ARG:HG3	2.17	0.45
15:AL:109:VAL:HG23	15:AL:119:TYR:HB3	1.99	0.45
20:AQ:7:THR:HA	20:AQ:57:VAL:O	2.17	0.45
23:AT:56:MET:HG3	23:AT:84:LEU:HD11	1.99	0.45
25:BA:77:C:OP1	49:B2:3:LEU:HD11	2.17	0.45
25:BA:751:A:C6	25:BA:789:A:C5	3.05	0.45
25:BA:1045:A:N6	25:BA:1111:A:H2'	2.32	0.45
25:BA:1441:G:H2'	25:BA:1442:G:C8	2.51	0.45
25:BA:2531:A:H5"	31:BH:157:TYR:CE2	2.52	0.45
27:BD:31:LYS:HB3	27:BD:35:LYS:HG2	1.99	0.45
33:BK:89:HIS:O	33:BK:90:LYS:HG3	2.17	0.45
40:BT:26:ASP:HB2	40:BT:90:GLN:O	2.16	0.45
40:BT:26:ASP:CB	40:BT:91:ARG:HA	2.45	0.45
48:B1:65:SER:OG	48:B1:66:HIS:HD2	2.00	0.45
51:B4:43:GLY:HA3	51:B4:61:VAL:H	1.82	0.45
1:CA:19:C:H2'	1:CA:20:U:C6	2.52	0.45
1:CA:540:G:H2'	1:CA:541:G:O4'	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:622:A:C8	1:CA:623:C:C5	3.04	0.45
1:CA:828:A:H5"	1:CA:859:A:C2	2.52	0.45
1:CA:1305:G:H5"	24:CU:4:GLY:C	2.37	0.45
1:CA:1529:G:H4'	1:CA:1530:G:OP2	2.17	0.45
5:CB:88:ALA:C	5:CB:90:MET:H	2.20	0.45
5:CB:211:ILE:O	5:CB:215:LEU:HB2	2.16	0.45
6:CC:78:GLY:HA3	6:CC:79:ARG:HH11	1.82	0.45
7:CD:105:VAL:O	7:CD:110:PHE:HB2	2.17	0.45
16:CM:39:ILE:CG1	16:CM:56:LEU:HD21	2.34	0.45
25:DA:960:A:H5"	25:DA:961:C:OP2	2.16	0.45
25:DA:1162:G:O2'	42:DV:90:PRO:HG2	2.16	0.45
25:DA:1468:C:H2'	25:DA:1468(A):A:H8	1.81	0.45
25:DA:1799:G:C8	27:DD:181:GLU:OE1	2.61	0.45
25:DA:2039:C:H2'	25:DA:2040:C:H6	1.82	0.45
25:DA:2064:C:H2'	25:DA:2065:C:C6	2.52	0.45
25:DA:2194:G:H2'	25:DA:2195:C:H6	1.82	0.45
25:DA:2307:G:N3	25:DA:2307:G:H2'	2.32	0.45
25:DA:2335:A:O2'	25:DA:2336:A:H5"	2.17	0.45
27:DD:35:LYS:H	27:DD:36:PRO:HD2	1.81	0.45
31:DH:156:ALA:HA	31:DH:169:VAL:CG1	2.46	0.45
35:DO:79:PHE:CD2	40:DT:72:VAL:HG22	2.52	0.45
36:DP:58:THR:C	36:DP:61:ARG:NE	2.68	0.45
36:DP:59:LEU:HA	36:DP:61:ARG:NE	2.32	0.45
36:DP:105:LEU:HD12	36:DP:105:LEU:H	1.82	0.45
36:DP:125:VAL:HG22	36:DP:144:GLU:HB3	1.99	0.45
38:DR:2:ARG:N	38:DR:2:ARG:CZ	2.80	0.45
1:AA:68(Y):C:H2'	1:AA:101:A:O4'	2.16	0.45
1:AA:145:G:H2'	1:AA:146:G:H8	1.82	0.45
1:AA:372:C:H4'	1:AA:373:A:OP1	2.17	0.45
3:AW:76:A:O3'	4:AY:253:PRO:HD3	2.17	0.45
4:AY:83:GLN:O	4:AY:87:GLU:HG3	2.17	0.45
4:AY:119:LEU:HD23	4:AY:119:LEU:C	2.37	0.45
4:AY:203:VAL:HB	4:AY:328:VAL:HG22	1.99	0.45
5:AB:103:THR:HG23	5:AB:176:GLU:OE1	2.17	0.45
7:AD:60:GLU:HG2	7:AD:202:LEU:HB2	1.99	0.45
7:AD:68:TYR:CD2	7:AD:97:LEU:HD22	2.51	0.45
7:AD:188:LEU:HA	7:AD:189:PRO:HD3	1.87	0.45
9:AF:8:ILE:HG22	9:AF:10:LEU:HD12	1.99	0.45
10:AG:23:VAL:O	10:AG:27:ILE:HG12	2.16	0.45
11:AH:4:ASP:HB2	11:AH:89:PRO:CG	2.47	0.45
11:AH:109:ILE:HG12	11:AH:110:ALA:N	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:AO:82:ILE:HD11	18:AO:87:ILE:C	2.38	0.45
22:AS:33:THR:HG23	22:AS:51:VAL:HA	1.99	0.45
25:BA:270(K):C:C2'	25:BA:270(L):U:H2'	2.47	0.45
25:BA:451:C:H4'	29:BF:52:LYS:NZ	2.33	0.45
25:BA:531:C:H4'	25:BA:532:A:H5"	1.99	0.45
25:BA:1036:G:OP1	31:BH:59:ARG:HB2	2.17	0.45
25:BA:1161:C:O2'	42:BV:23:GLU:HG2	2.16	0.45
25:BA:1210:A:H5'	25:BA:1210:A:C8	2.44	0.45
25:BA:1261:C:H2'	25:BA:1262:A:O5'	2.16	0.45
25:BA:1439:A:C2	25:BA:1553:A:C4	3.05	0.45
25:BA:1461:G:O2'	25:BA:1462:C:H5'	2.17	0.45
25:BA:1530:G:C2	25:BA:1542:G:N2	2.85	0.45
25:BA:2064:C:H2'	25:BA:2065:C:C6	2.52	0.45
25:BA:2871:C:H5"	25:BA:2872:G:OP1	2.17	0.45
26:BB:50:G:OP2	39:BS:62:LYS:HE3	2.17	0.45
27:BD:270:ILE:C	27:BD:271:ILE:HG13	2.38	0.45
29:BF:32:LEU:C	29:BF:32:LEU:HD23	2.37	0.45
31:BH:126:PRO:HG2	31:BH:130:ARG:HD2	1.99	0.45
32:BI:44:LEU:O	32:BI:48:GLU:HG2	2.16	0.45
36:BP:32:THR:O	36:BP:33:ARG:O	2.35	0.45
38:BR:51:LEU:HD22	38:BR:70:LEU:HD21	1.99	0.45
42:BV:2:PHE:CE2	42:BV:13:ARG:HB2	2.52	0.45
42:BV:8:GLY:HA3	42:BV:23:GLU:HB3	1.99	0.45
46:BZ:125:LEU:HB3	46:BZ:165:VAL:CG1	2.47	0.45
1:CA:337:C:H2'	1:CA:338:A:H8	1.82	0.45
1:CA:515:G:C2	1:CA:537:G:C2	3.05	0.45
1:CA:1096:C:H2'	1:CA:1097:C:H6	1.82	0.45
1:CA:1216:G:H5"	17:CN:5:ALA:HB2	1.98	0.45
1:CA:1270:C:H2'	1:CA:1271:G:C8	2.52	0.45
4:CY:317:PRO:HD2	4:CY:322:SER:HB2	1.98	0.45
4:CY:357:LEU:HD12	4:CY:357:LEU:HA	1.83	0.45
6:CC:121:ALA:HB1	6:CC:188:LEU:O	2.16	0.45
11:CH:42:GLU:HG3	11:CH:109:ILE:HD12	1.99	0.45
11:CH:106:GLY:C	11:CH:108:GLY:H	2.19	0.45
16:CM:84:ILE:HG23	16:CM:86:CYS:H	1.81	0.45
22:CS:28:LYS:HB3	22:CS:29:ARG:HH11	1.82	0.45
25:DA:176:G:O2'	25:DA:177:G:H5'	2.16	0.45
25:DA:500:G:N2	25:DA:502:A:H3'	2.32	0.45
25:DA:1263:U:H1'	52:D5:10:LYS:HG3	1.98	0.45
25:DA:1461:G:O2'	25:DA:1462:C:H5'	2.17	0.45
25:DA:1925:C:O2'	25:DA:1926:U:H5'	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2026:C:C2	25:DA:2027:G:C8	3.05	0.45
25:DA:2436:G:C5	25:DA:2437:U:C5	3.04	0.45
25:DA:2777:G:C5'	25:DA:2778:A:H5'	2.38	0.45
26:DB:52:A:C5	26:DB:53:A:C8	3.05	0.45
27:DD:148:GLU:HB2	27:DD:151:LYS:HD2	1.99	0.45
28:DE:11:MET:CB	28:DE:24:THR:HA	2.47	0.45
29:DF:53:THR:C	29:DF:55:GLY:N	2.69	0.45
31:DH:17:VAL:HA	31:DH:25:LYS:O	2.16	0.45
32:DI:5:LEU:HD23	32:DI:5:LEU:N	2.29	0.45
35:DO:88:ASN:N	35:DO:94:ARG:HG2	2.31	0.45
37:DQ:55:VAL:CG2	37:DQ:56:ARG:N	2.80	0.45
42:DV:100:ARG:HG3	42:DV:100:ARG:O	2.17	0.45
55:D8:17:THR:OG1	55:D8:21:LYS:HB2	2.17	0.45
1:AA:895:G:C6	1:AA:896:C:C4	3.05	0.44
1:AA:1418:A:C2	1:AA:1483:A:C2	3.05	0.44
5:AB:88:ALA:C	5:AB:90:MET:H	2.20	0.44
5:AB:231:GLU:CD	5:AB:232:PRO:HD2	2.37	0.44
8:AE:79:GLU:HB3	8:AE:92:LYS:HG3	1.99	0.44
11:AH:106:GLY:C	11:AH:108:GLY:H	2.20	0.44
12:AI:92:TYR:HD1	12:AI:92:TYR:HA	1.67	0.44
25:BA:271(R):C:H42	25:BA:357(D):G:H1	1.64	0.44
25:BA:380:U:H2'	25:BA:381:G:C8	2.52	0.44
25:BA:1141:U:OP2	34:BN:86:THR:OG1	2.35	0.44
25:BA:1154:G:O5'	25:BA:1154:G:H8	2.00	0.44
25:BA:1578:U:C2'	25:BA:1579:A:H5'	2.47	0.44
25:BA:2019:A:O3'	41:BU:27:LEU:HD12	2.16	0.44
25:BA:2202(C):G:N2	25:BA:2202(D):G:H5'	2.31	0.44
25:BA:2794(C):C:H5"	25:BA:2794(D):A:OP2	2.17	0.44
25:BA:2853:C:H2'	25:BA:2854:G:C8	2.52	0.44
27:BD:130:ALA:C	27:BD:131:LEU:HD23	2.37	0.44
32:BI:63:ALA:HA	32:BI:66:GLU:CD	2.37	0.44
34:BN:94:ILE:HA	34:BN:109:PRO:HA	1.98	0.44
37:BQ:75:THR:HA	37:BQ:88:GLY:HA3	1.99	0.44
38:BR:82:GLU:C	38:BR:85:PRO:HD2	2.37	0.44
43:BW:82:LEU:N	43:BW:82:LEU:HD12	2.32	0.44
44:BX:76:ARG:NH1	44:BX:76:ARG:HB2	2.32	0.44
46:BZ:25:PRO:O	46:BZ:85:HIS:HA	2.17	0.44
1:CA:160:A:H1'	1:CA:344:A:N7	2.32	0.44
1:CA:353:A:C2'	1:CA:354:G:OP2	2.65	0.44
1:CA:509:A:OP2	1:CA:509:A:C3'	2.59	0.44
1:CA:626:U:H2'	1:CA:627:G:H8	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:924:C:O2'	1:CA:925:G:H5'	2.16	0.44
4:CY:83:GLN:O	4:CY:87:GLU:HG3	2.17	0.44
4:CY:355:MET:O	4:CY:359:TRP:HB2	2.16	0.44
7:CD:63:LYS:HE3	7:CD:63:LYS:HB2	1.74	0.44
11:CH:25:ASP:OD1	11:CH:60:ARG:HG3	2.16	0.44
20:CQ:7:THR:HA	20:CQ:57:VAL:O	2.17	0.44
25:DA:298:G:P	45:DY:85:VAL:HG22	2.57	0.44
25:DA:686:G:H4'	25:DA:687:C:OP2	2.17	0.44
25:DA:1063:G:H1'	33:DK:134:MET:HA	1.99	0.44
25:DA:1657:C:O2'	25:DA:1658:C:H5'	2.17	0.44
25:DA:2035:G:H4'	25:DA:2036:C:OP2	2.16	0.44
25:DA:2421:G:N7	55:D8:31:HIS:CE1	2.85	0.44
25:DA:2738:A:H2'	25:DA:2739:U:O5'	2.17	0.44
25:DA:2781:A:H5"	25:DA:2782:G:H5'	1.99	0.44
27:DD:25:THR:O	27:DD:26:LYS:C	2.55	0.44
28:DE:111:ARG:C	38:DR:2:ARG:HG3	2.38	0.44
28:DE:203:LYS:HE3	28:DE:204:ALA:HB2	1.99	0.44
29:DF:185:ASP:HA	29:DF:188:ARG:CD	2.40	0.44
30:DG:111:LEU:O	30:DG:114:ILE:HB	2.17	0.44
32:DI:58:LEU:C	32:DI:60:GLU:H	2.21	0.44
36:DP:122:PRO:O	36:DP:142:GLY:HA3	2.18	0.44
43:DW:82:LEU:HD12	43:DW:82:LEU:N	2.32	0.44
46:DZ:94:GLU:HB2	46:DZ:95:PRO:HD2	1.97	0.44
49:D2:12:GLU:O	49:D2:14:ARG:N	2.50	0.44
1:AA:19:C:H2'	1:AA:20:U:C6	2.52	0.44
1:AA:558:G:H2'	1:AA:559:A:C2	2.52	0.44
1:AA:622:A:C8	1:AA:623:C:C5	3.05	0.44
1:AA:818:G:HO2'	1:AA:819:A:H5'	1.82	0.44
1:AA:1230:C:O2'	1:AA:1231:G:H5'	2.17	0.44
3:AW:30:G:N2	3:AW:31:G:H1'	2.33	0.44
4:AY:89:MET:HE3	4:AY:101:LYS:HE2	1.99	0.44
4:AY:265:VAL:HA	4:AY:272:THR:HA	1.97	0.44
5:AB:52:GLU:O	5:AB:56:ARG:HG3	2.17	0.44
8:AE:135:THR:O	8:AE:138:ALA:HB3	2.17	0.44
9:AF:37:VAL:CG1	9:AF:38:GLU:H	2.23	0.44
10:AG:69:VAL:O	10:AG:71:PRO:HD3	2.17	0.44
12:AI:5:TYR:HA	12:AI:17:VAL:O	2.17	0.44
25:BA:30:G:C6	25:BA:31:C:C4	3.05	0.44
25:BA:926:A:H2'	25:BA:928:G:H8	1.82	0.44
25:BA:1126:A:H4'	25:BA:1127:A:O5'	2.17	0.44
25:BA:1485:G:O2'	25:BA:1486:A:H5'	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2035:G:H4'	25:BA:2036:C:OP2	2.18	0.44
25:BA:2436:G:C5	25:BA:2437:U:C5	3.05	0.44
25:BA:2709:G:O2'	25:BA:2710:C:H5'	2.18	0.44
25:BA:2862:G:C5	25:BA:2863:C:C5	3.05	0.44
26:BB:13:A:C2'	26:BB:14:U:H5"	2.47	0.44
27:BD:171:ASP:OD2	27:BD:171:ASP:N	2.50	0.44
29:BF:31:HIS:HB2	36:BP:13:ASN:HB3	1.99	0.44
30:BG:37:VAL:O	30:BG:94:LEU:HD23	2.16	0.44
30:BG:130:ASN:OD1	30:BG:160:VAL:HG13	2.18	0.44
33:BK:34:ILE:HA	33:BK:38:VAL:HG23	1.99	0.44
42:BV:7:THR:HG23	42:BV:22:VAL:HG11	1.99	0.44
42:BV:35:LEU:HB3	42:BV:37:VAL:HG23	1.99	0.44
43:BW:8:ARG:O	43:BW:9:TYR:HB2	2.17	0.44
1:CA:216:G:C2	1:CA:217:C:N4	2.85	0.44
1:CA:372:C:H4'	1:CA:373:A:OP1	2.18	0.44
1:CA:447:G:H2'	1:CA:485:G:H22	1.83	0.44
1:CA:491:G:H2'	1:CA:492:G:H8	1.82	0.44
1:CA:938:A:C2	1:CA:1376:U:H1'	2.52	0.44
1:CA:1126:U:OP2	1:CA:1281:U:O2	2.35	0.44
1:CA:1440:C:H2'	1:CA:1440(A):G:O4'	2.17	0.44
6:CC:134:ILE:HG23	6:CC:151:VAL:HB	1.99	0.44
6:CC:179:ARG:HG3	6:CC:179:ARG:O	2.17	0.44
8:CE:135:THR:O	8:CE:138:ALA:HB3	2.16	0.44
22:CS:29:ARG:HD3	22:CS:48:THR:HB	1.98	0.44
25:DA:132:G:H1	25:DA:147:U:H3	1.65	0.44
25:DA:412:A:N3	25:DA:412:A:H2'	2.32	0.44
25:DA:631:A:H2'	25:DA:632:A:O4'	2.17	0.44
25:DA:842:G:N2	25:DA:937:U:C2	2.85	0.44
25:DA:941:A:O3'	36:DP:35:HIS:HB2	2.16	0.44
25:DA:1188:U:H4'	42:DV:79:VAL:HG13	1.98	0.44
25:DA:1288:U:H1'	25:DA:1647:G:H21	1.82	0.44
25:DA:2019:A:O3'	41:DU:27:LEU:HD12	2.17	0.44
25:DA:2192:G:H2'	25:DA:2193:G:H8	1.81	0.44
25:DA:2472:G:H2'	25:DA:2475:C:H42	1.83	0.44
25:DA:2749:A:H4'	31:DH:62:LYS:HB3	2.00	0.44
27:DD:77:ALA:HB2	27:DD:97:TYR:CD2	2.52	0.44
28:DE:130:GLY:O	28:DE:131:ALA:CB	2.63	0.44
29:DF:31:HIS:O	29:DF:34:TRP:HB3	2.17	0.44
30:DG:133:LEU:HD23	30:DG:133:LEU:N	2.31	0.44
34:DN:154:GLN:NE2	34:DN:155:ALA:HB3	2.32	0.44
36:DP:6:LEU:CG	36:DP:8:PRO:HD2	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:DP:40:SER:O	36:DP:41:ARG:NE	2.46	0.44
37:DQ:37:LEU:O	37:DQ:99:PRO:HB3	2.18	0.44
38:DR:67:LEU:CD2	38:DR:76:VAL:HG11	2.45	0.44
41:DU:95:LEU:HD13	42:DV:4:ILE:HD12	1.99	0.44
46:DZ:30:ASN:OD1	46:DZ:33:LEU:HB3	2.16	0.44
48:D1:54:ALA:H	48:D1:78:LYS:HZ1	1.62	0.44
48:D1:83:GLU:HG2	48:D1:84:GLY:H	1.83	0.44
1:AA:154:C:H2'	1:AA:155:C:C6	2.52	0.44
1:AA:620:C:C2	7:AD:135:LEU:HD23	2.52	0.44
1:AA:956:U:O2	1:AA:956:U:H2'	2.17	0.44
1:AA:1126:U:OP2	1:AA:1281:U:O2	2.36	0.44
1:AA:1516:G:N1	1:AA:1519:A:OP2	2.49	0.44
4:AY:87:GLU:HB3	4:AY:88:LEU:HD22	1.99	0.44
4:AY:227:VAL:HG11	4:AY:308:LEU:HD21	1.97	0.44
4:AY:348:ASN:O	4:AY:351:ASP:HB3	2.16	0.44
5:AB:197:VAL:HB	5:AB:200:ILE:HG12	2.00	0.44
6:AC:79:ARG:HH12	6:AC:82:GLU:HB2	1.82	0.44
7:AD:158:ILE:HA	7:AD:158:ILE:HD13	1.84	0.44
7:AD:191:ARG:HD3	7:AD:200:GLU:OE1	2.17	0.44
11:AH:112:LEU:HA	11:AH:134:ILE:HG12	1.99	0.44
16:AM:84:ILE:HG23	16:AM:86:CYS:H	1.83	0.44
25:BA:132:G:H1	25:BA:147:U:H3	1.65	0.44
25:BA:298:G:OP2	45:BY:85:VAL:HG22	2.16	0.44
25:BA:357:A:H2'	25:BA:357(A):U:C6	2.52	0.44
25:BA:903:C:H2'	25:BA:904:C:C6	2.53	0.44
25:BA:984:A:H5"	25:BA:985:C:H5	1.82	0.44
25:BA:1614:A:C6	43:BW:87:PRO:HA	2.52	0.44
25:BA:2335:A:O2'	25:BA:2336:A:H5"	2.17	0.44
25:BA:2564:A:OP1	25:BA:2648:C:H4'	2.17	0.44
31:BH:31:GLY:O	31:BH:79:VAL:HG11	2.18	0.44
35:BO:80:ASP:OD2	40:BT:71:GLY:HA3	2.17	0.44
36:BP:86:LYS:HG3	36:BP:87:ASP:N	2.32	0.44
36:BP:144:GLU:N	36:BP:144:GLU:OE1	2.50	0.44
36:BP:148:LEU:HD22	36:BP:149:GLU:H	1.82	0.44
41:BU:79:PHE:CZ	41:BU:83:LEU:HD11	2.52	0.44
42:BV:61:VAL:O	42:BV:61:VAL:CG2	2.65	0.44
54:B7:19:ARG:NH1	54:B7:19:ARG:HB3	2.32	0.44
55:B8:29:LYS:HD2	55:B8:44:LYS:HB2	2.00	0.44
1:CA:1505:G:H5"	1:CA:1506:U:OP1	2.17	0.44
7:CD:29:PRO:HG2	7:CD:30:LYS:NZ	2.33	0.44
7:CD:55:ALA:O	7:CD:59:ARG:HG2	2.16	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:CG:24:THR:O	10:CG:27:ILE:HB	2.17	0.44
15:CL:40:ARG:HG2	15:CL:41:THR:H	1.82	0.44
15:CL:45:LYS:HB2	15:CL:91:ASP:O	2.17	0.44
23:CT:20:LEU:O	23:CT:24:LEU:HD23	2.18	0.44
25:DA:1063:G:O2'	33:DK:134:MET:HA	2.18	0.44
25:DA:1141:U:OP2	34:DN:86:THR:OG1	2.36	0.44
25:DA:1327:C:H2'	25:DA:1328:G:O4'	2.16	0.44
27:DD:35:LYS:O	27:DD:64:ILE:HG13	2.18	0.44
29:DF:150:GLY:HA2	29:DF:172:TRP:CE3	2.52	0.44
31:DH:13:LYS:CD	31:DH:14:GLY:N	2.81	0.44
32:DI:40:THR:HG23	32:DI:43:ASN:HB2	1.98	0.44
32:DI:77:LEU:HD21	32:DI:101:LEU:HD13	1.99	0.44
32:DI:91:SER:OG	32:DI:92:VAL:N	2.51	0.44
33:DK:109:LYS:O	33:DK:112:MET:HG2	2.17	0.44
34:DN:92:GLN:O	34:DN:94:ILE:HG23	2.17	0.44
40:DT:9:LEU:O	40:DT:9:LEU:HD23	2.17	0.44
1:AA:626:U:H2'	1:AA:627:G:H8	1.82	0.44
1:AA:648:A:O2'	1:AA:649:G:H5'	2.17	0.44
1:AA:1189:C:H5"	6:AC:5:ILE:HG21	1.98	0.44
1:AA:1234:C:O2'	1:AA:1235:U:H5'	2.18	0.44
1:AA:1327:C:OP1	24:AU:21:TYR:HD1	2.00	0.44
1:AA:1440(J):C:O2'	1:AA:1440(K):G:C2	2.68	0.44
12:AI:28:VAL:CG1	12:AI:65:VAL:HG12	2.47	0.44
13:AJ:49:VAL:HG13	17:AN:41:ARG:HB2	2.00	0.44
15:AL:82:VAL:HG22	15:AL:99:ILE:HD11	2.00	0.44
25:BA:910:A:C6	37:BQ:13:GLN:HG3	2.52	0.44
25:BA:1411:C:H2'	25:BA:1412:A:C8	2.51	0.44
25:BA:1540:G:H2'	25:BA:1541:U:O4'	2.18	0.44
25:BA:2023:G:H4'	25:BA:2617:C:O3'	2.18	0.44
25:BA:2056:G:H1	52:B5:4:HIS:HA	1.82	0.44
26:BB:8:U:H3	26:BB:112:G:H1	1.65	0.44
26:BB:63:G:H2'	26:BB:64:C:H6	1.83	0.44
27:BD:33:LEU:O	27:BD:35:LYS:N	2.44	0.44
27:BD:136:ILE:HA	27:BD:137:PRO:HD3	1.86	0.44
29:BF:9:ILE:O	29:BF:9:ILE:HG12	2.17	0.44
29:BF:31:HIS:O	29:BF:34:TRP:HB3	2.18	0.44
30:BG:135:LEU:HD23	30:BG:140:ILE:HD11	2.00	0.44
31:BH:12:PRO:HB2	31:BH:49:VAL:HA	1.98	0.44
31:BH:17:VAL:HA	31:BH:25:LYS:O	2.18	0.44
31:BH:21:PRO:HG2	31:BH:23:ARG:NH1	2.32	0.44
32:BI:58:LEU:C	32:BI:60:GLU:H	2.21	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
34:BN:117:HIS:HA	34:BN:118:PRO:HD3	1.81	0.44
35:BO:88:ASN:N	35:BO:94:ARG:HG2	2.32	0.44
37:BQ:37:LEU:C	37:BQ:99:PRO:HB3	2.38	0.44
37:BQ:62:GLY:HA2	46:BZ:116:VAL:HG21	1.98	0.44
41:BU:92:ARG:O	41:BU:93:LYS:C	2.56	0.44
48:B1:86:SER:HA	48:B1:89:GLU:OE2	2.17	0.44
1:CA:112:G:C2	1:CA:330:C:N4	2.85	0.44
1:CA:300:A:H1'	1:CA:565:U:O2	2.17	0.44
1:CA:515:G:H2'	1:CA:516:U:O4'	2.18	0.44
1:CA:1102:A:C5	1:CA:1103:C:C4	3.06	0.44
1:CA:1269:A:H5"	24:CU:24:ARG:NH1	2.32	0.44
1:CA:1324:A:H2'	1:CA:1325:C:H6	1.83	0.44
1:CA:1516:G:N1	1:CA:1519:A:OP2	2.49	0.44
5:CB:231:GLU:CD	5:CB:232:PRO:HD2	2.38	0.44
6:CC:22:TRP:HB2	6:CC:23:TYR:H	1.61	0.44
7:CD:19:LEU:O	7:CD:21:LEU:HG	2.18	0.44
7:CD:25:ARG:C	7:CD:27:TYR:H	2.20	0.44
8:CE:76:ILE:CG2	8:CE:93:PRO:HG3	2.38	0.44
9:CF:11:ASN:HB2	9:CF:86:ARG:NH2	2.32	0.44
11:CH:112:LEU:HA	11:CH:134:ILE:HG12	1.99	0.44
19:CP:45:THR:HB	19:CP:46:PRO:HD2	1.98	0.44
22:CS:33:THR:HG23	22:CS:51:VAL:HA	1.99	0.44
25:DA:176:G:C2'	25:DA:177:G:H5'	2.48	0.44
25:DA:242:G:C6	55:D8:5:LYS:HE2	2.53	0.44
25:DA:1217:C:OP1	41:DU:15:LYS:NZ	2.47	0.44
25:DA:1310:G:OP2	54:D7:9:ARG:CZ	2.66	0.44
25:DA:1439:A:C2	25:DA:1553:A:C4	3.05	0.44
25:DA:2259:G:C2	25:DA:2282:G:C6	3.05	0.44
25:DA:2306:C:H4'	30:DG:136:ARG:HH22	1.82	0.44
25:DA:2852:G:C2	25:DA:2853:C:C2	3.05	0.44
26:DB:9:G:C6	26:DB:112:G:C6	3.06	0.44
27:DD:112:GLN:O	27:DD:115:GLN:HG3	2.18	0.44
28:DE:203:LYS:HD2	28:DE:203:LYS:O	2.17	0.44
34:DN:118:PRO:O	34:DN:121:VAL:HG13	2.18	0.44
36:DP:96:THR:O	36:DP:100:LEU:HD23	2.16	0.44
40:DT:57:PHE:O	40:DT:58:ASN:C	2.55	0.44
42:DV:25:LEU:H	42:DV:92:THR:HG21	1.82	0.44
47:D0:32:ARG:HH11	47:D0:32:ARG:HB3	1.81	0.44
49:D2:46:GLN:HB2	49:D2:49:LYS:HZ3	1.82	0.44
1:AA:216:G:C2	1:AA:217:C:N4	2.86	0.44
1:AA:634:C:H2'	1:AA:635:G:C8	2.46	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:830:G:C2	1:AA:831:U:C2	3.05	0.44
1:AA:981:U:H5'	17:AN:21:TYR:CE1	2.52	0.44
4:AY:77:SER:CB	4:AY:110:LYS:HZ1	2.31	0.44
5:AB:70:PHE:O	5:AB:71:VAL:HG13	2.18	0.44
7:AD:166:LYS:O	7:AD:168:ARG:N	2.43	0.44
10:AG:38:LEU:O	10:AG:42:ILE:HG13	2.18	0.44
12:AI:97:LYS:N	12:AI:98:PRO:CD	2.80	0.44
13:AJ:55:LYS:O	13:AJ:55:LYS:HD2	2.17	0.44
15:AL:84:ILE:HD12	15:AL:84:ILE:HA	1.79	0.44
25:BA:340:A:H2'	25:BA:341:G:O4'	2.17	0.44
25:BA:1145:C:H2'	25:BA:1146:C:C6	2.53	0.44
25:BA:2711:A:OP1	25:BA:2712(A):A:OP1	2.36	0.44
25:BA:2809:A:C2	25:BA:2892:A:N3	2.86	0.44
28:BE:1:MET:O	28:BE:84:PHE:HB2	2.18	0.44
28:BE:14:ILE:C	28:BE:14:ILE:HD12	2.38	0.44
31:BH:55:PRO:HG2	31:BH:61:HIS:CD2	2.52	0.44
34:BN:35:ARG:HH21	34:BN:160:LYS:HD2	1.83	0.44
36:BP:112:LEU:H	36:BP:128:HIS:HD2	1.61	0.44
38:BR:70:LEU:H	38:BR:70:LEU:HG	1.57	0.44
40:BT:90:GLN:HE21	40:BT:90:GLN:CA	2.25	0.44
41:BU:27:LEU:HD22	41:BU:31:SER:CB	2.48	0.44
45:BY:87:LYS:HE2	45:BY:87:LYS:HB3	1.87	0.44
46:BZ:141:VAL:O	46:BZ:141:VAL:HG13	2.18	0.44
49:B2:12:GLU:O	49:B2:14:ARG:N	2.50	0.44
50:B3:40:THR:OG1	50:B3:43:ILE:HD13	2.17	0.44
53:B6:36:LEU:HA	53:B6:49:HIS:O	2.18	0.44
1:CA:5:U:H5	7:CD:86:LYS:HE3	1.82	0.44
1:CA:46:G:O2'	1:CA:365:U:H1'	2.17	0.44
1:CA:255:G:C4	1:CA:256:U:C5	3.05	0.44
1:CA:294:U:C2	1:CA:295:C:C5	3.05	0.44
5:CB:97:TRP:CE2	5:CB:101:MET:HG3	2.52	0.44
6:CC:36:ASP:HA	6:CC:39:ILE:HD12	1.99	0.44
7:CD:21:LEU:HD12	7:CD:22:LYS:N	2.24	0.44
16:CM:24:GLY:O	16:CM:25:ILE:HD13	2.18	0.44
21:CR:31:LEU:H	21:CR:31:LEU:CD2	2.29	0.44
25:DA:30:G:C6	25:DA:31:C:C4	3.05	0.44
25:DA:111:A:O2'	25:DA:112:U:H5'	2.17	0.44
25:DA:222:A:H4'	25:DA:223:A:OP2	2.17	0.44
25:DA:247:G:H4'	25:DA:386:G:C5	2.52	0.44
25:DA:984:A:H5"	25:DA:985:C:H5	1.81	0.44
25:DA:1567:A:C8	27:DD:84:TYR:CE2	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2244:U:C2'	25:DA:2245:U:H5'	2.48	0.44
25:DA:2731:G:C6	25:DA:2732:G:C6	3.05	0.44
27:DD:36:PRO:HA	27:DD:62:TYR:O	2.17	0.44
30:DG:37:VAL:O	30:DG:94:LEU:HD23	2.17	0.44
31:DH:126:PRO:HG2	31:DH:130:ARG:HD2	1.98	0.44
34:DN:53:ILE:O	34:DN:57:LEU:HD22	2.17	0.44
35:DO:88:ASN:OD1	35:DO:89:ASN:N	2.51	0.44
36:DP:146:VAL:HG13	36:DP:147:LEU:N	2.33	0.44
37:DQ:52:VAL:HG23	46:DZ:183:LEU:HD13	1.98	0.44
40:DT:20:PRO:HD2	40:DT:86:ILE:HG23	2.00	0.44
46:DZ:92:SER:HB2	46:DZ:94:GLU:OE2	2.18	0.44
48:D1:48:LYS:HE3	48:D1:50:ARG:HH12	1.83	0.44
1:AA:129(A):G:N2	1:AA:186(I):U:H5"	2.32	0.44
1:AA:160:A:H1'	1:AA:344:A:C5	2.53	0.44
1:AA:216:G:C2	1:AA:217:C:C4	3.06	0.44
1:AA:545:C:H5'	7:AD:72:GLU:HG3	1.99	0.44
1:AA:750:G:C2	1:AA:751:U:C6	3.06	0.44
1:AA:883:C:C2'	1:AA:884:U:H5'	2.47	0.44
1:AA:1009:G:H2'	1:AA:1010:G:C8	2.51	0.44
3:AW:49:G:C6	3:AW:50:U:C4	3.06	0.44
4:AY:266:HIS:CG	4:AY:269:THR:HG1	2.34	0.44
5:AB:97:TRP:CE2	5:AB:101:MET:HG3	2.53	0.44
6:AC:11:ARG:O	6:AC:14:ILE:O	2.35	0.44
6:AC:179:ARG:O	6:AC:179:ARG:HG3	2.18	0.44
11:AH:103:VAL:CG2	11:AH:110:ALA:HB2	2.48	0.44
12:AI:5:TYR:CG	12:AI:6:GLY:N	2.86	0.44
12:AI:26:VAL:HG22	12:AI:61:ALA:HB3	2.00	0.44
13:AJ:5:ARG:HG3	13:AJ:73:ASP:OD1	2.17	0.44
21:AR:37:VAL:O	21:AR:41:LYS:HB3	2.17	0.44
25:BA:27:G:C4	25:BA:512:G:N2	2.86	0.44
25:BA:394:A:C2'	25:BA:395:U:H5'	2.48	0.44
25:BA:445:C:O2'	25:BA:446:G:H5'	2.18	0.44
25:BA:528:A:C8	25:BA:528:A:C3'	2.99	0.44
25:BA:941:A:O3'	36:BP:35:HIS:HB2	2.17	0.44
25:BA:999:U:H5"	25:BA:1154:G:O6	2.18	0.44
25:BA:1262:A:N3	52:B5:10:LYS:HE3	2.33	0.44
25:BA:2025:C:H2'	25:BA:2026:C:H6	1.83	0.44
25:BA:2025:C:C2	25:BA:2026:C:C5	3.06	0.44
25:BA:2287:A:C5	25:BA:2289:G:C5	3.06	0.44
27:BD:75:ILE:HG21	27:BD:99:ASP:HB2	1.99	0.44
27:BD:112:GLN:O	27:BD:115:GLN:HG3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:111:ARG:C	38:BR:2:ARG:HG3	2.37	0.44
30:BG:148:MET:HA	30:BG:148:MET:HE3	1.99	0.44
31:BH:52:VAL:HG12	31:BH:65:HIS:NE2	2.33	0.44
35:BO:48:PRO:C	35:BO:49:ARG:HG2	2.38	0.44
36:BP:55:ARG:HG3	36:BP:56:SER:N	2.33	0.44
37:BQ:55:VAL:CG2	37:BQ:56:ARG:N	2.81	0.44
38:BR:48:VAL:C	38:BR:50:HIS:H	2.20	0.44
39:BS:34:HIS:ND1	39:BS:54:LEU:HB2	2.32	0.44
40:BT:24:PRO:HB2	40:BT:99:LEU:HD11	1.99	0.44
42:BV:79:VAL:O	42:BV:79:VAL:CG1	2.64	0.44
47:B0:31:VAL:HG11	47:B0:67:VAL:HG23	1.99	0.44
48:B1:23:LYS:HG3	48:B1:25:LYS:HE2	1.99	0.44
48:B1:60:PHE:CD1	48:B1:91:LYS:HE3	2.52	0.44
49:B2:42:GLY:O	49:B2:44:LEU:N	2.50	0.44
1:CA:299:G:H2'	1:CA:300:A:C8	2.53	0.44
1:CA:500:G:H1	1:CA:545:C:H42	1.65	0.44
1:CA:602:A:N1	1:CA:637:G:C6	2.86	0.44
1:CA:692:U:O2	1:CA:694:A:C8	2.70	0.44
1:CA:1233:G:N2	1:CA:1234:C:C2	2.86	0.44
1:CA:1294:G:H2'	1:CA:1295:G:C8	2.51	0.44
5:CB:102:LEU:HD12	5:CB:102:LEU:N	2.33	0.44
6:CC:29:TYR:CD2	17:CN:36:PHE:CE1	3.05	0.44
9:CF:37:VAL:CG1	9:CF:38:GLU:H	2.25	0.44
11:CH:10:LEU:HD22	11:CH:83:ILE:HD11	2.00	0.44
20:CQ:37:LYS:O	20:CQ:38:ARG:HD2	2.17	0.44
25:DA:330:A:O2'	25:DA:331:A:H8	1.99	0.44
25:DA:1845:G:O2'	25:DA:1846:G:H5'	2.18	0.44
25:DA:2023:G:H4'	25:DA:2617:C:O3'	2.18	0.44
25:DA:2258:C:H4'	25:DA:2259:G:OP2	2.18	0.44
25:DA:2729:G:H1'	28:DE:187:ALA:CB	2.47	0.44
27:DD:79:VAL:HG21	27:DD:111:LEU:HD21	2.00	0.44
31:DH:125:VAL:HG12	31:DH:127:GLU:O	2.18	0.44
35:DO:4:PRO:O	35:DO:5:GLN:CB	2.65	0.44
36:DP:144:GLU:OE1	36:DP:144:GLU:N	2.51	0.44
38:DR:11:ASN:O	38:DR:12:ARG:CB	2.66	0.44
39:DS:34:HIS:ND1	39:DS:54:LEU:HB2	2.31	0.44
40:DT:62:THR:HB	40:DT:75:ILE:HD12	2.00	0.44
42:DV:55:ALA:HB1	42:DV:101:GLY:HA3	2.00	0.44
44:DX:24:GLY:HA3	44:DX:82:GLN:NE2	2.33	0.44
49:D2:7:ARG:HA	49:D2:10:LEU:HD12	1.99	0.44
1:AA:505:G:C6	1:AA:535:A:C2	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1263:C:O2'	1:AA:1264:C:H5'	2.18	0.44
4:AY:317:PRO:HD2	4:AY:322:SER:HB2	2.00	0.44
5:AB:211:ILE:O	5:AB:215:LEU:HD23	2.18	0.44
14:AK:27:ASN:OD1	14:AK:55:LYS:HB3	2.17	0.44
25:BA:1889:A:H2'	25:BA:1890:A:C8	2.52	0.44
25:BA:1963:U:O2	25:BA:1963:U:H2'	2.18	0.44
25:BA:2039:C:H2'	25:BA:2040:C:H6	1.82	0.44
25:BA:2731:G:C6	25:BA:2732:G:C6	3.06	0.44
26:BB:86:G:H2'	26:BB:87:G:C8	2.53	0.44
26:BB:117:G:C2	26:BB:118:G:N7	2.86	0.44
28:BE:11:MET:CB	28:BE:24:THR:HA	2.48	0.44
28:BE:51:PHE:HB3	28:BE:77:ILE:CG2	2.48	0.44
32:BI:113:ARG:HD2	32:BI:131:LYS:O	2.18	0.44
33:BK:101:TRP:CE2	33:BK:105:LEU:HD11	2.53	0.44
34:BN:154:GLN:NE2	34:BN:155:ALA:HB3	2.32	0.44
36:BP:85:LEU:HA	36:BP:88:LEU:CB	2.47	0.44
37:BQ:43:THR:OG1	37:BQ:46:GLN:HG3	2.18	0.44
42:BV:4:ILE:HG22	42:BV:39:LEU:HD23	2.00	0.44
42:BV:22:VAL:CG1	42:BV:23:GLU:H	2.31	0.44
43:BW:9:TYR:H	43:BW:102:HIS:CD2	2.31	0.44
46:BZ:9:TYR:CZ	46:BZ:61:LEU:HD13	2.53	0.44
1:CA:354:G:H2'	1:CA:354:G:N3	2.33	0.44
1:CA:1494:G:N2	25:DA:1912:A:C2	2.86	0.44
8:CE:36:ASP:O	8:CE:37:ARG:HB2	2.17	0.44
8:CE:79:GLU:HB3	8:CE:92:LYS:HG3	2.00	0.44
8:CE:80:ILE:HD11	8:CE:91:LEU:HD12	1.98	0.44
11:CH:4:ASP:HB2	11:CH:89:PRO:CG	2.47	0.44
23:CT:102:GLY:C	23:CT:104:LEU:H	2.21	0.44
25:DA:27:G:C4	25:DA:512:G:N2	2.86	0.44
25:DA:533:G:N3	41:DU:45:TYR:CE1	2.85	0.44
25:DA:628:G:C6	25:DA:629:G:C6	3.06	0.44
25:DA:747:U:C5	52:D5:2:ALA:HB3	2.52	0.44
25:DA:903:C:H2'	25:DA:904:C:C6	2.52	0.44
25:DA:2016:U:H1'	52:D5:6:VAL:HG22	2.00	0.44
25:DA:2473:U:H2'	25:DA:2474:C:H5'	1.99	0.44
25:DA:2794(C):C:H5"	25:DA:2794(D):A:OP2	2.17	0.44
26:DB:117:G:C2	26:DB:118:G:N7	2.85	0.44
27:DD:34:VAL:C	27:DD:35:LYS:HD2	2.37	0.44
28:DE:1:MET:O	28:DE:84:PHE:HB2	2.17	0.44
28:DE:117:MET:CE	28:DE:124:GLY:HA3	2.47	0.44
30:DG:135:LEU:HD23	30:DG:140:ILE:HD11	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:DH:21:PRO:HG2	31:DH:23:ARG:NH1	2.32	0.44
32:DI:93:THR:H	32:DI:96:ASP:HB2	1.83	0.44
35:DO:48:PRO:C	35:DO:49:ARG:HG2	2.38	0.44
36:DP:30:THR:O	36:DP:32:THR:N	2.50	0.44
40:DT:77:PRO:O	40:DT:83:ILE:HD11	2.18	0.44
52:D5:6:VAL:HG22	52:D5:7:PRO:CD	2.44	0.44
1:AA:337:C:H2'	1:AA:338:A:H8	1.82	0.44
1:AA:754:C:H3'	1:AA:754:C:O2	2.18	0.44
4:AY:30:PHE:HE2	4:AY:364:TRP:CZ2	2.31	0.44
5:AB:179:LYS:HA	11:AH:72:PRO:HG3	2.00	0.44
11:AH:20:TYR:HD1	11:AH:65:TYR:CD2	2.36	0.44
22:AS:28:LYS:HB3	22:AS:29:ARG:HH11	1.83	0.44
22:AS:44:MET:HA	22:AS:44:MET:CE	2.48	0.44
25:BA:81:G:N3	45:BY:2:ARG:NH2	2.65	0.44
25:BA:357(A):U:O2'	25:BA:357(B):A:H5'	2.18	0.44
25:BA:414:C:H2'	25:BA:415:A:C8	2.53	0.44
25:BA:1494:A:O2'	25:BA:1495:A:P	2.75	0.44
25:BA:2093:G:O5'	32:BI:24:GLY:HA3	2.18	0.44
25:BA:2194:G:H2'	25:BA:2195:C:H6	1.82	0.44
26:BB:17:C:H2'	26:BB:18:G:O4'	2.17	0.44
27:BD:172:TYR:HD1	27:BD:185:VAL:C	2.21	0.44
37:BQ:52:VAL:HG23	46:BZ:183:LEU:HD13	1.98	0.44
38:BR:29:LEU:O	38:BR:75:LEU:HD21	2.17	0.44
40:BT:24:PRO:HD3	40:BT:52:ILE:HD12	2.00	0.44
1:CA:216:G:C2	1:CA:217:C:C4	3.05	0.44
1:CA:1154:G:H2'	1:CA:1155:G:C8	2.51	0.44
1:CA:1298:C:C5	10:CG:114:ARG:NH1	2.86	0.44
4:CY:142:ALA:HB2	4:CY:217:SER:HB2	1.99	0.44
6:CC:15:THR:HG22	6:CC:16:ARG:N	2.32	0.44
7:CD:70:ILE:HG23	7:CD:75:PHE:HB2	2.00	0.44
7:CD:105:VAL:HG22	7:CD:126:ILE:HG21	2.00	0.44
7:CD:166:LYS:HD2	7:CD:166:LYS:C	2.38	0.44
8:CE:5:ASP:N	8:CE:5:ASP:OD1	2.51	0.44
11:CH:16:ALA:O	11:CH:19:VAL:HG22	2.18	0.44
14:CK:27:ASN:OD1	14:CK:55:LYS:HB3	2.18	0.44
15:CL:59:LEU:HD22	15:CL:59:LEU:N	2.32	0.44
15:CL:81:VAL:HG12	15:CL:105:ASP:OD2	2.18	0.44
24:CU:7:ARG:O	24:CU:8:THR:HG23	2.18	0.44
25:DA:460:A:H2'	25:DA:461:C:O4'	2.18	0.44
25:DA:483:A:C8	25:DA:484:C:C5	3.06	0.44
25:DA:1210:A:H5'	25:DA:1210:A:C8	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1261:C:C2'	25:DA:1262:A:O5'	2.65	0.44
25:DA:1368:G:C2	25:DA:1369:G:C8	3.05	0.44
25:DA:2335:A:C8	25:DA:2337:G:C5	3.06	0.44
25:DA:2726:U:H6	35:DO:67:LYS:HZ3	1.65	0.44
27:DD:25:THR:HG22	27:DD:82:ILE:H	1.81	0.44
30:DG:19:LEU:HD11	30:DG:172:LEU:HG	1.99	0.44
31:DH:12:PRO:HB2	31:DH:49:VAL:HA	2.00	0.44
32:DI:75:LEU:HD11	32:DI:105:HIS:NE2	2.33	0.44
35:DO:39:ILE:HG13	35:DO:39:ILE:O	2.17	0.44
36:DP:108:LYS:C	36:DP:110:TYR:N	2.71	0.44
36:DP:135:LEU:HD11	36:DP:139:LYS:HD2	1.99	0.44
41:DU:62:ILE:HD11	41:DU:93:LYS:HG2	2.00	0.44
44:DX:62:LYS:C	44:DX:63:LYS:HD3	2.38	0.44
46:DZ:48:PHE:CE2	46:DZ:71:VAL:HG21	2.51	0.44
46:DZ:141:VAL:O	46:DZ:141:VAL:HG13	2.18	0.44
49:D2:42:GLY:O	49:D2:44:LEU:N	2.51	0.44
49:D2:44:LEU:HD23	49:D2:44:LEU:HA	1.91	0.44
1:AA:913:A:H4'	1:AA:914:A:O5'	2.16	0.44
1:AA:1213:A:N6	1:AA:1215:G:N3	2.65	0.44
1:AA:1223:C:P	1:AA:1224:G:H2'	2.58	0.44
5:AB:167:PRO:O	5:AB:171:ALA:HB2	2.18	0.44
6:AC:14:ILE:CG1	6:AC:15:THR:N	2.75	0.44
21:AR:70:ILE:O	21:AR:74:ARG:HG3	2.18	0.44
25:BA:53:A:H2'	25:BA:54:G:O4'	2.17	0.44
25:BA:270(Y):G:C2	25:BA:270(Z):U:O4	2.71	0.44
25:BA:775:G:H4'	25:BA:776:G:O5'	2.18	0.44
25:BA:850:C:O2'	50:B3:46:ASN:ND2	2.48	0.44
25:BA:1027:A:N6	25:BA:1126:A:C4	2.86	0.44
25:BA:1261:C:C2'	25:BA:1262:A:O5'	2.66	0.44
25:BA:1343:G:N2	25:BA:1405:U:C2	2.86	0.44
25:BA:1403:C:O2	25:BA:1403:C:H2'	2.16	0.44
25:BA:2302:G:C2'	25:BA:2303:G:H5'	2.48	0.44
25:BA:2400:G:N2	25:BA:2417:C:C2	2.86	0.44
25:BA:2785:C:H2'	25:BA:2786:U:O4'	2.18	0.44
25:BA:2786:U:H4'	28:BE:65:GLY:O	2.18	0.44
29:BF:72:ARG:O	29:BF:73:ALA:O	2.36	0.44
29:BF:150:GLY:HA2	29:BF:172:TRP:CE3	2.53	0.44
35:BO:79:PHE:CD2	40:BT:72:VAL:HG22	2.53	0.44
36:BP:50:ARG:HG2	36:BP:50:ARG:NH2	2.32	0.44
38:BR:48:VAL:C	38:BR:50:HIS:N	2.70	0.44
40:BT:9:LEU:HD23	40:BT:9:LEU:O	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
43:BW:12:ILE:CD1	43:BW:17:VAL:HG12	2.48	0.44
47:B0:27:GLU:HG3	47:B0:68:GLU:HA	1.99	0.44
55:B8:32:LEU:HD23	55:B8:33:ASN:H	1.82	0.44
1:CA:8:A:N7	7:CD:208:SER:HB2	2.33	0.44
1:CA:277:C:OP1	20:CQ:41:LYS:HE3	2.18	0.44
1:CA:436:C:H2'	1:CA:437:U:C6	2.48	0.44
1:CA:485:G:O2'	1:CA:486:U:OP2	2.33	0.44
1:CA:558:G:H2'	1:CA:559:A:C2	2.52	0.44
1:CA:951:G:C6	1:CA:1231:G:C6	3.06	0.44
1:CA:1223:C:P	1:CA:1224:G:H2'	2.58	0.44
3:CW:17:C:H5'	3:CW:61:C:OP1	2.18	0.44
6:CC:11:ARG:O	6:CC:14:ILE:O	2.35	0.44
6:CC:40:ARG:O	6:CC:44:GLU:HG2	2.17	0.44
6:CC:137:ALA:HA	6:CC:140:ARG:HE	1.83	0.44
7:CD:61:LYS:HA	7:CD:203:VAL:HG22	1.98	0.44
9:CF:97:PHE:HD2	21:CR:31:LEU:HD21	1.83	0.44
15:CL:53:LYS:HD2	15:CL:53:LYS:N	2.32	0.44
17:CN:27:CYS:SG	17:CN:29:ARG:HB2	2.58	0.44
17:CN:54:PRO:C	17:CN:56:VAL:H	2.21	0.44
18:CO:82:ILE:HD11	18:CO:87:ILE:C	2.38	0.44
25:DA:207:A:H2'	25:DA:208:C:O4'	2.18	0.44
25:DA:492:A:C2'	25:DA:493:G:H5'	2.48	0.44
25:DA:1093:G:N2	25:DA:1097:U:H5	2.16	0.44
25:DA:1542:G:H3'	25:DA:1542:G:P	2.58	0.44
25:DA:1834:U:H4'	25:DA:1969:A:C6	2.53	0.44
25:DA:2202(C):G:N3	25:DA:2202(C):G:C3'	2.78	0.44
27:DD:31:LYS:HB3	27:DD:35:LYS:HG2	1.99	0.44
27:DD:270:ILE:C	27:DD:271:ILE:HG13	2.37	0.44
27:DD:270:ILE:O	27:DD:271:ILE:HG13	2.18	0.44
31:DH:121:ILE:HD12	31:DH:121:ILE:N	2.32	0.44
32:DI:12:LEU:HD22	32:DI:12:LEU:N	2.33	0.44
32:DI:63:ALA:HA	32:DI:66:GLU:CD	2.37	0.44
35:DO:22:ILE:HD13	35:DO:22:ILE:HA	1.76	0.44
36:DP:46:LYS:HB3	36:DP:52:GLU:HG3	1.99	0.44
38:DR:52:ILE:O	38:DR:55:ALA:HB3	2.18	0.44
45:DY:81:LYS:HD3	45:DY:97:ARG:HB3	1.99	0.44
46:DZ:145:GLU:H	46:DZ:148:ASP:HB2	1.82	0.44
50:D3:15:TYR:CE1	50:D3:53:LEU:HD11	2.53	0.44
50:D3:40:THR:OG1	50:D3:43:ILE:HD13	2.16	0.44
51:D4:43:GLY:HA3	51:D4:61:VAL:H	1.83	0.44
1:AA:255:G:H2'	1:AA:256:U:C6	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:515:G:C2	1:AA:537:G:C2	3.06	0.43
1:AA:602:A:N1	1:AA:637:G:C6	2.86	0.43
1:AA:1112:C:C4	6:AC:178:LEU:HD23	2.53	0.43
1:AA:1233:G:N2	1:AA:1234:C:C2	2.86	0.43
3:AW:61:C:H2'	3:AW:62:C:C6	2.53	0.43
9:AF:97:PHE:HD2	21:AR:31:LEU:HD21	1.83	0.43
11:AH:20:TYR:HA	11:AH:65:TYR:CE2	2.52	0.43
11:AH:80:ILE:HD12	11:AH:80:ILE:N	2.24	0.43
13:AJ:50:ILE:HB	17:AN:41:ARG:NE	2.33	0.43
15:AL:45:LYS:HB2	15:AL:91:ASP:O	2.17	0.43
20:AQ:6:LEU:HG	20:AQ:59:ILE:HD11	2.00	0.43
20:AQ:11:VAL:HG23	20:AQ:85:VAL:HG13	2.00	0.43
22:AS:63:THR:HG22	22:AS:66:MET:CG	2.48	0.43
25:BA:207:A:H2'	25:BA:208:C:O4'	2.18	0.43
25:BA:1319:G:C6	25:BA:1320:C:N4	2.86	0.43
25:BA:1386:C:OP2	25:BA:1396:U:H5	2.01	0.43
25:BA:1467:C:H42	25:BA:1525:G:H1	1.66	0.43
25:BA:2026:C:C2	25:BA:2027:G:C8	3.06	0.43
25:BA:2865:U:C4	25:BA:2866:U:C4	3.06	0.43
26:BB:52:A:C5	26:BB:53:A:C8	3.05	0.43
27:BD:33:LEU:N	27:BD:33:LEU:HD23	2.34	0.43
32:BI:62:LYS:HE3	32:BI:136:VAL:HG21	1.99	0.43
33:BK:38:VAL:HG13	33:BK:41:PHE:HD2	1.82	0.43
34:BN:118:PRO:O	34:BN:121:VAL:HG13	2.18	0.43
36:BP:24:GLY:N	36:BP:33:ARG:NH1	2.66	0.43
36:BP:55:ARG:CG	36:BP:56:SER:N	2.81	0.43
40:BT:62:THR:HB	40:BT:75:ILE:HD12	1.99	0.43
41:BU:90:VAL:CG2	41:BU:91:ASP:N	2.71	0.43
42:BV:22:VAL:CG1	42:BV:23:GLU:N	2.80	0.43
45:BY:81:LYS:HD3	45:BY:97:ARG:HB3	1.99	0.43
48:B1:48:LYS:HE3	48:B1:50:ARG:HH12	1.82	0.43
1:CA:341:C:O2'	1:CA:342:C:H5'	2.18	0.43
1:CA:658:G:C6	1:CA:659:U:C4	3.05	0.43
7:CD:152:SER:HA	7:CD:155:LEU:HG	1.99	0.43
8:CE:11:ILE:HG13	8:CE:31:LEU:HD22	1.99	0.43
9:CF:68:PRO:HG3	9:CF:71:ARG:NH2	2.33	0.43
9:CF:86:ARG:O	9:CF:87:ARG:HG2	2.18	0.43
12:CI:79:LEU:HD23	12:CI:101:PHE:O	2.17	0.43
15:CL:84:ILE:HD12	15:CL:98:HIS:O	2.18	0.43
22:CS:63:THR:H	22:CS:66:MET:HG3	1.82	0.43
25:DA:1566:A:OP1	27:DD:211:ARG:NH1	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1709:U:C2	25:DA:1750:G:N2	2.85	0.43
25:DA:1818:U:H2'	27:DD:157:ARG:HG3	2.00	0.43
25:DA:1899:G:H2'	25:DA:1900:A:OP2	2.18	0.43
25:DA:2224:G:H4'	25:DA:2226:C:C2	2.53	0.43
25:DA:2287:A:H2	25:DA:2383:G:H21	1.65	0.43
25:DA:2533:A:H2'	25:DA:2534:A:O4'	2.17	0.43
28:DE:50:GLY:O	28:DE:51:PHE:HB2	2.18	0.43
30:DG:174:GLU:HG2	30:DG:180:PHE:CE1	2.52	0.43
30:DG:174:GLU:HG2	30:DG:180:PHE:HD1	1.83	0.43
34:DN:36:TRP:HB2	34:DN:156:GLN:HB2	2.00	0.43
42:DV:33:VAL:HG23	42:DV:33:VAL:O	2.18	0.43
46:DZ:51:ALA:CB	46:DZ:57:ILE:HD11	2.48	0.43
1:AA:521:G:O2'	1:AA:522:C:H5'	2.19	0.43
1:AA:575:G:O2'	1:AA:821:G:H5'	2.18	0.43
1:AA:1102:A:C5	1:AA:1103:C:C4	3.06	0.43
3:AW:47:U:H6	3:AW:48:C:H5'	1.83	0.43
4:AY:39:LEU:C	4:AY:39:LEU:HD12	2.38	0.43
4:AY:97:ARG:HA	4:AY:97:ARG:HD3	1.80	0.43
8:AE:98:THR:HG22	8:AE:99:GLY:N	2.33	0.43
15:AL:85:ARG:HB2	15:AL:100:VAL:HG23	2.00	0.43
18:AO:35:ARG:HG2	18:AO:59:MET:CE	2.48	0.43
21:AR:31:LEU:H	21:AR:31:LEU:CD2	2.29	0.43
25:BA:222:A:H4'	25:BA:223:A:OP2	2.18	0.43
25:BA:335:C:H2'	25:BA:336:C:C6	2.53	0.43
25:BA:556:G:H2'	25:BA:557:U:H6	1.83	0.43
25:BA:1035:U:H2'	25:BA:1036:G:C8	2.52	0.43
25:BA:1349:A:N6	25:BA:1598:C:N4	2.65	0.43
25:BA:1487:G:C2	25:BA:1488:G:C8	3.06	0.43
25:BA:2202(E):A:H1'	25:BA:2202(G):G:C6	2.53	0.43
25:BA:2443:C:O2'	25:BA:2444:G:H5'	2.17	0.43
25:BA:2532:G:C6	25:BA:2533:A:C6	3.07	0.43
28:BE:116:VAL:CG2	28:BE:122:PHE:CD2	3.01	0.43
29:BF:7:TYR:HB2	29:BF:8:GLN:NE2	2.34	0.43
29:BF:108:LYS:HB3	29:BF:108:LYS:HE2	1.82	0.43
30:BG:100:TRP:O	30:BG:104:GLU:HG3	2.18	0.43
31:BH:169:VAL:C	31:BH:170:ARG:HE	2.22	0.43
32:BI:44:LEU:HD23	32:BI:44:LEU:HA	1.83	0.43
34:BN:43:GLY:HA2	34:BN:84:ARG:CG	2.48	0.43
38:BR:44:LEU:C	38:BR:44:LEU:HD13	2.38	0.43
38:BR:103:ARG:HH12	38:BR:110:PRO:HD3	1.83	0.43
45:BY:17:SER:CA	45:BY:71:LYS:HD2	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:374:A:C6	1:CA:375:U:C4	3.06	0.43
1:CA:423:G:H3'	1:CA:423:G:N3	2.33	0.43
1:CA:919:A:O2'	1:CA:920:U:H5'	2.18	0.43
1:CA:1248:A:O2'	1:CA:1249:C:H5'	2.18	0.43
1:CA:1464:G:O2'	1:CA:1465:C:H5'	2.18	0.43
4:CY:190:TYR:CE1	4:CY:225:PRO:HD3	2.54	0.43
5:CB:80:ILE:HG21	5:CB:211:ILE:HG22	2.00	0.43
10:CG:101:LEU:O	10:CG:105:VAL:HG23	2.17	0.43
12:CI:5:TYR:CG	12:CI:6:GLY:N	2.86	0.43
14:CK:21:ILE:HD13	14:CK:82:VAL:HG13	2.00	0.43
17:CN:51:GLY:C	17:CN:53:LEU:H	2.21	0.43
19:CP:59:TRP:HA	19:CP:62:VAL:CG2	2.48	0.43
22:CS:20:LEU:HD23	22:CS:23:ASN:HD22	1.83	0.43
22:CS:50:ALA:CB	22:CS:57:HIS:HB3	2.43	0.43
25:DA:311:A:C8	25:DA:332:A:N7	2.86	0.43
25:DA:322:A:O4'	25:DA:340:A:H1'	2.18	0.43
25:DA:357:A:H2'	25:DA:357(A):U:H6	1.84	0.43
25:DA:941:A:O2'	36:DP:35:HIS:HB3	2.18	0.43
25:DA:999:U:H5"	25:DA:1154:G:O6	2.18	0.43
25:DA:1283:G:N2	25:DA:1285:G:H3'	2.33	0.43
25:DA:1506(A):A:O2'	25:DA:1506(C):A:H2	1.80	0.43
25:DA:2531:A:H5"	31:DH:157:TYR:CE2	2.53	0.43
25:DA:2564:A:OP1	25:DA:2648:C:H4'	2.18	0.43
25:DA:2785:C:H2'	25:DA:2786:U:O4'	2.18	0.43
25:DA:2864:G:O2'	25:DA:2865:U:H5'	2.18	0.43
27:DD:94:LEU:HD22	27:DD:94:LEU:C	2.38	0.43
30:DG:71:THR:N	30:DG:89:GLY:O	2.42	0.43
31:DH:52:VAL:HG12	31:DH:65:HIS:NE2	2.33	0.43
32:DI:38:LEU:C	32:DI:40:THR:H	2.22	0.43
36:DP:114:ILE:HD13	36:DP:125:VAL:CG2	2.48	0.43
38:DR:10:LEU:CB	38:DR:17:ARG:NE	2.81	0.43
39:DS:59:LYS:HB2	39:DS:60:GLY:H	1.49	0.43
40:DT:6:LEU:HA	40:DT:9:LEU:HB3	2.00	0.43
40:DT:105:LEU:HD23	40:DT:105:LEU:HA	1.87	0.43
42:DV:7:THR:HG23	42:DV:22:VAL:HG11	2.00	0.43
42:DV:22:VAL:CG1	42:DV:23:GLU:N	2.80	0.43
45:DY:71:LYS:HB2	45:DY:71:LYS:HZ2	1.82	0.43
48:D1:40:ARG:HG2	48:D1:41:ARG:N	2.32	0.43
49:D2:15:LYS:HE2	49:D2:15:LYS:HA	2.00	0.43
1:AA:1154:G:H2'	1:AA:1155:G:C8	2.51	0.43
1:AA:1225:A:H4'	22:AS:78:ARG:HH11	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1464:G:O2'	1:AA:1465:C:H5'	2.18	0.43
8:AE:11:ILE:HG13	8:AE:31:LEU:HD22	2.01	0.43
8:AE:136:MET:HB3	8:AE:140:ARG:HH21	1.83	0.43
9:AF:68:PRO:HG3	9:AF:71:ARG:NH2	2.33	0.43
9:AF:94:GLN:HE21	21:AR:32:ARG:NH1	2.17	0.43
14:AK:87:THR:O	14:AK:87:THR:HG22	2.17	0.43
15:AL:44:PRO:HA	15:AL:92:LEU:HD23	1.98	0.43
17:AN:13:THR:N	17:AN:14:PRO:CD	2.81	0.43
17:AN:26:ARG:NH1	17:AN:43:CYS:HB2	2.33	0.43
20:AQ:23:VAL:CG2	20:AQ:42:TYR:HE1	2.30	0.43
22:AS:41:VAL:HB	22:AS:44:MET:SD	2.58	0.43
25:BA:155(E):U:H3'	25:BA:155(E):U:O2	2.19	0.43
25:BA:1288:U:H1'	25:BA:1647:G:H21	1.82	0.43
25:BA:1759:A:H4'	25:BA:2715:C:O4'	2.18	0.43
25:BA:2815:C:O2'	52:B5:43:HIS:HD2	2.00	0.43
25:BA:2852:G:C6	25:BA:2853:C:C4	3.06	0.43
27:BD:148:GLU:HB2	27:BD:151:LYS:HD2	2.00	0.43
28:BE:203:LYS:HE3	28:BE:204:ALA:HB2	1.98	0.43
29:BF:199:TRP:CZ3	29:BF:203:GLN:HG3	2.53	0.43
30:BG:47:LYS:HA	30:BG:88:ILE:CG2	2.47	0.43
31:BH:125:VAL:HG12	31:BH:127:GLU:O	2.18	0.43
32:BI:77:LEU:HD11	32:BI:101:LEU:HD13	2.00	0.43
32:BI:95:LYS:C	32:BI:97:ILE:H	2.22	0.43
36:BP:89:ALA:C	36:BP:91:PHE:H	2.22	0.43
40:BT:41:ARG:HB3	40:BT:41:ARG:HH11	1.83	0.43
40:BT:49:VAL:HG13	40:BT:49:VAL:O	2.19	0.43
41:BU:91:ASP:OD1	41:BU:96:ALA:HB2	2.18	0.43
42:BV:66:ARG:HB2	42:BV:88:ARG:HD3	2.00	0.43
43:BW:57:ASN:O	43:BW:61:ASN:HB2	2.18	0.43
44:BX:28:PHE:CE2	44:BX:92:LEU:HD11	2.53	0.43
45:BY:86:ARG:CZ	45:BY:95:LYS:HE3	2.48	0.43
50:B3:15:TYR:HB3	50:B3:19:GLN:NE2	2.34	0.43
1:CA:160:A:H1'	1:CA:344:A:C5	2.53	0.43
1:CA:259:G:H1	1:CA:267:C:N4	2.14	0.43
1:CA:349:A:O2'	1:CA:350:G:H5'	2.17	0.43
1:CA:451:A:N7	1:CA:481:G:C6	2.87	0.43
1:CA:620:C:N1	7:CD:135:LEU:HD23	2.34	0.43
1:CA:857:C:H2'	1:CA:858:G:O4'	2.19	0.43
1:CA:1080:A:OP1	8:CE:47:LYS:HD2	2.18	0.43
1:CA:1480:G:C6	1:CA:1481:U:N3	2.86	0.43
3:CW:49:G:C6	3:CW:50:U:C4	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CB:31:TYR:HB3	5:CB:42:ILE:CD1	2.49	0.43
6:CC:79:ARG:NH1	6:CC:82:GLU:HB2	2.33	0.43
11:CH:37:ARG:NH1	11:CH:37:ARG:HB3	2.34	0.43
12:CI:103:THR:HG22	12:CI:105:ASP:H	1.82	0.43
22:CS:44:MET:HA	22:CS:44:MET:CE	2.48	0.43
25:DA:780:G:N2	25:DA:783:A:H62	2.06	0.43
25:DA:991:C:H2'	25:DA:992:C:H6	1.83	0.43
25:DA:1389:G:C2	25:DA:1399:C:O2	2.71	0.43
25:DA:1545:A:H2'	25:DA:1546:C:C5'	2.47	0.43
25:DA:1578:U:C2'	25:DA:1579:A:H5'	2.48	0.43
25:DA:2052:G:O4'	28:DE:142:GLY:HA3	2.18	0.43
25:DA:2516:G:C5	25:DA:2517:C:N4	2.86	0.43
25:DA:2865:U:C4	25:DA:2866:U:C4	3.06	0.43
26:DB:104:A:O4'	46:DZ:29:TYR:HE1	2.00	0.43
27:DD:171:ASP:OD2	27:DD:171:ASP:N	2.50	0.43
29:DF:11:VAL:HG22	29:DF:125:LEU:HB2	1.99	0.43
34:DN:119:GLU:CD	34:DN:119:GLU:N	2.70	0.43
40:DT:50:ILE:CD1	40:DT:99:LEU:HB2	2.47	0.43
41:DU:27:LEU:HD22	41:DU:31:SER:HB3	2.01	0.43
41:DU:91:ASP:OD1	41:DU:96:ALA:HB2	2.17	0.43
46:DZ:70:LEU:O	46:DZ:88:PHE:HA	2.18	0.43
1:AA:17:U:H1'	1:AA:1080:A:N3	2.33	0.43
1:AA:55:A:N7	1:AA:56:U:N3	2.66	0.43
1:AA:857:C:H2'	1:AA:858:G:O4'	2.19	0.43
1:AA:1171:G:H2'	1:AA:1172:C:C6	2.53	0.43
1:AA:1351:U:O4'	10:AG:33:ASP:HB3	2.18	0.43
7:AD:141:ARG:NH1	7:AD:141:ARG:HB3	2.32	0.43
8:AE:64:ARG:HG3	8:AE:65:ASN:N	2.33	0.43
11:AH:97:VAL:O	11:AH:100:ILE:HG13	2.18	0.43
16:AM:91:ARG:HH11	22:AS:81:ARG:HH12	1.64	0.43
18:AO:26:GLU:H	18:AO:26:GLU:HG2	1.63	0.43
18:AO:71:GLN:HB2	18:AO:78:TYR:CD1	2.53	0.43
24:AU:5:ASP:C	24:AU:7:ARG:H	2.21	0.43
25:BA:686:G:N2	25:BA:788:A:H61	2.16	0.43
25:BA:775:G:C4	25:BA:794:G:C8	3.07	0.43
25:BA:1459:G:N3	25:BA:1459:G:C2'	2.81	0.43
25:BA:1784:A:H4'	25:BA:1785:A:C5'	2.48	0.43
25:BA:1794:U:H2'	25:BA:1795:C:H6	1.83	0.43
25:BA:2446:G:C3'	25:BA:2447:G:H5"	2.48	0.43
25:BA:2554:U:C4	25:BA:2555:U:O4	2.71	0.43
25:BA:2662:A:H2'	25:BA:2663:G:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:6:C:O2'	26:BB:7:G:H5'	2.18	0.43
26:BB:91:C:OP1	37:BQ:19:GLY:HA2	2.18	0.43
28:BE:144:ARG:HB3	28:BE:145:LYS:H	1.49	0.43
32:BI:110:ASP:HA	32:BI:111:PRO:HD2	1.83	0.43
34:BN:78:VAL:HB	34:BN:149:PRO:HB3	2.01	0.43
36:BP:125:VAL:O	36:BP:125:VAL:HG23	2.19	0.43
44:BX:24:GLY:O	44:BX:83:VAL:HG22	2.17	0.43
47:B0:37:LEU:HD12	47:B0:51:VAL:HG13	2.00	0.43
1:CA:19:C:H2'	1:CA:20:U:H6	1.82	0.43
1:CA:39:G:C2	1:CA:40:C:C6	3.07	0.43
1:CA:112:G:OP1	19:CP:27:LYS:HD2	2.17	0.43
1:CA:186(E):C:C2	1:CA:186(M):G:N2	2.87	0.43
1:CA:217:C:O2'	1:CA:218:C:H5'	2.17	0.43
1:CA:1038:C:H2'	1:CA:1039:C:C6	2.54	0.43
1:CA:1106:G:H2'	1:CA:1107:C:C6	2.53	0.43
1:CA:1516:G:H2'	1:CA:1517:G:H5'	2.00	0.43
7:CD:9:CYS:HB3	7:CD:32:ALA:CB	2.49	0.43
7:CD:31:CYS:C	7:CD:33:MET:N	2.71	0.43
8:CE:64:ARG:HG3	8:CE:65:ASN:N	2.33	0.43
9:CF:63:TYR:HD2	9:CF:63:TYR:N	2.16	0.43
10:CG:64:GLN:HG2	10:CG:128:ALA:HB1	2.01	0.43
17:CN:6:LEU:HB3	17:CN:23:ARG:NH2	2.32	0.43
21:CR:38:GLU:HA	21:CR:41:LYS:HE3	1.99	0.43
25:DA:357(A):U:O2'	25:DA:357(B):A:H5'	2.18	0.43
25:DA:1161:C:H1'	42:DV:8:GLY:O	2.19	0.43
25:DA:1287:A:N7	38:DR:107:ASP:HB3	2.33	0.43
25:DA:2202(F):U:O5'	25:DA:2202(F):U:H6	2.01	0.43
25:DA:2600:A:O2'	25:DA:2601:C:H5'	2.18	0.43
27:DD:75:ILE:HG21	27:DD:99:ASP:HB2	2.00	0.43
30:DG:139:LEU:C	30:DG:141:PHE:H	2.21	0.43
31:DH:169:VAL:C	31:DH:170:ARG:HE	2.21	0.43
42:DV:22:VAL:CG1	42:DV:23:GLU:H	2.31	0.43
46:DZ:72:ARG:HD3	46:DZ:72:ARG:HA	1.75	0.43
48:D1:57:GLU:HG2	48:D1:58:ILE:H	1.84	0.43
1:AA:55:A:H2	32:DI:89:TYR:HH	1.65	0.43
1:AA:66:G:H4'	1:AA:173:U:C5	2.54	0.43
1:AA:160:A:H1'	1:AA:344:A:N7	2.33	0.43
1:AA:414:A:C5	1:AA:431:A:C2	3.07	0.43
1:AA:938:A:C2	1:AA:1376:U:H1'	2.54	0.43
1:AA:1248:A:O2'	1:AA:1249:C:H5'	2.18	0.43
1:AA:1305:G:C8	1:AA:1305:G:OP2	2.72	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1505:G:H5”	1:AA:1506:U:OP1	2.19	0.43
4:AY:48:ASP:HA	4:AY:49:PRO:HD3	1.84	0.43
4:AY:339:THR:C	4:AY:341:LEU:H	2.21	0.43
6:AC:29:TYR:CB	17:AN:36:PHE:HE1	2.31	0.43
8:AE:7:GLU:HG2	8:AE:112:LEU:HD22	2.00	0.43
8:AE:153:LYS:HG3	8:AE:155:GLU:H	1.83	0.43
11:AH:20:TYR:HD1	11:AH:65:TYR:CE2	2.37	0.43
15:AL:52:ARG:NH1	15:AL:91:ASP:OD2	2.52	0.43
15:AL:81:VAL:HG12	15:AL:105:ASP:OD2	2.19	0.43
17:AN:26:ARG:NH1	17:AN:47:LEU:HD21	2.34	0.43
18:AO:8:LYS:HE2	18:AO:31:LEU:HD21	2.01	0.43
25:BA:379:G:H22	48:B1:20:ARG:NH1	2.14	0.43
25:BA:813:U:C4	36:BP:27:HIS:CE1	3.07	0.43
25:BA:1076:C:H2’	25:BA:1077:A:C4’	2.48	0.43
25:BA:1235:G:C6	25:BA:1236:G:N1	2.86	0.43
25:BA:1287:A:N7	38:BR:107:ASP:HB3	2.33	0.43
25:BA:1495:A:OP1	25:BA:1495:A:C8	2.72	0.43
25:BA:1709:U:C2	25:BA:1750:G:N2	2.87	0.43
25:BA:1818:U:H2’	27:BD:157:ARG:HG3	2.00	0.43
25:BA:2278:A:H5”	47:B0:12:ASN:HD21	1.83	0.43
25:BA:2303:G:O4’	30:BG:126:ASP:HB3	2.19	0.43
25:BA:2817:G:C4	25:BA:2830:G:N2	2.86	0.43
27:BD:11:PRO:C	27:BD:13:ARG:H	2.20	0.43
27:BD:35:LYS:O	27:BD:64:ILE:HG13	2.18	0.43
27:BD:166:GLN:CA	27:BD:166:GLN:NE2	2.82	0.43
28:BE:130:GLY:O	28:BE:131:ALA:CB	2.63	0.43
28:BE:203:LYS:HD2	28:BE:203:LYS:O	2.19	0.43
34:BN:36:TRP:HB2	34:BN:156:GLN:HB2	2.00	0.43
40:BT:105:LEU:O	40:BT:107:ASP:OD1	2.36	0.43
41:BU:69:CYS:SG	41:BU:79:PHE:HB2	2.57	0.43
42:BV:39:LEU:HD12	42:BV:47:VAL:HG11	2.00	0.43
45:BY:11:ASP:H	45:BY:27:VAL:HG22	1.82	0.43
45:BY:27:VAL:O	45:BY:27:VAL:CG2	2.67	0.43
46:BZ:19:ARG:NH1	46:BZ:84:GLU:O	2.51	0.43
46:BZ:108:PRO:HB3	46:BZ:144:LEU:O	2.19	0.43
49:B2:28:LYS:HE3	49:B2:56:GLN:NE2	2.33	0.43
55:B8:17:THR:OG1	55:B8:21:LYS:HB2	2.18	0.43
1:CA:429:U:H4’	1:CA:430:A:O5’	2.19	0.43
1:CA:1418:A:C2	1:CA:1483:A:C2	3.06	0.43
1:CA:1493:A:N1	25:DA:1913:A:H1’	2.33	0.43
1:CA:1493:A:H1’	4:CY:138:GLY:H	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1494:G:H2'	1:CA:1495:U:H6	1.82	0.43
4:CY:137:ALA:O	4:CY:218:PHE:HD1	2.01	0.43
5:CB:178:ARG:HH22	5:CB:196:LEU:HA	1.84	0.43
5:CB:187:LEU:HA	5:CB:201:ILE:O	2.18	0.43
7:CD:43:HIS:O	7:CD:44:GLY:C	2.56	0.43
7:CD:57:ARG:NH2	8:CE:107:ARG:HD3	2.33	0.43
7:CD:59:ARG:HA	7:CD:59:ARG:NE	2.12	0.43
11:CH:12:ARG:NH2	11:CH:27:PRO:HD3	2.33	0.43
11:CH:17:THR:CB	11:CH:78:GLN:HE22	2.32	0.43
13:CJ:55:LYS:HD2	13:CJ:55:LYS:O	2.17	0.43
14:CK:23:ALA:HB2	14:CK:28:THR:HG23	2.01	0.43
19:CP:67:THR:HG22	19:CP:68:ASP:N	2.33	0.43
25:DA:185:U:H2'	25:DA:186:G:C8	2.53	0.43
25:DA:813:U:H2'	25:DA:814:C:C6	2.53	0.43
25:DA:910:A:C6	37:DQ:13:GLN:HG3	2.53	0.43
25:DA:1014:U:H2'	25:DA:1015:G:C8	2.52	0.43
25:DA:1035:U:H2'	25:DA:1036:G:C8	2.53	0.43
25:DA:1036:G:OP1	31:DH:59:ARG:HB2	2.19	0.43
25:DA:1073:A:H2'	25:DA:1074:G:O4'	2.19	0.43
25:DA:1271:G:H2'	25:DA:1618:A:OP1	2.18	0.43
25:DA:1467:C:H42	25:DA:1525:G:H1	1.66	0.43
25:DA:2331:G:H2'	25:DA:2332:U:O4'	2.18	0.43
25:DA:2809:A:C2	25:DA:2892:A:N3	2.86	0.43
28:DE:49:LEU:HD23	28:DE:81:ILE:CG1	2.48	0.43
36:DP:57:THR:O	36:DP:58:THR:HG23	2.18	0.43
39:DS:33:LYS:C	39:DS:34:HIS:HD2	2.22	0.43
43:DW:29:LEU:CD2	43:DW:33:ARG:HE	2.30	0.43
47:D0:49:LYS:H	47:D0:80:HIS:CE1	2.37	0.43
48:D1:45:ASN:ND2	48:D1:47:GLN:HE21	2.15	0.43
49:D2:6:VAL:HG12	49:D2:10:LEU:HD11	1.99	0.43
1:AA:447:G:H2'	1:AA:485:G:H22	1.83	0.43
1:AA:448:A:C2	1:AA:449:C:C2	3.07	0.43
1:AA:623:C:H6	1:AA:623:C:O5'	2.01	0.43
1:AA:769:G:H4'	1:AA:1513:A:H4'	2.01	0.43
1:AA:938:A:C6	1:AA:939:G:C5	3.07	0.43
4:AY:63:GLN:HE21	4:AY:63:GLN:HB3	1.58	0.43
6:AC:15:THR:HG22	6:AC:16:ARG:N	2.32	0.43
6:AC:24:ALA:HB2	6:AC:32:LEU:HD12	2.00	0.43
6:AC:66:VAL:HB	6:AC:101:LEU:HD23	2.00	0.43
7:AD:159:ARG:HA	7:AD:162:LEU:HD12	2.00	0.43
11:AH:10:LEU:HD13	11:AH:83:ILE:HD11	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:AH:17:THR:HG21	11:AH:80:ILE:HD13	2.00	0.43
12:AI:103:THR:HG22	12:AI:105:ASP:H	1.82	0.43
14:AK:59:TYR:CE2	14:AK:63:LEU:HD11	2.53	0.43
20:AQ:27:PHE:O	20:AQ:36:ILE:HG12	2.19	0.43
23:AT:20:LEU:O	23:AT:24:LEU:HD23	2.18	0.43
25:BA:528:A:OP2	34:BN:134:PRO:HB3	2.19	0.43
25:BA:533:G:N3	41:BU:45:TYR:CE1	2.86	0.43
25:BA:631:A:H2'	25:BA:632:A:O4'	2.18	0.43
25:BA:716:A:C2	25:BA:717:G:H1'	2.54	0.43
25:BA:957:A:N1	25:BA:2458:G:H4'	2.34	0.43
25:BA:1093:G:N2	25:BA:1097:U:H5	2.15	0.43
25:BA:1161:C:H1'	42:BV:8:GLY:O	2.19	0.43
25:BA:1217:C:OP1	41:BU:15:LYS:NZ	2.49	0.43
25:BA:1443:G:N2	25:BA:1549:C:C2	2.87	0.43
25:BA:2012:G:O3'	43:BW:96:ILE:HG13	2.18	0.43
25:BA:2587:A:H8	25:BA:2587:A:O5'	2.01	0.43
25:BA:2738:A:H2'	25:BA:2739:U:O5'	2.18	0.43
25:BA:2749:A:H4'	31:BH:62:LYS:HB3	1.99	0.43
26:BB:88:C:H2'	26:BB:89(A):G:O4'	2.19	0.43
27:BD:147:LEU:HD12	27:BD:147:LEU:HA	1.74	0.43
28:BE:55:ASN:HB2	28:BE:57:LYS:CG	2.49	0.43
33:BK:74:ALA:HB2	33:BK:111:LYS:HE2	2.00	0.43
34:BN:151:HIS:HE1	34:BN:157:ARG:CZ	2.32	0.43
36:BP:6:LEU:CG	36:BP:8:PRO:HD2	2.49	0.43
38:BR:10:LEU:CB	38:BR:17:ARG:NE	2.82	0.43
39:BS:89:ARG:HD2	39:BS:94:TYR:N	2.34	0.43
41:BU:90:VAL:HG21	42:BV:40:LEU:HD23	2.00	0.43
45:BY:6:HIS:ND1	45:BY:6:HIS:N	2.64	0.43
46:BZ:28:MET:HA	46:BZ:88:PHE:HB2	2.01	0.43
48:B1:83:GLU:HG2	48:B1:84:GLY:H	1.83	0.43
50:B3:4:LEU:O	50:B3:36:VAL:HA	2.19	0.43
1:CA:560:U:C4'	1:CA:561:U:OP2	2.67	0.43
1:CA:575:G:O2'	1:CA:821:G:H5'	2.18	0.43
1:CA:862:C:C2'	1:CA:863:U:H5'	2.48	0.43
1:CA:922:G:H4'	8:CE:20:GLN:CA	2.43	0.43
1:CA:938:A:C6	1:CA:939:G:C5	3.06	0.43
1:CA:1107:C:C4	1:CA:1108:G:C8	3.07	0.43
1:CA:1263:C:O2'	1:CA:1264:C:H5'	2.19	0.43
4:CY:87:GLU:HB3	4:CY:88:LEU:HD22	1.99	0.43
4:CY:339:THR:C	4:CY:341:LEU:H	2.22	0.43
5:CB:172:ILE:H	5:CB:172:ILE:HG13	1.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:CK:61:ALA:CB	14:CK:90:GLY:HA3	2.49	0.43
15:CL:52:ARG:NH1	15:CL:91:ASP:OD2	2.52	0.43
16:CM:5:ALA:HB3	16:CM:8:GLU:HB2	2.01	0.43
22:CS:12:ASP:HB3	22:CS:14:HIS:CE1	2.53	0.43
25:DA:155(E):U:O2	25:DA:155(E):U:H3'	2.18	0.43
25:DA:340:A:C2'	25:DA:341:G:H5'	2.49	0.43
25:DA:627:A:C2	25:DA:636:G:N3	2.86	0.43
25:DA:806:C:P	36:DP:39:LYS:HD3	2.58	0.43
25:DA:926:A:H2'	25:DA:928:G:H8	1.83	0.43
25:DA:1142:A:C4	25:DA:1144:G:C8	3.07	0.43
25:DA:1142:A:C4	25:DA:1144:G:N7	2.87	0.43
25:DA:1319:G:C6	25:DA:1320:C:N4	2.87	0.43
25:DA:1540:G:H2'	25:DA:1541:U:O4'	2.18	0.43
25:DA:2287:A:C5	25:DA:2289:G:C5	3.07	0.43
25:DA:2290:G:C5	25:DA:2291:U:C4	3.06	0.43
25:DA:2823:A:C5	25:DA:2824:C:C5	3.07	0.43
26:DB:8:U:H3	26:DB:112:G:H1	1.66	0.43
26:DB:28:C:OP2	39:DS:34:HIS:NE2	2.52	0.43
26:DB:86:G:H2'	26:DB:87:G:C8	2.53	0.43
27:DD:204:ILE:HD12	27:DD:204:ILE:O	2.19	0.43
28:DE:14:ILE:C	28:DE:14:ILE:HD12	2.38	0.43
31:DH:31:GLY:O	31:DH:79:VAL:HG11	2.18	0.43
35:DO:80:ASP:OD2	40:DT:71:GLY:HA3	2.19	0.43
36:DP:55:ARG:CG	36:DP:56:SER:N	2.82	0.43
38:DR:103:ARG:HH12	38:DR:110:PRO:HD3	1.83	0.43
39:DS:89:ARG:O	39:DS:90:GLY:O	2.36	0.43
42:DV:8:GLY:HA3	42:DV:23:GLU:HB3	2.00	0.43
49:D2:7:ARG:CZ	49:D2:11:GLU:OE2	2.67	0.43
1:AA:68(I):G:C8	1:AA:68(K):U:O4	2.72	0.43
1:AA:1106:G:H2'	1:AA:1107:C:C6	2.54	0.43
1:AA:1494:G:H2'	1:AA:1495:U:H6	1.83	0.43
3:AW:76:A:H3'	4:AY:252:GLY:HA3	2.01	0.43
12:AI:11:LYS:O	12:AI:12:GLU:HB2	2.19	0.43
20:AQ:37:LYS:O	20:AQ:38:ARG:HD2	2.19	0.43
25:BA:271(G):G:C2	25:BA:357(M):C:N3	2.87	0.43
25:BA:980:A:C6	25:BA:981:A:N1	2.87	0.43
25:BA:1138:G:H2'	25:BA:1139:G:O4'	2.18	0.43
25:BA:1285:G:O6	25:BA:1329:U:C2	2.72	0.43
25:BA:1668:A:H4'	25:BA:1669:A:O5'	2.18	0.43
25:BA:1693:U:O2'	27:BD:14:ARG:NH2	2.52	0.43
26:BB:9:G:C6	26:BB:112:G:C6	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:104:A:O4'	46:BZ:29:TYR:HE1	2.02	0.43
27:BD:27:THR:CG2	27:BD:83:GLU:HG2	2.48	0.43
31:BH:156:ALA:HA	31:BH:169:VAL:CG1	2.44	0.43
32:BI:48:GLU:O	32:BI:52:ARG:HG3	2.18	0.43
34:BN:53:ILE:HG23	34:BN:75:VAL:HG11	2.00	0.43
35:BO:86:ILE:HD12	35:BO:86:ILE:N	2.31	0.43
38:BR:11:ASN:O	38:BR:12:ARG:HB2	2.19	0.43
40:BT:80:SER:HA	40:BT:81:PRO:HD3	1.82	0.43
44:BX:62:LYS:O	44:BX:73:ARG:HB2	2.18	0.43
49:B2:6:VAL:HG12	49:B2:10:LEU:HD11	2.00	0.43
1:CA:55:A:N7	1:CA:56:U:N3	2.67	0.43
1:CA:186(C):G:C6	1:CA:186(O):G:N1	2.87	0.43
1:CA:324:G:N2	1:CA:327:A:C8	2.87	0.43
1:CA:377:G:O2'	1:CA:378:G:H5'	2.19	0.43
1:CA:956:U:O2	1:CA:956:U:H2'	2.18	0.43
1:CA:1127:G:H1'	1:CA:1148:U:H3	1.84	0.43
1:CA:1351:U:O4'	10:CG:33:ASP:HB3	2.19	0.43
4:CY:206:SER:HB3	4:CY:209:ASP:HB2	2.01	0.43
6:CC:164:ARG:HG2	6:CC:165:THR:N	2.29	0.43
8:CE:48:ALA:HB2	8:CE:57:LYS:CD	2.48	0.43
13:CJ:39:PRO:HB3	13:CJ:70:ARG:NH1	2.33	0.43
15:CL:44:PRO:HA	15:CL:92:LEU:HD23	2.00	0.43
21:CR:63:GLN:O	21:CR:66:LEU:HB3	2.18	0.43
25:DA:242:G:N7	55:D8:5:LYS:HG2	2.33	0.43
25:DA:335:C:H2'	25:DA:336:C:C6	2.53	0.43
25:DA:337:C:H2'	25:DA:338:G:O5'	2.18	0.43
25:DA:494:G:H21	43:DW:57:ASN:HD21	1.65	0.43
25:DA:716:A:C2	25:DA:717:G:H1'	2.54	0.43
25:DA:1024:G:H8	25:DA:1024:G:O5'	2.01	0.43
25:DA:1126:A:H4'	25:DA:1127:A:O5'	2.19	0.43
25:DA:1601:G:OP2	44:DX:58:HIS:HD2	2.01	0.43
25:DA:1824:G:OP1	27:DD:52:ARG:NH1	2.51	0.43
25:DA:1963:U:O2	25:DA:1963:U:H2'	2.18	0.43
25:DA:2721:A:H1'	25:DA:2873:A:O2'	2.18	0.43
27:DD:33:LEU:C	27:DD:35:LYS:H	2.19	0.43
29:DF:199:TRP:CZ3	29:DF:203:GLN:HG3	2.53	0.43
32:DI:44:LEU:O	32:DI:48:GLU:HG2	2.18	0.43
32:DI:95:LYS:O	32:DI:99:GLU:HB3	2.18	0.43
39:DS:52:SER:HB3	39:DS:55:ALA:HB3	2.01	0.43
39:DS:56:LEU:O	39:DS:57:LYS:HB3	2.18	0.43
43:DW:29:LEU:HD22	43:DW:69:LEU:CD1	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
44:DX:28:PHE:CE2	44:DX:92:LEU:HD11	2.54	0.43
45:DY:86:ARG:CZ	45:DY:95:LYS:HE3	2.48	0.43
1:AA:56:U:H2'	1:AA:57:G:C8	2.54	0.43
1:AA:390:C:O3'	19:AP:28:ARG:NH2	2.51	0.43
1:AA:658:G:C6	1:AA:659:U:C4	3.06	0.43
1:AA:977:A:H3'	1:AA:977:A:N3	2.34	0.43
1:AA:1127:G:H1	1:AA:1145:C:H42	1.65	0.43
1:AA:1253:G:H1	1:AA:1284:C:H42	1.67	0.43
4:AY:206:SER:HB3	4:AY:209:ASP:HB2	2.01	0.43
7:AD:88:VAL:O	7:AD:88:VAL:HG12	2.19	0.43
13:AJ:39:PRO:HB3	13:AJ:70:ARG:NH1	2.33	0.43
13:AJ:55:LYS:O	13:AJ:56:HIS:CG	2.72	0.43
25:BA:386:G:H4'	25:BA:387:U:OP2	2.18	0.43
25:BA:1178:C:H2'	25:BA:1179:C:C6	2.54	0.43
25:BA:1528:A:C6	25:BA:1544:A:C2	3.07	0.43
25:BA:1917:U:C2'	25:BA:1918:A:H5'	2.49	0.43
25:BA:2010:G:H5"	43:BW:42:ARG:HB2	1.99	0.43
25:BA:2244:U:C2'	25:BA:2245:U:H5'	2.49	0.43
26:BB:28:C:OP2	39:BS:34:HIS:NE2	2.51	0.43
27:BD:149:PRO:O	27:BD:150:LYS:HB2	2.19	0.43
27:BD:166:GLN:NE2	27:BD:166:GLN:HA	2.34	0.43
28:BE:117:MET:HE1	28:BE:136:ARG:HA	2.01	0.43
32:BI:113:ARG:HB2	32:BI:130:TYR:CE1	2.54	0.43
34:BN:119:GLU:CD	34:BN:119:GLU:N	2.70	0.43
36:BP:40:SER:O	36:BP:41:ARG:NE	2.49	0.43
36:BP:48:PRO:HG2	36:BP:49:ARG:N	2.34	0.43
39:BS:52:SER:O	39:BS:56:LEU:HB2	2.19	0.43
40:BT:15:VAL:HG22	40:BT:16:ARG:O	2.19	0.43
43:BW:4:LYS:HE2	43:BW:6:ILE:HD11	1.99	0.43
45:BY:6:HIS:CD2	45:BY:35:TYR:CE2	3.07	0.43
45:BY:7:VAL:HB	45:BY:8:LYS:NZ	2.29	0.43
45:BY:60:PHE:O	45:BY:61:ILE:C	2.57	0.43
52:B5:6:VAL:CG2	52:B5:7:PRO:HD2	2.46	0.43
55:B8:41:ILE:C	55:B8:41:ILE:HD12	2.39	0.43
1:CA:414:A:C5	1:CA:431:A:C2	3.07	0.43
1:CA:574:A:N3	1:CA:883:C:H1'	2.34	0.43
1:CA:926:G:C6	1:CA:1505:G:C5	3.07	0.43
1:CA:993:G:H22	1:CA:1046:A:H1'	1.83	0.43
1:CA:1112:C:C4	6:CC:178:LEU:HD23	2.53	0.43
3:CW:56:C:O2	30:DG:78:SER:HB3	2.19	0.43
4:CY:97:ARG:HD3	4:CY:97:ARG:HA	1.80	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CY:203:VAL:HB	4:CY:328:VAL:HG22	2.00	0.43
5:CB:127:ILE:O	5:CB:127:ILE:HG22	2.19	0.43
10:CG:69:VAL:HG21	10:CG:104:LEU:HD21	1.99	0.43
12:CI:5:TYR:HA	12:CI:17:VAL:O	2.18	0.43
13:CJ:28:ARG:HG3	13:CJ:34:VAL:HB	2.01	0.43
16:CM:95:GLY:O	16:CM:110:ARG:HB3	2.19	0.43
20:CQ:6:LEU:HG	20:CQ:59:ILE:HD11	2.01	0.43
21:CR:34:TYR:C	21:CR:35:ARG:HG2	2.38	0.43
22:CS:41:VAL:HB	22:CS:44:MET:SD	2.58	0.43
25:DA:322:A:H3'	29:DF:169:ASN:HD21	1.84	0.43
25:DA:394:A:C2'	25:DA:395:U:H5'	2.49	0.43
25:DA:479:A:HO2'	25:DA:481:G:H8	1.62	0.43
25:DA:833:U:H5"	36:DP:48:PRO:HB3	2.00	0.43
25:DA:1693:U:O2'	27:DD:14:ARG:NH2	2.51	0.43
25:DA:2303:G:O4'	30:DG:126:ASP:HB3	2.19	0.43
25:DA:2320:A:C8	25:DA:2333:A:N6	2.86	0.43
26:DB:75:G:H22	46:DZ:73:GLN:NE2	2.15	0.43
26:DB:88:C:H2'	26:DB:89(A):G:O4'	2.19	0.43
29:DF:176:LEU:HD11	29:DF:180:GLY:HA3	2.01	0.43
32:DI:7:GLU:OE1	32:DI:8:PRO:HD2	2.19	0.43
34:DN:28:VAL:O	34:DN:28:VAL:HG13	2.19	0.43
42:DV:35:LEU:O	42:DV:37:VAL:O	2.37	0.43
44:DX:64:LYS:NZ	44:DX:73:ARG:NH2	2.67	0.43
1:AA:19:C:H2'	1:AA:20:U:H6	1.84	0.43
1:AA:341:C:O2'	1:AA:342:C:H5'	2.19	0.43
1:AA:364:A:H2'	1:AA:365:U:C2	2.54	0.43
1:AA:518:C:C5	1:AA:530:G:C4	3.07	0.43
1:AA:682:G:C6	1:AA:709:G:C6	3.07	0.43
1:AA:1493:A:H4'	2:AV:19:U:O2	2.19	0.43
6:AC:111:LEU:HD11	6:AC:144:SER:O	2.19	0.43
6:AC:137:ALA:HA	6:AC:140:ARG:HE	1.83	0.43
11:AH:16:ALA:O	11:AH:19:VAL:HG22	2.17	0.43
12:AI:4:TYR:CD2	12:AI:88:TYR:HB3	2.52	0.43
12:AI:37:PHE:CE2	12:AI:74:ILE:HD11	2.54	0.43
23:AT:76:ALA:O	23:AT:80:ARG:HG2	2.19	0.43
25:BA:176:G:O2'	25:BA:177:G:H5'	2.19	0.43
25:BA:1006:C:H1'	34:BN:129:MET:CG	2.42	0.43
25:BA:1368:G:C2	25:BA:1369:G:C8	3.06	0.43
25:BA:1993:U:C5'	28:BE:128:SER:HB2	2.48	0.43
25:BA:2331:G:H2'	25:BA:2332:U:O4'	2.19	0.43
25:BA:2516:G:C5	25:BA:2517:C:N4	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2537:U:H2'	25:BA:2538:C:C6	2.54	0.43
27:BD:94:LEU:C	27:BD:94:LEU:HD22	2.40	0.43
29:BF:20:LEU:HD23	29:BF:21:ALA:H	1.84	0.43
32:BI:7:GLU:CD	32:BI:8:PRO:HD2	2.38	0.43
34:BN:161:LEU:N	34:BN:161:LEU:HD23	2.34	0.43
36:BP:30:THR:O	36:BP:32:THR:N	2.52	0.43
36:BP:108:LYS:C	36:BP:110:TYR:N	2.71	0.43
39:BS:25:ARG:HD3	39:BS:88:ASP:OD1	2.18	0.43
39:BS:51:ALA:CB	39:BS:73:LEU:HG	2.47	0.43
41:BU:95:LEU:HD13	42:BV:4:ILE:HG23	2.00	0.43
1:CA:986:A:C6	1:CA:1220:G:N1	2.87	0.43
1:CA:1309:G:C2	1:CA:1329:A:N3	2.87	0.43
4:CY:20:ARG:O	4:CY:24:LYS:HG3	2.19	0.43
4:CY:92:LEU:HD22	4:CY:97:ARG:HH21	1.84	0.43
5:CB:197:VAL:HB	5:CB:200:ILE:HG12	2.00	0.43
12:CI:37:PHE:CE2	12:CI:74:ILE:HD11	2.54	0.43
13:CJ:55:LYS:O	13:CJ:56:HIS:CG	2.72	0.43
15:CL:83:LEU:HD13	15:CL:84:ILE:N	2.34	0.43
20:CQ:27:PHE:O	20:CQ:36:ILE:HG12	2.18	0.43
25:DA:464:U:H4'	54:D7:5:TRP:CZ3	2.54	0.43
25:DA:568:U:O4	42:DV:78:LYS:CE	2.66	0.43
25:DA:608:A:C6	25:DA:609:A:C6	3.07	0.43
25:DA:664:C:H4'	25:DA:941:A:OP1	2.18	0.43
25:DA:1047:G:H1'	25:DA:1110:G:H22	1.83	0.43
25:DA:1910:G:C2'	25:DA:1911:U:H5'	2.49	0.43
28:DE:55:ASN:HB2	28:DE:57:LYS:CG	2.49	0.43
29:DF:182:ASN:O	29:DF:186:ILE:HG13	2.18	0.43
30:DG:151:ALA:HB3	30:DG:153:ARG:NH1	2.34	0.43
31:DH:12:PRO:HD2	31:DH:49:VAL:HG12	2.01	0.43
33:DK:90:LYS:HB3	33:DK:93:ARG:HD3	2.01	0.43
34:DN:37:VAL:HG13	34:DN:160:LYS:HG3	2.01	0.43
35:DO:34:THR:O	35:DO:37:ASP:HB2	2.19	0.43
41:DU:86:ALA:HB3	41:DU:88:ILE:HG13	2.01	0.43
42:DV:2:PHE:CE2	42:DV:13:ARG:HB2	2.53	0.43
45:DY:2:ARG:C	45:DY:4:LYS:H	2.22	0.43
49:D2:41:ILE:HD12	49:D2:41:ILE:O	2.19	0.43
51:D4:57:ILE:CG2	51:D4:59:VAL:HG23	2.48	0.43
1:AA:247:G:OP1	1:AA:247:G:H4'	2.19	0.43
1:AA:423:G:H3'	1:AA:423:G:N3	2.33	0.43
1:AA:523:A:N6	15:AL:52:ARG:HH12	2.11	0.43
1:AA:960:U:O2	1:AA:960:U:H2'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:992:U:C5'	1:AA:993:G:OP1	2.61	0.43
4:AY:49:PRO:HG3	33:BK:29:GLN:CB	2.48	0.43
4:AY:106:GLU:HA	4:AY:109:LYS:CG	2.49	0.43
4:AY:282:ILE:HD12	4:AY:282:ILE:N	2.34	0.43
4:AY:317:PRO:O	4:AY:318:ILE:HG22	2.18	0.43
4:AY:349:VAL:HA	4:AY:353:ASP:HB2	2.01	0.43
5:AB:20:GLU:O	5:AB:39:ILE:HG23	2.19	0.43
6:AC:188:LEU:HD22	6:AC:188:LEU:N	2.34	0.43
7:AD:22:LYS:HE3	7:AD:22:LYS:HB3	1.85	0.43
7:AD:29:PRO:HG2	7:AD:30:LYS:CE	2.48	0.43
7:AD:122:ARG:HA	7:AD:134:ASP:O	2.19	0.43
8:AE:7:GLU:HB3	8:AE:35:GLY:O	2.19	0.43
15:AL:59:LEU:HD22	15:AL:59:LEU:N	2.34	0.43
18:AO:44:LYS:HA	18:AO:44:LYS:CE	2.44	0.43
19:AP:67:THR:HG22	19:AP:68:ASP:N	2.34	0.43
21:AR:63:GLN:O	21:AR:66:LEU:HB3	2.19	0.43
23:AT:72:LEU:HD22	23:AT:73:HIS:H	1.83	0.43
25:BA:111:A:O2'	25:BA:112:U:H5'	2.18	0.43
25:BA:442:G:H1'	29:BF:48:THR:HG21	2.00	0.43
25:BA:444:C:H4'	29:BF:49:ALA:HB2	2.00	0.43
25:BA:661:C:H4'	36:BP:18:ARG:HG2	2.01	0.43
25:BA:1142:A:C5	25:BA:1144:G:C5	3.07	0.43
25:BA:1188:U:H4'	42:BV:79:VAL:CG1	2.49	0.43
25:BA:1688:U:O2	25:BA:1700:A:H8	2.02	0.43
25:BA:1925:C:O2'	25:BA:1926:U:H5'	2.18	0.43
25:BA:2202(A):U:O2'	25:BA:2202(B):C:H5'	2.18	0.43
27:BD:34:VAL:O	27:BD:34:VAL:HG22	2.18	0.43
27:BD:227:ASN:HB3	27:BD:228:PRO:HD2	2.00	0.43
29:BF:11:VAL:HG22	29:BF:125:LEU:HB2	2.01	0.43
29:BF:78:ILE:H	29:BF:78:ILE:HG13	1.52	0.43
36:BP:58:THR:C	36:BP:61:ARG:NE	2.71	0.43
37:BQ:52:VAL:HG23	46:BZ:183:LEU:CD1	2.49	0.43
38:BR:110:PRO:O	38:BR:111:LEU:HD23	2.19	0.43
39:BS:56:LEU:O	39:BS:57:LYS:HB3	2.19	0.43
43:BW:29:LEU:CD2	43:BW:33:ARG:HE	2.32	0.43
44:BX:64:LYS:NZ	44:BX:73:ARG:NH2	2.67	0.43
46:BZ:92:SER:HB2	46:BZ:94:GLU:OE2	2.18	0.43
48:B1:65:SER:OG	48:B1:66:HIS:CD2	2.72	0.43
49:B2:15:LYS:HE2	49:B2:15:LYS:HA	2.00	0.43
1:CA:247:G:OP1	1:CA:247:G:H4'	2.19	0.43
1:CA:978:A:O2'	1:CA:1322:C:N3	2.47	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:1164:G:C6	1:CA:1173:G:C6	3.07	0.43
4:CY:24:LYS:HD3	4:CY:25:ALA:N	2.34	0.43
4:CY:98:GLU:HA	4:CY:101:LYS:HG2	2.01	0.43
5:CB:90:MET:HA	5:CB:91:PRO:HD3	1.87	0.43
7:CD:14:ARG:HG3	7:CD:59:ARG:HH12	1.84	0.43
7:CD:148:VAL:HG12	7:CD:149:ALA:O	2.19	0.43
8:CE:11:ILE:HG22	8:CE:12:LEU:HD12	2.00	0.43
11:CH:87:SER:HB2	11:CH:93:VAL:HB	2.01	0.43
12:CI:70:LYS:O	12:CI:74:ILE:HD12	2.19	0.43
12:CI:84:ALA:O	12:CI:87:GLN:HB3	2.19	0.43
18:CO:35:ARG:HG2	18:CO:59:MET:CE	2.49	0.43
23:CT:56:MET:HG3	23:CT:84:LEU:HD11	2.01	0.43
24:CU:5:ASP:C	24:CU:7:ARG:H	2.22	0.43
25:DA:836:G:C5	25:DA:837:C:C4	3.07	0.43
25:DA:1153:C:H5'	41:DU:76:TYR:HE2	1.84	0.43
25:DA:2505:G:O6	25:DA:2576:G:H2'	2.19	0.43
26:DB:50:G:C2	26:DB:51:G:H1'	2.54	0.43
27:DD:34:VAL:O	27:DD:34:VAL:HG22	2.19	0.43
30:DG:37:VAL:CG2	30:DG:99:MET:HG3	2.49	0.43
32:DI:44:LEU:HD23	32:DI:44:LEU:HA	1.82	0.43
37:DQ:65:PHE:HD2	37:DQ:105:GLU:HB2	1.84	0.43
45:DY:45:VAL:HG22	45:DY:62:GLU:HB3	2.01	0.43
46:DZ:108:PRO:HB3	46:DZ:144:LEU:O	2.18	0.43
46:DZ:152:ALA:C	46:DZ:154:ASP:H	2.22	0.43
53:D6:36:LEU:HD13	53:D6:50:ARG:HH12	1.84	0.43
1:AA:68(P):C:C4	1:AA:68(Q):U:C4	3.07	0.42
1:AA:217:C:O2'	1:AA:218:C:H5'	2.19	0.42
1:AA:277:C:OP1	20:AQ:41:LYS:HE3	2.19	0.42
1:AA:368:U:C5'	32:DI:90:GLY:HA2	2.41	0.42
6:AC:91:LEU:HD23	6:AC:91:LEU:C	2.39	0.42
7:AD:19:LEU:HD22	7:AD:21:LEU:HG	2.01	0.42
12:AI:79:LEU:HD23	12:AI:101:PHE:O	2.18	0.42
16:AM:24:GLY:O	16:AM:25:ILE:HD13	2.18	0.42
19:AP:59:TRP:HA	19:AP:62:VAL:CG2	2.49	0.42
23:AT:102:GLY:C	23:AT:104:LEU:H	2.22	0.42
25:BA:581:C:H2'	25:BA:582:G:C8	2.53	0.42
25:BA:1468(J):G:O2'	25:BA:1558:A:C2	2.72	0.42
25:BA:1567:A:C8	27:BD:84:TYR:CE2	3.07	0.42
25:BA:1638:C:H4'	25:BA:2710:C:O2	2.19	0.42
25:BA:2056:G:H22	52:B5:4:HIS:C	2.23	0.42
25:BA:2305:A:O2'	30:BG:136:ARG:HG2	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2729:G:H1'	28:BE:187:ALA:CB	2.49	0.42
25:BA:2820:A:O2'	25:BA:2821:A:OP1	2.36	0.42
25:BA:2852:G:C2	25:BA:2853:C:C2	3.07	0.42
26:BB:46:A:C5	26:BB:47:C:C4	3.07	0.42
27:BD:36:PRO:HA	27:BD:62:TYR:O	2.19	0.42
32:BI:25:TYR:CD1	32:BI:30:LEU:HD11	2.53	0.42
40:BT:9:LEU:O	40:BT:12:SER:HB2	2.19	0.42
41:BU:57:PHE:O	41:BU:58:ARG:C	2.57	0.42
42:BV:33:VAL:O	42:BV:33:VAL:HG23	2.19	0.42
44:BX:57:LEU:HD12	44:BX:57:LEU:N	2.33	0.42
48:B1:57:GLU:HG2	48:B1:58:ILE:H	1.83	0.42
53:B6:25:LYS:HD2	55:B8:34:TRP:CZ3	2.54	0.42
55:B8:29:LYS:HD2	55:B8:44:LYS:CB	2.48	0.42
55:B8:36:LYS:O	55:B8:37:SER:C	2.55	0.42
1:CA:35:G:C2	1:CA:550:G:N3	2.87	0.42
1:CA:145:G:H2'	1:CA:146:G:H8	1.83	0.42
1:CA:444:C:H2'	1:CA:445:G:C8	2.54	0.42
1:CA:973:G:P	13:CJ:57:LYS:HE2	2.59	0.42
1:CA:1414:U:O2	1:CA:1487:G:N2	2.51	0.42
3:CW:19:G:C2	3:CW:57:A:N3	2.87	0.42
5:CB:91:PRO:HG3	5:CB:154:LEU:CD2	2.48	0.42
5:CB:103:THR:HG23	5:CB:176:GLU:OE1	2.19	0.42
10:CG:70:LYS:HG3	10:CG:96:GLN:HB3	2.00	0.42
11:CH:10:LEU:HD13	11:CH:83:ILE:HD11	2.01	0.42
12:CI:4:TYR:CD2	12:CI:88:TYR:HB3	2.54	0.42
12:CI:33:PHE:C	12:CI:35:GLU:H	2.23	0.42
15:CL:52:ARG:N	15:CL:52:ARG:HD2	2.34	0.42
15:CL:82:VAL:HG22	15:CL:99:ILE:HD11	2.00	0.42
16:CM:19:LEU:N	16:CM:19:LEU:HD22	2.34	0.42
16:CM:106:ASN:O	16:CM:107:ALA:HB3	2.19	0.42
20:CQ:11:VAL:HG23	20:CQ:85:VAL:HG13	2.01	0.42
25:DA:142:G:H1'	44:DX:37:THR:CG2	2.48	0.42
25:DA:775:G:H4'	25:DA:776:G:O5'	2.19	0.42
25:DA:1167:U:C2	25:DA:1183:G:N2	2.87	0.42
25:DA:1394:U:C4	25:DA:1395:A:C6	3.07	0.42
25:DA:1647:G:H3'	25:DA:1647:G:P	2.59	0.42
25:DA:1820:U:H4'	25:DA:1821:A:OP2	2.19	0.42
25:DA:2305:A:O2'	30:DG:136:ARG:HG2	2.19	0.42
27:DD:70:TRP:HZ3	27:DD:146:GLU:CD	2.22	0.42
30:DG:83:ARG:O	30:DG:86:MET:HG3	2.19	0.42
30:DG:100:TRP:O	30:DG:104:GLU:HG3	2.17	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:DI:48:GLU:O	32:DI:52:ARG:HG3	2.18	0.42
32:DI:77:LEU:HD11	32:DI:101:LEU:HD13	2.00	0.42
32:DI:112:LYS:H	32:DI:112:LYS:CD	2.27	0.42
40:DT:16:ARG:NH2	40:DT:81:PRO:HA	2.23	0.42
41:DU:27:LEU:HD22	41:DU:31:SER:CB	2.49	0.42
44:DX:31:HIS:HA	44:DX:32:PRO:HD3	1.85	0.42
44:DX:64:LYS:HE2	44:DX:73:ARG:NE	2.34	0.42
45:DY:36:ALA:HA	45:DY:67:LEU:O	2.18	0.42
46:DZ:23:LYS:HD2	46:DZ:38:TYR:HE1	1.84	0.42
1:AA:57:G:C5	1:AA:58:C:C4	3.08	0.42
1:AA:436:C:H2'	1:AA:437:U:C6	2.47	0.42
1:AA:1038:C:H2'	1:AA:1039:C:C6	2.54	0.42
1:AA:1071:C:H5"	8:AE:49:PRO:HG2	2.00	0.42
1:AA:1176:A:H2'	1:AA:1177:G:H8	1.82	0.42
1:AA:1222:G:O2'	1:AA:1223:C:H5'	2.19	0.42
1:AA:1298:C:C5	10:AG:114:ARG:NH1	2.87	0.42
1:AA:1353:G:H2'	1:AA:1354:C:C6	2.54	0.42
1:AA:1379:G:O2'	1:AA:1380:U:H5'	2.19	0.42
4:AY:24:LYS:HD3	4:AY:25:ALA:N	2.34	0.42
4:AY:190:TYR:CE1	4:AY:225:PRO:HD3	2.54	0.42
5:AB:31:TYR:HB3	5:AB:42:ILE:CD1	2.49	0.42
10:AG:64:GLN:HG2	10:AG:128:ALA:HB1	2.01	0.42
10:AG:150:ALA:HA	14:AK:59:TYR:HD2	1.84	0.42
11:AH:73:ASP:C	11:AH:75:ARG:H	2.23	0.42
24:AU:7:ARG:O	24:AU:8:THR:HG23	2.18	0.42
25:BA:106:C:H2'	25:BA:107:C:H6	1.85	0.42
25:BA:320:A:H4'	25:BA:322:A:N7	2.34	0.42
25:BA:941:A:O2'	36:BP:35:HIS:HB3	2.20	0.42
25:BA:1542:G:H3'	25:BA:1542:G:P	2.59	0.42
25:BA:1910:G:C2'	25:BA:1911:U:H5'	2.50	0.42
25:BA:2197:U:H1'	25:BA:2198:A:C8	2.54	0.42
25:BA:2224:G:H4'	25:BA:2226:C:C2	2.54	0.42
27:BD:238:GLY:O	27:BD:240:ALA:N	2.52	0.42
35:BO:88:ASN:N	35:BO:92:GLU:O	2.42	0.42
35:BO:88:ASN:OD1	35:BO:89:ASN:N	2.53	0.42
36:BP:62:LEU:HD22	36:BP:62:LEU:N	2.32	0.42
39:BS:89:ARG:O	39:BS:90:GLY:O	2.37	0.42
40:BT:57:PHE:C	40:BT:58:ASN:HD22	2.21	0.42
40:BT:58:ASN:C	40:BT:58:ASN:HD22	2.22	0.42
43:BW:71:VAL:HA	43:BW:107:LEU:HD12	2.01	0.42
48:B1:45:ASN:ND2	48:B1:47:GLN:HE21	2.17	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:66:G:H4'	1:CA:173:U:C5	2.54	0.42
1:CA:644:G:H4'	11:CH:92:ARG:HH21	1.84	0.42
1:CA:750:G:C2	1:CA:751:U:C6	3.07	0.42
1:CA:1076:C:C2	1:CA:1082:G:C2	3.07	0.42
1:CA:1301:U:C5	1:CA:1303:C:C4	3.07	0.42
4:CY:88:LEU:HD22	4:CY:88:LEU:N	2.34	0.42
4:CY:282:ILE:HD12	4:CY:282:ILE:N	2.35	0.42
7:CD:199:ASN:ND2	7:CD:202:LEU:HD23	2.33	0.42
8:CE:7:GLU:HB3	8:CE:35:GLY:O	2.19	0.42
8:CE:110:LEU:HD13	8:CE:118:ILE:HD13	2.00	0.42
11:CH:20:TYR:HD1	11:CH:65:TYR:CD2	2.37	0.42
13:CJ:5:ARG:HG2	13:CJ:6:ILE:N	2.34	0.42
15:CL:99:ILE:HD12	15:CL:99:ILE:HA	1.82	0.42
25:DA:777:A:C2	25:DA:778:G:C4	3.06	0.42
25:DA:1141:U:H4'	25:DA:1142:A:O4'	2.19	0.42
25:DA:1262:A:N3	52:D5:10:LYS:HE3	2.34	0.42
25:DA:1349:A:N6	25:DA:1598:C:N4	2.67	0.42
25:DA:1385:G:O2'	25:DA:1396:U:C6	2.67	0.42
25:DA:1443:G:N2	25:DA:1549:C:C2	2.86	0.42
25:DA:1614:A:C6	43:DW:87:PRO:HA	2.53	0.42
25:DA:1759:A:H4'	25:DA:2715:C:O4'	2.19	0.42
25:DA:1827:C:H2'	25:DA:1828:G:H5'	2.01	0.42
26:DB:13:A:N1	26:DB:69:G:O2'	2.45	0.42
28:DE:57:LYS:CG	28:DE:58:ARG:H	2.27	0.42
29:DF:124:LEU:HB3	29:DF:193:VAL:HG22	2.01	0.42
31:DH:87:LEU:HB2	31:DH:131:VAL:HB	2.01	0.42
33:DK:72:PRO:HA	33:DK:73:PRO:HD3	1.86	0.42
38:DR:51:LEU:HD22	38:DR:70:LEU:HD21	2.01	0.42
40:DT:23:ARG:NH2	40:DT:120:ARG:HD3	2.34	0.42
41:DU:8:VAL:HG12	41:DU:11:ARG:HH21	1.84	0.42
42:DV:44:LYS:O	42:DV:45:THR:HG23	2.19	0.42
43:DW:70:TYR:CD2	43:DW:70:TYR:N	2.87	0.42
49:D2:17:SER:O	49:D2:18:PRO:C	2.56	0.42
53:D6:36:LEU:HA	53:D6:49:HIS:O	2.18	0.42
1:AA:405:U:O2	1:AA:405:U:C2'	2.67	0.42
1:AA:444:C:H2'	1:AA:445:G:C8	2.54	0.42
1:AA:862:C:C2'	1:AA:863:U:H5'	2.49	0.42
4:AY:137:ALA:O	4:AY:218:PHE:HD1	2.03	0.42
5:AB:102:LEU:N	5:AB:102:LEU:HD12	2.34	0.42
7:AD:110:PHE:CE2	7:AD:148:VAL:HG23	2.54	0.42
12:AI:87:GLN:C	12:AI:89:ASN:H	2.22	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:AI:97:LYS:HB3	12:AI:98:PRO:HD3	2.01	0.42
13:AJ:5:ARG:HG2	13:AJ:6:ILE:N	2.35	0.42
19:AP:21:VAL:HG23	19:AP:33:ILE:HB	2.01	0.42
22:AS:20:LEU:HD23	22:AS:23:ASN:HD22	1.84	0.42
25:BA:194:G:H2'	25:BA:195:A:O4'	2.19	0.42
25:BA:210:C:H2'	25:BA:211:A:C8	2.54	0.42
25:BA:214:G:O2'	25:BA:215:G:O4'	2.27	0.42
25:BA:1047:G:H1'	25:BA:1110:G:H22	1.84	0.42
25:BA:1271:G:C2'	25:BA:1618:A:OP1	2.67	0.42
25:BA:1853:A:N1	25:BA:2087:G:H1'	2.34	0.42
25:BA:1902:C:H4'	27:BD:244:ARG:HA	2.01	0.42
25:BA:2612:C:C2'	25:BA:2613:U:O5'	2.67	0.42
25:BA:2637:U:C4	25:BA:2638:G:C6	3.06	0.42
25:BA:2712:U:O2'	25:BA:2712(A):A:P	2.78	0.42
27:BD:16:MET:CE	27:BD:211:ARG:HE	2.29	0.42
27:BD:25:THR:CG2	27:BD:82:ILE:N	2.80	0.42
33:BK:78:ILE:HD12	33:BK:78:ILE:N	2.33	0.42
33:BK:115:LEU:HD22	33:BK:117:THR:H	1.83	0.42
35:BO:3:GLN:CB	35:BO:4:PRO:HD2	2.49	0.42
36:BP:122:PRO:O	36:BP:142:GLY:HA3	2.19	0.42
40:BT:50:ILE:HD12	40:BT:99:LEU:HB2	2.01	0.42
43:BW:70:TYR:CD2	43:BW:70:TYR:N	2.87	0.42
45:BY:45:VAL:HG22	45:BY:62:GLU:HB3	2.01	0.42
45:BY:71:LYS:NZ	45:BY:71:LYS:CB	2.81	0.42
46:BZ:51:ALA:CB	46:BZ:57:ILE:HD11	2.49	0.42
48:B1:13:ILE:O	48:B1:13:ILE:HD12	2.19	0.42
50:B3:8:LEU:HD22	50:B3:31:LEU:HD12	2.00	0.42
1:CA:448:A:C2	1:CA:449:C:C2	3.07	0.42
1:CA:654:G:C2	1:CA:753:A:C4	3.07	0.42
1:CA:705:U:C5	1:CA:706:A:C5	3.07	0.42
1:CA:941:G:N2	1:CA:942:G:H1'	2.34	0.42
1:CA:1056:U:C5'	6:CC:163:ALA:HB2	2.48	0.42
1:CA:1171:G:H2'	1:CA:1172:C:C6	2.54	0.42
1:CA:1176:A:H2'	1:CA:1177:G:H8	1.82	0.42
1:CA:1320:C:C2	22:CS:72:GLY:HA3	2.55	0.42
1:CA:1363:A:H1'	1:CA:1365:G:N7	2.34	0.42
4:CY:202:LEU:CD1	4:CY:204:ARG:HG2	2.48	0.42
5:CB:208:ILE:H	5:CB:208:ILE:CD1	2.24	0.42
6:CC:29:TYR:O	6:CC:29:TYR:HD1	2.03	0.42
11:CH:20:TYR:HE2	11:CH:75:ARG:NH1	2.18	0.42
12:CI:26:VAL:HG22	12:CI:61:ALA:HB3	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:CI:79:LEU:HD23	12:CI:102:LEU:HA	2.01	0.42
16:CM:49:THR:HB	16:CM:52:GLU:CG	2.49	0.42
23:CT:84:LEU:HD13	23:CT:85:MET:N	2.34	0.42
25:DA:329:G:H4'	25:DA:330:A:OP2	2.19	0.42
25:DA:756:C:H2'	25:DA:757:U:O4'	2.20	0.42
25:DA:956:G:H2'	25:DA:957:A:H2'	2.00	0.42
25:DA:1022:G:H4'	25:DA:1023:U:O5'	2.19	0.42
25:DA:1343:G:N2	25:DA:1405:U:C2	2.87	0.42
25:DA:1817:G:H2'	25:DA:1818:U:H5'	2.01	0.42
25:DA:1845:G:C2'	25:DA:1846:G:H5'	2.49	0.42
25:DA:2365:G:H4'	47:D0:60:PHE:CE2	2.54	0.42
25:DA:2532:G:C6	25:DA:2533:A:C6	3.07	0.42
25:DA:2730:C:O2'	25:DA:2731:G:H5'	2.19	0.42
25:DA:2872:G:O2'	25:DA:2873:A:H5'	2.19	0.42
26:DB:43:C:C2'	26:DB:44:G:H5'	2.50	0.42
27:DD:166:GLN:HA	27:DD:166:GLN:NE2	2.35	0.42
27:DD:172:TYR:HD1	27:DD:185:VAL:C	2.21	0.42
31:DH:68:THR:O	31:DH:72:ILE:HG13	2.19	0.42
33:DK:101:TRP:NE1	33:DK:105:LEU:HD11	2.34	0.42
43:DW:71:VAL:HA	43:DW:107:LEU:HD12	2.02	0.42
44:DX:11:PRO:HD3	49:D2:37:PHE:CE2	2.54	0.42
46:DZ:70:LEU:HD23	46:DZ:70:LEU:HA	1.83	0.42
50:D3:9:VAL:HG21	50:D3:55:ARG:HD3	2.00	0.42
1:AA:35:G:H2'	1:AA:36:C:C6	2.54	0.42
1:AA:491:G:H2'	1:AA:492:G:H8	1.82	0.42
1:AA:782:A:O3'	1:AA:1515:C:H4'	2.19	0.42
1:AA:951:G:C6	1:AA:1231:G:C6	3.07	0.42
1:AA:1127:G:H1'	1:AA:1148:U:H3	1.84	0.42
1:AA:1237:C:OP1	1:AA:1238:A:H1'	2.19	0.42
1:AA:1320:C:C2	22:AS:72:GLY:HA3	2.55	0.42
1:AA:1480:G:C6	1:AA:1481:U:N3	2.87	0.42
1:AA:1516:G:H2'	1:AA:1517:G:H5'	2.01	0.42
4:AY:39:LEU:HD13	4:AY:68:LEU:HD21	1.99	0.42
4:AY:85:LEU:HD22	4:AY:104:LEU:HG	2.02	0.42
4:AY:88:LEU:HD22	4:AY:88:LEU:N	2.35	0.42
4:AY:92:LEU:HD22	4:AY:97:ARG:HH21	1.84	0.42
4:AY:324:ILE:H	4:AY:324:ILE:HD13	1.84	0.42
4:AY:334:VAL:O	4:AY:342:MET:HE3	2.19	0.42
5:AB:127:ILE:O	5:AB:127:ILE:HG22	2.19	0.42
5:AB:187:LEU:HA	5:AB:201:ILE:O	2.18	0.42
11:AH:127:LEU:HD22	11:AH:127:LEU:N	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AM:95:GLY:O	16:AM:110:ARG:HB3	2.20	0.42
17:AN:29:ARG:HG3	17:AN:30:ALA:H	1.84	0.42
21:AR:38:GLU:HA	21:AR:41:LYS:HE3	2.00	0.42
22:AS:70:LYS:HA	22:AS:70:LYS:HE3	2.00	0.42
25:BA:71:A:C2	44:BX:31:HIS:CE1	3.01	0.42
25:BA:271(G):G:C2	25:BA:357(M):C:C2	3.07	0.42
25:BA:322:A:H3'	29:BF:169:ASN:ND2	2.31	0.42
25:BA:460:A:H2'	25:BA:461:C:O4'	2.19	0.42
25:BA:1019:U:H3	25:BA:1142:A:N6	2.04	0.42
25:BA:1073:A:H2'	25:BA:1074:G:O4'	2.18	0.42
25:BA:1881:C:O2'	25:BA:1882:C:H5'	2.19	0.42
25:BA:1987:G:H2'	25:BA:1988:C:C6	2.54	0.42
25:BA:2202(F):U:O5'	25:BA:2202(F):U:H6	2.01	0.42
25:BA:2335:A:C8	25:BA:2337:G:C5	3.07	0.42
27:BD:33:LEU:C	27:BD:35:LYS:H	2.22	0.42
30:BG:174:GLU:HG2	30:BG:180:PHE:HD1	1.82	0.42
32:BI:75:LEU:HD11	32:BI:105:HIS:NE2	2.33	0.42
32:BI:91:SER:OG	32:BI:92:VAL:N	2.52	0.42
34:BN:28:VAL:HG13	34:BN:28:VAL:O	2.19	0.42
39:BS:59:LYS:HB2	39:BS:60:GLY:H	1.49	0.42
40:BT:6:LEU:HA	40:BT:9:LEU:HB3	2.01	0.42
42:BV:35:LEU:O	42:BV:37:VAL:O	2.37	0.42
42:BV:64:HIS:CD2	42:BV:92:THR:HG22	2.55	0.42
45:BY:8:LYS:HB2	45:BY:9:LYS:H	1.72	0.42
48:B1:40:ARG:HG2	48:B1:41:ARG:N	2.34	0.42
55:B8:7:HIS:HD2	55:B8:60:LEU:HD13	1.83	0.42
1:CA:216:G:N1	1:CA:217:C:N4	2.67	0.42
1:CA:668:G:H1'	18:CO:46:HIS:CD2	2.47	0.42
1:CA:1222:G:O2'	1:CA:1223:C:H5'	2.19	0.42
3:CW:47:U:H6	3:CW:48:C:H5'	1.83	0.42
3:CW:67:C:H2'	3:CW:68:C:C6	2.54	0.42
4:CY:145:TRP:O	4:CY:148:MET:HB2	2.19	0.42
5:CB:74:LYS:HE2	5:CB:206:ASP:OD1	2.19	0.42
5:CB:178:ARG:NH2	11:CH:74:PRO:HG3	2.32	0.42
6:CC:66:VAL:HB	6:CC:101:LEU:HD23	2.01	0.42
6:CC:173:VAL:N	6:CC:174:PRO:HD3	2.34	0.42
8:CE:76:ILE:HG23	8:CE:78:HIS:N	2.32	0.42
8:CE:153:LYS:HG3	8:CE:155:GLU:H	1.82	0.42
9:CF:94:GLN:HE21	21:CR:32:ARG:NH1	2.17	0.42
11:CH:73:ASP:C	11:CH:75:ARG:H	2.23	0.42
25:DA:270(K):C:C2'	25:DA:270(L):U:H2'	2.47	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:320:A:H4'	25:DA:322:A:N7	2.34	0.42
25:DA:451:C:H4'	29:DF:52:LYS:HZ1	1.84	0.42
25:DA:1025:G:OP1	25:DA:1025:G:H8	2.01	0.42
25:DA:1152:C:H5"	41:DU:80:ILE:HG22	2.01	0.42
25:DA:1185:C:H5"	25:DA:1186:G:OP1	2.20	0.42
25:DA:1286:A:C2	25:DA:1289:C:C6	3.07	0.42
25:DA:2711:A:OP1	25:DA:2712(A):A:OP1	2.37	0.42
27:DD:16:MET:CB	27:DD:207:GLY:HA3	2.49	0.42
27:DD:31:LYS:HE3	27:DD:33:LEU:HD11	2.00	0.42
28:DE:201:THR:HG22	28:DE:203:LYS:N	2.34	0.42
32:DI:62:LYS:HE3	32:DI:136:VAL:CG2	2.49	0.42
33:DK:111:LYS:C	33:DK:113:PRO:HD2	2.39	0.42
36:DP:38:GLN:CG	36:DP:39:LYS:H	2.30	0.42
37:DQ:20:ALA:HA	37:DQ:98:LYS:HD3	2.01	0.42
37:DQ:52:VAL:HG23	46:DZ:183:LEU:CD1	2.50	0.42
40:DT:49:VAL:HG13	40:DT:49:VAL:O	2.18	0.42
42:DV:37:VAL:H	42:DV:37:VAL:HG22	1.59	0.42
43:DW:15:ARG:O	43:DW:19:LEU:HD13	2.19	0.42
45:DY:17:SER:CA	45:DY:71:LYS:HD2	2.50	0.42
46:DZ:5:LEU:HD23	46:DZ:5:LEU:C	2.39	0.42
1:AA:451:A:N7	1:AA:481:G:C6	2.88	0.42
1:AA:668:G:H1'	18:AO:46:HIS:CD2	2.47	0.42
1:AA:1309:G:C2	1:AA:1329:A:N3	2.88	0.42
4:AY:145:TRP:O	4:AY:148:MET:HB2	2.20	0.42
8:AE:77:PRO:HD2	8:AE:142:LEU:HD22	2.01	0.42
12:AI:104:ARG:O	12:AI:105:ASP:HB3	2.19	0.42
13:AJ:28:ARG:HG3	13:AJ:34:VAL:HB	2.00	0.42
14:AK:21:ILE:HD13	14:AK:82:VAL:HG13	2.00	0.42
15:AL:92:LEU:HA	15:AL:93:PRO:HD3	1.88	0.42
17:AN:13:THR:N	17:AN:14:PRO:HD3	2.35	0.42
18:AO:35:ARG:HG2	18:AO:59:MET:HE1	2.00	0.42
22:AS:12:ASP:HB3	22:AS:14:HIS:CE1	2.54	0.42
25:BA:520:G:H2'	25:BA:521:G:H8	1.85	0.42
25:BA:836:G:C5	25:BA:837:C:C4	3.06	0.42
25:BA:956:G:H2'	25:BA:957:A:H2'	2.02	0.42
25:BA:1024:G:H8	25:BA:1024:G:O5'	2.02	0.42
25:BA:1141:U:H4'	25:BA:1142:A:O4'	2.19	0.42
25:BA:1996:C:C4'	25:BA:1997:G:OP1	2.65	0.42
25:BA:2259:G:C2	25:BA:2282:G:C6	3.07	0.42
25:BA:2277:G:H2'	25:BA:2278:A:H5"	2.01	0.42
25:BA:2687:U:H2'	25:BA:2688:U:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2721:A:H1'	25:BA:2873:A:O2'	2.19	0.42
25:BA:2785:C:O2'	28:BE:66:HIS:CD2	2.73	0.42
26:BB:29:A:H1'	26:BB:59:A:C2	2.55	0.42
26:BB:32:C:O4'	26:BB:52:A:N6	2.50	0.42
28:BE:167:VAL:HG22	28:BE:168:MET:N	2.33	0.42
29:BF:176:LEU:HD11	29:BF:180:GLY:HA3	2.01	0.42
30:BG:88:ILE:CG1	30:BG:89:GLY:N	2.82	0.42
30:BG:125:PHE:CZ	30:BG:173:LEU:HD12	2.54	0.42
32:BI:12:LEU:HD22	32:BI:12:LEU:N	2.34	0.42
32:BI:40:THR:HG23	32:BI:43:ASN:HB2	2.01	0.42
33:BK:112:MET:N	33:BK:113:PRO:CD	2.82	0.42
34:BN:37:VAL:HG13	34:BN:160:LYS:HG3	2.00	0.42
34:BN:66:THR:H	34:BN:71:MET:CE	2.32	0.42
36:BP:30:THR:O	36:BP:33:ARG:N	2.42	0.42
37:BQ:9:TYR:O	37:BQ:9:TYR:HD2	2.03	0.42
39:BS:33:LYS:C	39:BS:34:HIS:HD2	2.23	0.42
40:BT:88:ILE:HD12	40:BT:89:VAL:N	2.35	0.42
48:B1:48:LYS:HE3	48:B1:50:ARG:NH1	2.35	0.42
50:B3:55:ARG:N	50:B3:55:ARG:HD2	2.34	0.42
51:B4:57:ILE:CG2	51:B4:59:VAL:HG23	2.49	0.42
1:CA:255:G:H2'	1:CA:256:U:C6	2.54	0.42
1:CA:445:G:C6	1:CA:490:G:C6	3.08	0.42
1:CA:750:G:N3	18:CO:23:GLY:HA3	2.35	0.42
1:CA:758:G:O5'	1:CA:758:G:H8	2.02	0.42
1:CA:953:G:H5'	1:CA:965:A:H61	1.85	0.42
1:CA:1102:A:C6	1:CA:1103:C:C4	3.08	0.42
1:CA:1281:U:H5'	1:CA:1282:C:C5	2.51	0.42
1:CA:1305:G:OP2	1:CA:1305:G:C8	2.73	0.42
1:CA:1353:G:H2'	1:CA:1354:C:C6	2.55	0.42
3:CW:40:C:O2'	3:CW:41:C:H5'	2.19	0.42
7:CD:57:ARG:HA	7:CD:202:LEU:HD12	2.00	0.42
8:CE:69:VAL:HG12	8:CE:71:LEU:HD23	2.02	0.42
14:CK:88:GLY:O	14:CK:91:ARG:HB2	2.19	0.42
23:CT:76:ALA:O	23:CT:80:ARG:HG2	2.19	0.42
25:DA:195:A:C8	25:DA:197:A:OP1	2.72	0.42
25:DA:330:A:H2	25:DA:1210:A:HO2'	0.72	0.42
25:DA:528:A:C8	25:DA:528:A:C3'	2.99	0.42
25:DA:871:U:H4'	37:DQ:69:PHE:CD2	2.55	0.42
25:DA:1349:A:H5'	25:DA:1349:A:N3	2.35	0.42
25:DA:1495:A:OP1	25:DA:1495:A:C8	2.72	0.42
25:DA:1826:G:H4'	27:DD:242:ARG:CZ	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1934:C:C2'	25:DA:1935:G:H5'	2.49	0.42
25:DA:1987:G:H2'	25:DA:1988:C:C6	2.55	0.42
25:DA:2025:C:H2'	25:DA:2026:C:H6	1.83	0.42
25:DA:2786:U:H4'	28:DE:65:GLY:O	2.19	0.42
25:DA:2817:G:C4	25:DA:2830:G:N2	2.88	0.42
26:DB:75:G:N1	26:DB:102:G:N2	2.68	0.42
28:DE:167:VAL:HG22	28:DE:168:MET:N	2.35	0.42
30:DG:173:LEU:HB3	30:DG:178:PHE:CG	2.54	0.42
32:DI:5:LEU:HD22	32:DI:19:VAL:HG12	2.02	0.42
32:DI:113:ARG:HB2	32:DI:130:TYR:CE1	2.55	0.42
39:DS:52:SER:O	39:DS:56:LEU:HB2	2.19	0.42
39:DS:73:LEU:O	39:DS:77:ALA:N	2.50	0.42
41:DU:68:ALA:CB	41:DU:99:ALA:HB1	2.50	0.42
41:DU:102:GLU:N	41:DU:103:PRO:CD	2.82	0.42
42:DV:35:LEU:HB3	42:DV:37:VAL:HG23	2.01	0.42
42:DV:36:PRO:HA	42:DV:56:SER:HB3	2.02	0.42
43:DW:12:ILE:CD1	43:DW:17:VAL:HG12	2.49	0.42
49:D2:28:LYS:HA	49:D2:28:LYS:HD3	1.90	0.42
1:AA:757:U:O2'	1:AA:879:C:H1'	2.20	0.42
1:AA:758:G:H8	1:AA:758:G:O5'	2.02	0.42
4:AY:20:ARG:O	4:AY:24:LYS:HG3	2.20	0.42
5:AB:39:ILE:HD12	5:AB:39:ILE:N	2.35	0.42
5:AB:111:ARG:HG2	5:AB:111:ARG:HH11	1.85	0.42
7:AD:9:CYS:SG	7:AD:31:CYS:O	2.78	0.42
7:AD:79:PHE:CE1	7:AD:204:ILE:HG12	2.54	0.42
11:AH:17:THR:C	11:AH:78:GLN:HE22	2.23	0.42
12:AI:84:ALA:O	12:AI:87:GLN:HB3	2.19	0.42
13:AJ:54:PHE:CG	13:AJ:55:LYS:N	2.88	0.42
16:AM:66:LEU:N	16:AM:66:LEU:HD23	2.34	0.42
25:BA:298:G:P	45:BY:85:VAL:HG22	2.59	0.42
25:BA:756:C:H2'	25:BA:757:U:O4'	2.20	0.42
25:BA:869:G:C4	25:BA:870:A:C8	3.07	0.42
25:BA:2287:A:H2	25:BA:2383:G:H21	1.67	0.42
27:BD:61:LEU:HD13	27:BD:61:LEU:HA	1.76	0.42
28:BE:201:THR:HG22	28:BE:203:LYS:N	2.34	0.42
33:BK:97:GLY:O	33:BK:136:VAL:HG23	2.19	0.42
37:BQ:57:HIS:NE2	37:BQ:116:GLU:HG2	2.35	0.42
38:BR:48:VAL:HA	38:BR:51:LEU:CD1	2.47	0.42
44:BX:5:TYR:CE2	49:B2:30:ARG:HG3	2.54	0.42
46:BZ:152:ALA:C	46:BZ:154:ASP:H	2.23	0.42
55:B8:30:ARG:HA	55:B8:30:ARG:HD3	1.61	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:CA:68(I):G:C8	1:CA:68(K):U:O4	2.72	0.42
1:CA:521:G:O2'	1:CA:522:C:H5'	2.20	0.42
1:CA:754:C:H3'	1:CA:754:C:O2	2.19	0.42
6:CC:134:ILE:O	6:CC:138:VAL:HG23	2.19	0.42
7:CD:50:ARG:HA	7:CD:51:PRO:HD3	1.82	0.42
10:CG:38:LEU:O	10:CG:42:ILE:HG13	2.19	0.42
11:CH:20:TYR:HD1	11:CH:65:TYR:CE2	2.38	0.42
12:CI:4:TYR:HD2	12:CI:84:ALA:O	2.02	0.42
14:CK:20:TYR:CE2	14:CK:83:ILE:HD12	2.55	0.42
14:CK:115:PRO:C	14:CK:117:ASN:H	2.22	0.42
15:CL:26:LEU:C	15:CL:28:GLY:N	2.73	0.42
15:CL:46:LYS:CB	15:CL:47:PRO:HD3	2.50	0.42
18:CO:10:LYS:O	18:CO:14:GLU:HB2	2.20	0.42
19:CP:21:VAL:HG23	19:CP:33:ILE:HB	2.02	0.42
21:CR:79:LEU:HA	21:CR:80:PRO:HD3	1.81	0.42
25:DA:270(Y):G:C2	25:DA:270(Z):U:O4	2.73	0.42
25:DA:1459:G:N3	25:DA:1459:G:C2'	2.81	0.42
25:DA:1465:G:O2'	25:DA:1466:G:H5'	2.20	0.42
25:DA:1625:C:H2'	25:DA:1626:G:O4'	2.19	0.42
25:DA:1794:U:H2'	25:DA:1795:C:H6	1.83	0.42
25:DA:2307:G:O2'	25:DA:2311:A:N7	2.52	0.42
25:DA:2542:A:OP1	25:DA:2542:A:H4'	2.19	0.42
26:DB:32:C:O4'	26:DB:52:A:N6	2.50	0.42
30:DG:60:LEU:HD12	30:DG:68:PRO:HB3	2.02	0.42
36:DP:18:ARG:HE	36:DP:18:ARG:HB3	1.70	0.42
36:DP:86:LYS:HG3	36:DP:87:ASP:N	2.33	0.42
44:DX:52:VAL:HG21	44:DX:84:ALA:HA	2.01	0.42
49:D2:42:GLY:O	49:D2:43:GLN:C	2.58	0.42
1:AA:186(C):G:C6	1:AA:186(O):G:N1	2.88	0.42
1:AA:354:G:H2'	1:AA:354:G:N3	2.34	0.42
1:AA:515:G:H2'	1:AA:516:U:O4'	2.18	0.42
1:AA:625:G:C4	1:AA:626:U:C5	3.07	0.42
1:AA:838:G:N2	1:AA:849:C:N3	2.67	0.42
1:AA:953:G:H5'	1:AA:965:A:H61	1.85	0.42
3:AW:40:C:O2'	3:AW:41:C:H5'	2.19	0.42
4:AY:192:LEU:O	4:AY:358:ILE:HD13	2.19	0.42
5:AB:208:ILE:H	5:AB:208:ILE:CD1	2.25	0.42
6:AC:77:ILE:O	6:AC:83:ARG:HB3	2.20	0.42
6:AC:79:ARG:NH1	6:AC:82:GLU:HB2	2.34	0.42
6:AC:173:VAL:N	6:AC:174:PRO:HD3	2.35	0.42
13:AJ:8:LEU:HG	13:AJ:96:ILE:HG22	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:AK:61:ALA:CB	14:AK:90:GLY:HA3	2.49	0.42
16:AM:29:ARG:HB3	16:AM:64:TRP:CH2	2.55	0.42
16:AM:106:ASN:O	16:AM:107:ALA:HB3	2.19	0.42
17:AN:36:PHE:HB3	17:AN:37:PHE:CD2	2.54	0.42
25:BA:1290:C:H2'	25:BA:1291:C:C6	2.55	0.42
25:BA:1827:C:H2'	25:BA:1828:G:O4'	2.19	0.42
25:BA:1899:G:H2'	25:BA:1900:A:OP2	2.18	0.42
25:BA:2290:G:C5	25:BA:2291:U:C4	3.07	0.42
25:BA:2749:A:H1'	31:BH:63:SER:OG	2.20	0.42
27:BD:67:PHE:CE2	27:BD:106:ILE:HD11	2.52	0.42
31:BH:13:LYS:CD	31:BH:14:GLY:N	2.81	0.42
31:BH:98:LEU:HD12	31:BH:102:ALA:O	2.19	0.42
33:BK:78:ILE:HG13	33:BK:99:ILE:CD1	2.50	0.42
35:BO:68:GLU:CA	35:BO:78:ARG:HB3	2.48	0.42
41:BU:8:VAL:HG12	41:BU:11:ARG:HH21	1.85	0.42
1:CA:637:G:C4	1:CA:638:G:C8	3.07	0.42
1:CA:782:A:O3'	1:CA:1515:C:H4'	2.18	0.42
1:CA:1201:A:H4'	1:CA:1202:G:O5'	2.20	0.42
1:CA:1292:U:O2'	1:CA:1293:G:H5'	2.19	0.42
1:CA:1499:A:H1'	1:CA:1520:G:H5'	2.02	0.42
4:CY:106:GLU:HA	4:CY:109:LYS:CG	2.49	0.42
4:CY:324:ILE:HD13	4:CY:324:ILE:H	1.85	0.42
5:CB:211:ILE:O	5:CB:215:LEU:HD23	2.20	0.42
12:CI:104:ARG:O	12:CI:105:ASP:HB3	2.20	0.42
18:CO:8:LYS:HE2	18:CO:31:LEU:HD21	2.00	0.42
23:CT:72:LEU:HD11	23:CT:77:ALA:CA	2.48	0.42
25:DA:27:G:C2	25:DA:512:G:N3	2.87	0.42
25:DA:71:A:C2	44:DX:31:HIS:CE1	3.01	0.42
25:DA:210:C:H2'	25:DA:211:A:C8	2.55	0.42
25:DA:957:A:N1	25:DA:2458:G:H4'	2.34	0.42
25:DA:1014:U:O2	25:DA:1149:G:C2	2.73	0.42
25:DA:1178:C:H2'	25:DA:1179:C:C6	2.54	0.42
25:DA:1215:G:C4	25:DA:1216:G:C8	3.07	0.42
25:DA:1468(J):G:O2'	25:DA:1558:A:C2	2.73	0.42
25:DA:1686:C:H2'	25:DA:1687:G:O4'	2.20	0.42
25:DA:2202(A):U:O2'	25:DA:2202(B):C:H5'	2.19	0.42
25:DA:2662:A:H2'	25:DA:2663:G:O4'	2.19	0.42
27:DD:115:GLN:HE21	27:DD:115:GLN:HB3	1.61	0.42
28:DE:47:VAL:HG12	28:DE:49:LEU:HD22	2.01	0.42
28:DE:55:ASN:C	28:DE:57:LYS:H	2.23	0.42
31:DH:43:VAL:O	31:DH:44:VAL:HB	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
39:DS:89:ARG:HD2	39:DS:94:TYR:N	2.34	0.42
41:DU:95:LEU:HD13	42:DV:4:ILE:HG23	2.00	0.42
47:D0:27:GLU:HG3	47:D0:68:GLU:HA	2.01	0.42
1:AA:46:G:O2'	1:AA:365:U:H1'	2.19	0.42
1:AA:278:G:N2	20:AQ:95:TYR:HB3	2.35	0.42
1:AA:302:G:H21	1:AA:556:C:C4'	2.33	0.42
1:AA:926:G:C6	1:AA:1505:G:C5	3.07	0.42
1:AA:1386:G:H2'	1:AA:1387:G:H8	1.85	0.42
6:AC:19:GLU:HA	6:AC:54:ARG:HH12	1.85	0.42
11:AH:19:VAL:CG2	11:AH:21:LYS:HG2	2.50	0.42
14:AK:20:TYR:HB2	14:AK:31:THR:HG23	2.01	0.42
25:BA:357:A:H2'	25:BA:357(A):U:H6	1.84	0.42
25:BA:412:A:H2'	25:BA:412:A:N3	2.34	0.42
25:BA:1027:A:C2	25:BA:2488:A:H5'	2.55	0.42
25:BA:1934:C:C2'	25:BA:1935:G:H5'	2.50	0.42
25:BA:2324:C:H5"	25:BA:2325:G:O5'	2.20	0.42
25:BA:2567:G:H2'	25:BA:2568:C:C6	2.55	0.42
25:BA:2864:G:O2'	25:BA:2865:U:H5'	2.19	0.42
27:BD:31:LYS:HE3	27:BD:33:LEU:HD11	2.01	0.42
28:BE:55:ASN:C	28:BE:57:LYS:H	2.23	0.42
28:BE:201:THR:HG22	28:BE:202:LYS:H	1.83	0.42
29:BF:33:LEU:HD12	29:BF:33:LEU:HA	1.76	0.42
30:BG:60:LEU:HD12	30:BG:68:PRO:HB3	2.01	0.42
31:BH:87:LEU:HB2	31:BH:131:VAL:HB	2.02	0.42
32:BI:38:LEU:C	32:BI:40:THR:H	2.22	0.42
32:BI:72:LEU:HD13	32:BI:72:LEU:HA	1.84	0.42
34:BN:143:LEU:CD2	34:BN:145:VAL:HG23	2.47	0.42
40:BT:20:PRO:HD2	40:BT:86:ILE:HG23	2.01	0.42
41:BU:27:LEU:HD22	41:BU:31:SER:HB3	2.01	0.42
44:BX:32:PRO:HA	44:BX:77:LYS:HB2	2.02	0.42
44:BX:52:VAL:HG21	44:BX:84:ALA:HA	2.02	0.42
44:BX:53:LYS:HB3	44:BX:82:GLN:HB3	2.02	0.42
46:BZ:70:LEU:HD23	46:BZ:70:LEU:HA	1.83	0.42
1:CA:529:G:O6	15:CL:48:ASN:ND2	2.52	0.42
1:CA:780:A:C2	1:CA:803:G:N1	2.88	0.42
1:CA:833:U:C2	1:CA:834:C:C5	3.07	0.42
1:CA:849:C:C2'	1:CA:850:U:H5'	2.50	0.42
1:CA:972:C:O3'	13:CJ:57:LYS:HG3	2.20	0.42
1:CA:1256:A:C6	1:CA:1278:U:H5"	2.55	0.42
1:CA:1298:C:C6	10:CG:114:ARG:NH1	2.88	0.42
3:CW:30:G:N2	3:CW:31:G:H1'	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:CD:30:LYS:HE3	7:CD:35:ARG:NH2	2.35	0.42
11:CH:17:THR:HG21	11:CH:80:ILE:HD13	2.02	0.42
13:CJ:30:SER:OG	13:CJ:81:THR:HG22	2.20	0.42
14:CK:59:TYR:CE2	14:CK:63:LEU:HD11	2.55	0.42
23:CT:67:ALA:HA	23:CT:72:LEU:O	2.20	0.42
23:CT:72:LEU:HD11	23:CT:77:ALA:HB2	2.00	0.42
25:DA:137(B):G:N2	44:DX:44:GLU:OE1	2.53	0.42
25:DA:445:C:O2'	25:DA:446:G:H5'	2.19	0.42
25:DA:580:C:H2'	25:DA:581:C:H6	1.84	0.42
25:DA:865:C:H4'	25:DA:866:A:OP1	2.19	0.42
25:DA:1056:G:H21	25:DA:1104:C:H42	1.67	0.42
25:DA:1550:C:H2'	25:DA:1551:C:C6	2.51	0.42
25:DA:1568:G:P	27:DD:63:ARG:HH22	2.42	0.42
25:DA:2277:G:H2'	25:DA:2278:A:H5"	2.01	0.42
25:DA:2389:G:C5'	25:DA:2390:U:H5'	2.47	0.42
25:DA:2815:C:O2'	52:D5:43:HIS:HD2	2.02	0.42
26:DB:6:C:O2'	26:DB:7:G:H5'	2.20	0.42
27:DD:149:PRO:O	27:DD:150:LYS:HB2	2.20	0.42
30:DG:50:ALA:HB1	30:DG:53:LEU:HD23	2.02	0.42
31:DH:78:GLY:O	31:DH:82:GLY:HA2	2.20	0.42
32:DI:53:ALA:HB1	32:DI:57:ARG:NH2	2.34	0.42
32:DI:95:LYS:C	32:DI:97:ILE:H	2.22	0.42
36:DP:13:ASN:O	36:DP:15:ARG:N	2.53	0.42
36:DP:87:ASP:O	36:DP:90:ARG:HB2	2.19	0.42
40:DT:57:PHE:C	40:DT:58:ASN:HD22	2.23	0.42
40:DT:105:LEU:HD22	40:DT:109:GLU:HB2	2.01	0.42
42:DV:4:ILE:HG22	42:DV:39:LEU:HD23	2.01	0.42
43:DW:70:TYR:HD2	43:DW:70:TYR:N	2.18	0.42
44:DX:62:LYS:O	44:DX:73:ARG:HB2	2.20	0.42
45:DY:88:LYS:HB2	45:DY:89:PHE:H	1.45	0.42
55:D8:34:TRP:CG	55:D8:35:GLN:N	2.88	0.42
1:AA:509:A:OP2	1:AA:509:A:C3'	2.58	0.42
1:AA:556:C:C2'	1:AA:557:G:H5'	2.49	0.42
1:AA:849:C:C2'	1:AA:850:U:H5'	2.49	0.42
5:AB:25:ASN:HA	5:AB:26:PRO:HD2	1.90	0.42
7:AD:138:TYR:C	7:AD:138:TYR:HD1	2.22	0.42
8:AE:75:THR:CG2	8:AE:76:ILE:H	2.28	0.42
10:AG:70:LYS:HG3	10:AG:96:GLN:HB3	2.00	0.42
14:AK:88:GLY:O	14:AK:91:ARG:HB2	2.20	0.42
15:AL:53:LYS:N	15:AL:53:LYS:HD2	2.34	0.42
16:AM:49:THR:HB	16:AM:52:GLU:CG	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:AR:88:LYS:OXT	21:AR:88:LYS:HD3	2.20	0.42
25:BA:912:C:O2	25:BA:912:C:C2'	2.67	0.42
25:BA:1142:A:C4	25:BA:1144:G:N7	2.87	0.42
25:BA:1348:G:H1	25:BA:1598:C:H42	1.66	0.42
25:BA:1653:G:H3'	38:BR:4:LEU:HB2	2.01	0.42
25:BA:1845:G:O2'	25:BA:1846:G:H5'	2.20	0.42
25:BA:1952:A:C5	35:BO:22:ILE:CD1	3.03	0.42
25:BA:2516:G:C6	25:BA:2517:C:C4	3.08	0.42
25:BA:2766:G:N3	25:BA:2766:G:H2'	2.35	0.42
27:BD:77:ALA:HB2	27:BD:97:TYR:CD2	2.54	0.42
28:BE:50:GLY:O	28:BE:51:PHE:HB2	2.20	0.42
31:BH:92:ILE:H	31:BH:92:ILE:CD1	2.28	0.42
32:BI:62:LYS:HE3	32:BI:136:VAL:CG2	2.50	0.42
36:BP:57:THR:O	36:BP:58:THR:HG23	2.20	0.42
41:BU:86:ALA:HB3	41:BU:88:ILE:HG13	2.02	0.42
45:BY:56:PRO:HB2	45:BY:57:GLN:H	1.51	0.42
47:B0:82:ARG:HA	47:B0:83:PRO:HD3	1.88	0.42
50:B3:12:PRO:HB2	50:B3:20:LYS:HD3	2.00	0.42
1:CA:68(P):C:C4	1:CA:68(Q):U:C4	3.08	0.42
1:CA:390:C:O3'	19:CP:28:ARG:NH2	2.53	0.42
1:CA:623:C:O5'	1:CA:623:C:H6	2.02	0.42
1:CA:682:G:C6	1:CA:709:G:C6	3.07	0.42
7:CD:199:ASN:ND2	7:CD:202:LEU:H	2.17	0.42
9:CF:69:GLU:CD	9:CF:69:GLU:H	2.23	0.42
10:CG:70:LYS:HG2	10:CG:96:GLN:HB3	2.02	0.42
12:CI:87:GLN:C	12:CI:89:ASN:H	2.23	0.42
21:CR:43:PHE:C	21:CR:51:LEU:HD12	2.39	0.42
22:CS:28:LYS:HB2	22:CS:28:LYS:HZ2	1.85	0.42
25:DA:253:C:H2'	25:DA:254:G:O4'	2.20	0.42
25:DA:1203:G:C6	25:DA:1204:A:C6	3.08	0.42
25:DA:1468(J):G:N3	25:DA:1468(K):G:C8	2.88	0.42
25:DA:1787:A:N3	25:DA:1787:A:H2'	2.35	0.42
25:DA:2278:A:H5"	47:D0:12:ASN:HD21	1.84	0.42
25:DA:2285:C:H2'	25:DA:2286:A:H5"	2.02	0.42
25:DA:2687:U:H2'	25:DA:2688:U:O4'	2.20	0.42
25:DA:2749:A:H1'	31:DH:63:SER:OG	2.18	0.42
26:DB:6:C:C2	26:DB:115:G:N2	2.88	0.42
27:DD:95:LEU:HD12	27:DD:95:LEU:O	2.20	0.42
30:DG:34:LEU:CD2	30:DG:161:THR:HG22	2.46	0.42
31:DH:15:VAL:HB	31:DH:17:VAL:HG22	2.02	0.42
31:DH:126:PRO:O	31:DH:127:GLU:HB2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:DK:53:VAL:HA	33:DK:54:PRO:HD3	1.76	0.42
34:DN:35:ARG:HH21	34:DN:160:LYS:HD2	1.85	0.42
34:DN:43:GLY:HA2	34:DN:84:ARG:CG	2.49	0.42
34:DN:78:VAL:HB	34:DN:149:PRO:HB3	2.01	0.42
34:DN:151:HIS:HE1	34:DN:157:ARG:CZ	2.33	0.42
36:DP:89:ALA:C	36:DP:91:PHE:H	2.22	0.42
36:DP:91:PHE:CE2	36:DP:95:VAL:HG12	2.49	0.42
36:DP:95:VAL:CG2	36:DP:125:VAL:HB	2.49	0.42
38:DR:82:GLU:C	38:DR:85:PRO:HD2	2.40	0.42
41:DU:59:ARG:O	41:DU:62:ILE:N	2.53	0.42
42:DV:77:ALA:O	42:DV:79:VAL:HG23	2.20	0.42
45:DY:4:LYS:H	45:DY:4:LYS:HD3	1.84	0.42
46:DZ:28:MET:HA	46:DZ:88:PHE:HB2	2.02	0.42
53:D6:14:THR:HG21	53:D6:52:VAL:HG21	2.02	0.42
1:AA:358:U:H2'	1:AA:359:U:C6	2.55	0.42
1:AA:429:U:H4'	1:AA:430:A:O5'	2.18	0.42
1:AA:500:G:H1	1:AA:545:C:H42	1.68	0.42
1:AA:698:G:C6	1:AA:699:C:C4	3.07	0.42
1:AA:780:A:C2	1:AA:803:G:N1	2.88	0.42
1:AA:986:A:C6	1:AA:1220:G:N1	2.88	0.42
1:AA:1076:C:C2	1:AA:1082:G:C2	3.08	0.42
1:AA:1114:C:H2'	1:AA:1115:C:H6	1.84	0.42
1:AA:1187:G:H2'	1:AA:1188:A:H8	1.85	0.42
4:AY:98:GLU:HA	4:AY:101:LYS:HG2	2.01	0.42
6:AC:29:TYR:HD1	6:AC:29:TYR:O	2.03	0.42
6:AC:78:GLY:C	6:AC:79:ARG:HD3	2.40	0.42
7:AD:70:ILE:HD12	7:AD:70:ILE:HA	1.89	0.42
10:AG:16:LEU:HD12	12:AI:42:ARG:HA	2.02	0.42
13:AJ:4:ILE:HG23	13:AJ:98:ILE:HG23	2.02	0.42
18:AO:65:ARG:O	18:AO:68:ARG:HB2	2.20	0.42
25:BA:18:C:O3'	41:BU:23:GLY:HA2	2.19	0.42
25:BA:570:G:H2'	25:BA:2030:A:C5	2.55	0.42
25:BA:580:C:H2'	25:BA:581:C:H6	1.83	0.42
25:BA:1006:C:C2	25:BA:1138:G:N2	2.88	0.42
25:BA:1625:C:H2'	25:BA:1626:G:O4'	2.20	0.42
25:BA:1771:C:O2'	25:BA:1786:A:C8	2.66	0.42
25:BA:1837:C:O2	25:BA:1927:A:H2	2.02	0.42
25:BA:2477:C:H6	25:BA:2477:C:H3'	1.84	0.42
25:BA:2505:G:O6	25:BA:2576:G:H2'	2.20	0.42
26:BB:11:C:N4	26:BB:110:G:H1	2.18	0.42
26:BB:11:C:C2'	26:BB:12:C:C6	3.03	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BB:75:G:H21	46:BZ:85:HIS:HE1	1.68	0.42
27:BD:7:LYS:CG	27:BD:8:PRO:HD2	2.49	0.42
28:BE:51:PHE:CD1	28:BE:52:LEU:N	2.88	0.42
31:BH:83:TYR:CD1	31:BH:138:LYS:HB2	2.55	0.42
32:BI:7:GLU:HA	32:BI:15:VAL:HG22	2.01	0.42
32:BI:7:GLU:CA	32:BI:15:VAL:HG22	2.50	0.42
34:BN:28:VAL:HA	34:BN:29:PRO:HD2	1.92	0.42
35:BO:34:THR:O	35:BO:37:ASP:HB2	2.20	0.42
41:BU:102:GLU:H	41:BU:103:PRO:HD3	1.85	0.42
42:BV:44:LYS:O	42:BV:45:THR:HG23	2.19	0.42
42:BV:79:VAL:O	42:BV:80:GLN:C	2.58	0.42
43:BW:70:TYR:HD2	43:BW:70:TYR:N	2.18	0.42
44:BX:57:LEU:HD12	44:BX:78:LYS:O	2.18	0.42
45:BY:26:LYS:HB2	45:BY:26:LYS:HE3	1.76	0.42
46:BZ:5:LEU:HD23	46:BZ:5:LEU:C	2.41	0.42
48:B1:46:LEU:O	48:B1:46:LEU:HD23	2.20	0.42
49:B2:42:GLY:O	49:B2:43:GLN:C	2.58	0.42
50:B3:9:VAL:HG21	50:B3:55:ARG:HD3	2.01	0.42
50:B3:56:VAL:HG12	50:B3:57:GLU:N	2.35	0.42
51:B4:41:ILE:HD13	51:B4:47:VAL:HG13	2.02	0.42
55:B8:61:LEU:O	55:B8:62:LEU:HB2	2.19	0.42
1:CA:35:G:H2'	1:CA:36:C:C6	2.54	0.42
1:CA:116:A:OP2	1:CA:116:A:H8	2.02	0.42
1:CA:302:G:N3	1:CA:556:C:H4'	2.35	0.42
1:CA:518:C:C5	1:CA:530:G:C4	3.08	0.42
1:CA:805:C:H2'	1:CA:806:C:H6	1.85	0.42
1:CA:1145:C:O2	1:CA:1146:A:N7	2.53	0.42
1:CA:1270:C:O2'	1:CA:1314:C:H5'	2.20	0.42
1:CA:1400:C:O4'	2:CV:18:G:C6	2.73	0.42
1:CA:1401:G:C2	1:CA:1402:C:H1'	2.55	0.42
4:CY:317:PRO:O	4:CY:318:ILE:HG22	2.19	0.42
5:CB:97:TRP:CZ2	5:CB:101:MET:HB2	2.55	0.42
5:CB:167:PRO:O	5:CB:171:ALA:HB2	2.19	0.42
6:CC:11:ARG:NH2	6:CC:180:ALA:HB3	2.35	0.42
11:CH:103:VAL:CG2	11:CH:110:ALA:HB2	2.49	0.42
16:CM:101:GLN:H	16:CM:101:GLN:HG2	1.55	0.42
18:CO:65:ARG:O	18:CO:68:ARG:HB2	2.20	0.42
19:CP:22:THR:HG22	19:CP:32:TYR:CB	2.50	0.42
21:CR:86:VAL:HB	21:CR:87:ARG:H	1.70	0.42
23:CT:72:LEU:HD22	23:CT:73:HIS:H	1.84	0.42
25:DA:381:G:C4	25:DA:394:A:C2	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:673:C:O2'	29:DF:82:ILE:HD13	2.19	0.42
25:DA:686:G:N2	25:DA:788:A:H61	2.18	0.42
25:DA:1076:C:H2'	25:DA:1077:A:C4'	2.49	0.42
25:DA:1468(H):C:O2'	25:DA:1468(I):A:H5'	2.20	0.42
25:DA:1784:A:H4'	25:DA:1785:A:C5'	2.49	0.42
25:DA:1837:C:O2	25:DA:1927:A:H2	2.03	0.42
25:DA:2419:U:P	55:D8:33:ASN:HD21	2.43	0.42
25:DA:2864:G:C6	25:DA:2865:U:N3	2.88	0.42
27:DD:25:THR:CG2	27:DD:82:ILE:N	2.80	0.42
30:DG:125:PHE:CZ	30:DG:173:LEU:HD12	2.55	0.42
40:DT:100:TYR:HD2	40:DT:103:ARG:NH1	2.18	0.42
42:DV:32:THR:HG23	42:DV:58:VAL:HG13	2.00	0.42
45:DY:8:LYS:HZ3	45:DY:8:LYS:HG3	1.77	0.42
45:DY:49:VAL:HB	45:DY:50:ARG:H	1.50	0.42
46:DZ:56:VAL:HA	46:DZ:70:LEU:CD2	2.50	0.42
48:D1:40:ARG:HH21	48:D1:42:GLN:HG2	1.84	0.42
51:D4:41:ILE:HD13	51:D4:47:VAL:HG13	2.01	0.42
1:AA:144:G:C6	1:AA:179:A:N1	2.88	0.41
1:AA:972:C:O3'	13:AJ:57:LYS:HG3	2.19	0.41
1:AA:1100:C:OP2	5:AB:96:ARG:HG2	2.20	0.41
1:AA:1238:A:C2	1:AA:1241:G:H1'	2.55	0.41
1:AA:1292:U:O2'	1:AA:1293:G:H5'	2.20	0.41
4:AY:202:LEU:CD1	4:AY:204:ARG:HG2	2.47	0.41
4:AY:333:TYR:O	4:AY:333:TYR:CG	2.73	0.41
5:AB:18:GLY:O	5:AB:19:HIS:HB2	2.20	0.41
7:AD:22:LYS:CG	7:AD:26:CYS:SG	3.08	0.41
15:AL:40:ARG:HG2	15:AL:41:THR:H	1.85	0.41
25:BA:155(A):U:O2	25:BA:171:G:C6	2.73	0.41
25:BA:185:U:H2'	25:BA:186:G:C8	2.55	0.41
25:BA:602:G:H8	25:BA:602:G:O5'	2.03	0.41
25:BA:1191:G:OP1	36:BP:35:HIS:CD2	2.73	0.41
25:BA:1834:U:H4'	25:BA:1969:A:C6	2.54	0.41
25:BA:2039:C:H2'	25:BA:2040:C:C6	2.55	0.41
25:BA:2202(B):C:O2	25:BA:2202(H):G:C2	2.73	0.41
26:BB:43:C:C2'	26:BB:44:G:H5'	2.50	0.41
28:BE:2:LYS:HE2	28:BE:95:ILE:O	2.20	0.41
28:BE:132:HIS:CD2	28:BE:135:HIS:HE1	2.36	0.41
29:BF:125:LEU:HB3	29:BF:196:LEU:HD21	2.01	0.41
33:BK:78:ILE:HG13	33:BK:99:ILE:HD13	2.02	0.41
34:BN:90:LEU:O	34:BN:111:GLU:HB2	2.20	0.41
35:BO:47:ILE:HG13	35:BO:48:PRO:HD2	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
36:BP:13:ASN:O	36:BP:15:ARG:N	2.53	0.41
36:BP:127:ALA:HB3	36:BP:130:PHE:CE2	2.55	0.41
38:BR:32:GLY:O	38:BR:115:GLU:HA	2.20	0.41
40:BT:105:LEU:HD22	40:BT:109:GLU:HB2	2.02	0.41
46:BZ:56:VAL:HA	46:BZ:70:LEU:CD2	2.50	0.41
1:CA:186(I):U:C4	20:CQ:72:ARG:NH2	2.88	0.41
1:CA:376:G:OP1	19:CP:5:ARG:HB2	2.20	0.41
1:CA:662:G:O2'	1:CA:836:G:H5'	2.20	0.41
1:CA:1123:A:H5"	13:CJ:36:GLY:HA3	2.02	0.41
1:CA:1227:A:H2	1:CA:1228:C:C2	2.37	0.41
4:CY:269:THR:OG1	4:CY:271:ILE:HG22	2.20	0.41
5:CB:28:PHE:HE1	5:CB:190:THR:HG22	1.85	0.41
11:CH:11:THR:HA	11:CH:14:ARG:NH1	2.36	0.41
13:CJ:24:VAL:HG13	13:CJ:28:ARG:HD2	2.02	0.41
21:CR:22:VAL:HG23	21:CR:55:ARG:O	2.20	0.41
25:DA:346:A:H2'	25:DA:346:A:N3	2.35	0.41
25:DA:503:A:C6	25:DA:506:G:C6	3.08	0.41
25:DA:773:U:H4'	27:DD:47:GLY:CA	2.45	0.41
25:DA:889:C:HO2'	25:DA:890:A:P	2.43	0.41
25:DA:1287:A:C5	25:DA:1288:U:C4	3.08	0.41
25:DA:1536:A:C8	25:DA:1537:C:C4	3.08	0.41
25:DA:1952:A:C5	35:DO:22:ILE:CD1	3.02	0.41
25:DA:2036:C:H6	25:DA:2036:C:H5'	1.84	0.41
25:DA:2307:G:H5"	25:DA:2308:G:OP2	2.19	0.41
25:DA:2315:G:H2'	25:DA:2316:C:H6	1.84	0.41
27:DD:57:GLY:N	27:DD:216:GLY:HA2	2.35	0.41
30:DG:33:ARG:O	30:DG:161:THR:HA	2.20	0.41
31:DH:98:LEU:HD12	31:DH:102:ALA:O	2.20	0.41
33:DK:20:ALA:HA	33:DK:21:PRO:HD3	1.91	0.41
33:DK:81:ALA:HB3	33:DK:99:ILE:HG21	2.00	0.41
34:DN:57:LEU:O	34:DN:72:GLY:HA3	2.20	0.41
34:DN:143:LEU:HD23	34:DN:144:LYS:N	2.35	0.41
39:DS:51:ALA:CB	39:DS:73:LEU:HG	2.48	0.41
41:DU:91:ASP:CG	41:DU:96:ALA:HB2	2.40	0.41
44:DX:53:LYS:HB3	44:DX:82:GLN:HB3	2.02	0.41
48:D1:11:ARG:HG2	48:D1:61:ARG:O	2.20	0.41
48:D1:84:GLY:O	48:D1:85:LEU:C	2.58	0.41
50:D3:4:LEU:O	50:D3:36:VAL:HA	2.20	0.41
52:D5:13:LYS:HE2	52:D5:13:LYS:HB3	1.88	0.41
53:D6:15:GLU:OE1	53:D6:18:ARG:HD2	2.19	0.41
1:AA:55:A:C5	1:AA:56:U:C2	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:68(D):C:H2'	1:AA:68(E):G:C8	2.55	0.41
1:AA:68(W):G:C6	1:AA:68(X):U:C4	3.08	0.41
1:AA:792:A:H1'	1:AA:794:A:N7	2.35	0.41
1:AA:805:C:H2'	1:AA:806:C:H6	1.84	0.41
1:AA:993:G:H22	1:AA:1046:A:H1'	1.84	0.41
1:AA:1072:G:C5	1:AA:1073:U:C4	3.08	0.41
1:AA:1256:A:N1	1:AA:1278:U:H5"	2.35	0.41
1:AA:1301:U:C5	1:AA:1303:C:C4	3.08	0.41
1:AA:1363:A:H1'	1:AA:1365:G:N7	2.35	0.41
1:AA:1480:G:C2	1:AA:1481:U:O2	2.73	0.41
4:AY:134:GLN:HA	4:AY:135:PRO:HD3	1.86	0.41
4:AY:156:PHE:CE1	4:AY:354:LEU:HB2	2.55	0.41
4:AY:279:ARG:CZ	25:BA:2602:A:N7	2.83	0.41
5:AB:97:TRP:CZ2	5:AB:101:MET:HB2	2.55	0.41
7:AD:121:VAL:HG22	7:AD:126:ILE:HG13	2.00	0.41
8:AE:48:ALA:HB1	8:AE:53:LEU:HD13	2.02	0.41
8:AE:145:LYS:O	8:AE:149:GLU:HG2	2.20	0.41
11:AH:17:THR:CB	11:AH:78:GLN:HE22	2.33	0.41
12:AI:25:LYS:O	12:AI:60:ASP:HA	2.20	0.41
15:AL:52:ARG:HD2	15:AL:52:ARG:N	2.34	0.41
16:AM:19:LEU:N	16:AM:19:LEU:HD22	2.35	0.41
25:BA:620:G:H8	25:BA:622:G:O6	2.03	0.41
25:BA:1142:A:C4	25:BA:1144:G:C8	3.08	0.41
25:BA:1194:A:OP2	36:BP:17:LYS:HE2	2.20	0.41
25:BA:1677:A:H2'	25:BA:1678:G:O4'	2.20	0.41
25:BA:1751:C:H2'	25:BA:1752:C:C6	2.54	0.41
25:BA:1779:U:C6	25:BA:1783:A:N7	2.88	0.41
25:BA:1796:U:H4'	27:BD:256:GLY:N	2.35	0.41
25:BA:2392:A:H2	25:BA:2424:C:N4	2.16	0.41
25:BA:2421:G:N7	55:B8:31:HIS:CE1	2.88	0.41
25:BA:2730:C:O2'	25:BA:2731:G:H5'	2.20	0.41
27:BD:244:ARG:HA	27:BD:245:PRO:HA	1.77	0.41
29:BF:194:MET:CE	29:BF:199:TRP:HD1	2.34	0.41
34:BN:80:ALA:C	34:BN:82:LYS:H	2.23	0.41
35:BO:4:PRO:O	35:BO:5:GLN:HB2	2.20	0.41
41:BU:61:TRP:CZ3	41:BU:94:ASN:HB2	2.55	0.41
42:BV:36:PRO:HA	42:BV:56:SER:HB3	2.02	0.41
42:BV:40:LEU:N	42:BV:40:LEU:CD2	2.82	0.41
45:BY:2:ARG:C	45:BY:4:LYS:H	2.22	0.41
46:BZ:102:LEU:HD23	46:BZ:137:ILE:HB	2.02	0.41
52:B5:8:LYS:O	52:B5:9:LYS:HG2	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
53:B6:14:THR:HG21	53:B6:52:VAL:HG21	2.00	0.41
1:CA:542:G:C2	1:CA:543:C:C5	3.08	0.41
1:CA:1009:G:H2'	1:CA:1010:G:C8	2.50	0.41
1:CA:1111:A:C2	6:CC:177:THR:HG23	2.55	0.41
1:CA:1196:U:C4	2:CV:22:A:N3	2.88	0.41
1:CA:1225:A:H4'	22:CS:78:ARG:HH11	1.84	0.41
4:CY:92:LEU:CD2	4:CY:97:ARG:HE	2.33	0.41
5:CB:154:LEU:HD13	5:CB:155:LEU:N	2.33	0.41
5:CB:179:LYS:HA	11:CH:72:PRO:HG3	2.01	0.41
7:CD:94:LEU:H	7:CD:94:LEU:HD12	1.85	0.41
10:CG:16:LEU:HD12	12:CI:42:ARG:HA	2.01	0.41
11:CH:19:VAL:CG2	11:CH:21:LYS:HG2	2.50	0.41
25:DA:271(G):G:C2	25:DA:357(M):C:C2	3.08	0.41
25:DA:329:G:O4'	25:DA:477:A:H1'	2.20	0.41
25:DA:581:C:H2'	25:DA:582:G:C8	2.55	0.41
25:DA:602:G:H8	25:DA:602:G:O5'	2.02	0.41
25:DA:1141(A):U:H3'	25:DA:1141(A):U:C6	2.54	0.41
25:DA:1899:G:C2'	25:DA:1900:A:OP2	2.68	0.41
25:DA:2302:G:C2'	25:DA:2303:G:H5'	2.50	0.41
25:DA:2516:G:C6	25:DA:2517:C:C4	3.08	0.41
25:DA:2729:G:H1'	28:DE:187:ALA:HB3	2.01	0.41
27:DD:255:LYS:H	27:DD:255:LYS:HG3	1.76	0.41
32:DI:31:LEU:HD13	32:DI:31:LEU:HA	1.79	0.41
35:DO:68:GLU:CA	35:DO:78:ARG:HB3	2.49	0.41
36:DP:48:PRO:O	36:DP:50:ARG:N	2.53	0.41
38:DR:65:LEU:HD23	38:DR:65:LEU:HA	1.80	0.41
44:DX:24:GLY:CA	44:DX:82:GLN:HE22	2.34	0.41
47:D0:73:GLY:O	47:D0:75:LEU:N	2.53	0.41
49:D2:33:MET:HA	49:D2:36:ARG:HG2	2.02	0.41
1:AA:22:G:H2'	1:AA:23:C:H6	1.86	0.41
1:AA:376:G:OP1	19:AP:5:ARG:HB2	2.20	0.41
1:AA:560:U:H6	1:AA:560:U:H2'	1.68	0.41
1:AA:1056:U:C5'	6:AC:163:ALA:HB2	2.50	0.41
1:AA:1068:G:N3	1:AA:1191:A:C2	2.88	0.41
1:AA:1145:C:O2	1:AA:1146:A:N7	2.53	0.41
3:AW:41:C:O2	3:AW:41:C:C2'	2.68	0.41
4:AY:207:PRO:HG2	4:AY:208:PHE:CD1	2.55	0.41
5:AB:60:ASP:O	5:AB:64:ARG:HG3	2.20	0.41
7:AD:121:VAL:HA	7:AD:126:ILE:HG12	2.02	0.41
7:AD:158:ILE:O	7:AD:162:LEU:HG	2.21	0.41
9:AF:63:TYR:HD2	9:AF:63:TYR:N	2.18	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:AG:115:ARG:HD3	10:AG:115:ARG:HA	1.85	0.41
13:AJ:30:SER:OG	13:AJ:81:THR:HG22	2.20	0.41
14:AK:109:VAL:HG13	21:AR:85:LEU:O	2.20	0.41
15:AL:83:LEU:HD13	15:AL:84:ILE:N	2.35	0.41
15:AL:84:ILE:HD12	15:AL:98:HIS:O	2.20	0.41
22:AS:5:LEU:HD11	22:AS:8:GLY:O	2.21	0.41
25:BA:346:A:N3	25:BA:346:A:H2'	2.35	0.41
25:BA:1009:A:H5"	41:BU:59:ARG:NH1	2.36	0.41
25:BA:1155:A:O2'	25:BA:1156:A:H2'	2.20	0.41
25:BA:1275:A:C5	38:BR:16:HIS:ND1	2.87	0.41
25:BA:1389:G:C2	25:BA:1399:C:O2	2.73	0.41
25:BA:2393:A:H2'	25:BA:2394:C:O4'	2.20	0.41
25:BA:2685:G:N3	25:BA:2725:A:C2	2.89	0.41
27:BD:142:VAL:HG23	27:BD:193:VAL:HA	2.01	0.41
30:BG:32:PRO:HA	30:BG:162:THR:OG1	2.20	0.41
30:BG:83:ARG:O	30:BG:86:MET:HG3	2.20	0.41
31:BH:17:VAL:HG21	31:BH:50:VAL:CG2	2.50	0.41
31:BH:35:VAL:HG21	31:BH:75:ALA:CB	2.50	0.41
37:BQ:27:VAL:H	37:BQ:134:ARG:HH11	1.67	0.41
37:BQ:43:THR:HB	37:BQ:45:GLN:HE21	1.85	0.41
38:BR:52:ILE:O	38:BR:55:ALA:HB3	2.21	0.41
43:BW:24:ILE:HD13	43:BW:36:LEU:HD11	2.01	0.41
1:CA:197:A:C5	1:CA:221:C:H4'	2.55	0.41
1:CA:409:G:OP1	7:CD:25:ARG:N	2.38	0.41
1:CA:555:C:H2'	1:CA:556:C:C6	2.55	0.41
1:CA:769:G:H4'	1:CA:1513:A:H4'	2.02	0.41
1:CA:976:G:P	17:CN:32:SER:H	2.44	0.41
1:CA:1118:C:O2	1:CA:1179:A:C6	2.73	0.41
1:CA:1187:G:H2'	1:CA:1188:A:H8	1.84	0.41
3:CW:61:C:H2'	3:CW:62:C:C6	2.54	0.41
4:CY:192:LEU:O	4:CY:358:ILE:HD13	2.20	0.41
5:CB:20:GLU:O	5:CB:39:ILE:HG23	2.20	0.41
5:CB:170:GLU:HA	5:CB:172:ILE:CD1	2.51	0.41
6:CC:14:ILE:CG1	6:CC:15:THR:H	2.20	0.41
6:CC:127:ARG:HE	6:CC:127:ARG:HB2	1.52	0.41
7:CD:62:GLN:NE2	7:CD:62:GLN:HA	2.34	0.41
8:CE:48:ALA:HB1	8:CE:53:LEU:HD13	2.03	0.41
11:CH:97:VAL:O	11:CH:100:ILE:HG13	2.20	0.41
14:CK:33:THR:HB	14:CK:39:PRO:HA	2.02	0.41
15:CL:26:LEU:C	15:CL:28:GLY:H	2.23	0.41
16:CM:66:LEU:N	16:CM:66:LEU:HD23	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:CO:71:GLN:HB2	18:CO:78:TYR:CD1	2.55	0.41
21:CR:58:LEU:HB3	21:CR:62:GLU:HB2	2.02	0.41
22:CS:39:THR:HG22	22:CS:40:ILE:N	2.35	0.41
22:CS:70:LYS:HA	22:CS:70:LYS:HE3	2.01	0.41
25:DA:155(A):U:O2	25:DA:171:G:C6	2.73	0.41
25:DA:271(G):G:C2	25:DA:357(M):C:N3	2.88	0.41
25:DA:1027:A:C2	25:DA:2488:A:H5'	2.54	0.41
25:DA:1142:A:C5	25:DA:1144:G:C5	3.07	0.41
25:DA:1638:C:H4'	25:DA:2710:C:O2	2.20	0.41
25:DA:2365:G:O6	55:D8:39:LYS:HE3	2.20	0.41
25:DA:2766:G:H2'	25:DA:2766:G:N3	2.34	0.41
25:DA:2809:A:C2	25:DA:2892:A:C4	3.08	0.41
27:DD:232:PRO:HG2	27:DD:248:SER:O	2.19	0.41
30:DG:88:ILE:CG1	30:DG:89:GLY:N	2.83	0.41
37:DQ:9:TYR:O	37:DQ:9:TYR:HD2	2.03	0.41
42:DV:64:HIS:CD2	42:DV:92:THR:HG22	2.55	0.41
44:DX:5:TYR:CE2	49:D2:30:ARG:HG3	2.55	0.41
45:DY:42:VAL:HB	45:DY:67:LEU:HD11	2.02	0.41
48:D1:87:PRO:HG2	48:D1:88:LYS:H	1.86	0.41
50:D3:8:LEU:HD22	50:D3:31:LEU:HD12	2.03	0.41
1:AA:195:A:C5	1:AA:196:A:N1	2.88	0.41
1:AA:259:G:H1	1:AA:267:C:N4	2.16	0.41
1:AA:405:U:H5"	1:AA:406:G:O4'	2.21	0.41
1:AA:560:U:C4'	1:AA:561:U:OP2	2.68	0.41
1:AA:1107:C:C4	1:AA:1108:G:C8	3.08	0.41
1:AA:1256:A:C6	1:AA:1278:U:H5"	2.55	0.41
1:AA:1440(L):G:H2'	1:AA:1440(M):G:H8	1.86	0.41
4:AY:170:THR:HA	4:AY:171:PRO:HD2	1.90	0.41
5:AB:54:THR:HG21	5:AB:201:ILE:HD11	2.02	0.41
5:AB:172:ILE:H	5:AB:172:ILE:HG13	1.49	0.41
7:AD:100:ARG:CZ	7:AD:137:SER:HA	2.50	0.41
7:AD:156:GLU:CD	7:AD:157:LEU:H	2.22	0.41
9:AF:33:TYR:HE1	9:AF:75:LEU:HA	1.82	0.41
11:AH:68:ARG:HE	11:AH:74:PRO:HB2	1.86	0.41
16:AM:5:ALA:HB3	16:AM:8:GLU:HB2	2.01	0.41
19:AP:22:THR:HG22	19:AP:32:TYR:CB	2.50	0.41
20:AQ:32:TYR:O	20:AQ:34:LYS:N	2.53	0.41
25:BA:97:C:O2'	25:BA:98:G:H5'	2.20	0.41
25:BA:191:A:H2'	25:BA:192:C:H6	1.84	0.41
25:BA:357(F):G:O2'	25:BA:357(G):A:H5'	2.20	0.41
25:BA:357(K):U:O2'	25:BA:357(L):A:O5'	2.38	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:503:A:C6	25:BA:506:G:C6	3.07	0.41
25:BA:777:A:C2	25:BA:778:G:C4	3.09	0.41
25:BA:819:A:OP2	25:BA:1187:G:N2	2.35	0.41
25:BA:998:C:H2'	25:BA:999:U:O5'	2.21	0.41
25:BA:1686:C:H2'	25:BA:1687:G:O4'	2.20	0.41
25:BA:2079:U:H2'	25:BA:2080:G:O5'	2.20	0.41
25:BA:2223:G:C2'	25:BA:2224:G:H5'	2.51	0.41
25:BA:2285:C:H2'	25:BA:2286:A:H5"	2.03	0.41
25:BA:2305:A:H3'	25:BA:2306:C:C5'	2.45	0.41
25:BA:2307:G:H5"	25:BA:2308:G:OP2	2.20	0.41
25:BA:2476:A:H2'	25:BA:2477:C:C5'	2.50	0.41
25:BA:2682:U:O4	25:BA:2728:U:H1'	2.20	0.41
25:BA:2711:A:OP1	25:BA:2712(A):A:P	2.78	0.41
27:BD:44:ASN:O	27:BD:46:GLN:O	2.38	0.41
37:BQ:72:LYS:HA	37:BQ:73:PRO:HD3	1.92	0.41
38:BR:67:LEU:CD2	38:BR:76:VAL:HG11	2.48	0.41
44:BX:11:PRO:HD3	49:B2:37:PHE:CE2	2.55	0.41
45:BY:71:LYS:HB2	45:BY:71:LYS:HZ2	1.86	0.41
49:B2:17:SER:CB	49:B2:18:PRO:HD3	2.40	0.41
1:CA:794:A:H4'	1:CA:1521:G:O2'	2.20	0.41
1:CA:1238:A:C2	1:CA:1241:G:H1'	2.55	0.41
1:CA:1269:A:H5"	24:CU:24:ARG:HH12	1.85	0.41
1:CA:1305:G:C5'	24:CU:4:GLY:C	2.89	0.41
3:CW:37:A:C4	3:CW:38:A:C8	3.07	0.41
4:CY:59:ARG:HG2	25:DA:1067:A:C2	2.55	0.41
5:CB:19:HIS:CG	5:CB:20:GLU:N	2.89	0.41
6:CC:112:SER:O	6:CC:115:LEU:HB2	2.20	0.41
7:CD:68:TYR:OH	7:CD:196:LEU:HD21	2.21	0.41
7:CD:90:GLY:CA	7:CD:204:ILE:HD11	2.51	0.41
20:CQ:32:TYR:O	20:CQ:34:LYS:N	2.53	0.41
23:CT:57:ARG:HH11	23:CT:102:GLY:HA2	1.84	0.41
25:DA:234:C:H2'	25:DA:235:U:C6	2.55	0.41
25:DA:357(F):G:O2'	25:DA:357(G):A:H5'	2.21	0.41
25:DA:919:G:N2	25:DA:2269:A:OP2	2.53	0.41
25:DA:1187:G:O5'	25:DA:1187:G:H8	2.04	0.41
25:DA:1210:A:C4'	25:DA:1211:U:OP2	2.68	0.41
25:DA:1275:A:C5	38:DR:16:HIS:ND1	2.89	0.41
25:DA:1491:G:O4'	27:DD:99:ASP:OD2	2.38	0.41
25:DA:1796:U:H4'	27:DD:256:GLY:N	2.36	0.41
25:DA:2055:C:H5'	25:DA:2056:G:O5'	2.21	0.41
25:DA:2223:G:C2'	25:DA:2224:G:H5'	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2307:G:C8	25:DA:2308:G:N7	2.88	0.41
25:DA:2324:C:H5"	25:DA:2325:G:O5'	2.20	0.41
25:DA:2367:G:H2'	25:DA:2368:C:H6	1.85	0.41
25:DA:2587:A:O5'	25:DA:2587:A:H8	2.03	0.41
29:DF:158:THR:HG23	29:DF:160:ASN:N	2.35	0.41
35:DO:44:LYS:O	35:DO:45:GLU:HB3	2.21	0.41
36:DP:125:VAL:O	36:DP:125:VAL:HG23	2.21	0.41
40:DT:24:PRO:HD3	40:DT:52:ILE:HD12	2.02	0.41
40:DT:50:ILE:HD12	40:DT:50:ILE:HA	1.85	0.41
41:DU:79:PHE:CZ	41:DU:83:LEU:HD11	2.55	0.41
43:DW:29:LEU:CG	43:DW:33:ARG:HE	2.33	0.41
45:DY:51:VAL:HG22	45:DY:51:VAL:O	2.20	0.41
45:DY:71:LYS:NZ	45:DY:71:LYS:CB	2.82	0.41
55:D8:50:LEU:O	55:D8:51:ALA:HB2	2.20	0.41
1:AA:518:C:C6	1:AA:530:G:C4	3.08	0.41
1:AA:705:U:C5	1:AA:706:A:C5	3.08	0.41
1:AA:794:A:H4'	1:AA:1521:G:O2'	2.20	0.41
1:AA:1102:A:C6	1:AA:1103:C:C4	3.09	0.41
1:AA:1201:A:H4'	1:AA:1202:G:O5'	2.20	0.41
1:AA:1227:A:H2	1:AA:1228:C:C2	2.37	0.41
1:AA:1256:A:H2	1:AA:1277:C:C6	2.39	0.41
5:AB:28:PHE:HE1	5:AB:190:THR:HG22	1.85	0.41
5:AB:74:LYS:HE2	5:AB:206:ASP:OD1	2.20	0.41
5:AB:169:LYS:C	5:AB:171:ALA:H	2.24	0.41
6:AC:56:ASP:O	6:AC:57:ILE:HG12	2.21	0.41
14:AK:115:PRO:C	14:AK:117:ASN:H	2.24	0.41
15:AL:26:LEU:C	15:AL:28:GLY:H	2.24	0.41
22:AS:39:THR:HG22	22:AS:40:ILE:N	2.35	0.41
23:AT:57:ARG:HH11	23:AT:102:GLY:HA2	1.85	0.41
23:AT:67:ALA:HA	23:AT:72:LEU:O	2.19	0.41
25:BA:176:G:C2'	25:BA:177:G:H5'	2.51	0.41
25:BA:252:G:OP2	36:BP:50:ARG:NH1	2.48	0.41
25:BA:271(E):G:H2'	25:BA:271(F):G:H8	1.86	0.41
25:BA:302:C:H2'	25:BA:303:U:H6	1.85	0.41
25:BA:329:G:O4'	25:BA:477:A:H1'	2.21	0.41
25:BA:337:C:H2'	25:BA:338:G:O5'	2.20	0.41
25:BA:865:C:H4'	25:BA:866:A:OP1	2.21	0.41
25:BA:892:G:H2'	25:BA:893:C:C6	2.56	0.41
25:BA:1129:A:N6	25:BA:2491:U:OP1	2.54	0.41
25:BA:1536:A:C8	25:BA:1537:C:C4	3.08	0.41
25:BA:2320:A:N3	25:BA:2320:A:C2'	2.83	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:2367:G:H2'	25:BA:2368:C:H6	1.84	0.41
25:BA:2681:C:C4	25:BA:2724:C:C5	3.08	0.41
25:BA:2831:G:OP1	25:BA:2834:G:H4'	2.20	0.41
29:BF:125:LEU:HB3	29:BF:196:LEU:CD2	2.51	0.41
31:BH:43:VAL:O	31:BH:51:ARG:O	2.38	0.41
32:BI:75:LEU:O	32:BI:141:LYS:HE3	2.20	0.41
32:BI:78:THR:H	32:BI:104:GLN:HE22	1.69	0.41
34:BN:35:ARG:NH2	34:BN:160:LYS:HD2	2.36	0.41
36:BP:146:VAL:HG13	36:BP:147:LEU:N	2.35	0.41
37:BQ:115:MET:O	37:BQ:119:ARG:HB2	2.20	0.41
38:BR:81:ASP:N	38:BR:81:ASP:OD2	2.53	0.41
39:BS:34:HIS:HA	39:BS:54:LEU:CD2	2.46	0.41
39:BS:101:LEU:HD13	39:BS:101:LEU:C	2.40	0.41
40:BT:86:ILE:O	40:BT:86:ILE:HG12	2.20	0.41
41:BU:47:TYR:CD2	41:BU:47:TYR:C	2.94	0.41
42:BV:66:ARG:HD2	42:BV:88:ARG:NE	2.36	0.41
42:BV:91:TYR:CD2	42:BV:91:TYR:N	2.89	0.41
54:B7:46:VAL:HG12	54:B7:47:ARG:N	2.29	0.41
1:CA:117:G:H2'	1:CA:118:U:O4'	2.21	0.41
1:CA:199:G:H2'	1:CA:200:G:C8	2.55	0.41
1:CA:364:A:H2'	1:CA:365:U:C2	2.56	0.41
1:CA:445:G:N1	1:CA:490:G:C6	2.89	0.41
1:CA:875:C:H1'	11:CH:15:ASN:OD1	2.21	0.41
1:CA:880:C:O2'	1:CA:881:G:H5'	2.20	0.41
1:CA:989:C:N4	1:CA:990:C:H41	2.19	0.41
1:CA:1107:C:N3	1:CA:1108:G:C8	2.88	0.41
1:CA:1159:U:C5	1:CA:1182:G:C5	3.09	0.41
1:CA:1237:C:OP1	1:CA:1238:A:H1'	2.21	0.41
1:CA:1256:A:N1	1:CA:1278:U:H5"	2.35	0.41
1:CA:1266:G:N2	1:CA:1270:C:C4	2.88	0.41
1:CA:1362(A):C:O2'	1:CA:1363:A:OP2	2.29	0.41
1:CA:1371:G:O3'	12:CI:69:GLY:HA3	2.20	0.41
1:CA:1379:G:O2'	1:CA:1380:U:H5'	2.20	0.41
4:CY:156:PHE:CE1	4:CY:354:LEU:HB2	2.55	0.41
6:CC:111:LEU:HD11	6:CC:144:SER:O	2.20	0.41
7:CD:180:GLY:O	7:CD:182:LYS:HE3	2.20	0.41
11:CH:127:LEU:HD22	11:CH:127:LEU:N	2.36	0.41
14:CK:122:LYS:C	14:CK:124:LYS:H	2.24	0.41
23:CT:100:ILE:O	23:CT:102:GLY:N	2.52	0.41
25:DA:191:A:H2'	25:DA:192:C:H6	1.79	0.41
25:DA:252:G:P	36:DP:50:ARG:HH11	2.44	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1027:A:N6	25:DA:1126:A:C4	2.88	0.41
25:DA:1039:G:C2	25:DA:1117:G:C2	3.09	0.41
25:DA:1794:U:H2'	25:DA:1795:C:C6	2.55	0.41
25:DA:2223:G:OP1	27:DD:172:TYR:OH	2.29	0.41
25:DA:2321:G:C5'	25:DA:2322:A:OP2	2.69	0.41
25:DA:2612:C:C2'	25:DA:2613:U:O5'	2.69	0.41
27:DD:182:LEU:HD13	27:DD:182:LEU:HA	1.73	0.41
30:DG:49:ASP:C	30:DG:51:ARG:H	2.23	0.41
30:DG:94:LEU:H	30:DG:94:LEU:CD2	2.27	0.41
31:DH:92:ILE:HG22	31:DH:93:GLY:N	2.35	0.41
32:DI:15:VAL:O	32:DI:17:GLN:N	2.53	0.41
36:DP:50:ARG:HB3	55:D8:60:LEU:HD11	2.03	0.41
37:DQ:22:LYS:C	37:DQ:24:GLY:H	2.23	0.41
37:DQ:27:VAL:H	37:DQ:134:ARG:HH11	1.67	0.41
37:DQ:37:LEU:C	37:DQ:99:PRO:HB3	2.41	0.41
38:DR:104:ARG:CB	38:DR:104:ARG:HH11	2.34	0.41
41:DU:92:ARG:H	42:DV:11:GLN:HE22	1.67	0.41
42:DV:40:LEU:N	42:DV:40:LEU:CD2	2.83	0.41
43:DW:79:GLY:C	43:DW:100:THR:HG22	2.41	0.41
45:DY:6:HIS:O	45:DY:7:VAL:C	2.58	0.41
45:DY:13:VAL:CG1	45:DY:72:VAL:HB	2.50	0.41
45:DY:71:LYS:HB2	45:DY:71:LYS:HZ3	1.84	0.41
49:D2:6:VAL:HG12	49:D2:10:LEU:CG	2.50	0.41
50:D3:56:VAL:HG12	50:D3:57:GLU:N	2.35	0.41
1:AA:216:G:N1	1:AA:217:C:N4	2.68	0.41
1:AA:302:G:N3	1:AA:556:C:H4'	2.36	0.41
1:AA:527:G:O2'	1:AA:528:C:H5'	2.21	0.41
1:AA:637:G:C4	1:AA:638:G:C8	3.09	0.41
1:AA:644:G:H4'	11:AH:92:ARG:HH21	1.85	0.41
1:AA:716:A:N3	14:AK:118:GLY:HA2	2.36	0.41
1:AA:833:U:C2	1:AA:834:C:C5	3.08	0.41
1:AA:1107:C:N3	1:AA:1108:G:C8	2.88	0.41
1:AA:1164:G:C6	1:AA:1173:G:C6	3.08	0.41
1:AA:1266:G:N2	1:AA:1270:C:C4	2.89	0.41
1:AA:1402:C:H2'	1:AA:1403:C:O4'	2.20	0.41
3:AW:67:C:H2'	3:AW:68:C:C6	2.55	0.41
5:AB:19:HIS:NE2	5:AB:206:ASP:HB2	2.35	0.41
7:AD:28:SER:CB	7:AD:29:PRO:CD	2.98	0.41
11:AH:37:ARG:HB3	11:AH:37:ARG:NH1	2.35	0.41
14:AK:38:ASN:HA	14:AK:39:PRO:HD3	1.87	0.41
21:AR:58:LEU:HB3	21:AR:62:GLU:HB2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:AT:64:ASP:O	23:AT:67:ALA:HB3	2.21	0.41
25:BA:543(B):C:N4	25:BA:543(C):A:C2	2.89	0.41
25:BA:1152:C:H5"	41:BU:80:ILE:HG22	2.02	0.41
25:BA:1203:G:C6	25:BA:1204:A:C6	3.09	0.41
25:BA:1215:G:C4	25:BA:1216:G:C8	3.09	0.41
25:BA:1680:U:O2	25:BA:1763:G:C8	2.73	0.41
25:BA:2307:G:C8	25:BA:2308:G:N7	2.88	0.41
25:BA:2320:A:C2	25:BA:2333:A:N7	2.88	0.41
25:BA:2688:U:H5	25:BA:2720:U:OP2	2.03	0.41
25:BA:2722:G:H5"	25:BA:2820:A:C2	2.56	0.41
28:BE:49:LEU:HD23	28:BE:81:ILE:CG1	2.49	0.41
30:BG:33:ARG:O	30:BG:161:THR:HA	2.19	0.41
32:BI:15:VAL:CG1	32:BI:16:GLY:N	2.83	0.41
36:BP:48:PRO:HA	36:BP:51:PHE:O	2.21	0.41
41:BU:92:ARG:H	42:BV:11:GLN:HE22	1.69	0.41
44:BX:24:GLY:HA3	44:BX:82:GLN:NE2	2.35	0.41
46:BZ:27:VAL:HG12	46:BZ:29:TYR:HD2	1.86	0.41
46:BZ:146:ILE:H	46:BZ:146:ILE:HG12	1.73	0.41
1:CA:68(B):G:H2'	1:CA:68(C):C:O4'	2.21	0.41
1:CA:201(C):U:C4'	1:CA:216:G:OP2	2.69	0.41
1:CA:625:G:C4	1:CA:626:U:C5	3.08	0.41
1:CA:687:A:C1'	1:CA:688:G:OP2	2.68	0.41
1:CA:1440(L):G:H8	1:CA:1440(L):G:OP2	2.03	0.41
4:CY:39:LEU:HD12	4:CY:39:LEU:C	2.40	0.41
5:CB:18:GLY:O	5:CB:19:HIS:HB2	2.20	0.41
5:CB:19:HIS:NE2	5:CB:206:ASP:HB2	2.35	0.41
5:CB:39:ILE:HD12	5:CB:39:ILE:N	2.35	0.41
5:CB:43:ASP:OD2	5:CB:46:LYS:HB2	2.20	0.41
6:CC:84:ILE:HG23	6:CC:85:ARG:HD2	2.03	0.41
17:CN:23:ARG:NH1	17:CN:30:ALA:HB2	2.35	0.41
18:CO:9:GLN:O	18:CO:13:GLN:HG2	2.21	0.41
25:DA:102:G:OP1	25:DA:102:G:C4'	2.68	0.41
25:DA:296:C:H2'	25:DA:297:C:H6	1.86	0.41
25:DA:511:U:H5"	25:DA:512:G:OP2	2.20	0.41
25:DA:1235:G:C6	25:DA:1236:G:N1	2.88	0.41
25:DA:1335:U:C2	25:DA:1336:A:C8	3.09	0.41
25:DA:1503:U:H2'	25:DA:1504:C:H6	1.83	0.41
25:DA:1680:U:O2	25:DA:1763:G:C8	2.74	0.41
25:DA:1881:C:O2'	25:DA:1882:C:H5'	2.19	0.41
25:DA:2039:C:H2'	25:DA:2040:C:C6	2.56	0.41
25:DA:2869:G:H2'	25:DA:2870:C:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:DB:46:A:C5	26:DB:47:C:C4	3.08	0.41
28:DE:2:LYS:HE2	28:DE:95:ILE:O	2.20	0.41
28:DE:51:PHE:CD1	28:DE:52:LEU:N	2.88	0.41
29:DF:7:TYR:HB2	29:DF:8:GLN:NE2	2.35	0.41
29:DF:8:GLN:CD	29:DF:8:GLN:N	2.63	0.41
29:DF:32:LEU:HD23	29:DF:32:LEU:O	2.19	0.41
29:DF:33:LEU:HA	29:DF:33:LEU:HD12	1.79	0.41
29:DF:36:VAL:O	29:DF:40:GLN:HG3	2.21	0.41
30:DG:106:LEU:O	30:DG:106:LEU:HD23	2.20	0.41
33:DK:101:TRP:CH2	33:DK:143:GLU:HG2	2.56	0.41
34:DN:80:ALA:C	34:DN:82:LYS:H	2.23	0.41
36:DP:9:ASN:N	36:DP:10:PRO:HD3	2.35	0.41
36:DP:127:ALA:HB3	36:DP:130:PHE:CE2	2.55	0.41
38:DR:2:ARG:HD3	38:DR:5:LYS:CE	2.50	0.41
42:DV:13:ARG:HH11	42:DV:14:VAL:HA	1.86	0.41
43:DW:1:MET:CG	43:DW:2:GLU:N	2.83	0.41
44:DX:57:LEU:HD12	44:DX:57:LEU:N	2.36	0.41
45:DY:87:LYS:H	45:DY:87:LYS:HG2	1.77	0.41
46:DZ:102:LEU:HD23	46:DZ:137:ILE:HB	2.02	0.41
48:D1:50:ARG:O	48:D1:51:VAL:HB	2.21	0.41
51:D4:60:GLU:H	51:D4:60:GLU:CD	2.24	0.41
1:AA:683:G:C6	1:AA:684:A:C5	3.09	0.41
1:AA:1126:U:H2'	1:AA:1127:G:O4'	2.21	0.41
1:AA:1159:U:C5	1:AA:1182:G:C5	3.08	0.41
1:AA:1259:C:O2'	1:AA:1284:C:H1'	2.21	0.41
3:AW:29:G:C6	3:AW:30:G:N7	2.89	0.41
4:AY:127:LYS:HD3	4:AY:225:PRO:HB2	2.03	0.41
4:AY:146:ALA:HB1	4:AY:177:ILE:HD13	2.02	0.41
5:AB:88:ALA:HB2	5:AB:219:VAL:HG13	2.03	0.41
6:AC:134:ILE:O	6:AC:138:VAL:HG23	2.20	0.41
13:AJ:7:LYS:O	13:AJ:96:ILE:HA	2.21	0.41
16:AM:39:ILE:CD1	16:AM:55:ARG:HH21	2.34	0.41
23:AT:72:LEU:HD11	23:AT:77:ALA:CA	2.50	0.41
24:AU:6:ARG:HG2	24:AU:6:ARG:O	2.21	0.41
25:BA:283:U:H2'	25:BA:284:C:C6	2.56	0.41
25:BA:522:G:H2'	25:BA:523:C:C6	2.56	0.41
25:BA:747:U:C5	52:B5:2:ALA:HB3	2.56	0.41
25:BA:826:U:OP1	25:BA:2429:G:OP1	2.38	0.41
25:BA:941:A:H4'	36:BP:35:HIS:CD2	2.55	0.41
25:BA:978:G:C2	25:BA:986:C:C2	3.08	0.41
25:BA:1025:G:H8	25:BA:1025:G:OP1	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1234:U:H2'	25:BA:1235:G:O4'	2.21	0.41
25:BA:1283:G:N2	25:BA:1285:G:H3'	2.36	0.41
25:BA:2419:U:P	55:B8:33:ASN:HD21	2.44	0.41
25:BA:2809:A:C2	25:BA:2892:A:C4	3.09	0.41
30:BG:49:ASP:C	30:BG:51:ARG:H	2.23	0.41
30:BG:173:LEU:HB3	30:BG:178:PHE:CG	2.56	0.41
32:BI:67:ARG:NE	32:BI:67:ARG:CA	2.83	0.41
35:BO:113:LYS:O	35:BO:116:SER:HB3	2.21	0.41
36:BP:95:VAL:CG2	36:BP:125:VAL:HB	2.51	0.41
36:BP:114:ILE:HD13	36:BP:125:VAL:CG2	2.51	0.41
40:BT:111:ARG:H	40:BT:111:ARG:CD	2.25	0.41
42:BV:13:ARG:HH11	42:BV:14:VAL:HA	1.86	0.41
43:BW:79:GLY:C	43:BW:100:THR:HG22	2.41	0.41
44:BX:12:VAL:HG13	44:BX:27:THR:HG23	2.03	0.41
44:BX:41:ASN:N	44:BX:41:ASN:ND2	2.68	0.41
53:B6:15:GLU:OE1	53:B6:18:ARG:HD2	2.20	0.41
53:B6:36:LEU:HD13	53:B6:50:ARG:HH12	1.84	0.41
53:B6:45:LYS:HD3	53:B6:45:LYS:HA	1.95	0.41
55:B8:11:LYS:HD2	55:B8:64:TYR:CZ	2.56	0.41
1:CA:974:A:P	17:CN:29:ARG:HH22	2.44	0.41
1:CA:977:A:H3'	1:CA:977:A:N3	2.35	0.41
1:CA:1253:G:H1	1:CA:1284:C:H42	1.67	0.41
1:CA:1346:A:O4'	1:CA:1348:U:C2	2.73	0.41
3:CW:65:C:H2'	3:CW:66:C:H6	1.86	0.41
4:CY:85:LEU:HD22	4:CY:104:LEU:HG	2.02	0.41
5:CB:169:LYS:C	5:CB:171:ALA:H	2.24	0.41
8:CE:60:TYR:CD1	8:CE:60:TYR:C	2.94	0.41
11:CH:34:GLU:HB2	11:CH:118:VAL:HG21	2.01	0.41
22:CS:5:LEU:HD11	22:CS:8:GLY:O	2.21	0.41
23:CT:64:ASP:O	23:CT:67:ALA:HB3	2.21	0.41
25:DA:1145:C:H2'	25:DA:1146:C:C6	2.55	0.41
25:DA:1285:G:O6	25:DA:1329:U:C2	2.73	0.41
25:DA:1684:C:H2'	25:DA:1685:C:C6	2.56	0.41
25:DA:2682:U:O4	25:DA:2728:U:H1'	2.20	0.41
25:DA:2867:G:OP2	40:DT:119:LYS:NZ	2.49	0.41
35:DO:47:ILE:HG13	35:DO:48:PRO:HD2	2.03	0.41
38:DR:4:LEU:C	38:DR:6:SER:H	2.24	0.41
40:DT:50:ILE:HD12	40:DT:99:LEU:HB2	2.02	0.41
42:DV:91:TYR:HD2	42:DV:91:TYR:N	2.19	0.41
45:DY:6:HIS:HB3	45:DY:35:TYR:HE2	1.85	0.41
45:DY:42:VAL:CG2	45:DY:67:LEU:HD11	2.51	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
45:DY:90:LEU:CG	45:DY:91:GLU:H	2.10	0.41
55:D8:30:ARG:HA	55:D8:30:ARG:HD3	1.62	0.41
1:AA:482:A:N3	1:AA:482:A:H2'	2.35	0.41
1:AA:544:G:C6	1:AA:545:C:C4	3.09	0.41
1:AA:922:G:H4'	8:AE:20:GLN:CA	2.44	0.41
1:AA:941:G:N2	1:AA:942:G:H1'	2.35	0.41
1:AA:1438:G:H2'	1:AA:1439:C:C6	2.54	0.41
3:AW:17:C:H5'	3:AW:61:C:OP1	2.21	0.41
3:AW:19:G:C2	3:AW:57:A:N3	2.89	0.41
5:AB:169:LYS:HB3	5:AB:169:LYS:HZ2	1.86	0.41
5:AB:170:GLU:HA	5:AB:172:ILE:CD1	2.50	0.41
6:AC:82:GLU:O	6:AC:86:VAL:HG13	2.21	0.41
6:AC:134:ILE:HD11	6:AC:153:VAL:CG2	2.51	0.41
15:AL:61:SER:HB2	15:AL:63:TYR:HD1	1.85	0.41
19:AP:29:ASP:OD1	19:AP:29:ASP:N	2.54	0.41
21:AR:25:THR:O	21:AR:25:THR:HG22	2.20	0.41
25:BA:253:C:H2'	25:BA:254:G:O4'	2.21	0.41
25:BA:598:G:H5'	36:BP:15:ARG:HG2	2.03	0.41
25:BA:1271:G:H2'	25:BA:1618:A:OP1	2.21	0.41
25:BA:1286:A:C2	25:BA:1289:C:C6	3.08	0.41
25:BA:1324:G:C5	25:BA:1328:G:O6	2.73	0.41
25:BA:1647:G:H3'	25:BA:1647:G:P	2.61	0.41
25:BA:1810:A:H2'	25:BA:1811:G:O4'	2.20	0.41
25:BA:1845:G:C2'	25:BA:1846:G:H5'	2.50	0.41
25:BA:2404:C:H2'	25:BA:2405:G:H5'	2.03	0.41
25:BA:2542:A:H4'	25:BA:2542:A:OP1	2.21	0.41
30:BG:85:GLY:C	30:BG:87:PRO:HD2	2.41	0.41
30:BG:106:LEU:HD23	30:BG:106:LEU:O	2.20	0.41
32:BI:93:THR:H	32:BI:96:ASP:HB2	1.86	0.41
34:BN:154:GLN:HE21	34:BN:155:ALA:H	1.68	0.41
40:BT:105:LEU:HD23	40:BT:105:LEU:HA	1.85	0.41
42:BV:40:LEU:N	42:BV:40:LEU:HD22	2.36	0.41
44:BX:31:HIS:HA	44:BX:32:PRO:HD3	1.88	0.41
44:BX:57:LEU:HD13	44:BX:78:LYS:HB3	2.03	0.41
51:B4:60:GLU:H	51:B4:60:GLU:CD	2.24	0.41
1:CA:278:G:N2	20:CQ:95:TYR:HB3	2.35	0.41
1:CA:340:U:H2'	1:CA:341:C:H6	1.85	0.41
1:CA:757:U:O2'	1:CA:879:C:H1'	2.20	0.41
1:CA:953:G:C6	1:CA:1229:A:C6	3.09	0.41
1:CA:1028(A):C:C2	1:CA:1033:G:C2	3.09	0.41
4:CY:266:HIS:CG	4:CY:269:THR:HG1	2.38	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:CY:301:ARG:NE	4:CY:301:ARG:HA	2.35	0.41
7:CD:9:CYS:CB	7:CD:32:ALA:HB2	2.51	0.41
9:CF:62:TRP:CG	21:CR:35:ARG:NH2	2.88	0.41
11:CH:55:GLY:O	11:CH:57:PRO:HD3	2.21	0.41
15:CL:40:ARG:HG2	15:CL:41:THR:N	2.35	0.41
15:CL:61:SER:HB2	15:CL:63:TYR:HD1	1.86	0.41
17:CN:24:CYS:HB3	17:CN:29:ARG:N	2.35	0.41
20:CQ:6:LEU:HD12	20:CQ:23:VAL:HG11	2.03	0.41
25:DA:70:G:H21	25:DA:71:A:H62	1.69	0.41
25:DA:270(S):G:C4	25:DA:270(T):G:N7	2.89	0.41
25:DA:283:U:H2'	25:DA:284:C:C6	2.55	0.41
25:DA:379:G:N2	48:D1:20:ARG:HH11	2.16	0.41
25:DA:775:G:C4	25:DA:794:G:C8	3.08	0.41
25:DA:836:G:H2'	25:DA:837:C:C6	2.55	0.41
25:DA:941:A:H4'	36:DP:35:HIS:CD2	2.56	0.41
25:DA:2056:G:H2'	25:DA:2056:G:N3	2.36	0.41
25:DA:2248:C:C2'	25:DA:2249:U:H5'	2.51	0.41
25:DA:2537:U:H2'	25:DA:2538:C:C6	2.54	0.41
25:DA:2884:U:C5	25:DA:2885:C:N1	2.89	0.41
27:DD:27:THR:CG2	27:DD:83:GLU:HG2	2.50	0.41
27:DD:30:GLU:CD	27:DD:63:ARG:HH21	2.24	0.41
28:DE:88:GLY:O	28:DE:89:ASP:HB2	2.21	0.41
29:DF:20:LEU:HD23	29:DF:21:ALA:H	1.86	0.41
32:DI:12:LEU:HB3	32:DI:19:VAL:HG11	2.03	0.41
32:DI:75:LEU:O	32:DI:141:LYS:HE3	2.20	0.41
40:DT:15:VAL:HG22	40:DT:16:ARG:O	2.21	0.41
40:DT:16:ARG:HG3	40:DT:19:LEU:HD11	2.02	0.41
41:DU:65:ILE:HG12	41:DU:96:ALA:HB1	2.03	0.41
43:DW:70:TYR:O	43:DW:107:LEU:HA	2.21	0.41
46:DZ:102:LEU:HD11	46:DZ:124:ILE:CD1	2.49	0.41
48:D1:13:ILE:HG22	48:D1:62:VAL:HG23	2.03	0.41
1:AA:35:G:C2	1:AA:550:G:N3	2.88	0.41
1:AA:43:C:H2'	1:AA:44:G:O5'	2.21	0.41
1:AA:68(B):G:H2'	1:AA:68(C):C:O4'	2.21	0.41
1:AA:112:G:N1	1:AA:330:C:N4	2.69	0.41
1:AA:132:C:N3	1:AA:231:G:C2	2.88	0.41
1:AA:373:A:H61	1:AA:391:G:H1'	1.85	0.41
1:AA:433:C:H2'	1:AA:434:U:C6	2.56	0.41
1:AA:604:G:C5	1:AA:605:U:C5	3.09	0.41
1:AA:921:U:O2	8:AE:19:MET:HB2	2.21	0.41
1:AA:1227:A:N3	1:AA:1227:A:C2'	2.82	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:AA:1270:C:H2'	1:AA:1271:G:H8	1.86	0.41
1:AA:1371:G:O3'	12:AI:69:GLY:HA3	2.21	0.41
4:AY:92:LEU:CD2	4:AY:97:ARG:HE	2.33	0.41
4:AY:301:ARG:NE	4:AY:301:ARG:HA	2.35	0.41
5:AB:162:ILE:HD11	5:AB:184:VAL:HG22	2.03	0.41
5:AB:167:PRO:HG2	5:AB:192:SER:OG	2.21	0.41
5:AB:178:ARG:HH22	5:AB:196:LEU:HA	1.85	0.41
5:AB:231:GLU:HA	5:AB:232:PRO:HD3	1.97	0.41
6:AC:7:PRO:O	6:AC:11:ARG:HG2	2.21	0.41
7:AD:22:LYS:HG3	7:AD:26:CYS:SG	2.61	0.41
7:AD:88:VAL:O	7:AD:92:VAL:HG23	2.21	0.41
7:AD:141:ARG:HB2	7:AD:144:ASP:OD1	2.20	0.41
8:AE:11:ILE:HG22	8:AE:12:LEU:HD12	2.03	0.41
9:AF:69:GLU:CD	9:AF:69:GLU:H	2.24	0.41
11:AH:10:LEU:HD22	11:AH:83:ILE:HD11	2.02	0.41
12:AI:79:LEU:HD23	12:AI:102:LEU:HA	2.01	0.41
13:AJ:96:ILE:HD13	13:AJ:96:ILE:N	2.29	0.41
18:AO:17:ARG:HD2	18:AO:24:SER:OG	2.21	0.41
18:AO:70:LEU:HD11	18:AO:77:ARG:HB2	2.03	0.41
19:AP:43:LYS:HA	19:AP:48:TRP:CB	2.51	0.41
22:AS:25:LYS:HB3	22:AS:27:GLU:OE2	2.21	0.41
25:BA:27:G:C2	25:BA:512:G:N3	2.88	0.41
25:BA:30:G:C5	25:BA:31:C:C4	3.09	0.41
25:BA:40:C:H2'	25:BA:41:C:C6	2.55	0.41
25:BA:329:G:H4'	25:BA:330:A:OP2	2.19	0.41
25:BA:464:U:H4'	54:B7:5:TRP:CZ3	2.56	0.41
25:BA:483:A:H4'	45:BY:49:VAL:CG2	2.50	0.41
25:BA:783:A:H3'	25:BA:783:A:C8	2.56	0.41
25:BA:852:G:C6	25:BA:926:A:C6	3.08	0.41
25:BA:862:G:H2'	25:BA:863:A:O4'	2.21	0.41
25:BA:929:G:H8	25:BA:929:G:O5'	2.04	0.41
25:BA:1172:G:N2	25:BA:1178:C:N4	2.69	0.41
25:BA:1309:G:H8	25:BA:1309:G:O5'	2.03	0.41
25:BA:1317:A:O2'	25:BA:1318:C:H5'	2.21	0.41
25:BA:1331:A:HO2'	25:BA:1332:G:H8	1.69	0.41
25:BA:1394:U:C4	25:BA:1395:A:C6	3.09	0.41
25:BA:1465:G:O2'	25:BA:1466:G:H5'	2.21	0.41
25:BA:1657:C:O2'	28:BE:133:LYS:HD3	2.20	0.41
25:BA:2096:U:H2'	25:BA:2097:C:C6	2.56	0.41
25:BA:2365:G:H4'	47:B0:60:PHE:CE2	2.56	0.41
25:BA:2512:C:H2'	25:BA:2513:G:O4'	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BD:80:ALA:HB2	27:BD:96:HIS:CD2	2.56	0.41
27:BD:95:LEU:O	27:BD:95:LEU:HD12	2.20	0.41
27:BD:185:VAL:HG12	27:BD:186:HIS:N	2.36	0.41
28:BE:31:CYS:HB3	28:BE:49:LEU:HB3	2.03	0.41
28:BE:117:MET:CE	28:BE:124:GLY:HA3	2.50	0.41
30:BG:5:LEU:HB3	30:BG:104:GLU:OE2	2.20	0.41
30:BG:37:VAL:CG2	30:BG:99:MET:HG3	2.50	0.41
32:BI:53:ALA:HB1	32:BI:57:ARG:NH2	2.36	0.41
33:BK:20:ALA:HA	33:BK:21:PRO:HD3	1.95	0.41
34:BN:66:THR:HB	34:BN:69:VAL:HG12	2.02	0.41
34:BN:69:VAL:O	34:BN:70:ALA:HB3	2.21	0.41
37:BQ:65:PHE:HD2	37:BQ:105:GLU:HB2	1.85	0.41
38:BR:65:LEU:HD23	38:BR:65:LEU:HA	1.80	0.41
39:BS:48:LEU:N	39:BS:48:LEU:HD12	2.36	0.41
40:BT:100:TYR:HD2	40:BT:103:ARG:NH1	2.18	0.41
41:BU:65:ILE:HG12	41:BU:96:ALA:HB1	2.03	0.41
43:BW:29:LEU:CG	43:BW:33:ARG:HE	2.33	0.41
45:BY:6:HIS:O	45:BY:7:VAL:C	2.59	0.41
45:BY:36:ALA:HA	45:BY:67:LEU:O	2.21	0.41
45:BY:51:VAL:O	45:BY:51:VAL:HG22	2.20	0.41
47:B0:73:GLY:O	47:B0:75:LEU:N	2.54	0.41
49:B2:9:GLN:HA	49:B2:12:GLU:CB	2.47	0.41
49:B2:33:MET:HA	49:B2:36:ARG:HG2	2.03	0.41
50:B3:52:HIS:ND1	50:B3:53:LEU:HD13	2.34	0.41
53:B6:11:LEU:HD22	53:B6:11:LEU:HA	1.94	0.41
55:B8:11:LYS:CD	55:B8:64:TYR:CZ	3.04	0.41
1:CA:57:G:C5	1:CA:58:C:C4	3.09	0.41
1:CA:68(D):C:H2'	1:CA:68(E):G:C8	2.55	0.41
1:CA:157:G:C2	1:CA:165:C:C2	3.09	0.41
1:CA:433:C:H2'	1:CA:434:U:C6	2.56	0.41
1:CA:960:U:O2	1:CA:960:U:H2'	2.20	0.41
1:CA:1072:G:C5	1:CA:1073:U:C4	3.09	0.41
1:CA:1127:G:H1	1:CA:1145:C:H42	1.67	0.41
1:CA:1206:G:C6	1:CA:1207:G:C5	3.09	0.41
1:CA:1293:G:H2'	1:CA:1294:G:C8	2.55	0.41
1:CA:1386:G:H2'	1:CA:1387:G:H8	1.85	0.41
4:CY:52:TRP:CD1	25:DA:1095:A:C2	3.09	0.41
4:CY:203:VAL:HG12	4:CY:214:ARG:HH11	1.86	0.41
5:CB:54:THR:HG21	5:CB:201:ILE:HD11	2.02	0.41
5:CB:60:ASP:O	5:CB:64:ARG:HG3	2.21	0.41
5:CB:95:GLN:O	5:CB:96:ARG:C	2.59	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:CB:111:ARG:HH11	5:CB:111:ARG:HG2	1.86	0.41
6:CC:7:PRO:O	6:CC:11:ARG:HG2	2.21	0.41
6:CC:15:THR:HG21	6:CC:181:ASN:HA	2.03	0.41
6:CC:19:GLU:HA	6:CC:54:ARG:HH12	1.85	0.41
6:CC:82:GLU:O	6:CC:86:VAL:HG13	2.21	0.41
6:CC:137:ALA:O	6:CC:141:VAL:HG23	2.20	0.41
6:CC:188:LEU:N	6:CC:188:LEU:HD22	2.36	0.41
7:CD:99:SER:OG	7:CD:140:VAL:O	2.38	0.41
11:CH:26:VAL:C	11:CH:58:TYR:HD2	2.24	0.41
12:CI:11:LYS:O	12:CI:12:GLU:HB2	2.20	0.41
12:CI:25:LYS:O	12:CI:60:ASP:HA	2.20	0.41
13:CJ:8:LEU:HG	13:CJ:96:ILE:HG22	2.02	0.41
13:CJ:54:PHE:CG	13:CJ:55:LYS:N	2.88	0.41
14:CK:21:ILE:HD12	14:CK:21:ILE:N	2.36	0.41
15:CL:85:ARG:HB2	15:CL:100:VAL:HG23	2.02	0.41
25:DA:55:G:N3	25:DA:127:A:H2	2.18	0.41
25:DA:244:A:C2	25:DA:255:A:C5	3.08	0.41
25:DA:251:A:C5	25:DA:252:G:H1'	2.56	0.41
25:DA:271(S):C:C2	25:DA:357(D):G:N2	2.89	0.41
25:DA:320:A:H5"	25:DA:321:G:OP1	2.21	0.41
25:DA:357(K):U:O2'	25:DA:357(L):A:O5'	2.39	0.41
25:DA:414:C:H2'	25:DA:415:A:C8	2.55	0.41
25:DA:520:G:H2'	25:DA:521:G:H8	1.86	0.41
25:DA:977:G:HO2'	25:DA:1001:A:H2	1.64	0.41
25:DA:1210:A:N6	25:DA:1237:A:C4	2.89	0.41
25:DA:1827:C:H2'	25:DA:1828:G:O4'	2.21	0.41
25:DA:1853:A:N1	25:DA:2087:G:H1'	2.36	0.41
25:DA:1899:G:H21	25:DA:1902:C:N4	2.04	0.41
25:DA:1971:A:C2	27:DD:241:PRO:HD3	2.55	0.41
25:DA:2056:G:H22	52:D5:4:HIS:C	2.24	0.41
25:DA:2320:A:C2	25:DA:2333:A:N7	2.88	0.41
25:DA:2354:G:H4'	47:D0:35:ASN:HB2	2.03	0.41
25:DA:2630:G:C8	25:DA:2894:G:C2	3.09	0.41
26:DB:29:A:H1'	26:DB:59:A:C2	2.56	0.41
26:DB:61:G:C6	26:DB:62:C:C4	3.09	0.41
27:DD:25:THR:CG2	27:DD:81:ALA:HB1	2.51	0.41
27:DD:28:GLU:HB3	27:DD:29:PRO:CD	2.42	0.41
27:DD:33:LEU:O	27:DD:35:LYS:N	2.42	0.41
27:DD:33:LEU:C	27:DD:35:LYS:N	2.74	0.41
27:DD:108:PRO:HG3	27:DD:143:HIS:CE1	2.56	0.41
27:DD:166:GLN:CA	27:DD:166:GLN:NE2	2.82	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:DD:227:ASN:HB3	27:DD:228:PRO:HD2	2.03	0.41
28:DE:57:LYS:CG	28:DE:58:ARG:N	2.84	0.41
29:DF:125:LEU:HB3	29:DF:196:LEU:HD21	2.03	0.41
29:DF:150:GLY:HA2	29:DF:172:TRP:CD2	2.56	0.41
32:DI:15:VAL:CG1	32:DI:16:GLY:N	2.83	0.41
33:DK:12:LEU:N	33:DK:12:LEU:HD23	2.36	0.41
33:DK:34:ILE:HA	33:DK:37:PHE:HB2	2.03	0.41
39:DS:56:LEU:HG	39:DS:57:LYS:NZ	2.35	0.41
41:DU:59:ARG:O	41:DU:60:LEU:C	2.58	0.41
42:DV:69:LYS:HD2	42:DV:86:GLY:HA3	2.03	0.41
42:DV:91:TYR:CD2	42:DV:91:TYR:N	2.88	0.41
43:DW:15:ARG:NH2	52:D5:20:ARG:NH1	2.69	0.41
45:DY:60:PHE:O	45:DY:61:ILE:C	2.58	0.41
46:DZ:9:TYR:CZ	46:DZ:61:LEU:HD13	2.55	0.41
46:DZ:119:GLU:H	46:DZ:119:GLU:HG2	1.70	0.41
48:D1:48:LYS:HE3	48:D1:50:ARG:NH1	2.36	0.41
48:D1:67:ILE:N	48:D1:68:PRO:CD	2.83	0.41
49:D2:15:LYS:C	49:D2:16:LEU:HD22	2.41	0.41
53:D6:25:LYS:HD2	55:D8:34:TRP:CZ3	2.55	0.41
54:D7:19:ARG:NH1	54:D7:19:ARG:CB	2.81	0.41
55:D8:32:LEU:HD23	55:D8:33:ASN:N	2.36	0.41
1:AA:111:G:H5”	19:AP:27:LYS:HG2	2.03	0.41
1:AA:546:G:OP2	7:AD:72:GLU:HB2	2.21	0.41
1:AA:826:C:H4’	11:AH:12:ARG:HD2	2.03	0.41
1:AA:1293:G:H2’	1:AA:1294:G:C8	2.56	0.41
4:AY:222:GLU:OE2	4:AY:312:ARG:HB3	2.21	0.41
4:AY:357:LEU:HA	4:AY:357:LEU:HD12	1.82	0.41
5:AB:19:HIS:CG	5:AB:20:GLU:N	2.89	0.41
6:AC:11:ARG:NH2	6:AC:180:ALA:HB3	2.35	0.41
6:AC:19:GLU:HG2	6:AC:54:ARG:NH2	2.35	0.41
6:AC:112:SER:O	6:AC:115:LEU:HB2	2.21	0.41
8:AE:69:VAL:HG12	8:AE:71:LEU:HD23	2.02	0.41
10:AG:104:LEU:HD22	10:AG:134:ALA:HB1	2.03	0.41
11:AH:55:GLY:O	11:AH:57:PRO:HD3	2.21	0.41
13:AJ:61:GLU:CG	17:AN:58:LYS:HE2	2.51	0.41
14:AK:122:LYS:C	14:AK:124:LYS:H	2.24	0.41
16:AM:74:VAL:O	16:AM:78:ILE:HG13	2.20	0.41
25:BA:55:G:N3	25:BA:127:A:H2	2.19	0.41
25:BA:518:G:H2’	25:BA:519:U:C6	2.56	0.41
25:BA:1205:U:C4	29:BF:171:PRO:HA	2.55	0.41
25:BA:1344:G:H4’	25:BA:1384:A:C5	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:1754:C:P	40:BT:96:ARG:HH12	2.43	0.41
25:BA:1787:A:N3	25:BA:1787:A:H2'	2.35	0.41
25:BA:1794:U:H2'	25:BA:1795:C:C6	2.55	0.41
25:BA:1899:G:C2'	25:BA:1900:A:OP2	2.68	0.41
25:BA:2291:U:O2'	25:BA:2374:C:O2	2.31	0.41
25:BA:2321:G:C5'	25:BA:2322:A:OP2	2.69	0.41
25:BA:2365:G:O6	55:B8:39:LYS:HE3	2.21	0.41
26:BB:9:G:P	39:BS:25:ARG:HH12	2.44	0.41
26:BB:50:G:C2	26:BB:51:G:H1'	2.55	0.41
27:BD:16:MET:CB	27:BD:207:GLY:HA3	2.51	0.41
29:BF:129:PHE:HE1	29:BF:142:TRP:CH2	2.39	0.41
37:BQ:20:ALA:HB2	37:BQ:99:PRO:CG	2.51	0.41
40:BT:137:LYS:HD2	40:BT:137:LYS:N	2.36	0.41
42:BV:25:LEU:H	42:BV:92:THR:HG21	1.85	0.41
49:B2:6:VAL:HG12	49:B2:10:LEU:CG	2.51	0.41
49:B2:6:VAL:C	49:B2:10:LEU:HG	2.41	0.41
1:CA:22:G:H2'	1:CA:23:C:H6	1.86	0.41
1:CA:68(W):G:C6	1:CA:68(X):U:C4	3.08	0.41
1:CA:111:G:H5"	19:CP:27:LYS:HG2	2.03	0.41
1:CA:145:G:C2	1:CA:146:G:C4	3.09	0.41
1:CA:376:G:H2'	1:CA:377:G:C8	2.47	0.41
1:CA:716:A:N3	14:CK:118:GLY:HA2	2.36	0.41
1:CA:826:C:H4'	11:CH:12:ARG:HD2	2.02	0.41
1:CA:922:G:N3	1:CA:1396:A:C2	2.89	0.41
1:CA:1322:C:H4'	1:CA:1323:G:OP1	2.22	0.41
1:CA:1494:G:C4	1:CA:1495:U:C5	3.09	0.41
4:CY:146:ALA:HB1	4:CY:177:ILE:HD13	2.02	0.41
4:CY:333:TYR:O	4:CY:333:TYR:CG	2.74	0.41
5:CB:167:PRO:HG2	5:CB:192:SER:OG	2.20	0.41
6:CC:24:ALA:HB2	6:CC:32:LEU:HD12	2.02	0.41
8:CE:68:GLU:H	8:CE:68:GLU:HG3	1.68	0.41
9:CF:67:MET:HB2	9:CF:68:PRO:HD2	2.03	0.41
11:CH:17:THR:HB	11:CH:78:GLN:HE22	1.86	0.41
12:CI:47:LEU:HD12	12:CI:47:LEU:N	2.36	0.41
13:CJ:45:ARG:HB3	13:CJ:47:PHE:CZ	2.56	0.41
14:CK:109:VAL:HG13	21:CR:85:LEU:O	2.21	0.41
15:CL:17:VAL:O	15:CL:18:ARG:HB3	2.21	0.41
17:CN:42:ILE:O	17:CN:46:GLU:HG3	2.20	0.41
18:CO:70:LEU:HD11	18:CO:77:ARG:HB2	2.03	0.41
21:CR:25:THR:O	21:CR:25:THR:HG22	2.20	0.41
25:DA:127:A:H5"	25:DA:128:C:C6	2.56	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:528:A:OP2	34:DN:134:PRO:HB3	2.21	0.41
25:DA:593:G:O2'	55:D8:62:LEU:CD1	2.66	0.41
25:DA:681:G:H2'	25:DA:682:G:O5'	2.21	0.41
25:DA:828:U:H4'	25:DA:831:G:N1	2.36	0.41
25:DA:911:A:O5'	25:DA:912:C:H5"	2.21	0.41
25:DA:1290:C:H2'	25:DA:1291:C:C6	2.54	0.41
25:DA:1506(L):G:H2'	25:DA:1506(M):U:O4'	2.21	0.41
25:DA:1653:G:H3'	38:DR:4:LEU:HB2	2.03	0.41
25:DA:1677:A:H2'	25:DA:1678:G:O4'	2.21	0.41
25:DA:2056:G:H1	52:D5:4:HIS:HA	1.85	0.41
25:DA:2685:G:N3	25:DA:2725:A:C2	2.89	0.41
25:DA:2785:C:O2'	28:DE:66:HIS:CD2	2.74	0.41
25:DA:2811:G:C6	25:DA:2890:G:N2	2.88	0.41
25:DA:2845:G:OP1	40:DT:56:GLY:N	2.50	0.41
27:DD:43:ARG:CB	27:DD:49:ILE:HA	2.51	0.41
27:DD:67:PHE:CE2	27:DD:106:ILE:HD11	2.54	0.41
28:DE:30:PRO:O	28:DE:32:PRO:HD3	2.20	0.41
31:DH:35:VAL:HG21	31:DH:75:ALA:CB	2.51	0.41
32:DI:7:GLU:HA	32:DI:15:VAL:HG22	2.01	0.41
32:DI:25:TYR:CD1	32:DI:30:LEU:HD11	2.56	0.41
37:DQ:80:GLU:OE2	37:DQ:80:GLU:CA	2.63	0.41
38:DR:32:GLY:O	38:DR:115:GLU:HA	2.20	0.41
39:DS:30:ARG:O	39:DS:30:ARG:HG3	2.21	0.41
41:DU:61:TRP:CZ3	41:DU:94:ASN:HB2	2.56	0.41
42:DV:40:LEU:N	42:DV:40:LEU:HD22	2.36	0.41
1:AA:145:G:C2	1:AA:146:G:C4	3.09	0.40
1:AA:157:G:C2	1:AA:165:C:C2	3.10	0.40
1:AA:186(E):C:C2	1:AA:186(M):G:N2	2.89	0.40
1:AA:495:A:C4'	1:AA:497:A:OP1	2.57	0.40
1:AA:542:G:C2	1:AA:543:C:C5	3.09	0.40
1:AA:750:G:N3	18:AO:23:GLY:HA3	2.35	0.40
1:AA:1223:C:OP2	1:AA:1224:G:H2'	2.21	0.40
1:AA:1325:C:H4'	24:AU:17:THR:HG21	2.02	0.40
4:AY:98:GLU:O	4:AY:102:PRO:HD3	2.21	0.40
5:AB:17:PHE:N	5:AB:17:PHE:CD2	2.82	0.40
5:AB:178:ARG:NH2	11:AH:74:PRO:HG3	2.34	0.40
7:AD:26:CYS:HA	7:AD:31:CYS:HA	2.03	0.40
8:AE:53:LEU:O	8:AE:56:GLN:HB3	2.21	0.40
10:AG:111:ARG:CZ	10:AG:122:HIS:HB3	2.52	0.40
10:AG:138:LYS:HE2	10:AG:142:GLU:OE2	2.20	0.40
12:AI:111:ARG:HD2	17:AN:61:TRP:CE2	2.55	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:AJ:24:VAL:HG13	13:AJ:28:ARG:HD2	2.02	0.40
13:AJ:75:ILE:HG13	13:AJ:76:ASN:H	1.86	0.40
18:AO:84:LYS:O	18:AO:84:LYS:HD3	2.20	0.40
22:AS:41:VAL:O	22:AS:44:MET:HB2	2.21	0.40
25:BA:842:G:N2	25:BA:937:U:C2	2.89	0.40
25:BA:1277:G:O2'	38:BR:24:GLN:HG2	2.21	0.40
25:BA:1396:U:O2	25:BA:1396:U:C2'	2.69	0.40
25:BA:1506(J):G:H4'	25:BA:1556:C:O2'	2.21	0.40
25:BA:1817:G:H2'	25:BA:1818:U:H5'	2.03	0.40
25:BA:1824:G:OP1	27:BD:52:ARG:NH1	2.53	0.40
25:BA:2194:G:H2'	25:BA:2195:C:C6	2.57	0.40
25:BA:2602:A:H4'	25:BA:2603:G:O5'	2.21	0.40
25:BA:2887:U:H2'	25:BA:2888:C:H6	1.87	0.40
27:BD:68:LYS:HE2	27:BD:68:LYS:HB3	1.92	0.40
27:BD:206:LEU:HD22	27:BD:211:ARG:HG2	2.02	0.40
34:BN:66:THR:HB	34:BN:69:VAL:CG1	2.50	0.40
40:BT:94:ALA:O	40:BT:95:ARG:CB	2.68	0.40
41:BU:64:ARG:O	41:BU:67:ALA:HB3	2.22	0.40
44:BX:64:LYS:HE2	44:BX:73:ARG:NE	2.36	0.40
48:B1:23:LYS:HE2	48:B1:23:LYS:HB3	1.60	0.40
48:B1:32:LYS:CG	48:B1:33:LYS:H	2.30	0.40
53:B6:18:ARG:HH22	53:B6:44:ARG:CB	2.34	0.40
55:B8:31:HIS:C	55:B8:33:ASN:N	2.73	0.40
1:CA:43:C:H2'	1:CA:44:G:O5'	2.21	0.40
1:CA:112:G:N1	1:CA:330:C:N4	2.69	0.40
1:CA:142:G:H2'	1:CA:143:A:H8	1.86	0.40
1:CA:195:A:C5	1:CA:196:A:N1	2.89	0.40
1:CA:949:A:N1	1:CA:1233:G:N3	2.69	0.40
1:CA:1323:G:H2'	1:CA:1324:A:C8	2.56	0.40
4:CY:99:ALA:O	4:CY:102:PRO:HD2	2.21	0.40
6:CC:19:GLU:HG2	6:CC:54:ARG:NH2	2.36	0.40
7:CD:187:ARG:HH22	7:CD:190:ASP:HB2	1.86	0.40
8:CE:53:LEU:O	8:CE:56:GLN:HB3	2.21	0.40
9:CF:37:VAL:CG1	9:CF:38:GLU:N	2.82	0.40
14:CK:67:ASP:OD1	14:CK:71:LYS:HE3	2.21	0.40
22:CS:63:THR:HG22	22:CS:66:MET:CG	2.49	0.40
22:CS:79:THR:O	22:CS:80:TYR:HB2	2.21	0.40
24:CU:6:ARG:O	24:CU:6:ARG:HG2	2.21	0.40
25:DA:285:C:C2	25:DA:286:C:C5	3.09	0.40
25:DA:543(B):C:N4	25:DA:543(C):A:C2	2.89	0.40
25:DA:624:C:O2	25:DA:657:U:H4'	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:819:A:H2	25:DA:943:U:O4’	2.05	0.40
25:DA:892:G:H2’	25:DA:893:C:C6	2.56	0.40
25:DA:1194:A:OP2	36:DP:17:LYS:HE2	2.21	0.40
25:DA:1688:U:O2	25:DA:1700:A:H8	2.04	0.40
25:DA:1779:U:C6	25:DA:1783:A:N7	2.89	0.40
25:DA:2290:G:C6	25:DA:2291:U:C4	3.09	0.40
26:DB:42:C:O4’	30:DG:69:ALA:HB2	2.21	0.40
30:DG:5:LEU:HB3	30:DG:104:GLU:OE2	2.21	0.40
32:DI:72:LEU:HD12	32:DI:140:LEU:CD1	2.51	0.40
33:DK:74:ALA:HB2	33:DK:111:LYS:HE2	2.02	0.40
33:DK:104:VAL:HG13	33:DK:127:ILE:CG2	2.51	0.40
36:DP:48:PRO:HG2	36:DP:49:ARG:N	2.35	0.40
37:DQ:60:ARG:HA	46:DZ:179:ASP:HB2	2.04	0.40
39:DS:49:VAL:HG12	39:DS:73:LEU:HD23	2.03	0.40
41:DU:62:ILE:CD1	41:DU:93:LYS:HG2	2.52	0.40
1:AA:973:G:P	13:AJ:57:LYS:HE2	2.60	0.40
1:AA:1118:C:O2	1:AA:1179:A:C6	2.73	0.40
1:AA:1231:G:H2’	1:AA:1232:U:H6	1.86	0.40
1:AA:1270:C:O2’	1:AA:1314:C:H5’	2.21	0.40
1:AA:1281:U:H5’	1:AA:1282:C:C5	2.52	0.40
1:AA:1440(L):G:H8	1:AA:1440(L):G:OP2	2.03	0.40
1:AA:1494:G:C4	1:AA:1495:U:C5	3.09	0.40
4:AY:195:PRO:HB2	4:AY:362:LEU:HD12	2.03	0.40
5:AB:43:ASP:OD2	5:AB:46:LYS:HB2	2.20	0.40
6:AC:84:ILE:HG23	6:AC:85:ARG:HD2	2.03	0.40
9:AF:11:ASN:HA	9:AF:12:PRO:HD2	1.92	0.40
9:AF:50:TYR:HE1	21:AR:74:ARG:O	2.04	0.40
11:AH:11:THR:HA	11:AH:14:ARG:NH1	2.36	0.40
12:AI:4:TYR:HD2	12:AI:84:ALA:O	2.03	0.40
13:AJ:29:ARG:O	13:AJ:29:ARG:HG2	2.22	0.40
15:AL:26:LEU:C	15:AL:28:GLY:N	2.74	0.40
25:BA:127:A:H5”	25:BA:128:C:C6	2.56	0.40
25:BA:847:U:H5	25:BA:933:A:H62	1.68	0.40
25:BA:1039:G:C2	25:BA:1117:G:C2	3.09	0.40
25:BA:1431:U:H2’	25:BA:1432:C:C6	2.56	0.40
25:BA:1798:U:H5’	27:BD:259:THR:OG1	2.21	0.40
25:BA:1864(B):C:O2	25:BA:1864(B):C:C2’	2.63	0.40
25:BA:2036:C:H5’	25:BA:2036:C:H6	1.85	0.40
25:BA:2054:A:C2	25:BA:2616:C:C2	3.09	0.40
25:BA:2811:G:C6	25:BA:2890:G:N2	2.88	0.40
26:BB:83:G:H4’	50:B3:52:HIS:CG	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:BE:30:PRO:O	28:BE:32:PRO:HD3	2.21	0.40
28:BE:51:PHE:O	28:BE:52:LEU:HB2	2.22	0.40
29:BF:29:ASN:O	29:BF:112:MET:HE1	2.21	0.40
30:BG:75:LYS:HB3	30:BG:76:SER:H	1.69	0.40
32:BI:23:PRO:O	32:BI:27:ARG:HG3	2.21	0.40
32:BI:31:LEU:HD11	32:BI:38:LEU:HD22	2.02	0.40
32:BI:77:LEU:HD21	32:BI:101:LEU:HD13	2.02	0.40
36:BP:47:ASP:OD2	36:BP:49:ARG:HG3	2.21	0.40
37:BQ:20:ALA:HA	37:BQ:98:LYS:HD3	2.03	0.40
39:BS:28:VAL:HG21	39:BS:87:PHE:CE1	2.56	0.40
41:BU:91:ASP:CG	41:BU:96:ALA:HB2	2.42	0.40
42:BV:61:VAL:HA	42:BV:94:LEU:HD23	2.02	0.40
42:BV:91:TYR:N	42:BV:91:TYR:HD2	2.19	0.40
45:BY:6:HIS:HB3	45:BY:35:TYR:HE2	1.87	0.40
46:BZ:23:LYS:HD2	46:BZ:38:TYR:HE1	1.85	0.40
48:B1:87:PRO:HG2	48:B1:88:LYS:H	1.86	0.40
49:B2:17:SER:O	49:B2:18:PRO:C	2.58	0.40
1:CA:1048:G:H5”	17:CN:2:ALA:N	2.36	0.40
1:CA:1186:G:H21	17:CN:61:TRP:C	2.24	0.40
3:CW:14:A:C2	3:CW:15:G:H1’	2.56	0.40
4:CY:56:GLU:OE2	25:DA:2473:U:H6	2.03	0.40
5:CB:162:ILE:HD11	5:CB:184:VAL:HG22	2.03	0.40
6:CC:78:GLY:C	6:CC:79:ARG:HD3	2.40	0.40
7:CD:103:ASN:HD21	7:CD:107:ARG:HG3	1.85	0.40
8:CE:144:THR:O	8:CE:148:VAL:HG23	2.22	0.40
21:CR:88:LYS:OXT	21:CR:88:LYS:HD3	2.20	0.40
25:DA:340:A:H2’	25:DA:341:G:H5’	2.02	0.40
25:DA:357(J):G:C6	25:DA:357(K):U:C4	3.09	0.40
25:DA:588:U:H1’	29:DF:90:PHE:CD1	2.56	0.40
25:DA:826:U:OP1	25:DA:2429:G:OP1	2.40	0.40
25:DA:1172:G:N2	25:DA:1178:C:N4	2.69	0.40
25:DA:1175:G:C8	25:DA:1177:A:C8	3.10	0.40
25:DA:1184:G:C6	25:DA:1185:C:C4	3.09	0.40
25:DA:1344:G:H4’	25:DA:1384:A:C5	2.56	0.40
25:DA:1431:U:H2’	25:DA:1432:C:C6	2.57	0.40
25:DA:1444:G:C2	25:DA:1548:C:C2	3.10	0.40
25:DA:1810:A:H2’	25:DA:1811:G:O4’	2.21	0.40
25:DA:2092:U:H4’	25:DA:2093:G:O5’	2.21	0.40
25:DA:2202(B):C:O2	25:DA:2202(H):G:C2	2.75	0.40
25:DA:2322:A:H2’	25:DA:2323:G:O4’	2.21	0.40
25:DA:2557:G:H2’	25:DA:2558:C:C6	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:2681:C:C5	25:DA:2725:A:N6	2.76	0.40
25:DA:2773:C:H5”	28:DE:164:ARG:O	2.20	0.40
27:DD:80:ALA:HB2	27:DD:96:HIS:CD2	2.56	0.40
28:DE:24:THR:HB	28:DE:186:GLY:O	2.21	0.40
28:DE:176:ILE:O	28:DE:176:ILE:HG22	2.21	0.40
29:DF:51:THR:HB	29:DF:88:VAL:HG11	2.04	0.40
30:DG:67:LYS:HD2	30:DG:67:LYS:N	2.30	0.40
31:DH:31:GLY:H	31:DH:79:VAL:HG12	1.86	0.40
34:DN:53:ILE:HG23	34:DN:75:VAL:HG11	2.03	0.40
34:DN:161:LEU:N	34:DN:161:LEU:HD23	2.35	0.40
36:DP:95:VAL:HG22	36:DP:125:VAL:HG12	2.03	0.40
37:DQ:31:ASP:HB2	37:DQ:32:PHE:CD1	2.55	0.40
37:DQ:43:THR:HB	37:DQ:45:GLN:HE21	1.86	0.40
37:DQ:57:HIS:NE2	37:DQ:116:GLU:HG2	2.35	0.40
39:DS:38:GLN:HB3	39:DS:47:THR:HG21	2.03	0.40
40:DT:137:LYS:HD2	40:DT:137:LYS:N	2.36	0.40
42:DV:79:VAL:O	42:DV:80:GLN:C	2.60	0.40
44:DX:28:PHE:HE1	44:DX:81:VAL:HG21	1.86	0.40
44:DX:57:LEU:HD12	44:DX:78:LYS:O	2.21	0.40
46:DZ:30:ASN:O	46:DZ:32:HIS:N	2.55	0.40
48:D1:37:ILE:CG1	48:D1:38:SER:N	2.84	0.40
55:D8:41:ILE:C	55:D8:41:ILE:HD12	2.42	0.40
1:AA:457:C:N3	1:AA:476:G:C2	2.90	0.40
1:AA:626:U:H5”	19:AP:38:TYR:CD2	2.57	0.40
1:AA:996:A:H2’	1:AA:997:U:C6	2.57	0.40
1:AA:1258:G:H2’	1:AA:1259:C:H6	1.85	0.40
1:AA:1499:A:H1’	1:AA:1520:G:H5’	2.03	0.40
4:AY:230:GLU:O	4:AY:230:GLU:CG	2.70	0.40
4:AY:253:PRO:HB2	25:BA:2452:C:H5’	2.04	0.40
4:AY:327:TYR:CD1	4:AY:350:LEU:HD11	2.57	0.40
6:AC:14:ILE:CG1	6:AC:15:THR:H	2.20	0.40
7:AD:126:ILE:CG2	7:AD:127:THR:H	2.30	0.40
8:AE:144:THR:O	8:AE:148:VAL:HG23	2.21	0.40
9:AF:67:MET:HB2	9:AF:68:PRO:HD2	2.02	0.40
10:AG:126:ASP:HB3	10:AG:132:GLY:HA2	2.04	0.40
11:AH:87:SER:HB2	11:AH:93:VAL:HB	2.03	0.40
12:AI:47:LEU:HD12	12:AI:47:LEU:N	2.36	0.40
13:AJ:45:ARG:HB3	13:AJ:47:PHE:CZ	2.56	0.40
13:AJ:84:GLN:NE2	13:AJ:88:LEU:HD22	2.32	0.40
14:AK:21:ILE:N	14:AK:21:ILE:HD12	2.37	0.40
14:AK:31:THR:HG23	14:AK:31:THR:O	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:AM:101:GLN:H	16:AM:101:GLN:HG2	1.57	0.40
23:AT:72:LEU:HD11	23:AT:77:ALA:HB2	2.03	0.40
25:BA:118:A:H1'	25:BA:178:G:O4'	2.21	0.40
25:BA:155(E):U:N3	25:BA:171:G:C8	2.90	0.40
25:BA:307:G:H21	25:BA:330:A:N6	2.18	0.40
25:BA:560:C:H4'	41:BU:52:ARG:CZ	2.51	0.40
25:BA:628:G:C6	25:BA:629:G:C6	3.09	0.40
25:BA:821:A:H2'	25:BA:946:G:H5"	2.03	0.40
25:BA:1022:G:H4'	25:BA:1023:U:O5'	2.21	0.40
25:BA:1275:A:H3'	25:BA:1645:G:O2'	2.21	0.40
25:BA:2056:G:N3	25:BA:2056:G:H2'	2.36	0.40
25:BA:2403:C:H6	25:BA:2403:C:O5'	2.04	0.40
25:BA:2420:C:OP1	55:B8:34:TRP:HA	2.21	0.40
25:BA:2729:G:H1'	28:BE:187:ALA:HB3	2.03	0.40
25:BA:2864:G:C6	25:BA:2865:U:N3	2.89	0.40
25:BA:2870:C:H2'	25:BA:2871:C:O4'	2.21	0.40
27:BD:70:TRP:HZ3	27:BD:146:GLU:CD	2.24	0.40
30:BG:66:GLN:OE1	30:BG:94:LEU:HA	2.22	0.40
31:BH:118:PRO:CG	31:BH:121:ILE:HD13	2.50	0.40
32:BI:15:VAL:O	32:BI:17:GLN:N	2.55	0.40
34:BN:143:LEU:HD23	34:BN:144:LYS:N	2.36	0.40
41:BU:82:GLY:HA3	41:BU:113:ALA:HB1	2.04	0.40
41:BU:102:GLU:N	41:BU:103:PRO:CD	2.82	0.40
46:BZ:98:MET:HE2	46:BZ:99:TYR:O	2.21	0.40
49:B2:16:LEU:HB2	49:B2:20:GLU:CG	2.52	0.40
50:B3:7:LYS:HE3	50:B3:32:GLN:O	2.21	0.40
51:B4:48:ILE:HG22	51:B4:49:GLU:H	1.87	0.40
1:CA:338:A:C6	1:CA:339:C:C4	3.10	0.40
1:CA:511:C:C4	1:CA:541:G:N2	2.89	0.40
1:CA:624:C:C4'	19:CP:10:GLY:HA2	2.51	0.40
1:CA:939:G:H1	1:CA:1344:C:H42	1.69	0.40
1:CA:1064:G:H4'	1:CA:1065:U:O5'	2.21	0.40
1:CA:1145:C:C4'	1:CA:1146:A:O5'	2.69	0.40
1:CA:1258:G:H2'	1:CA:1259:C:H6	1.84	0.40
1:CA:1496:C:H2'	1:CA:1497:G:O4'	2.21	0.40
6:CC:34:LEU:O	6:CC:38:ARG:HG2	2.21	0.40
6:CC:91:LEU:C	6:CC:91:LEU:HD23	2.41	0.40
10:CG:111:ARG:CZ	10:CG:122:HIS:HB3	2.51	0.40
11:CH:97:VAL:HA	11:CH:100:ILE:HG13	2.03	0.40
16:CM:49:THR:HB	16:CM:52:GLU:HG3	2.03	0.40
16:CM:57:ARG:HH12	51:D4:60:GLU:HB2	1.84	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:CM:64:TRP:O	16:CM:66:LEU:HD22	2.21	0.40
18:CO:84:LYS:HD3	18:CO:84:LYS:O	2.21	0.40
22:CS:41:VAL:O	22:CS:44:MET:HB2	2.21	0.40
25:DA:271(E):G:H2'	25:DA:271(F):G:H8	1.87	0.40
25:DA:386:G:H4'	25:DA:387:U:OP2	2.22	0.40
25:DA:518:G:H2'	25:DA:519:U:C6	2.56	0.40
25:DA:661:C:C1'	36:DP:16:ARG:HG2	2.52	0.40
25:DA:709:U:H2'	25:DA:710:G:C8	2.56	0.40
25:DA:776:G:H8	25:DA:776:G:OP2	2.05	0.40
25:DA:1468(J):G:H2'	25:DA:1468(K):G:C8	2.56	0.40
25:DA:1506(J):G:H4'	25:DA:1556:C:O2'	2.22	0.40
25:DA:1668:A:H4'	25:DA:1669:A:O5'	2.20	0.40
25:DA:1919:A:N3	25:DA:1919:A:H2'	2.37	0.40
25:DA:2792:G:N3	25:DA:2792:G:H2'	2.36	0.40
29:DF:50:SER:HA	29:DF:92:PRO:O	2.21	0.40
31:DH:17:VAL:HG21	31:DH:50:VAL:CG2	2.52	0.40
32:DI:78:THR:H	32:DI:104:GLN:HE22	1.67	0.40
39:DS:89:ARG:HG2	39:DS:92:TYR:O	2.21	0.40
44:DX:62:LYS:O	44:DX:63:LYS:HD3	2.21	0.40
46:DZ:27:VAL:HG12	46:DZ:29:TYR:HD2	1.86	0.40
48:D1:13:ILE:O	48:D1:13:ILE:HD12	2.22	0.40
51:D4:48:ILE:HG22	51:D4:49:GLU:H	1.87	0.40
52:D5:8:LYS:O	52:D5:9:LYS:HG2	2.21	0.40
53:D6:34:LEU:O	53:D6:34:LEU:HD22	2.21	0.40
55:D8:61:LEU:O	55:D8:62:LEU:HB2	2.22	0.40
1:AA:68(P):C:H2'	1:AA:68(Q):U:O4'	2.22	0.40
1:AA:521:G:O5'	15:AL:72:GLU:HG2	2.22	0.40
1:AA:791:G:C5	1:AA:792:A:N7	2.90	0.40
1:AA:989:C:N4	1:AA:990:C:H41	2.19	0.40
1:AA:1206:G:C6	1:AA:1207:G:C5	3.09	0.40
1:AA:1401:G:C2	1:AA:1402:C:H1'	2.57	0.40
1:AA:1404:C:O2'	1:AA:1405:G:H5'	2.21	0.40
4:AY:138:GLY:HA3	4:AY:217:SER:HA	2.03	0.40
4:AY:276:GLN:HA	4:AY:284:ASN:ND2	2.37	0.40
6:AC:57:ILE:CD1	6:AC:66:VAL:HG22	2.52	0.40
8:AE:87:SER:HB3	8:AE:131:ILE:HD13	2.04	0.40
10:AG:31:MET:HG2	10:AG:32:ARG:N	2.36	0.40
11:AH:4:ASP:HA	11:AH:5:PRO:HD2	1.95	0.40
11:AH:26:VAL:C	11:AH:58:TYR:HD2	2.25	0.40
15:AL:46:LYS:CB	15:AL:47:PRO:HD3	2.52	0.40
23:AT:49:ALA:C	23:AT:51:GLU:N	2.74	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BA:270(C):C:H6	25:BA:270(C):C:H3'	1.85	0.40
25:BA:661:C:C1'	36:BP:16:ARG:HG2	2.52	0.40
25:BA:686:G:H4'	25:BA:687:C:OP2	2.22	0.40
25:BA:859:G:O3'	25:BA:860:U:O2	2.40	0.40
25:BA:1550:C:H2'	25:BA:1551:C:C6	2.51	0.40
25:BA:1657:C:O2'	25:BA:1658:C:H5'	2.22	0.40
25:BA:2726:U:H6	35:BO:67:LYS:HZ3	1.68	0.40
25:BA:2837:G:C6	25:BA:2838:G:C5	3.10	0.40
25:BA:2849:U:O4	40:BT:23:ARG:NH2	2.54	0.40
25:BA:2869:G:H2'	25:BA:2870:C:O4'	2.20	0.40
25:BA:2880:C:O5'	25:BA:2880:C:H6	2.04	0.40
30:BG:67:LYS:HD2	30:BG:67:LYS:N	2.30	0.40
31:BH:68:THR:O	31:BH:72:ILE:HG13	2.22	0.40
37:BQ:22:LYS:C	37:BQ:24:GLY:H	2.24	0.40
38:BR:4:LEU:C	38:BR:6:SER:H	2.24	0.40
39:BS:12:PHE:CD2	39:BS:12:PHE:C	2.94	0.40
39:BS:56:LEU:HG	39:BS:57:LYS:NZ	2.36	0.40
40:BT:50:ILE:HD12	40:BT:50:ILE:HA	1.83	0.40
41:BU:68:ALA:CB	41:BU:99:ALA:HB1	2.51	0.40
42:BV:4:ILE:HB	42:BV:39:LEU:O	2.20	0.40
47:B0:14:ARG:HE	47:B0:14:ARG:HB2	1.09	0.40
48:B1:84:GLY:O	48:B1:85:LEU:C	2.58	0.40
49:B2:15:LYS:C	49:B2:16:LEU:HD22	2.41	0.40
1:CA:302:G:H21	1:CA:556:C:C4'	2.34	0.40
1:CA:405:U:H5"	1:CA:406:G:O4'	2.22	0.40
1:CA:405:U:O4	7:CD:2:GLY:HA3	2.21	0.40
1:CA:619:U:O2	7:CD:135:LEU:HD22	2.21	0.40
1:CA:1053:G:C3'	1:CA:1054:C:H5'	2.51	0.40
1:CA:1440(L):G:H2'	1:CA:1440(M):G:H8	1.86	0.40
4:CY:38:ARG:O	4:CY:38:ARG:HD3	2.21	0.40
7:CD:60:GLU:O	7:CD:63:LYS:HB3	2.22	0.40
8:CE:98:THR:HG22	8:CE:99:GLY:N	2.36	0.40
11:CH:68:ARG:HE	11:CH:74:PRO:HB2	1.85	0.40
14:CK:20:TYR:HB2	14:CK:31:THR:CG2	2.50	0.40
21:CR:45:SER:OG	21:CR:46:GLU:N	2.54	0.40
25:DA:271(E):G:H2'	25:DA:271(F):G:C8	2.56	0.40
25:DA:570:G:H2'	25:DA:2030:A:C5	2.56	0.40
25:DA:1152:C:H5"	41:DU:80:ILE:CG2	2.52	0.40
25:DA:1612:C:H2'	25:DA:1613:G:O5'	2.22	0.40
25:DA:1615:C:C5	25:DA:1617:C:C4	3.09	0.40
25:DA:1689:A:N6	25:DA:1698:A:H2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:1751:C:H2'	25:DA:1752:C:C6	2.55	0.40
25:DA:2228:G:OP1	27:DD:261:LYS:HE2	2.21	0.40
25:DA:2377:A:H2'	25:DA:2378:A:C8	2.56	0.40
25:DA:2468:G:OP1	37:DQ:119:ARG:NH2	2.55	0.40
25:DA:2822:G:O3'	28:DE:159:HIS:CE1	2.75	0.40
26:DB:83:G:H4'	50:D3:52:HIS:CG	2.56	0.40
31:DH:94:TYR:CE2	31:DH:160:LYS:HB3	2.55	0.40
32:DI:82:ARG:HB3	32:DI:89:TYR:HD2	1.85	0.40
33:DK:80:LYS:HE2	33:DK:80:LYS:HB3	1.94	0.40
34:DN:143:LEU:CD2	34:DN:145:VAL:HG23	2.49	0.40
40:DT:26:ASP:OD1	40:DT:26:ASP:C	2.60	0.40
40:DT:94:ALA:O	40:DT:95:ARG:CB	2.70	0.40
42:DV:61:VAL:HA	42:DV:94:LEU:HD23	2.03	0.40
44:DX:41:ASN:N	44:DX:41:ASN:ND2	2.69	0.40
52:D5:46:CYS:HA	52:D5:47:PRO:HD2	1.83	0.40
55:D8:14:VAL:HG12	55:D8:15:LYS:N	2.36	0.40
1:AA:242:C:H2'	1:AA:243:A:H5'	2.04	0.40
1:AA:430:A:H4'	7:AD:7:PRO:HG3	2.03	0.40
1:AA:790:A:N6	1:AA:791:G:C6	2.90	0.40
1:AA:791:G:C6	1:AA:792:A:N7	2.90	0.40
5:AB:154:LEU:HD13	5:AB:155:LEU:N	2.34	0.40
6:AC:11:ARG:HB3	6:AC:14:ILE:HG23	2.04	0.40
15:AL:50:ALA:HB3	15:AL:52:ARG:HE	1.86	0.40
15:AL:109:VAL:CG2	15:AL:119:TYR:HB3	2.52	0.40
19:AP:57:ARG:HG2	19:AP:79:VAL:HG12	2.03	0.40
20:AQ:54:GLY:HA3	20:AQ:82:MET:SD	2.62	0.40
21:AR:31:LEU:HD23	21:AR:31:LEU:N	2.35	0.40
25:BA:381:G:C4	25:BA:394:A:C2	3.10	0.40
25:BA:568:U:O4	42:BV:78:LYS:NZ	2.55	0.40
25:BA:855:G:C6	25:BA:856:C:N3	2.89	0.40
25:BA:1600:C:O2'	25:BA:1601:G:H5'	2.21	0.40
25:BA:1637:A:H4'	25:BA:2711:A:O2'	2.21	0.40
25:BA:1684:C:H2'	25:BA:1685:C:C6	2.57	0.40
25:BA:2247:A:H2'	25:BA:2248:C:H6	1.86	0.40
25:BA:2354:G:H4'	47:B0:35:ASN:HB2	2.03	0.40
25:BA:2634:G:H5'	28:BE:61:ARG:NH1	2.36	0.40
25:BA:2823:A:C5	25:BA:2824:C:C5	3.09	0.40
27:BD:31:LYS:HG3	27:BD:33:LEU:CG	2.41	0.40
27:BD:43:ARG:CB	27:BD:49:ILE:HA	2.51	0.40
27:BD:79:VAL:HG12	27:BD:113:VAL:HA	2.04	0.40
29:BF:36:VAL:O	29:BF:40:GLN:HG3	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:BG:50:ALA:HB1	30:BG:53:LEU:HD23	2.03	0.40
31:BH:94:TYR:CE2	31:BH:160:LYS:HB3	2.57	0.40
31:BH:144:VAL:O	31:BH:148:ILE:HG12	2.21	0.40
32:BI:12:LEU:HB3	32:BI:19:VAL:HG11	2.04	0.40
35:BO:4:PRO:O	35:BO:5:GLN:CB	2.68	0.40
37:BQ:30:GLY:HA2	37:BQ:107:ALA:HB2	2.03	0.40
37:BQ:31:ASP:HB2	37:BQ:32:PHE:CD1	2.56	0.40
38:BR:24:GLN:NE2	38:BR:36:THR:HG21	2.36	0.40
38:BR:104:ARG:HH11	38:BR:104:ARG:CB	2.34	0.40
41:BU:25:TRP:CD1	41:BU:25:TRP:C	2.95	0.40
41:BU:62:ILE:CD1	41:BU:93:LYS:HG2	2.51	0.40
44:BX:8:ILE:N	44:BX:8:ILE:HD12	2.36	0.40
46:BZ:30:ASN:O	46:BZ:32:HIS:N	2.55	0.40
47:B0:12:ASN:O	47:B0:14:ARG:N	2.54	0.40
48:B1:13:ILE:HD12	48:B1:13:ILE:C	2.42	0.40
55:B8:50:LEU:O	55:B8:51:ALA:HB2	2.22	0.40
1:CA:266:G:H5'	1:CA:267:C:C5	2.55	0.40
1:CA:373:A:H61	1:CA:391:G:H1'	1.86	0.40
1:CA:683:G:C6	1:CA:684:A:C5	3.10	0.40
1:CA:722:A:N1	1:CA:724:G:C6	2.89	0.40
1:CA:792:A:H1'	1:CA:794:A:N7	2.37	0.40
1:CA:838:G:N2	1:CA:849:C:N3	2.69	0.40
1:CA:1102:A:C6	1:CA:1103:C:N4	2.89	0.40
1:CA:1438:G:H2'	1:CA:1439:C:C6	2.54	0.40
1:CA:1497:G:HO2'	1:CA:1518:A:H2	1.65	0.40
3:CW:69:C:H2'	3:CW:70:G:C8	2.57	0.40
4:CY:207:PRO:HG2	4:CY:208:PHE:CD1	2.57	0.40
4:CY:349:VAL:HA	4:CY:353:ASP:HB2	2.02	0.40
6:CC:56:ASP:O	6:CC:57:ILE:HG12	2.21	0.40
11:CH:17:THR:C	11:CH:78:GLN:HE22	2.24	0.40
11:CH:48:TYR:HA	11:CH:60:ARG:O	2.22	0.40
12:CI:53:VAL:HG23	12:CI:55:ALA:H	1.87	0.40
12:CI:97:LYS:HB3	12:CI:98:PRO:HD3	2.02	0.40
13:CJ:7:LYS:O	13:CJ:96:ILE:HA	2.21	0.40
13:CJ:61:GLU:OE2	17:CN:45:ARG:NH1	2.54	0.40
13:CJ:96:ILE:HD13	13:CJ:96:ILE:N	2.28	0.40
16:CM:29:ARG:HB3	16:CM:64:TRP:CH2	2.56	0.40
18:CO:26:GLU:H	18:CO:26:GLU:HG2	1.64	0.40
19:CP:57:ARG:HG2	19:CP:79:VAL:HG12	2.04	0.40
23:CT:49:ALA:C	23:CT:51:GLU:N	2.74	0.40
25:DA:30:G:C5	25:DA:31:C:C4	3.10	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:DA:661:C:H4'	36:DP:18:ARG:HG2	2.03	0.40
25:DA:2712:U:O2'	25:DA:2712(A):A:P	2.79	0.40
25:DA:2722:G:H5"	25:DA:2820:A:C2	2.57	0.40
25:DA:2838:G:C4	25:DA:2839:G:C8	3.10	0.40
26:DB:11:C:C2'	26:DB:12:C:C6	3.05	0.40
26:DB:28:C:H2'	26:DB:29:A:O4'	2.21	0.40
27:DD:3:VAL:HG12	27:DD:17:THR:HB	2.04	0.40
27:DD:25:THR:O	27:DD:27:THR:N	2.55	0.40
29:DF:60:SER:OG	29:DF:61:GLY:N	2.55	0.40
30:DG:25:TYR:HB3	30:DG:30:GLU:HB2	2.04	0.40
30:DG:43:LEU:HD13	30:DG:43:LEU:HA	1.90	0.40
30:DG:139:LEU:C	30:DG:139:LEU:HD12	2.42	0.40
32:DI:109:ILE:HB	32:DI:130:TYR:CZ	2.57	0.40
34:DN:33:GLU:OE2	34:DN:34:PRO:HD2	2.22	0.40
34:DN:90:LEU:O	34:DN:111:GLU:HB2	2.22	0.40
36:DP:40:SER:O	36:DP:41:ARG:NH1	2.50	0.40
37:DQ:70:PRO:HA	37:DQ:94:VAL:O	2.21	0.40
38:DR:110:PRO:O	38:DR:111:LEU:HD23	2.21	0.40
40:DT:41:ARG:HB3	40:DT:41:ARG:HH11	1.86	0.40
40:DT:105:LEU:HD13	40:DT:110:ILE:HD13	2.03	0.40
49:D2:6:VAL:C	49:D2:10:LEU:HG	2.42	0.40
49:D2:9:GLN:HA	49:D2:12:GLU:CB	2.47	0.40

There are no symmetry-related clashes.

5.3 Torsion angles (i)

5.3.1 Protein backbone (i)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
4	AY	360/362 (99%)	301 (84%)	41 (11%)	18 (5%)	2 14
4	CY	360/362 (99%)	301 (84%)	42 (12%)	17 (5%)	2 15
5	AB	232/234 (99%)	185 (80%)	37 (16%)	10 (4%)	2 17

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
5	CB	232/234 (99%)	184 (79%)	38 (16%)	10 (4%)	2 17
6	AC	204/206 (99%)	144 (71%)	40 (20%)	20 (10%)	0 4
6	CC	204/206 (99%)	145 (71%)	38 (19%)	21 (10%)	0 3
7	AD	206/208 (99%)	165 (80%)	32 (16%)	9 (4%)	2 16
7	CD	206/208 (99%)	166 (81%)	29 (14%)	11 (5%)	2 13
8	AE	149/151 (99%)	113 (76%)	32 (22%)	4 (3%)	5 26
8	CE	149/151 (99%)	116 (78%)	29 (20%)	4 (3%)	5 26
9	AF	99/101 (98%)	82 (83%)	16 (16%)	1 (1%)	15 46
9	CF	99/101 (98%)	82 (83%)	16 (16%)	1 (1%)	15 46
10	AG	153/155 (99%)	136 (89%)	13 (8%)	4 (3%)	5 26
10	CG	153/155 (99%)	136 (89%)	13 (8%)	4 (3%)	5 26
11	AH	136/138 (99%)	111 (82%)	23 (17%)	2 (2%)	10 36
11	CH	136/138 (99%)	113 (83%)	21 (15%)	2 (2%)	10 36
12	AI	125/127 (98%)	90 (72%)	27 (22%)	8 (6%)	1 9
12	CI	125/127 (98%)	90 (72%)	27 (22%)	8 (6%)	1 9
13	AJ	96/98 (98%)	72 (75%)	18 (19%)	6 (6%)	1 9
13	CJ	96/98 (98%)	72 (75%)	18 (19%)	6 (6%)	1 9
14	AK	112/114 (98%)	93 (83%)	14 (12%)	5 (4%)	2 16
14	CK	112/114 (98%)	93 (83%)	15 (13%)	4 (4%)	3 21
15	AL	120/122 (98%)	94 (78%)	21 (18%)	5 (4%)	3 18
15	CL	120/122 (98%)	93 (78%)	22 (18%)	5 (4%)	3 18
16	AM	115/117 (98%)	97 (84%)	15 (13%)	3 (3%)	5 26
16	CM	115/117 (98%)	97 (84%)	15 (13%)	3 (3%)	5 26
17	AN	58/60 (97%)	47 (81%)	9 (16%)	2 (3%)	3 21
17	CN	58/60 (97%)	43 (74%)	11 (19%)	4 (7%)	1 8
18	AO	86/88 (98%)	75 (87%)	8 (9%)	3 (4%)	3 21
18	CO	86/88 (98%)	75 (87%)	8 (9%)	3 (4%)	3 21
19	AP	81/83 (98%)	62 (76%)	16 (20%)	3 (4%)	3 20
19	CP	81/83 (98%)	61 (75%)	17 (21%)	3 (4%)	3 20
20	AQ	97/99 (98%)	82 (84%)	11 (11%)	4 (4%)	3 18
20	CQ	97/99 (98%)	83 (86%)	10 (10%)	4 (4%)	3 18

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
21	AR	68/70 (97%)	49 (72%)	17 (25%)	2 (3%)	4 24
21	CR	68/70 (97%)	50 (74%)	16 (24%)	2 (3%)	4 24
22	AS	76/78 (97%)	53 (70%)	15 (20%)	8 (10%)	0 3
22	CS	76/78 (97%)	53 (70%)	15 (20%)	8 (10%)	0 3
23	AT	97/99 (98%)	75 (77%)	14 (14%)	8 (8%)	1 5
23	CT	97/99 (98%)	75 (77%)	14 (14%)	8 (8%)	1 5
24	AU	22/24 (92%)	13 (59%)	7 (32%)	2 (9%)	1 4
24	CU	22/24 (92%)	13 (59%)	7 (32%)	2 (9%)	1 4
27	BD	269/271 (99%)	227 (84%)	29 (11%)	13 (5%)	2 15
27	DD	269/271 (99%)	227 (84%)	29 (11%)	13 (5%)	2 15
28	BE	202/204 (99%)	167 (83%)	26 (13%)	9 (4%)	2 16
28	DE	202/204 (99%)	165 (82%)	27 (13%)	10 (5%)	2 14
29	BF	200/202 (99%)	172 (86%)	21 (10%)	7 (4%)	3 21
29	DF	200/202 (99%)	171 (86%)	24 (12%)	5 (2%)	5 26
30	BG	179/181 (99%)	141 (79%)	28 (16%)	10 (6%)	2 12
30	DG	179/181 (99%)	141 (79%)	28 (16%)	10 (6%)	2 12
31	BH	157/159 (99%)	130 (83%)	19 (12%)	8 (5%)	2 14
31	DH	157/159 (99%)	131 (83%)	18 (12%)	8 (5%)	2 14
32	BI	143/145 (99%)	113 (79%)	25 (18%)	5 (4%)	3 21
32	DI	143/145 (99%)	115 (80%)	23 (16%)	5 (4%)	3 21
33	BK	145/147 (99%)	99 (68%)	41 (28%)	5 (3%)	3 21
33	DK	145/147 (99%)	103 (71%)	31 (21%)	11 (8%)	1 6
34	BN	135/137 (98%)	96 (71%)	29 (22%)	10 (7%)	1 7
34	DN	135/137 (98%)	96 (71%)	29 (22%)	10 (7%)	1 7
35	BO	120/122 (98%)	103 (86%)	14 (12%)	3 (2%)	5 26
35	DO	120/122 (98%)	103 (86%)	14 (12%)	3 (2%)	5 26
36	BP	144/146 (99%)	91 (63%)	32 (22%)	21 (15%)	0 1
36	DP	144/146 (99%)	93 (65%)	31 (22%)	20 (14%)	0 1
37	BQ	132/134 (98%)	104 (79%)	22 (17%)	6 (4%)	2 16
37	DQ	132/134 (98%)	105 (80%)	22 (17%)	5 (4%)	3 19
38	BR	115/117 (98%)	96 (84%)	17 (15%)	2 (2%)	9 34

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
38	DR	115/117 (98%)	97 (84%)	16 (14%)	2 (2%)	9 34
39	BS	96/98 (98%)	62 (65%)	20 (21%)	14 (15%)	0 1
39	DS	96/98 (98%)	60 (62%)	22 (23%)	14 (15%)	0 1
40	BT	135/137 (98%)	100 (74%)	24 (18%)	11 (8%)	1 5
40	DT	135/137 (98%)	101 (75%)	23 (17%)	11 (8%)	1 5
41	BU	115/117 (98%)	99 (86%)	13 (11%)	3 (3%)	5 26
41	DU	115/117 (98%)	101 (88%)	11 (10%)	3 (3%)	5 26
42	BV	99/101 (98%)	75 (76%)	18 (18%)	6 (6%)	1 10
42	DV	99/101 (98%)	74 (75%)	19 (19%)	6 (6%)	1 10
43	BW	110/112 (98%)	98 (89%)	12 (11%)	0	100 100
43	DW	110/112 (98%)	95 (86%)	15 (14%)	0	100 100
44	BX	90/92 (98%)	82 (91%)	7 (8%)	1 (1%)	14 44
44	DX	90/92 (98%)	81 (90%)	8 (9%)	1 (1%)	14 44
45	BY	98/100 (98%)	68 (69%)	14 (14%)	16 (16%)	0 0
45	DY	98/100 (98%)	68 (69%)	13 (13%)	17 (17%)	0 0
46	BZ	185/187 (99%)	158 (85%)	21 (11%)	6 (3%)	4 22
46	DZ	185/187 (99%)	158 (85%)	21 (11%)	6 (3%)	4 22
47	B0	74/76 (97%)	63 (85%)	7 (10%)	4 (5%)	2 13
47	D0	74/76 (97%)	63 (85%)	7 (10%)	4 (5%)	2 13
48	B1	86/88 (98%)	59 (69%)	14 (16%)	13 (15%)	0 0
48	D1	86/88 (98%)	59 (69%)	14 (16%)	13 (15%)	0 0
49	B2	60/62 (97%)	45 (75%)	7 (12%)	8 (13%)	0 1
49	D2	60/62 (97%)	45 (75%)	7 (12%)	8 (13%)	0 1
50	B3	57/59 (97%)	51 (90%)	5 (9%)	1 (2%)	8 32
50	D3	57/59 (97%)	51 (90%)	5 (9%)	1 (2%)	8 32
51	B4	28/30 (93%)	16 (57%)	10 (36%)	2 (7%)	1 7
51	D4	28/30 (93%)	16 (57%)	10 (36%)	2 (7%)	1 7
52	B5	50/52 (96%)	42 (84%)	5 (10%)	3 (6%)	1 10
52	D5	50/52 (96%)	42 (84%)	5 (10%)	3 (6%)	1 10
53	B6	42/44 (96%)	29 (69%)	8 (19%)	5 (12%)	0 3
53	D6	42/44 (96%)	29 (69%)	8 (19%)	5 (12%)	0 3

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
54	B7	46/48 (96%)	42 (91%)	4 (9%)	0	100 100
54	D7	46/48 (96%)	43 (94%)	3 (6%)	0	100 100
55	B8	61/63 (97%)	47 (77%)	7 (12%)	7 (12%)	0 3
55	D8	61/63 (97%)	47 (77%)	7 (12%)	7 (12%)	0 3
All	All	12130/12330 (98%)	9635 (79%)	1836 (15%)	659 (5%)	2 13

All (659) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	AY	55	PRO
4	AY	95	GLU
4	AY	175	ALA
4	AY	225	PRO
4	AY	315	VAL
4	AY	318	ILE
4	AY	319	GLU
6	AC	100	ALA
7	AD	28	SER
13	AJ	57	LYS
14	AK	91	ARG
14	AK	122	LYS
21	AR	20	ALA
22	AS	28	LYS
22	AS	80	TYR
23	AT	9	ASN
23	AT	71	THR
23	AT	99	LEU
27	BD	33	LEU
27	BD	236	GLY
28	BE	89	ASP
28	BE	129	HIS
28	BE	132	HIS
29	BF	73	ALA
29	BF	89	VAL
31	BH	46	GLU
31	BH	92	ILE
31	BH	165	ALA
34	BN	32	VAL
34	BN	40	ASP
34	BN	60	LYS
34	BN	149	PRO

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Mol	Chain	Res	Type
34	BN	157	ARG
36	BP	33	ARG
36	BP	47	ASP
36	BP	52	GLU
36	BP	59	LEU
36	BP	65	ARG
36	BP	141	ALA
37	BQ	136	ALA
38	BR	6	SER
39	BS	57	LYS
39	BS	59	LYS
40	BT	58	ASN
40	BT	106	SER
40	BT	115	ARG
41	BU	90	VAL
45	BY	7	VAL
45	BY	17	SER
45	BY	49	VAL
45	BY	77	PRO
45	BY	78	ALA
47	B0	47	PRO
48	B1	14	VAL
48	B1	83	GLU
49	B2	2	LYS
49	B2	44	LEU
51	B4	61	VAL
52	B5	4	HIS
55	B8	35	GLN
55	B8	62	LEU
4	CY	55	PRO
4	CY	95	GLU
4	CY	175	ALA
4	CY	225	PRO
4	CY	315	VAL
4	CY	318	ILE
4	CY	319	GLU
6	CC	100	ALA
13	CJ	57	LYS
14	CK	122	LYS
21	CR	20	ALA
22	CS	28	LYS
22	CS	80	TYR

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Mol	Chain	Res	Type
23	CT	71	THR
23	CT	99	LEU
27	DD	33	LEU
27	DD	236	GLY
28	DE	89	ASP
28	DE	129	HIS
28	DE	132	HIS
29	DF	73	ALA
29	DF	89	VAL
31	DH	46	GLU
31	DH	92	ILE
31	DH	165	ALA
33	DK	26	ALA
33	DK	142	PRO
34	DN	32	VAL
34	DN	40	ASP
34	DN	60	LYS
34	DN	149	PRO
34	DN	157	ARG
36	DP	33	ARG
36	DP	47	ASP
36	DP	52	GLU
36	DP	59	LEU
36	DP	65	ARG
36	DP	141	ALA
37	DQ	136	ALA
38	DR	6	SER
39	DS	57	LYS
39	DS	59	LYS
40	DT	58	ASN
40	DT	106	SER
40	DT	115	ARG
41	DU	90	VAL
45	DY	7	VAL
45	DY	17	SER
45	DY	49	VAL
45	DY	77	PRO
45	DY	78	ALA
47	D0	47	PRO
48	D1	14	VAL
48	D1	83	GLU
49	D2	2	LYS

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Mol	Chain	Res	Type
49	D2	44	LEU
51	D4	61	VAL
52	D5	4	HIS
55	D8	35	GLN
55	D8	62	LEU
4	AY	87	GLU
4	AY	89	MET
4	AY	276	GLN
5	AB	129	GLU
5	AB	169	LYS
6	AC	14	ILE
6	AC	60	ALA
6	AC	145	GLY
6	AC	181	ASN
6	AC	195	VAL
6	AC	196	LEU
8	AE	85	GLY
10	AG	4	ARG
10	AG	7	ALA
12	AI	23	ASN
12	AI	31	GLN
13	AJ	30	SER
16	AM	101	GLN
16	AM	117	VAL
17	AN	16	PHE
18	AO	86	GLY
19	AP	11	SER
21	AR	86	VAL
22	AS	11	VAL
22	AS	24	ALA
22	AS	27	GLU
27	BD	34	VAL
27	BD	256	GLY
29	BF	132	VAL
29	BF	134	GLY
30	BG	14	GLU
30	BG	35	GLU
30	BG	48	GLU
30	BG	127	GLY
31	BH	44	VAL
32	BI	115	ALA
33	BK	118	THR

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Mol	Chain	Res	Type
34	BN	41	ALA
34	BN	154	GLN
35	BO	29	ASN
36	BP	18	ARG
36	BP	31	ALA
36	BP	56	SER
36	BP	149	GLU
37	BQ	62	GLY
37	BQ	135	ASP
39	BS	21	THR
39	BS	22	GLY
39	BS	55	ALA
39	BS	86	ALA
39	BS	90	GLY
40	BT	2	ASN
40	BT	3	ARG
40	BT	17	THR
40	BT	42	ILE
41	BU	93	LYS
41	BU	100	VAL
42	BV	35	LEU
42	BV	44	LYS
45	BY	3	VAL
45	BY	56	PRO
45	BY	61	ILE
45	BY	91	GLU
46	BZ	93	ASP
47	B0	11	LYS
47	B0	12	ASN
48	B1	11	ARG
49	B2	13	ALA
49	B2	43	GLN
53	B6	31	PRO
55	B8	34	TRP
55	B8	51	ALA
4	CY	87	GLU
4	CY	89	MET
4	CY	276	GLN
4	CY	359	TRP
5	CB	9	GLU
5	CB	129	GLU
5	CB	169	LYS

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Mol	Chain	Res	Type
6	CC	14	ILE
6	CC	60	ALA
6	CC	145	GLY
6	CC	181	ASN
6	CC	195	VAL
6	CC	196	LEU
7	CD	30	LYS
7	CD	171	GLY
8	CE	85	GLY
10	CG	4	ARG
10	CG	7	ALA
12	CI	23	ASN
12	CI	31	GLN
13	CJ	30	SER
14	CK	91	ARG
16	CM	101	GLN
16	CM	117	VAL
18	CO	86	GLY
19	CP	11	SER
21	CR	86	VAL
22	CS	11	VAL
22	CS	24	ALA
22	CS	27	GLU
23	CT	9	ASN
27	DD	34	VAL
27	DD	256	GLY
29	DF	132	VAL
29	DF	134	GLY
30	DG	14	GLU
30	DG	35	GLU
30	DG	48	GLU
30	DG	127	GLY
31	DH	44	VAL
32	DI	115	ALA
33	DK	34	ILE
33	DK	136	VAL
34	DN	41	ALA
34	DN	154	GLN
35	DO	29	ASN
36	DP	18	ARG
36	DP	31	ALA
36	DP	34	GLY

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Mol	Chain	Res	Type
36	DP	56	SER
36	DP	149	GLU
37	DQ	62	GLY
37	DQ	135	ASP
39	DS	21	THR
39	DS	22	GLY
39	DS	86	ALA
39	DS	90	GLY
40	DT	2	ASN
40	DT	3	ARG
40	DT	17	THR
40	DT	42	ILE
41	DU	100	VAL
42	DV	35	LEU
42	DV	44	LYS
45	DY	3	VAL
45	DY	56	PRO
45	DY	61	ILE
45	DY	91	GLU
46	DZ	93	ASP
47	D0	11	LYS
47	D0	12	ASN
48	D1	11	ARG
48	D1	32	LYS
49	D2	13	ALA
49	D2	43	GLN
53	D6	31	PRO
55	D8	34	TRP
55	D8	51	ALA
4	AY	123	PRO
4	AY	128	ASN
4	AY	359	TRP
5	AB	9	GLU
6	AC	4	LYS
6	AC	15	THR
6	AC	26	LYS
6	AC	27	LYS
6	AC	79	ARG
7	AD	30	LYS
7	AD	43	HIS
8	AE	38	GLN
8	AE	64	ARG

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Mol	Chain	Res	Type
8	AE	125	SER
10	AG	80	VAL
11	AH	2	LEU
12	AI	127	LYS
13	AJ	55	LYS
13	AJ	92	THR
15	AL	45	LYS
15	AL	63	TYR
16	AM	38	GLY
17	AN	58	LYS
20	AQ	33	GLY
20	AQ	34	LYS
22	AS	29	ARG
23	AT	49	ALA
24	AU	3	LYS
27	BD	26	LYS
27	BD	169	GLU
27	BD	239	ARG
27	BD	257	LEU
29	BF	68	LYS
30	BG	87	PRO
30	BG	142	PRO
31	BH	22	GLY
32	BI	84	GLY
33	BK	141	ALA
35	BO	26	LYS
36	BP	10	PRO
36	BP	34	GLY
36	BP	35	HIS
36	BP	49	ARG
37	BQ	18	LYS
38	BR	107	ASP
39	BS	42	ASP
39	BS	61	ASN
39	BS	62	LYS
39	BS	95	HIS
40	BT	13	ARG
45	BY	90	LEU
46	BZ	11	GLU
48	B1	31	GLY
48	B1	32	LYS
48	B1	53	VAL

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Mol	Chain	Res	Type
48	B1	56	GLN
53	B6	32	ASN
53	B6	46	HIS
55	B8	50	LEU
4	CY	123	PRO
4	CY	128	ASN
6	CC	4	LYS
6	CC	15	THR
6	CC	26	LYS
6	CC	27	LYS
6	CC	79	ARG
6	CC	81	GLY
7	CD	26	CYS
7	CD	86	LYS
8	CE	38	GLN
8	CE	64	ARG
8	CE	125	SER
10	CG	80	VAL
11	CH	2	LEU
12	CI	127	LYS
13	CJ	55	LYS
13	CJ	92	THR
15	CL	45	LYS
15	CL	63	TYR
16	CM	38	GLY
17	CN	12	ARG
17	CN	36	PHE
20	CQ	33	GLY
20	CQ	34	LYS
22	CS	29	ARG
23	CT	49	ALA
27	DD	26	LYS
27	DD	169	GLU
27	DD	239	ARG
27	DD	257	LEU
29	DF	68	LYS
30	DG	87	PRO
30	DG	142	PRO
31	DH	22	GLY
32	DI	84	GLY
33	DK	111	LYS
35	DO	26	LYS

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Mol	Chain	Res	Type
36	DP	10	PRO
36	DP	14	LYS
36	DP	35	HIS
36	DP	42	SER
36	DP	49	ARG
37	DQ	18	LYS
37	DQ	82	ARG
38	DR	107	ASP
39	DS	42	ASP
39	DS	55	ALA
39	DS	61	ASN
39	DS	62	LYS
39	DS	95	HIS
40	DT	13	ARG
41	DU	93	LYS
45	DY	90	LEU
46	DZ	11	GLU
47	D0	74	ARG
48	D1	31	GLY
48	D1	53	VAL
48	D1	56	GLN
49	D2	48	HIS
53	D6	32	ASN
53	D6	46	HIS
55	D8	50	LEU
4	AY	94	ALA
4	AY	177	ILE
5	AB	28	PHE
5	AB	235	SER
6	AC	12	LEU
6	AC	22	TRP
6	AC	47	LEU
6	AC	81	GLY
11	AH	98	LYS
12	AI	58	ARG
14	AK	118	GLY
15	AL	11	ARG
15	AL	64	GLU
18	AO	23	GLY
18	AO	88	ARG
23	AT	95	ALA
23	AT	98	PRO

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Mol	Chain	Res	Type
24	AU	24	ARG
27	BD	35	LYS
27	BD	156	ALA
27	BD	262	ARG
30	BG	143	GLU
31	BH	47	GLU
36	BP	14	LYS
36	BP	42	SER
37	BQ	82	ARG
39	BS	35	ILE
39	BS	44	LYS
40	BT	38	ASN
40	BT	57	PHE
45	BY	98	VAL
47	B0	74	ARG
48	B1	45	ASN
48	B1	85	LEU
49	B2	3	LEU
49	B2	17	SER
49	B2	48	HIS
50	B3	29	ARG
52	B5	49	CYS
53	B6	18	ARG
53	B6	51	GLU
55	B8	3	LYS
55	B8	31	HIS
4	CY	94	ALA
4	CY	177	ILE
5	CB	28	PHE
5	CB	235	SER
6	CC	12	LEU
6	CC	22	TRP
6	CC	47	LEU
7	CD	40	PRO
7	CD	168	ARG
11	CH	98	LYS
12	CI	58	ARG
14	CK	118	GLY
15	CL	11	ARG
15	CL	64	GLU
17	CN	16	PHE
17	CN	52	GLN

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Mol	Chain	Res	Type
18	CO	23	GLY
18	CO	88	ARG
23	CT	95	ALA
23	CT	98	PRO
24	CU	3	LYS
24	CU	24	ARG
27	DD	35	LYS
27	DD	156	ALA
27	DD	262	ARG
28	DE	122	PHE
30	DG	143	GLU
31	DH	47	GLU
33	DK	3	LYS
36	DP	25	SER
39	DS	35	ILE
39	DS	44	LYS
40	DT	38	ASN
40	DT	57	PHE
45	DY	98	VAL
48	D1	85	LEU
49	D2	3	LEU
49	D2	17	SER
50	D3	29	ARG
52	D5	49	CYS
53	D6	18	ARG
53	D6	51	GLU
55	D8	3	LYS
55	D8	31	HIS
4	AY	176	GLY
5	AB	97	TRP
5	AB	202	PRO
6	AC	127	ARG
6	AC	189	ALA
7	AD	40	PRO
7	AD	167	GLY
7	AD	208	SER
9	AF	62	TRP
10	AG	82	GLY
12	AI	10	ARG
12	AI	55	ALA
12	AI	87	GLN
14	AK	87	THR

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Mol	Chain	Res	Type
15	AL	18	ARG
22	AS	5	LEU
23	AT	101	GLY
28	BE	52	LEU
28	BE	175	VAL
29	BF	133	ASN
30	BG	75	LYS
30	BG	124	SER
31	BH	80	SER
32	BI	117	GLU
33	BK	52	ILE
33	BK	119	ASP
33	BK	146	ASP
34	BN	70	ALA
36	BP	25	SER
36	BP	48	PRO
42	BV	17	GLY
45	BY	39	VAL
46	BZ	31	ARG
46	BZ	101	PRO
48	B1	16	ASN
52	B5	47	PRO
4	CY	176	GLY
5	CB	97	TRP
5	CB	202	PRO
6	CC	49	SER
6	CC	127	ARG
6	CC	189	ALA
7	CD	4	TYR
9	CF	62	TRP
10	CG	82	GLY
12	CI	10	ARG
12	CI	87	GLN
15	CL	18	ARG
22	CS	5	LEU
23	CT	101	GLY
27	DD	244	ARG
28	DE	4	ILE
28	DE	52	LEU
28	DE	175	VAL
30	DG	75	LYS
30	DG	124	SER

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Mol	Chain	Res	Type
31	DH	80	SER
32	DI	117	GLU
33	DK	141	ALA
34	DN	70	ALA
36	DP	48	PRO
42	DV	17	GLY
45	DY	39	VAL
45	DY	96	ILE
46	DZ	31	ARG
46	DZ	101	PRO
48	D1	16	ASN
48	D1	45	ASN
52	D5	47	PRO
4	AY	351	ASP
4	AY	353	ASP
5	AB	130	ARG
5	AB	189	ASP
6	AC	80	GLY
7	AD	4	TYR
19	AP	63	GLY
19	AP	64	ALA
23	AT	97	ALA
27	BD	244	ARG
32	BI	39	ALA
32	BI	102	SER
35	BO	97	ARG
36	BP	50	ARG
37	BQ	7	MET
39	BS	85	VAL
40	BT	86	ILE
42	BV	30	GLY
42	BV	50	PRO
45	BY	96	ILE
51	B4	54	LYS
4	CY	351	ASP
5	CB	130	ARG
5	CB	189	ASP
6	CC	80	GLY
12	CI	55	ALA
19	CP	63	GLY
19	CP	64	ALA
23	CT	97	ALA

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Mol	Chain	Res	Type
32	DI	39	ALA
33	DK	47	ASN
33	DK	135	GLY
35	DO	97	ARG
39	DS	85	VAL
40	DT	86	ILE
42	DV	30	GLY
42	DV	50	PRO
45	DY	88	LYS
46	DZ	114	GLY
51	D4	54	LYS
7	AD	7	PRO
28	BE	4	ILE
28	BE	29	GLY
28	BE	62	PRO
45	BY	42	VAL
46	BZ	37	VAL
46	BZ	114	GLY
48	B1	28	GLY
5	CB	15	VAL
7	CD	44	GLY
7	CD	88	VAL
28	DE	29	GLY
28	DE	62	PRO
45	DY	42	VAL
45	DY	80	GLY
46	DZ	37	VAL
48	D1	9	GLY
48	D1	13	ILE
48	D1	28	GLY
5	AB	15	VAL
13	AJ	93	GLY
22	AS	8	GLY
30	BG	109	VAL
45	BY	80	GLY
48	B1	9	GLY
7	CD	172	PRO
13	CJ	93	GLY
22	CS	8	GLY
30	DG	109	VAL
33	DK	8	VAL
34	DN	158	PRO

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Mol	Chain	Res	Type
36	DP	104	GLY
7	AD	56	VAL
13	AJ	91	PRO
28	BE	56	PRO
29	BF	86	GLY
34	BN	158	PRO
36	BP	104	GLY
42	BV	54	GLY
48	B1	13	ILE
49	B2	6	VAL
7	CD	23	GLY
13	CJ	91	PRO
28	DE	56	PRO
31	DH	107	VAL
42	DV	54	GLY
44	DX	59	VAL
49	D2	6	VAL
12	AI	100	GLY
20	AQ	11	VAL
20	AQ	30	PRO
27	BD	125	ILE
31	BH	107	VAL
36	BP	146	VAL
44	BX	59	VAL
6	CC	103	VAL
12	CI	100	GLY
14	CK	105	VAL
20	CQ	11	VAL
20	CQ	30	PRO
27	DD	125	ILE
32	DI	16	GLY
36	DP	146	VAL
45	DY	10	GLY
6	AC	103	VAL
14	AK	105	VAL
34	BN	118	PRO
45	BY	10	GLY
33	DK	31	GLY
34	DN	118	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
4	AY	305/305 (100%)	278 (91%)	27 (9%)	9 33
4	CY	305/305 (100%)	277 (91%)	28 (9%)	9 31
5	AB	202/202 (100%)	189 (94%)	13 (6%)	17 47
5	CB	202/202 (100%)	188 (93%)	14 (7%)	15 45
6	AC	160/160 (100%)	147 (92%)	13 (8%)	11 38
6	CC	160/160 (100%)	147 (92%)	13 (8%)	11 38
7	AD	180/180 (100%)	149 (83%)	31 (17%)	2 8
7	CD	180/180 (100%)	162 (90%)	18 (10%)	7 27
8	AE	116/116 (100%)	108 (93%)	8 (7%)	15 45
8	CE	116/116 (100%)	108 (93%)	8 (7%)	15 45
9	AF	90/90 (100%)	85 (94%)	5 (6%)	21 51
9	CF	90/90 (100%)	85 (94%)	5 (6%)	21 51
10	AG	126/126 (100%)	123 (98%)	3 (2%)	49 74
10	CG	126/126 (100%)	123 (98%)	3 (2%)	49 74
11	AH	119/119 (100%)	111 (93%)	8 (7%)	16 46
11	CH	119/119 (100%)	110 (92%)	9 (8%)	13 41
12	AI	98/98 (100%)	88 (90%)	10 (10%)	7 26
12	CI	98/98 (100%)	88 (90%)	10 (10%)	7 26
13	AJ	88/88 (100%)	78 (89%)	10 (11%)	5 21
13	CJ	88/88 (100%)	78 (89%)	10 (11%)	5 21
14	AK	86/86 (100%)	82 (95%)	4 (5%)	26 57
14	CK	86/86 (100%)	82 (95%)	4 (5%)	26 57
15	AL	103/103 (100%)	95 (92%)	8 (8%)	12 39
15	CL	103/103 (100%)	95 (92%)	8 (8%)	12 39
16	AM	94/94 (100%)	86 (92%)	8 (8%)	10 35
16	CM	94/94 (100%)	86 (92%)	8 (8%)	10 35

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
17	AN	49/49 (100%)	44 (90%)	5 (10%)	7 26
17	CN	49/49 (100%)	47 (96%)	2 (4%)	30 59
18	AO	79/79 (100%)	71 (90%)	8 (10%)	7 27
18	CO	79/79 (100%)	71 (90%)	8 (10%)	7 27
19	AP	72/72 (100%)	65 (90%)	7 (10%)	8 28
19	CP	72/72 (100%)	66 (92%)	6 (8%)	11 36
20	AQ	94/94 (100%)	89 (95%)	5 (5%)	22 52
20	CQ	94/94 (100%)	89 (95%)	5 (5%)	22 52
21	AR	61/61 (100%)	60 (98%)	1 (2%)	62 81
21	CR	61/61 (100%)	60 (98%)	1 (2%)	62 81
22	AS	69/69 (100%)	57 (83%)	12 (17%)	2 7
22	CS	69/69 (100%)	57 (83%)	12 (17%)	2 7
23	AT	76/76 (100%)	72 (95%)	4 (5%)	22 52
23	CT	76/76 (100%)	72 (95%)	4 (5%)	22 52
24	AU	19/19 (100%)	18 (95%)	1 (5%)	22 52
24	CU	19/19 (100%)	18 (95%)	1 (5%)	22 52
27	BD	213/213 (100%)	188 (88%)	25 (12%)	5 20
27	DD	213/213 (100%)	188 (88%)	25 (12%)	5 20
28	BE	165/165 (100%)	149 (90%)	16 (10%)	8 28
28	DE	165/165 (100%)	150 (91%)	15 (9%)	9 32
29	BF	161/161 (100%)	145 (90%)	16 (10%)	8 27
29	DF	161/161 (100%)	145 (90%)	16 (10%)	8 27
30	BG	155/155 (100%)	140 (90%)	15 (10%)	8 28
30	DG	155/155 (100%)	140 (90%)	15 (10%)	8 28
31	BH	132/132 (100%)	123 (93%)	9 (7%)	16 45
31	DH	132/132 (100%)	124 (94%)	8 (6%)	18 48
32	BI	122/122 (100%)	111 (91%)	11 (9%)	9 32
32	DI	122/122 (100%)	111 (91%)	11 (9%)	9 32
33	BK	111/111 (100%)	98 (88%)	13 (12%)	5 20
33	DK	111/111 (100%)	105 (95%)	6 (5%)	22 52
34	BN	116/116 (100%)	99 (85%)	17 (15%)	3 12

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
34	DN	116/116 (100%)	99 (85%)	17 (15%)	3 12
35	BO	100/100 (100%)	95 (95%)	5 (5%)	24 54
35	DO	100/100 (100%)	94 (94%)	6 (6%)	19 49
36	BP	112/112 (100%)	87 (78%)	25 (22%)	1 2
36	DP	112/112 (100%)	87 (78%)	25 (22%)	1 2
37	BQ	105/105 (100%)	94 (90%)	11 (10%)	7 25
37	DQ	105/105 (100%)	95 (90%)	10 (10%)	8 29
38	BR	100/100 (100%)	86 (86%)	14 (14%)	3 13
38	DR	100/100 (100%)	85 (85%)	15 (15%)	3 12
39	BS	77/77 (100%)	66 (86%)	11 (14%)	3 13
39	DS	77/77 (100%)	66 (86%)	11 (14%)	3 13
40	BT	121/121 (100%)	101 (84%)	20 (16%)	2 9
40	DT	121/121 (100%)	99 (82%)	22 (18%)	1 6
41	BU	93/93 (100%)	85 (91%)	8 (9%)	10 35
41	DU	93/93 (100%)	85 (91%)	8 (9%)	10 35
42	BV	82/82 (100%)	67 (82%)	15 (18%)	1 5
42	DV	82/82 (100%)	67 (82%)	15 (18%)	1 5
43	BW	91/91 (100%)	81 (89%)	10 (11%)	6 23
43	DW	91/91 (100%)	81 (89%)	10 (11%)	6 23
44	BX	74/74 (100%)	69 (93%)	5 (7%)	16 45
44	DX	74/74 (100%)	69 (93%)	5 (7%)	16 45
45	BY	84/84 (100%)	78 (93%)	6 (7%)	14 44
45	DY	84/84 (100%)	78 (93%)	6 (7%)	14 44
46	BZ	162/162 (100%)	153 (94%)	9 (6%)	21 51
46	DZ	162/162 (100%)	153 (94%)	9 (6%)	21 51
47	B0	61/61 (100%)	52 (85%)	9 (15%)	3 12
47	D0	61/61 (100%)	52 (85%)	9 (15%)	3 12
48	B1	73/73 (100%)	58 (80%)	15 (20%)	1 3
48	D1	73/73 (100%)	58 (80%)	15 (20%)	1 3
49	B2	58/58 (100%)	52 (90%)	6 (10%)	7 26
49	D2	58/58 (100%)	51 (88%)	7 (12%)	5 18

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
50	B3	51/51 (100%)	46 (90%)	5 (10%)	8 28
50	D3	51/51 (100%)	46 (90%)	5 (10%)	8 28
51	B4	27/27 (100%)	26 (96%)	1 (4%)	34 62
51	D4	27/27 (100%)	26 (96%)	1 (4%)	34 62
52	B5	45/45 (100%)	42 (93%)	3 (7%)	16 46
52	D5	45/45 (100%)	42 (93%)	3 (7%)	16 46
53	B6	43/43 (100%)	37 (86%)	6 (14%)	3 13
53	D6	43/43 (100%)	37 (86%)	6 (14%)	3 13
54	B7	41/41 (100%)	34 (83%)	7 (17%)	2 8
54	D7	41/41 (100%)	34 (83%)	7 (17%)	2 8
55	B8	53/53 (100%)	45 (85%)	8 (15%)	3 12
55	D8	53/53 (100%)	45 (85%)	8 (15%)	3 12
All	All	10228/10228 (100%)	9223 (90%)	1005 (10%)	8 28

All (1005) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	AY	20	ARG
4	AY	24	LYS
4	AY	29	ILE
4	AY	36	GLU
4	AY	38	ARG
4	AY	46	LEU
4	AY	63	GLN
4	AY	73	ASP
4	AY	79	GLU
4	AY	97	ARG
4	AY	170	THR
4	AY	213	ARG
4	AY	226	GLU
4	AY	230	GLU
4	AY	240	LEU
4	AY	246	ARG
4	AY	271	ILE
4	AY	273	VAL
4	AY	296	LEU
4	AY	300	GLU
4	AY	315	VAL

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Mol	Chain	Res	Type
4	AY	318	ILE
4	AY	324	ILE
4	AY	342	MET
4	AY	348	ASN
4	AY	359	TRP
4	AY	362	LEU
5	AB	17	PHE
5	AB	44	LEU
5	AB	69	LEU
5	AB	71	VAL
5	AB	75	LYS
5	AB	96	ARG
5	AB	101	MET
5	AB	119	GLU
5	AB	153	ARG
5	AB	154	LEU
5	AB	172	ILE
5	AB	176	GLU
5	AB	187	LEU
6	AC	5	ILE
6	AC	16	ARG
6	AC	29	TYR
6	AC	35	GLU
6	AC	40	ARG
6	AC	48	TYR
6	AC	76	VAL
6	AC	79	ARG
6	AC	107	GLN
6	AC	111	LEU
6	AC	116	VAL
6	AC	152	ILE
6	AC	192	THR
7	AD	10	ARG
7	AD	19	LEU
7	AD	21	LEU
7	AD	30	LYS
7	AD	34	GLU
7	AD	35	ARG
7	AD	58	LEU
7	AD	65	ARG
7	AD	72	GLU
7	AD	73	ARG

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Mol	Chain	Res	Type
7	AD	84	LYS
7	AD	97	LEU
7	AD	108	LEU
7	AD	110	PHE
7	AD	119	GLN
7	AD	122	ARG
7	AD	127	THR
7	AD	131	ARG
7	AD	132	ARG
7	AD	135	LEU
7	AD	138	TYR
7	AD	139	ARG
7	AD	151	LYS
7	AD	156	GLU
7	AD	158	ILE
7	AD	166	LYS
7	AD	176	LEU
7	AD	187	ARG
7	AD	193	ASP
7	AD	194	LEU
7	AD	209	ARG
8	AE	12	LEU
8	AE	20	GLN
8	AE	47	LYS
8	AE	53	LEU
8	AE	60	TYR
8	AE	68	GLU
8	AE	79	GLU
8	AE	101	ILE
9	AF	14	LEU
9	AF	40	VAL
9	AF	69	GLU
9	AF	98	LEU
9	AF	100	ASN
10	AG	57	GLU
10	AG	90	GLU
10	AG	113	GLU
11	AH	1	MET
11	AH	12	ARG
11	AH	26	VAL
11	AH	52	ASP
11	AH	73	ASP

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Mol	Chain	Res	Type
11	AH	80	ILE
11	AH	99	GLU
11	AH	104	ARG
12	AI	10	ARG
12	AI	27	THR
12	AI	70	LYS
12	AI	85	LEU
12	AI	92	TYR
12	AI	95	LYS
12	AI	114	TYR
12	AI	121	ARG
12	AI	125	TYR
12	AI	127	LYS
13	AJ	13	HIS
13	AJ	22	LYS
13	AJ	54	PHE
13	AJ	55	LYS
13	AJ	58	ASP
13	AJ	62	HIS
13	AJ	63	PHE
13	AJ	74	ILE
13	AJ	78	ASN
13	AJ	96	ILE
14	AK	26	ASN
14	AK	29	ILE
14	AK	33	THR
14	AK	41	THR
15	AL	5	THR
15	AL	6	ILE
15	AL	19	LYS
15	AL	26	LEU
15	AL	37	THR
15	AL	40	ARG
15	AL	52	ARG
15	AL	78	GLU
16	AM	19	LEU
16	AM	48	LEU
16	AM	64	TRP
16	AM	83	ASP
16	AM	93	ARG
16	AM	103	THR
16	AM	108	ARG

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Mol	Chain	Res	Type
16	AM	115	LYS
17	AN	6	LEU
17	AN	8	GLU
17	AN	16	PHE
17	AN	31	ARG
17	AN	36	PHE
18	AO	5	LYS
18	AO	14	GLU
18	AO	17	ARG
18	AO	39	LEU
18	AO	44	LYS
18	AO	65	ARG
18	AO	77	ARG
18	AO	82	ILE
19	AP	1	MET
19	AP	8	ARG
19	AP	22	THR
19	AP	32	TYR
19	AP	47	ASP
19	AP	69	THR
19	AP	82	GLN
20	AQ	6	LEU
20	AQ	9	VAL
20	AQ	38	ARG
20	AQ	96	GLN
20	AQ	100	LYS
21	AR	88	LYS
22	AS	6	LYS
22	AS	7	LYS
22	AS	10	PHE
22	AS	29	ARG
22	AS	33	THR
22	AS	37	ARG
22	AS	44	MET
22	AS	49	ILE
22	AS	53	ASN
22	AS	58	VAL
22	AS	66	MET
22	AS	70	LYS
23	AT	62	LEU
23	AT	72	LEU
23	AT	73	HIS

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Mol	Chain	Res	Type
23	AT	75	ASN
24	AU	8	THR
27	BD	5	LYS
27	BD	14	ARG
27	BD	33	LEU
27	BD	38	LYS
27	BD	40	THR
27	BD	61	LEU
27	BD	73	VAL
27	BD	94	LEU
27	BD	95	LEU
27	BD	112	GLN
27	BD	126	GLN
27	BD	131	LEU
27	BD	138	VAL
27	BD	154	LYS
27	BD	166	GLN
27	BD	168	ARG
27	BD	171	ASP
27	BD	192	THR
27	BD	200	ASP
27	BD	211	ARG
27	BD	212	SER
27	BD	237	GLU
27	BD	242	ARG
27	BD	255	LYS
27	BD	257	LEU
28	BE	4	ILE
28	BE	9	VAL
28	BE	33	VAL
28	BE	34	VAL
28	BE	78	LEU
28	BE	79	ARG
28	BE	87	GLU
28	BE	119	ARG
28	BE	144	ARG
28	BE	152	LYS
28	BE	160	TYR
28	BE	169	ASN
28	BE	181	LEU
28	BE	184	VAL
28	BE	196	VAL

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Mol	Chain	Res	Type
28	BE	202	LYS
29	BF	8	GLN
29	BF	9	ILE
29	BF	20	LEU
29	BF	33	LEU
29	BF	45	ARG
29	BF	65	TRP
29	BF	67	GLN
29	BF	74	ARG
29	BF	106	ARG
29	BF	117	ARG
29	BF	145	GLU
29	BF	164	ARG
29	BF	175	THR
29	BF	181	LEU
29	BF	185	ASP
29	BF	195	ASP
30	BG	4	ASP
30	BG	7	LEU
30	BG	33	ARG
30	BG	35	GLU
30	BG	40	ASN
30	BG	43	LEU
30	BG	47	LYS
30	BG	80	PHE
30	BG	94	LEU
30	BG	101	ILE
30	BG	115	ARG
30	BG	128	ARG
30	BG	143	GLU
30	BG	155	MET
30	BG	157	ILE
31	BH	23	ARG
31	BH	43	VAL
31	BH	47	GLU
31	BH	71	LEU
31	BH	79	VAL
31	BH	123	PHE
31	BH	125	VAL
31	BH	127	GLU
31	BH	164	TYR
32	BI	4	ILE

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Mol	Chain	Res	Type
32	BI	5	LEU
32	BI	40	THR
32	BI	67	ARG
32	BI	87	LYS
32	BI	93	THR
32	BI	109	ILE
32	BI	112	LYS
32	BI	114	LEU
32	BI	118	LYS
32	BI	141	LYS
33	BK	2	LYS
33	BK	3	LYS
33	BK	27	LEU
33	BK	33	ASN
33	BK	41	PHE
33	BK	65	PHE
33	BK	86	LYS
33	BK	93	ARG
33	BK	101	TRP
33	BK	115	LEU
33	BK	116	ASN
33	BK	125	ARG
33	BK	146	ASP
34	BN	38	LEU
34	BN	55	THR
34	BN	57	LEU
34	BN	68	ASN
34	BN	71	MET
34	BN	86	THR
34	BN	94	ILE
34	BN	97	ARG
34	BN	110	LEU
34	BN	117	HIS
34	BN	119	GLU
34	BN	121	VAL
34	BN	122	LEU
34	BN	126	VAL
34	BN	138	ARG
34	BN	150	ASP
34	BN	154	GLN
35	BO	14	THR
35	BO	19	ILE

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Mol	Chain	Res	Type
35	BO	24	VAL
35	BO	47	ILE
35	BO	98	VAL
36	BP	6	LEU
36	BP	13	ASN
36	BP	16	ARG
36	BP	18	ARG
36	BP	27	HIS
36	BP	35	HIS
36	BP	39	LYS
36	BP	41	ARG
36	BP	42	SER
36	BP	47	ASP
36	BP	49	ARG
36	BP	51	PHE
36	BP	57	THR
36	BP	59	LEU
36	BP	61	ARG
36	BP	62	LEU
36	BP	75	ILE
36	BP	83	VAL
36	BP	84	ASN
36	BP	85	LEU
36	BP	106	LEU
36	BP	133	SER
36	BP	144	GLU
36	BP	147	LEU
36	BP	148	LEU
37	BQ	9	TYR
37	BQ	22	LYS
37	BQ	25	ASP
37	BQ	45	GLN
37	BQ	54	MET
37	BQ	58	PHE
37	BQ	82	ARG
37	BQ	96	VAL
37	BQ	106	VAL
37	BQ	110	THR
37	BQ	133	ARG
38	BR	2	ARG
38	BR	8	ARG
38	BR	60	LEU

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Mol	Chain	Res	Type
38	BR	66	VAL
38	BR	70	LEU
38	BR	71	GLN
38	BR	79	LEU
38	BR	81	ASP
38	BR	95	THR
38	BR	99	LYS
38	BR	100	LEU
38	BR	104	ARG
38	BR	107	ASP
38	BR	117	VAL
39	BS	12	PHE
39	BS	21	THR
39	BS	30	ARG
39	BS	44	LYS
39	BS	57	LYS
39	BS	61	ASN
39	BS	68	GLN
39	BS	69	VAL
39	BS	83	LYS
39	BS	92	TYR
39	BS	98	VAL
40	BT	18	ASP
40	BT	27	THR
40	BT	36	GLU
40	BT	38	ASN
40	BT	42	ILE
40	BT	51	ARG
40	BT	58	ASN
40	BT	62	THR
40	BT	64	ARG
40	BT	70	VAL
40	BT	88	ILE
40	BT	89	VAL
40	BT	90	GLN
40	BT	99	LEU
40	BT	105	LEU
40	BT	111	ARG
40	BT	112	ARG
40	BT	113	LYS
40	BT	115	ARG
40	BT	124	ASP

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Mol	Chain	Res	Type
41	BU	31	SER
41	BU	44	ASN
41	BU	64	ARG
41	BU	74	LEU
41	BU	75	ASN
41	BU	92	ARG
41	BU	97	ASP
41	BU	104	GLN
42	BV	2	PHE
42	BV	7	THR
42	BV	10	LYS
42	BV	13	ARG
42	BV	35	LEU
42	BV	37	VAL
42	BV	39	LEU
42	BV	45	THR
42	BV	49	THR
42	BV	64	HIS
42	BV	71	LEU
42	BV	80	GLN
42	BV	88	ARG
42	BV	91	TYR
42	BV	99	ILE
43	BW	11	ARG
43	BW	51	LEU
43	BW	63	ASP
43	BW	69	LEU
43	BW	70	TYR
43	BW	76	VAL
43	BW	96	ILE
43	BW	100	THR
43	BW	107	LEU
43	BW	111	HIS
44	BX	27	THR
44	BX	57	LEU
44	BX	68	ARG
44	BX	76	ARG
44	BX	81	VAL
45	BY	4	LYS
45	BY	6	HIS
45	BY	8	LYS
45	BY	49	VAL

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Mol	Chain	Res	Type
45	BY	88	LYS
45	BY	98	VAL
46	BZ	42	VAL
46	BZ	85	HIS
46	BZ	86	VAL
46	BZ	94	GLU
46	BZ	123	ASP
46	BZ	154	ASP
46	BZ	168	GLU
46	BZ	170	THR
46	BZ	179	ASP
47	B0	10	THR
47	B0	14	ARG
47	B0	20	ARG
47	B0	21	LEU
47	B0	25	ARG
47	B0	29	GLN
47	B0	32	ARG
47	B0	63	VAL
47	B0	84	LEU
48	B1	13	ILE
48	B1	17	SER
48	B1	18	ILE
48	B1	19	GLN
48	B1	21	ARG
48	B1	34	THR
48	B1	37	ILE
48	B1	40	ARG
48	B1	46	LEU
48	B1	57	GLU
48	B1	58	ILE
48	B1	73	LEU
48	B1	75	GLU
48	B1	80	LEU
48	B1	82	LEU
49	B2	1	MET
49	B2	2	LYS
49	B2	11	GLU
49	B2	17	SER
49	B2	25	VAL
49	B2	53	LEU
50	B3	8	LEU

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Mol	Chain	Res	Type
50	B3	17	LYS
50	B3	37	LEU
50	B3	44	ARG
50	B3	55	ARG
51	B4	42	CYS
52	B5	49	CYS
52	B5	51	TYR
52	B5	52	TYR
53	B6	11	LEU
53	B6	19	ARG
53	B6	24	GLU
53	B6	34	LEU
53	B6	42	TRP
53	B6	47	THR
54	B7	2	LYS
54	B7	4	THR
54	B7	8	ASN
54	B7	19	ARG
54	B7	31	LEU
54	B7	39	ARG
54	B7	41	ARG
55	B8	7	HIS
55	B8	30	ARG
55	B8	32	LEU
55	B8	34	TRP
55	B8	41	ILE
55	B8	50	LEU
55	B8	52	LYS
55	B8	57	ARG
4	CY	20	ARG
4	CY	24	LYS
4	CY	29	ILE
4	CY	36	GLU
4	CY	38	ARG
4	CY	46	LEU
4	CY	63	GLN
4	CY	73	ASP
4	CY	79	GLU
4	CY	97	ARG
4	CY	170	THR
4	CY	177	ILE
4	CY	213	ARG

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Mol	Chain	Res	Type
4	CY	226	GLU
4	CY	230	GLU
4	CY	240	LEU
4	CY	246	ARG
4	CY	271	ILE
4	CY	273	VAL
4	CY	296	LEU
4	CY	300	GLU
4	CY	315	VAL
4	CY	318	ILE
4	CY	324	ILE
4	CY	342	MET
4	CY	348	ASN
4	CY	359	TRP
4	CY	362	LEU
5	CB	8	LYS
5	CB	17	PHE
5	CB	44	LEU
5	CB	69	LEU
5	CB	71	VAL
5	CB	75	LYS
5	CB	96	ARG
5	CB	101	MET
5	CB	119	GLU
5	CB	153	ARG
5	CB	154	LEU
5	CB	172	ILE
5	CB	176	GLU
5	CB	187	LEU
6	CC	5	ILE
6	CC	16	ARG
6	CC	29	TYR
6	CC	35	GLU
6	CC	40	ARG
6	CC	48	TYR
6	CC	76	VAL
6	CC	79	ARG
6	CC	107	GLN
6	CC	111	LEU
6	CC	116	VAL
6	CC	152	ILE
6	CC	192	THR

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Mol	Chain	Res	Type
7	CD	9	CYS
7	CD	15	GLU
7	CD	17	VAL
7	CD	21	LEU
7	CD	59	ARG
7	CD	66	ARG
7	CD	68	TYR
7	CD	73	ARG
7	CD	84	LYS
7	CD	98	GLU
7	CD	106	TYR
7	CD	115	ARG
7	CD	122	ARG
7	CD	131	ARG
7	CD	135	LEU
7	CD	166	LYS
7	CD	178	VAL
7	CD	185	PHE
8	CE	12	LEU
8	CE	20	GLN
8	CE	47	LYS
8	CE	53	LEU
8	CE	60	TYR
8	CE	68	GLU
8	CE	79	GLU
8	CE	101	ILE
9	CF	14	LEU
9	CF	40	VAL
9	CF	69	GLU
9	CF	98	LEU
9	CF	100	ASN
10	CG	57	GLU
10	CG	90	GLU
10	CG	113	GLU
11	CH	1	MET
11	CH	12	ARG
11	CH	26	VAL
11	CH	41	ARG
11	CH	52	ASP
11	CH	73	ASP
11	CH	80	ILE
11	CH	99	GLU

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Mol	Chain	Res	Type
11	CH	104	ARG
12	CI	10	ARG
12	CI	27	THR
12	CI	70	LYS
12	CI	85	LEU
12	CI	92	TYR
12	CI	95	LYS
12	CI	114	TYR
12	CI	121	ARG
12	CI	125	TYR
12	CI	127	LYS
13	CJ	13	HIS
13	CJ	22	LYS
13	CJ	54	PHE
13	CJ	55	LYS
13	CJ	58	ASP
13	CJ	62	HIS
13	CJ	63	PHE
13	CJ	74	ILE
13	CJ	78	ASN
13	CJ	96	ILE
14	CK	26	ASN
14	CK	29	ILE
14	CK	33	THR
14	CK	41	THR
15	CL	5	THR
15	CL	6	ILE
15	CL	19	LYS
15	CL	26	LEU
15	CL	37	THR
15	CL	40	ARG
15	CL	52	ARG
15	CL	78	GLU
16	CM	19	LEU
16	CM	48	LEU
16	CM	64	TRP
16	CM	83	ASP
16	CM	93	ARG
16	CM	103	THR
16	CM	108	ARG
16	CM	115	LYS
17	CN	8	GLU

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Mol	Chain	Res	Type
17	CN	11	LYS
18	CO	5	LYS
18	CO	14	GLU
18	CO	17	ARG
18	CO	39	LEU
18	CO	44	LYS
18	CO	65	ARG
18	CO	77	ARG
18	CO	82	ILE
19	CP	1	MET
19	CP	8	ARG
19	CP	22	THR
19	CP	47	ASP
19	CP	69	THR
19	CP	82	GLN
20	CQ	6	LEU
20	CQ	9	VAL
20	CQ	38	ARG
20	CQ	96	GLN
20	CQ	100	LYS
21	CR	88	LYS
22	CS	6	LYS
22	CS	7	LYS
22	CS	10	PHE
22	CS	29	ARG
22	CS	33	THR
22	CS	37	ARG
22	CS	44	MET
22	CS	49	ILE
22	CS	53	ASN
22	CS	58	VAL
22	CS	66	MET
22	CS	70	LYS
23	CT	62	LEU
23	CT	72	LEU
23	CT	73	HIS
23	CT	75	ASN
24	CU	8	THR
27	DD	5	LYS
27	DD	14	ARG
27	DD	33	LEU
27	DD	38	LYS

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Mol	Chain	Res	Type
27	DD	40	THR
27	DD	61	LEU
27	DD	73	VAL
27	DD	94	LEU
27	DD	95	LEU
27	DD	112	GLN
27	DD	126	GLN
27	DD	131	LEU
27	DD	138	VAL
27	DD	154	LYS
27	DD	166	GLN
27	DD	168	ARG
27	DD	171	ASP
27	DD	192	THR
27	DD	200	ASP
27	DD	211	ARG
27	DD	212	SER
27	DD	237	GLU
27	DD	242	ARG
27	DD	255	LYS
27	DD	257	LEU
28	DE	9	VAL
28	DE	33	VAL
28	DE	34	VAL
28	DE	78	LEU
28	DE	79	ARG
28	DE	87	GLU
28	DE	119	ARG
28	DE	144	ARG
28	DE	152	LYS
28	DE	160	TYR
28	DE	169	ASN
28	DE	181	LEU
28	DE	184	VAL
28	DE	196	VAL
28	DE	202	LYS
29	DF	8	GLN
29	DF	9	ILE
29	DF	20	LEU
29	DF	33	LEU
29	DF	45	ARG
29	DF	65	TRP

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Mol	Chain	Res	Type
29	DF	67	GLN
29	DF	74	ARG
29	DF	106	ARG
29	DF	117	ARG
29	DF	145	GLU
29	DF	164	ARG
29	DF	175	THR
29	DF	181	LEU
29	DF	185	ASP
29	DF	195	ASP
30	DG	4	ASP
30	DG	7	LEU
30	DG	33	ARG
30	DG	35	GLU
30	DG	40	ASN
30	DG	43	LEU
30	DG	47	LYS
30	DG	80	PHE
30	DG	94	LEU
30	DG	101	ILE
30	DG	115	ARG
30	DG	128	ARG
30	DG	143	GLU
30	DG	155	MET
30	DG	157	ILE
31	DH	23	ARG
31	DH	43	VAL
31	DH	47	GLU
31	DH	79	VAL
31	DH	123	PHE
31	DH	125	VAL
31	DH	127	GLU
31	DH	164	TYR
32	DI	4	ILE
32	DI	5	LEU
32	DI	40	THR
32	DI	67	ARG
32	DI	87	LYS
32	DI	93	THR
32	DI	109	ILE
32	DI	112	LYS
32	DI	114	LEU

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Mol	Chain	Res	Type
32	DI	118	LYS
32	DI	141	LYS
33	DK	2	LYS
33	DK	10	LEU
33	DK	65	PHE
33	DK	93	ARG
33	DK	101	TRP
33	DK	115	LEU
34	DN	38	LEU
34	DN	55	THR
34	DN	57	LEU
34	DN	68	ASN
34	DN	71	MET
34	DN	86	THR
34	DN	94	ILE
34	DN	97	ARG
34	DN	110	LEU
34	DN	117	HIS
34	DN	119	GLU
34	DN	121	VAL
34	DN	122	LEU
34	DN	126	VAL
34	DN	138	ARG
34	DN	150	ASP
34	DN	154	GLN
35	DO	14	THR
35	DO	19	ILE
35	DO	24	VAL
35	DO	47	ILE
35	DO	98	VAL
35	DO	99	PHE
36	DP	6	LEU
36	DP	13	ASN
36	DP	16	ARG
36	DP	18	ARG
36	DP	27	HIS
36	DP	35	HIS
36	DP	39	LYS
36	DP	41	ARG
36	DP	42	SER
36	DP	47	ASP
36	DP	49	ARG

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Mol	Chain	Res	Type
36	DP	51	PHE
36	DP	57	THR
36	DP	59	LEU
36	DP	61	ARG
36	DP	62	LEU
36	DP	75	ILE
36	DP	83	VAL
36	DP	84	ASN
36	DP	85	LEU
36	DP	106	LEU
36	DP	133	SER
36	DP	144	GLU
36	DP	147	LEU
36	DP	148	LEU
37	DQ	9	TYR
37	DQ	22	LYS
37	DQ	25	ASP
37	DQ	45	GLN
37	DQ	54	MET
37	DQ	82	ARG
37	DQ	96	VAL
37	DQ	106	VAL
37	DQ	110	THR
37	DQ	133	ARG
38	DR	2	ARG
38	DR	8	ARG
38	DR	36	THR
38	DR	60	LEU
38	DR	66	VAL
38	DR	70	LEU
38	DR	71	GLN
38	DR	79	LEU
38	DR	81	ASP
38	DR	95	THR
38	DR	99	LYS
38	DR	100	LEU
38	DR	104	ARG
38	DR	107	ASP
38	DR	117	VAL
39	DS	12	PHE
39	DS	21	THR
39	DS	30	ARG

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Mol	Chain	Res	Type
39	DS	44	LYS
39	DS	57	LYS
39	DS	61	ASN
39	DS	68	GLN
39	DS	69	VAL
39	DS	83	LYS
39	DS	92	TYR
39	DS	98	VAL
40	DT	18	ASP
40	DT	27	THR
40	DT	36	GLU
40	DT	38	ASN
40	DT	42	ILE
40	DT	48	ILE
40	DT	51	ARG
40	DT	58	ASN
40	DT	62	THR
40	DT	64	ARG
40	DT	70	VAL
40	DT	87	ASP
40	DT	88	ILE
40	DT	89	VAL
40	DT	90	GLN
40	DT	99	LEU
40	DT	105	LEU
40	DT	111	ARG
40	DT	112	ARG
40	DT	113	LYS
40	DT	115	ARG
40	DT	124	ASP
41	DU	31	SER
41	DU	44	ASN
41	DU	64	ARG
41	DU	74	LEU
41	DU	75	ASN
41	DU	92	ARG
41	DU	97	ASP
41	DU	104	GLN
42	DV	2	PHE
42	DV	7	THR
42	DV	10	LYS
42	DV	13	ARG

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Mol	Chain	Res	Type
42	DV	35	LEU
42	DV	37	VAL
42	DV	39	LEU
42	DV	45	THR
42	DV	49	THR
42	DV	64	HIS
42	DV	71	LEU
42	DV	80	GLN
42	DV	88	ARG
42	DV	91	TYR
42	DV	99	ILE
43	DW	11	ARG
43	DW	51	LEU
43	DW	63	ASP
43	DW	69	LEU
43	DW	70	TYR
43	DW	76	VAL
43	DW	96	ILE
43	DW	100	THR
43	DW	107	LEU
43	DW	111	HIS
44	DX	27	THR
44	DX	57	LEU
44	DX	68	ARG
44	DX	76	ARG
44	DX	81	VAL
45	DY	4	LYS
45	DY	6	HIS
45	DY	8	LYS
45	DY	49	VAL
45	DY	88	LYS
45	DY	98	VAL
46	DZ	42	VAL
46	DZ	85	HIS
46	DZ	86	VAL
46	DZ	94	GLU
46	DZ	123	ASP
46	DZ	154	ASP
46	DZ	168	GLU
46	DZ	170	THR
46	DZ	179	ASP
47	D0	10	THR

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Mol	Chain	Res	Type
47	D0	14	ARG
47	D0	20	ARG
47	D0	21	LEU
47	D0	25	ARG
47	D0	29	GLN
47	D0	32	ARG
47	D0	63	VAL
47	D0	84	LEU
48	D1	13	ILE
48	D1	17	SER
48	D1	18	ILE
48	D1	19	GLN
48	D1	21	ARG
48	D1	34	THR
48	D1	37	ILE
48	D1	40	ARG
48	D1	46	LEU
48	D1	57	GLU
48	D1	58	ILE
48	D1	73	LEU
48	D1	75	GLU
48	D1	80	LEU
48	D1	82	LEU
49	D2	1	MET
49	D2	2	LYS
49	D2	11	GLU
49	D2	17	SER
49	D2	24	LEU
49	D2	25	VAL
49	D2	53	LEU
50	D3	8	LEU
50	D3	17	LYS
50	D3	37	LEU
50	D3	44	ARG
50	D3	55	ARG
51	D4	42	CYS
52	D5	49	CYS
52	D5	51	TYR
52	D5	52	TYR
53	D6	11	LEU
53	D6	19	ARG
53	D6	24	GLU

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Mol	Chain	Res	Type
53	D6	34	LEU
53	D6	42	TRP
53	D6	47	THR
54	D7	2	LYS
54	D7	4	THR
54	D7	8	ASN
54	D7	19	ARG
54	D7	31	LEU
54	D7	39	ARG
54	D7	41	ARG
55	D8	7	HIS
55	D8	30	ARG
55	D8	32	LEU
55	D8	34	TRP
55	D8	41	ILE
55	D8	50	LEU
55	D8	52	LYS
55	D8	57	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (268) such sidechains are listed below:

Mol	Chain	Res	Type
4	AY	63	GLN
4	AY	117	GLN
4	AY	337	HIS
4	AY	348	ASN
4	AY	370	GLN
5	AB	40	HIS
5	AB	95	GLN
5	AB	204	ASN
6	AC	28	GLN
6	AC	69	HIS
6	AC	136	GLN
6	AC	170	GLN
6	AC	176	HIS
6	AC	181	ASN
7	AD	42	GLN
7	AD	77	ASN
7	AD	123	HIS
7	AD	129	ASN
7	AD	201	GLN
8	AE	78	HIS

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Mol	Chain	Res	Type
8	AE	141	GLN
9	AF	64	GLN
9	AF	73	ASN
9	AF	94	GLN
10	AG	13	GLN
10	AG	86	GLN
10	AG	96	GLN
10	AG	153	HIS
11	AH	78	GLN
12	AI	3	GLN
12	AI	124	GLN
13	AJ	56	HIS
13	AJ	68	HIS
13	AJ	84	GLN
14	AK	38	ASN
14	AK	104	GLN
15	AL	7	ASN
15	AL	8	GLN
15	AL	74	HIS
16	AM	106	ASN
18	AO	37	ASN
18	AO	42	HIS
19	AP	82	GLN
20	AQ	16	GLN
20	AQ	96	GLN
22	AS	23	ASN
22	AS	47	HIS
22	AS	53	ASN
22	AS	57	HIS
23	AT	73	HIS
27	BD	58	HIS
27	BD	87	ASN
27	BD	96	HIS
27	BD	112	GLN
27	BD	115	GLN
27	BD	116	GLN
27	BD	126	GLN
27	BD	166	GLN
27	BD	186	HIS
27	BD	198	ASN
28	BE	55	ASN
28	BE	66	HIS

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Mol	Chain	Res	Type
28	BE	85	ASN
28	BE	132	HIS
28	BE	143	ASN
28	BE	159	HIS
28	BE	192	ASN
29	BF	67	GLN
29	BF	69	HIS
29	BF	75	HIS
29	BF	169	ASN
30	BG	40	ASN
30	BG	58	GLN
30	BG	121	ASN
31	BH	143	GLN
32	BI	43	ASN
32	BI	104	GLN
34	BN	68	ASN
34	BN	151	HIS
34	BN	154	GLN
35	BO	88	ASN
35	BO	90	GLN
36	BP	35	HIS
36	BP	38	GLN
36	BP	81	GLN
36	BP	84	ASN
36	BP	128	HIS
37	BQ	13	GLN
37	BQ	45	GLN
37	BQ	123	HIS
38	BR	3	HIS
38	BR	13	HIS
38	BR	24	GLN
38	BR	53	HIS
38	BR	91	GLN
40	BT	79	HIS
40	BT	90	GLN
41	BU	44	ASN
41	BU	49	HIS
41	BU	71	GLN
41	BU	72	HIS
41	BU	75	ASN
42	BV	11	GLN
42	BV	80	GLN

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Mol	Chain	Res	Type
43	BW	57	ASN
43	BW	61	ASN
44	BX	31	HIS
44	BX	41	ASN
44	BX	55	ASN
44	BX	58	HIS
44	BX	87	GLN
45	BY	6	HIS
46	BZ	54	HIS
46	BZ	55	HIS
46	BZ	65	GLN
46	BZ	73	GLN
46	BZ	75	ASN
47	B0	70	GLN
48	B1	45	ASN
48	B1	56	GLN
48	B1	66	HIS
50	B3	19	GLN
50	B3	46	ASN
50	B3	52	HIS
51	B4	46	ASN
52	B5	43	HIS
53	B6	46	HIS
54	B7	8	ASN
55	B8	7	HIS
55	B8	31	HIS
55	B8	43	GLN
4	CY	63	GLN
4	CY	117	GLN
4	CY	337	HIS
4	CY	348	ASN
4	CY	370	GLN
5	CB	40	HIS
5	CB	95	GLN
5	CB	204	ASN
6	CC	28	GLN
6	CC	69	HIS
6	CC	136	GLN
6	CC	170	GLN
6	CC	176	HIS
6	CC	181	ASN
7	CD	42	GLN

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Mol	Chain	Res	Type
7	CD	62	GLN
7	CD	74	GLN
7	CD	77	ASN
7	CD	103	ASN
7	CD	160	GLN
7	CD	199	ASN
7	CD	201	GLN
8	CE	78	HIS
8	CE	141	GLN
9	CF	64	GLN
9	CF	73	ASN
9	CF	94	GLN
10	CG	13	GLN
10	CG	86	GLN
10	CG	96	GLN
10	CG	153	HIS
11	CH	78	GLN
12	CI	3	GLN
12	CI	124	GLN
13	CJ	56	HIS
13	CJ	68	HIS
13	CJ	84	GLN
14	CK	38	ASN
14	CK	104	GLN
15	CL	7	ASN
15	CL	8	GLN
15	CL	74	HIS
16	CM	106	ASN
18	CO	37	ASN
18	CO	42	HIS
19	CP	82	GLN
20	CQ	16	GLN
20	CQ	96	GLN
22	CS	23	ASN
22	CS	47	HIS
22	CS	53	ASN
22	CS	57	HIS
23	CT	73	HIS
27	DD	58	HIS
27	DD	87	ASN
27	DD	96	HIS
27	DD	112	GLN

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Mol	Chain	Res	Type
27	DD	115	GLN
27	DD	116	GLN
27	DD	126	GLN
27	DD	166	GLN
27	DD	186	HIS
27	DD	198	ASN
27	DD	220	HIS
28	DE	55	ASN
28	DE	66	HIS
28	DE	85	ASN
28	DE	132	HIS
28	DE	143	ASN
28	DE	159	HIS
28	DE	192	ASN
29	DF	67	GLN
29	DF	75	HIS
30	DG	40	ASN
30	DG	58	GLN
30	DG	121	ASN
31	DH	143	GLN
32	DI	43	ASN
32	DI	104	GLN
33	DK	11	GLN
33	DK	30	HIS
33	DK	42	ASN
33	DK	110	GLN
34	DN	68	ASN
34	DN	151	HIS
34	DN	154	GLN
35	DO	3	GLN
35	DO	88	ASN
35	DO	90	GLN
36	DP	35	HIS
36	DP	38	GLN
36	DP	81	GLN
36	DP	84	ASN
36	DP	128	HIS
37	DQ	13	GLN
37	DQ	45	GLN
37	DQ	123	HIS
38	DR	3	HIS
38	DR	13	HIS

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Mol	Chain	Res	Type
38	DR	24	GLN
38	DR	53	HIS
38	DR	91	GLN
40	DT	79	HIS
40	DT	90	GLN
41	DU	44	ASN
41	DU	49	HIS
41	DU	71	GLN
41	DU	72	HIS
41	DU	75	ASN
42	DV	11	GLN
43	DW	57	ASN
43	DW	61	ASN
44	DX	31	HIS
44	DX	41	ASN
44	DX	55	ASN
44	DX	58	HIS
44	DX	87	GLN
45	DY	6	HIS
46	DZ	54	HIS
46	DZ	55	HIS
46	DZ	65	GLN
46	DZ	73	GLN
46	DZ	75	ASN
47	D0	70	GLN
48	D1	45	ASN
48	D1	56	GLN
48	D1	66	HIS
50	D3	19	GLN
50	D3	46	ASN
50	D3	52	HIS
51	D4	46	ASN
52	D5	43	HIS
53	D6	46	HIS
54	D7	8	ASN
55	D8	7	HIS
55	D8	31	HIS
55	D8	43	GLN

5.3.3 RNA

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	AA	1503/1504 (99%)	216 (14%)	20 (1%)
1	CA	1503/1504 (99%)	217 (14%)	20 (1%)
2	AV	9/10 (90%)	2 (22%)	0
2	CV	9/10 (90%)	2 (22%)	0
25	BA	2787/2879 (96%)	431 (15%)	19 (0%)
25	DA	2787/2879 (96%)	432 (15%)	19 (0%)
26	BB	118/119 (99%)	15 (12%)	0
26	DB	118/119 (99%)	15 (12%)	0
3	AW	76/77 (98%)	7 (9%)	0
3	CW	76/77 (98%)	7 (9%)	0
All	All	8986/9178 (97%)	1344 (14%)	78 (0%)

All (1344) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	AA	7	G
1	AA	9	G
1	AA	32	A
1	AA	39	G
1	AA	41	G
1	AA	47	C
1	AA	48	C
1	AA	51	A
1	AA	68(I)	G
1	AA	68(P)	C
1	AA	101	A
1	AA	108	G
1	AA	109	A
1	AA	116	A
1	AA	121	C
1	AA	131	C
1	AA	169	C
1	AA	174	C
1	AA	181	G
1	AA	182	U
1	AA	183	G
1	AA	186(H)	U
1	AA	195	A
1	AA	197	A
1	AA	201(C)	U
1	AA	216	G
1	AA	231	G
1	AA	244	U

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Mol	Chain	Res	Type
1	AA	247	G
1	AA	251	G
1	AA	289	G
1	AA	321	A
1	AA	328	C
1	AA	329	A
1	AA	332	G
1	AA	345	C
1	AA	347	G
1	AA	352	C
1	AA	353	A
1	AA	354	G
1	AA	367	U
1	AA	372	C
1	AA	384	G
1	AA	390	C
1	AA	397	A
1	AA	398	C
1	AA	406	G
1	AA	412	A
1	AA	413	G
1	AA	414	A
1	AA	422	C
1	AA	424	G
1	AA	429	U
1	AA	430	A
1	AA	440	A
1	AA	452	A
1	AA	453	A
1	AA	458(B)	A
1	AA	484	G
1	AA	497	A
1	AA	498	U
1	AA	505	G
1	AA	509	A
1	AA	510	A
1	AA	511	C
1	AA	518	C
1	AA	527	G
1	AA	530	G
1	AA	531	U
1	AA	532	A

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Mol	Chain	Res	Type
1	AA	533	A
1	AA	545	C
1	AA	547	A
1	AA	559	A
1	AA	561	U
1	AA	562	C
1	AA	568	G
1	AA	572	A
1	AA	573	A
1	AA	575	G
1	AA	576	G
1	AA	577	G
1	AA	579	G
1	AA	653	A
1	AA	665	A
1	AA	666	G
1	AA	688	G
1	AA	695	A
1	AA	722	A
1	AA	749	C
1	AA	755	G
1	AA	777	A
1	AA	793	U
1	AA	794	A
1	AA	816	A
1	AA	817	C
1	AA	818	G
1	AA	819	A
1	AA	821	G
1	AA	828	A
1	AA	838(A)	U
1	AA	838(B)	C
1	AA	838(C)	U
1	AA	848	C
1	AA	859	A
1	AA	867	G
1	AA	870	U
1	AA	902	G
1	AA	914	A
1	AA	916	G
1	AA	927	G
1	AA	934	C

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Mol	Chain	Res	Type
1	AA	935	A
1	AA	960	U
1	AA	961	U
1	AA	969	A
1	AA	971	G
1	AA	972	C
1	AA	974	A
1	AA	975	A
1	AA	976	G
1	AA	977	A
1	AA	978	A
1	AA	980	C
1	AA	983	A
1	AA	992	U
1	AA	993	G
1	AA	1004	A
1	AA	1026	G
1	AA	1027	C
1	AA	1045	C
1	AA	1053	G
1	AA	1054	C
1	AA	1064	G
1	AA	1065	U
1	AA	1070	U
1	AA	1080	A
1	AA	1081	G
1	AA	1094	G
1	AA	1095	U
1	AA	1101	A
1	AA	1102	A
1	AA	1118	C
1	AA	1124	G
1	AA	1125	U
1	AA	1126	U
1	AA	1129	C
1	AA	1130	A
1	AA	1131	G
1	AA	1137	C
1	AA	1139	G
1	AA	1140	C
1	AA	1146	A
1	AA	1152	A

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Mol	Chain	Res	Type
1	AA	1159	U
1	AA	1160	G
1	AA	1190	G
1	AA	1193	G
1	AA	1196	U
1	AA	1197	G
1	AA	1200	C
1	AA	1201	A
1	AA	1202	G
1	AA	1212	U
1	AA	1213	A
1	AA	1225	A
1	AA	1227	A
1	AA	1238	A
1	AA	1256	A
1	AA	1257	U
1	AA	1270	C
1	AA	1278	U
1	AA	1280	A
1	AA	1281	U
1	AA	1287	A
1	AA	1290	G
1	AA	1300	G
1	AA	1301	U
1	AA	1302	U
1	AA	1305	G
1	AA	1317	C
1	AA	1320	C
1	AA	1331	G
1	AA	1335	C
1	AA	1338	G
1	AA	1346	A
1	AA	1347	G
1	AA	1363	A
1	AA	1364	U
1	AA	1378	C
1	AA	1379	G
1	AA	1398	A
1	AA	1402	C
1	AA	1406	U
1	AA	1419	G
1	AA	1440(C)	G

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Mol	Chain	Res	Type
1	AA	1440(D)	A
1	AA	1440(E)	G
1	AA	1440(I)	A
1	AA	1440(J)	C
1	AA	1440(K)	G
1	AA	1440(L)	G
1	AA	1487	G
1	AA	1493	A
1	AA	1497	G
1	AA	1502	A
1	AA	1503	A
1	AA	1504	G
1	AA	1505	G
1	AA	1506	U
1	AA	1517	G
1	AA	1519	A
1	AA	1520	G
1	AA	1525	G
1	AA	1529	G
1	AA	1530	G
2	AV	23	A
2	AV	24	A
3	AW	8	U
3	AW	9	G
3	AW	18	G
3	AW	19	G
3	AW	20	U
3	AW	47	U
3	AW	48	C
25	BA	34	C
25	BA	46	C
25	BA	55	G
25	BA	58	G
25	BA	64	A
25	BA	71	A
25	BA	74	A
25	BA	75	G
25	BA	84	A
25	BA	101	G
25	BA	102	G
25	BA	118	A
25	BA	119	A

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Mol	Chain	Res	Type
25	BA	120	U
25	BA	131	G
25	BA	137(D)	A
25	BA	155(B)	U
25	BA	155(E)	U
25	BA	171	G
25	BA	196	A
25	BA	197	A
25	BA	204	A
25	BA	205	G
25	BA	215	G
25	BA	216	A
25	BA	221	A
25	BA	222	A
25	BA	225	A
25	BA	228	A
25	BA	229	A
25	BA	230	U
25	BA	233	A
25	BA	245	G
25	BA	248	G
25	BA	252	G
25	BA	270(M)	U
25	BA	270(N)	G
25	BA	270(O)	U
25	BA	270(Q)	C
25	BA	271(B)	G
25	BA	271(D)	G
25	BA	271(L)	C
25	BA	271(N)	G
25	BA	276	C
25	BA	271(Q)	A
25	BA	302	C
25	BA	311	A
25	BA	312	G
25	BA	316	C
25	BA	329	G
25	BA	330	A
25	BA	352	G
25	BA	353	G
25	BA	357(F)	G
25	BA	357(L)	A

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Mol	Chain	Res	Type
25	BA	372	G
25	BA	386	G
25	BA	396	G
25	BA	405	U
25	BA	411	G
25	BA	412	A
25	BA	444	C
25	BA	457	A
25	BA	470	A
25	BA	474	G
25	BA	475	U
25	BA	480	A
25	BA	481	G
25	BA	504	U
25	BA	505	A
25	BA	508	G
25	BA	509	C
25	BA	510	C
25	BA	530	G
25	BA	531	C
25	BA	532	A
25	BA	533	G
25	BA	550	G
25	BA	563	G
25	BA	573	G
25	BA	575	A
25	BA	586	A
25	BA	595	C
25	BA	599	G
25	BA	603	A
25	BA	611(B)	G
25	BA	611(E)	G
25	BA	611(G)	G
25	BA	620	G
25	BA	621	A
25	BA	627	A
25	BA	637	A
25	BA	645	C
25	BA	646	A
25	BA	654	U
25	BA	655	A
25	BA	656	G

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Mol	Chain	Res	Type
25	BA	668	G
25	BA	671	C
25	BA	682	G
25	BA	686	G
25	BA	717	G
25	BA	730	C
25	BA	764	A
25	BA	776	G
25	BA	782	A
25	BA	784	A
25	BA	785	G
25	BA	792	G
25	BA	805	G
25	BA	812	C
25	BA	819	A
25	BA	827	U
25	BA	828	U
25	BA	832	G
25	BA	847	U
25	BA	848	G
25	BA	859	G
25	BA	886	C
25	BA	890	A
25	BA	896	A
25	BA	897	C
25	BA	910	A
25	BA	914	C
25	BA	915	C
25	BA	917	A
25	BA	919	G
25	BA	932	G
25	BA	933	A
25	BA	938	G
25	BA	941	A
25	BA	945	A
25	BA	946	G
25	BA	959	A
25	BA	961	C
25	BA	968	G
25	BA	974	G
25	BA	974(A)	C
25	BA	975	G

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Mol	Chain	Res	Type
25	BA	983	A
25	BA	996	A
25	BA	999	U
25	BA	1003	G
25	BA	1005	C
25	BA	1009	A
25	BA	1010	A
25	BA	1011	G
25	BA	1012	U
25	BA	1013	C
25	BA	1020	A
25	BA	1023	U
25	BA	1025	G
25	BA	1026	U
25	BA	1033	U
25	BA	1047	G
25	BA	1048	A
25	BA	1061	U
25	BA	1070	A
25	BA	1079	C
25	BA	1088	A
25	BA	1089	G
25	BA	1112	G
25	BA	1122	G
25	BA	1128	A
25	BA	1129	A
25	BA	1130	U
25	BA	1135	C
25	BA	1136	G
25	BA	1139	G
25	BA	1141(A)	U
25	BA	1142	A
25	BA	1155	A
25	BA	1173	A
25	BA	1174	U
25	BA	1205	U
25	BA	1211	U
25	BA	1220	C
25	BA	1227	G
25	BA	1229	G
25	BA	1253	A
25	BA	1255	U

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Mol	Chain	Res	Type
25	BA	1256	G
25	BA	1271	G
25	BA	1272	A
25	BA	1300	U
25	BA	1301	A
25	BA	1313	U
25	BA	1314	C
25	BA	1329	U
25	BA	1349	A
25	BA	1352	U
25	BA	1359	A
25	BA	1360	A
25	BA	1365	A
25	BA	1380	G
25	BA	1384	A
25	BA	1385	G
25	BA	1386	C
25	BA	1396	U
25	BA	1416	G
25	BA	1427	A
25	BA	1428	C
25	BA	1437	C
25	BA	1444(A)	A
25	BA	1453	A
25	BA	1455	G
25	BA	1458	C
25	BA	1460	A
25	BA	1467	C
25	BA	1483	G
25	BA	1490	A
25	BA	1493	C
25	BA	1494	A
25	BA	1495	A
25	BA	1497	U
25	BA	1506(C)	A
25	BA	1535	U
25	BA	1536	A
25	BA	1538	G
25	BA	1542	G
25	BA	1543(A)	C
25	BA	1544	A
25	BA	1558	A

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Mol	Chain	Res	Type
25	BA	1559	G
25	BA	1566	A
25	BA	1569	A
25	BA	1578	U
25	BA	1579	A
25	BA	1584	C
25	BA	1595	G
25	BA	1598	C
25	BA	1603	A
25	BA	1608	A
25	BA	1609	A
25	BA	1617	C
25	BA	1618	A
25	BA	1640	C
25	BA	1644	C
25	BA	1647	G
25	BA	1648	C
25	BA	1651	G
25	BA	1654	A
25	BA	1674	G
25	BA	1696	G
25	BA	1703	G
25	BA	1712(H)	A
25	BA	1712(K)	A
25	BA	1712(Q)	G
25	BA	1756	G
25	BA	1761	C
25	BA	1763	G
25	BA	1764	G
25	BA	1773	A
25	BA	1776	G
25	BA	1787	A
25	BA	1791	A
25	BA	1800	C
25	BA	1801	G
25	BA	1811	G
25	BA	1816	G
25	BA	1829	A
25	BA	1833	U
25	BA	1847	A
25	BA	1878	G
25	BA	1889	A

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Mol	Chain	Res	Type
25	BA	1896	G
25	BA	1900	A
25	BA	1903	G
25	BA	1906	G
25	BA	1912	A
25	BA	1913	A
25	BA	1914	C
25	BA	1915	U
25	BA	1929	G
25	BA	1930	G
25	BA	1934	C
25	BA	1936	A
25	BA	1938	A
25	BA	1939	U
25	BA	1945	G
25	BA	1955	U
25	BA	1960	A
25	BA	1963	U
25	BA	1964	G
25	BA	1967	C
25	BA	1970	A
25	BA	1971	A
25	BA	1972	A
25	BA	1982	C
25	BA	1991	U
25	BA	1992	G
25	BA	1993	U
25	BA	1997	G
25	BA	2020	A
25	BA	2023	G
25	BA	2030	A
25	BA	2031	A
25	BA	2032	G
25	BA	2033	A
25	BA	2036	C
25	BA	2043	C
25	BA	2051	A
25	BA	2052	G
25	BA	2055	C
25	BA	2056	G
25	BA	2060	A
25	BA	2061	G

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Mol	Chain	Res	Type
25	BA	2062	A
25	BA	2069	G
25	BA	2080	G
25	BA	2198	A
25	BA	2202(C)	G
25	BA	2202(D)	G
25	BA	2202(E)	A
25	BA	2202(F)	U
25	BA	2202(G)	G
25	BA	2225	A
25	BA	2226	C
25	BA	2238	G
25	BA	2239	G
25	BA	2273	A
25	BA	2275	C
25	BA	2278	A
25	BA	2283	C
25	BA	2287	A
25	BA	2288	A
25	BA	2289	G
25	BA	2305	A
25	BA	2306	C
25	BA	2307	G
25	BA	2308	G
25	BA	2309	A
25	BA	2311	A
25	BA	2319	G
25	BA	2320	A
25	BA	2321	G
25	BA	2325	G
25	BA	2334	G
25	BA	2336	A
25	BA	2346	A
25	BA	2347	C
25	BA	2350	C
25	BA	2379	G
25	BA	2383	G
25	BA	2385	C
25	BA	2406	U
25	BA	2410	G
25	BA	2414	G
25	BA	2422	A

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Mol	Chain	Res	Type
25	BA	2424	C
25	BA	2425	A
25	BA	2429	G
25	BA	2430	A
25	BA	2431	U
25	BA	2434	A
25	BA	2435	A
25	BA	2439	A
25	BA	2441	C
25	BA	2448	A
25	BA	2465	C
25	BA	2468	G
25	BA	2469	A
25	BA	2470	G
25	BA	2476	A
25	BA	2477	C
25	BA	2478	A
25	BA	2491	U
25	BA	2494	G
25	BA	2502	G
25	BA	2505	G
25	BA	2506	U
25	BA	2518	A
25	BA	2520	C
25	BA	2529	G
25	BA	2542	A
25	BA	2543	G
25	BA	2554	U
25	BA	2566	A
25	BA	2567	G
25	BA	2569	G
25	BA	2573	C
25	BA	2574	G
25	BA	2585	U
25	BA	2601	C
25	BA	2602	A
25	BA	2609	U
25	BA	2611	U
25	BA	2612	C
25	BA	2613	U
25	BA	2615	U
25	BA	2630	G

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Mol	Chain	Res	Type
25	BA	2636	U
25	BA	2641	G
25	BA	2646	C
25	BA	2663	G
25	BA	2665	A
25	BA	2683	C
25	BA	2689	U
25	BA	2690	C
25	BA	2691	C
25	BA	2702	U
25	BA	2711	A
25	BA	2712	U
25	BA	2712(A)	A
25	BA	2713	A
25	BA	2714	G
25	BA	2726	U
25	BA	2733	A
25	BA	2758	A
25	BA	2764	A
25	BA	2765	A
25	BA	2766	G
25	BA	2778	A
25	BA	2779	U
25	BA	2789	C
25	BA	2790	A
25	BA	2791	C
25	BA	2792	G
25	BA	2794(B)	U
25	BA	2794(C)	C
25	BA	2818	G
25	BA	2820	A
25	BA	2821	A
25	BA	2825	U
25	BA	2834	G
25	BA	2835	A
25	BA	2849	U
25	BA	2872	G
25	BA	2873	A
25	BA	2892	A
25	BA	2894	G
26	BB	12	C
26	BB	13	A

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Mol	Chain	Res	Type
26	BB	15	A
26	BB	32	C
26	BB	41	U
26	BB	44	G
26	BB	51	G
26	BB	52	A
26	BB	64	C
26	BB	73	A
26	BB	84	C
26	BB	87	G
26	BB	90	C
26	BB	108	C
26	BB	109	G
1	CA	7	G
1	CA	9	G
1	CA	32	A
1	CA	39	G
1	CA	41	G
1	CA	47	C
1	CA	48	C
1	CA	51	A
1	CA	68(I)	G
1	CA	68(P)	C
1	CA	101	A
1	CA	108	G
1	CA	109	A
1	CA	116	A
1	CA	121	C
1	CA	131	C
1	CA	169	C
1	CA	174	C
1	CA	181	G
1	CA	182	U
1	CA	183	G
1	CA	186(H)	U
1	CA	195	A
1	CA	197	A
1	CA	201(C)	U
1	CA	216	G
1	CA	231	G
1	CA	244	U
1	CA	247	G

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Mol	Chain	Res	Type
1	CA	251	G
1	CA	289	G
1	CA	321	A
1	CA	328	C
1	CA	329	A
1	CA	332	G
1	CA	345	C
1	CA	347	G
1	CA	352	C
1	CA	353	A
1	CA	354	G
1	CA	367	U
1	CA	372	C
1	CA	384	G
1	CA	390	C
1	CA	397	A
1	CA	398	C
1	CA	406	G
1	CA	412	A
1	CA	413	G
1	CA	414	A
1	CA	422	C
1	CA	424	G
1	CA	429	U
1	CA	430	A
1	CA	440	A
1	CA	452	A
1	CA	453	A
1	CA	458(B)	A
1	CA	484	G
1	CA	497	A
1	CA	498	U
1	CA	500	G
1	CA	505	G
1	CA	509	A
1	CA	510	A
1	CA	511	C
1	CA	518	C
1	CA	527	G
1	CA	530	G
1	CA	531	U
1	CA	532	A

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Mol	Chain	Res	Type
1	CA	533	A
1	CA	545	C
1	CA	547	A
1	CA	559	A
1	CA	561	U
1	CA	562	C
1	CA	568	G
1	CA	572	A
1	CA	573	A
1	CA	575	G
1	CA	576	G
1	CA	577	G
1	CA	579	G
1	CA	653	A
1	CA	665	A
1	CA	666	G
1	CA	688	G
1	CA	695	A
1	CA	722	A
1	CA	749	C
1	CA	755	G
1	CA	777	A
1	CA	793	U
1	CA	794	A
1	CA	816	A
1	CA	817	C
1	CA	818	G
1	CA	819	A
1	CA	821	G
1	CA	828	A
1	CA	838(A)	U
1	CA	838(B)	C
1	CA	838(C)	U
1	CA	848	C
1	CA	859	A
1	CA	867	G
1	CA	870	U
1	CA	902	G
1	CA	914	A
1	CA	916	G
1	CA	927	G
1	CA	934	C

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Mol	Chain	Res	Type
1	CA	935	A
1	CA	960	U
1	CA	961	U
1	CA	969	A
1	CA	971	G
1	CA	972	C
1	CA	974	A
1	CA	975	A
1	CA	976	G
1	CA	977	A
1	CA	978	A
1	CA	980	C
1	CA	983	A
1	CA	992	U
1	CA	993	G
1	CA	1004	A
1	CA	1026	G
1	CA	1027	C
1	CA	1033	G
1	CA	1045	C
1	CA	1053	G
1	CA	1054	C
1	CA	1064	G
1	CA	1065	U
1	CA	1070	U
1	CA	1080	A
1	CA	1081	G
1	CA	1094	G
1	CA	1095	U
1	CA	1101	A
1	CA	1102	A
1	CA	1118	C
1	CA	1124	G
1	CA	1125	U
1	CA	1126	U
1	CA	1129	C
1	CA	1130	A
1	CA	1131	G
1	CA	1137	C
1	CA	1139	G
1	CA	1140	C
1	CA	1146	A

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Mol	Chain	Res	Type
1	CA	1152	A
1	CA	1159	U
1	CA	1160	G
1	CA	1190	G
1	CA	1193	G
1	CA	1196	U
1	CA	1197	G
1	CA	1200	C
1	CA	1201	A
1	CA	1202	G
1	CA	1212	U
1	CA	1213	A
1	CA	1225	A
1	CA	1227	A
1	CA	1238	A
1	CA	1256	A
1	CA	1257	U
1	CA	1270	C
1	CA	1278	U
1	CA	1280	A
1	CA	1281	U
1	CA	1287	A
1	CA	1290	G
1	CA	1300	G
1	CA	1301	U
1	CA	1302	U
1	CA	1305	G
1	CA	1317	C
1	CA	1320	C
1	CA	1331	G
1	CA	1338	G
1	CA	1346	A
1	CA	1347	G
1	CA	1363	A
1	CA	1364	U
1	CA	1378	C
1	CA	1379	G
1	CA	1398	A
1	CA	1402	C
1	CA	1406	U
1	CA	1419	G
1	CA	1440(C)	G

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Mol	Chain	Res	Type
1	CA	1440(D)	A
1	CA	1440(E)	G
1	CA	1440(I)	A
1	CA	1440(J)	C
1	CA	1440(K)	G
1	CA	1440(L)	G
1	CA	1487	G
1	CA	1493	A
1	CA	1497	G
1	CA	1502	A
1	CA	1503	A
1	CA	1504	G
1	CA	1505	G
1	CA	1506	U
1	CA	1517	G
1	CA	1519	A
1	CA	1520	G
1	CA	1525	G
1	CA	1529	G
1	CA	1530	G
2	CV	23	A
2	CV	24	A
3	CW	8	U
3	CW	9	G
3	CW	18	G
3	CW	19	G
3	CW	20	U
3	CW	47	U
3	CW	48	C
25	DA	34	C
25	DA	46	C
25	DA	55	G
25	DA	58	G
25	DA	64	A
25	DA	71	A
25	DA	74	A
25	DA	75	G
25	DA	84	A
25	DA	101	G
25	DA	102	G
25	DA	118	A
25	DA	119	A

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Mol	Chain	Res	Type
25	DA	120	U
25	DA	131	G
25	DA	137(D)	A
25	DA	155(B)	U
25	DA	155(E)	U
25	DA	171	G
25	DA	196	A
25	DA	197	A
25	DA	204	A
25	DA	205	G
25	DA	215	G
25	DA	216	A
25	DA	221	A
25	DA	222	A
25	DA	225	A
25	DA	228	A
25	DA	229	A
25	DA	230	U
25	DA	233	A
25	DA	245	G
25	DA	248	G
25	DA	252	G
25	DA	270(M)	U
25	DA	270(N)	G
25	DA	270(O)	U
25	DA	270(Q)	C
25	DA	271(B)	G
25	DA	271(D)	G
25	DA	271(L)	C
25	DA	271(N)	G
25	DA	276	C
25	DA	271(Q)	A
25	DA	302	C
25	DA	311	A
25	DA	312	G
25	DA	316	C
25	DA	329	G
25	DA	330	A
25	DA	352	G
25	DA	353	G
25	DA	357(F)	G
25	DA	357(L)	A

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Mol	Chain	Res	Type
25	DA	372	G
25	DA	386	G
25	DA	396	G
25	DA	405	U
25	DA	411	G
25	DA	412	A
25	DA	444	C
25	DA	457	A
25	DA	470	A
25	DA	474	G
25	DA	475	U
25	DA	480	A
25	DA	481	G
25	DA	504	U
25	DA	505	A
25	DA	508	G
25	DA	509	C
25	DA	510	C
25	DA	530	G
25	DA	531	C
25	DA	532	A
25	DA	533	G
25	DA	550	G
25	DA	563	G
25	DA	573	G
25	DA	575	A
25	DA	586	A
25	DA	595	C
25	DA	599	G
25	DA	603	A
25	DA	611(B)	G
25	DA	611(E)	G
25	DA	611(G)	G
25	DA	620	G
25	DA	621	A
25	DA	627	A
25	DA	637	A
25	DA	645	C
25	DA	646	A
25	DA	654	U
25	DA	655	A
25	DA	656	G

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Mol	Chain	Res	Type
25	DA	668	G
25	DA	671	C
25	DA	682	G
25	DA	686	G
25	DA	717	G
25	DA	730	C
25	DA	764	A
25	DA	776	G
25	DA	782	A
25	DA	784	A
25	DA	785	G
25	DA	787	U
25	DA	792	G
25	DA	805	G
25	DA	812	C
25	DA	819	A
25	DA	827	U
25	DA	828	U
25	DA	832	G
25	DA	847	U
25	DA	848	G
25	DA	859	G
25	DA	886	C
25	DA	890	A
25	DA	896	A
25	DA	897	C
25	DA	910	A
25	DA	914	C
25	DA	915	C
25	DA	917	A
25	DA	919	G
25	DA	931	G
25	DA	932	G
25	DA	933	A
25	DA	938	G
25	DA	941	A
25	DA	946	G
25	DA	959	A
25	DA	961	C
25	DA	974	G
25	DA	974(A)	C
25	DA	975	G

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Mol	Chain	Res	Type
25	DA	983	A
25	DA	996	A
25	DA	999	U
25	DA	1003	G
25	DA	1005	C
25	DA	1009	A
25	DA	1010	A
25	DA	1011	G
25	DA	1012	U
25	DA	1013	C
25	DA	1020	A
25	DA	1023	U
25	DA	1025	G
25	DA	1026	U
25	DA	1033	U
25	DA	1047	G
25	DA	1048	A
25	DA	1061	U
25	DA	1070	A
25	DA	1079	C
25	DA	1088	A
25	DA	1089	G
25	DA	1112	G
25	DA	1122	G
25	DA	1128	A
25	DA	1129	A
25	DA	1130	U
25	DA	1135	C
25	DA	1136	G
25	DA	1139	G
25	DA	1141(A)	U
25	DA	1142	A
25	DA	1155	A
25	DA	1173	A
25	DA	1174	U
25	DA	1205	U
25	DA	1211	U
25	DA	1220	C
25	DA	1227	G
25	DA	1229	G
25	DA	1253	A
25	DA	1255	U

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Mol	Chain	Res	Type
25	DA	1256	G
25	DA	1271	G
25	DA	1272	A
25	DA	1300	U
25	DA	1301	A
25	DA	1313	U
25	DA	1314	C
25	DA	1329	U
25	DA	1349	A
25	DA	1352	U
25	DA	1359	A
25	DA	1360	A
25	DA	1365	A
25	DA	1380	G
25	DA	1384	A
25	DA	1385	G
25	DA	1386	C
25	DA	1396	U
25	DA	1416	G
25	DA	1427	A
25	DA	1428	C
25	DA	1437	C
25	DA	1444(A)	A
25	DA	1453	A
25	DA	1455	G
25	DA	1458	C
25	DA	1460	A
25	DA	1467	C
25	DA	1483	G
25	DA	1490	A
25	DA	1493	C
25	DA	1494	A
25	DA	1495	A
25	DA	1497	U
25	DA	1506(C)	A
25	DA	1535	U
25	DA	1536	A
25	DA	1538	G
25	DA	1542	G
25	DA	1543(A)	C
25	DA	1544	A
25	DA	1558	A

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Mol	Chain	Res	Type
25	DA	1559	G
25	DA	1566	A
25	DA	1569	A
25	DA	1578	U
25	DA	1579	A
25	DA	1584	C
25	DA	1595	G
25	DA	1603	A
25	DA	1608	A
25	DA	1609	A
25	DA	1610	A
25	DA	1617	C
25	DA	1618	A
25	DA	1640	C
25	DA	1644	C
25	DA	1647	G
25	DA	1648	C
25	DA	1651	G
25	DA	1654	A
25	DA	1674	G
25	DA	1696	G
25	DA	1703	G
25	DA	1712(H)	A
25	DA	1712(K)	A
25	DA	1712(Q)	G
25	DA	1756	G
25	DA	1761	C
25	DA	1763	G
25	DA	1764	G
25	DA	1773	A
25	DA	1776	G
25	DA	1787	A
25	DA	1791	A
25	DA	1800	C
25	DA	1801	G
25	DA	1811	G
25	DA	1816	G
25	DA	1829	A
25	DA	1833	U
25	DA	1847	A
25	DA	1878	G
25	DA	1889	A

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Mol	Chain	Res	Type
25	DA	1896	G
25	DA	1900	A
25	DA	1903	G
25	DA	1906	G
25	DA	1912	A
25	DA	1913	A
25	DA	1914	C
25	DA	1915	U
25	DA	1929	G
25	DA	1930	G
25	DA	1934	C
25	DA	1936	A
25	DA	1938	A
25	DA	1939	U
25	DA	1945	G
25	DA	1955	U
25	DA	1960	A
25	DA	1963	U
25	DA	1964	G
25	DA	1967	C
25	DA	1970	A
25	DA	1971	A
25	DA	1972	A
25	DA	1982	C
25	DA	1991	U
25	DA	1992	G
25	DA	1993	U
25	DA	1997	G
25	DA	2020	A
25	DA	2023	G
25	DA	2030	A
25	DA	2031	A
25	DA	2032	G
25	DA	2033	A
25	DA	2036	C
25	DA	2043	C
25	DA	2051	A
25	DA	2052	G
25	DA	2055	C
25	DA	2056	G
25	DA	2060	A
25	DA	2061	G

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Mol	Chain	Res	Type
25	DA	2062	A
25	DA	2069	G
25	DA	2080	G
25	DA	2198	A
25	DA	2202(C)	G
25	DA	2202(D)	G
25	DA	2202(E)	A
25	DA	2202(F)	U
25	DA	2202(G)	G
25	DA	2225	A
25	DA	2226	C
25	DA	2238	G
25	DA	2239	G
25	DA	2273	A
25	DA	2275	C
25	DA	2278	A
25	DA	2283	C
25	DA	2287	A
25	DA	2288	A
25	DA	2289	G
25	DA	2305	A
25	DA	2306	C
25	DA	2307	G
25	DA	2308	G
25	DA	2309	A
25	DA	2311	A
25	DA	2319	G
25	DA	2320	A
25	DA	2321	G
25	DA	2325	G
25	DA	2334	G
25	DA	2336	A
25	DA	2346	A
25	DA	2347	C
25	DA	2350	C
25	DA	2379	G
25	DA	2383	G
25	DA	2385	C
25	DA	2406	U
25	DA	2410	G
25	DA	2414	G
25	DA	2422	A

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Mol	Chain	Res	Type
25	DA	2424	C
25	DA	2425	A
25	DA	2429	G
25	DA	2430	A
25	DA	2431	U
25	DA	2434	A
25	DA	2435	A
25	DA	2439	A
25	DA	2441	C
25	DA	2448	A
25	DA	2465	C
25	DA	2468	G
25	DA	2469	A
25	DA	2470	G
25	DA	2476	A
25	DA	2477	C
25	DA	2478	A
25	DA	2491	U
25	DA	2494	G
25	DA	2502	G
25	DA	2505	G
25	DA	2506	U
25	DA	2518	A
25	DA	2520	C
25	DA	2529	G
25	DA	2542	A
25	DA	2543	G
25	DA	2554	U
25	DA	2566	A
25	DA	2567	G
25	DA	2569	G
25	DA	2573	C
25	DA	2574	G
25	DA	2585	U
25	DA	2601	C
25	DA	2602	A
25	DA	2608	G
25	DA	2609	U
25	DA	2611	U
25	DA	2612	C
25	DA	2613	U
25	DA	2615	U

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Mol	Chain	Res	Type
25	DA	2630	G
25	DA	2636	U
25	DA	2641	G
25	DA	2646	C
25	DA	2663	G
25	DA	2665	A
25	DA	2683	C
25	DA	2689	U
25	DA	2690	C
25	DA	2691	C
25	DA	2702	U
25	DA	2711	A
25	DA	2712	U
25	DA	2712(A)	A
25	DA	2713	A
25	DA	2714	G
25	DA	2726	U
25	DA	2733	A
25	DA	2758	A
25	DA	2764	A
25	DA	2765	A
25	DA	2766	G
25	DA	2778	A
25	DA	2779	U
25	DA	2789	C
25	DA	2790	A
25	DA	2791	C
25	DA	2792	G
25	DA	2794(B)	U
25	DA	2794(C)	C
25	DA	2818	G
25	DA	2820	A
25	DA	2821	A
25	DA	2825	U
25	DA	2834	G
25	DA	2835	A
25	DA	2849	U
25	DA	2872	G
25	DA	2873	A
25	DA	2892	A
25	DA	2894	G
26	DB	12	C

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Mol	Chain	Res	Type
26	DB	13	A
26	DB	15	A
26	DB	32	C
26	DB	41	U
26	DB	44	G
26	DB	51	G
26	DB	52	A
26	DB	64	C
26	DB	73	A
26	DB	84	C
26	DB	87	G
26	DB	90	C
26	DB	108	C
26	DB	109	G

All (78) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	AA	115	G
1	AA	201(C)	U
1	AA	243	A
1	AA	328	C
1	AA	428	G
1	AA	429	U
1	AA	495	A
1	AA	509	A
1	AA	560	U
1	AA	687	A
1	AA	748	C
1	AA	913	A
1	AA	991	U
1	AA	992	U
1	AA	1064	G
1	AA	1101	A
1	AA	1145	C
1	AA	1201	A
1	AA	1362(A)	C
1	AA	1504	G
25	BA	352	G
25	BA	474	G
25	BA	775	G
25	BA	846	C

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Mol	Chain	Res	Type
25	BA	896	A
25	BA	1009	A
25	BA	1022	G
25	BA	1060	U
25	BA	1210	A
25	BA	1300	U
25	BA	1379	A
25	BA	1558	A
25	BA	1786	A
25	BA	1912	A
25	BA	2202(E)	A
25	BA	2225	A
25	BA	2447	G
25	BA	2601	C
25	BA	2791	C
1	CA	115	G
1	CA	201(C)	U
1	CA	243	A
1	CA	328	C
1	CA	428	G
1	CA	429	U
1	CA	495	A
1	CA	509	A
1	CA	560	U
1	CA	687	A
1	CA	748	C
1	CA	913	A
1	CA	991	U
1	CA	992	U
1	CA	1064	G
1	CA	1101	A
1	CA	1145	C
1	CA	1201	A
1	CA	1362(A)	C
1	CA	1504	G
25	DA	352	G
25	DA	474	G
25	DA	775	G
25	DA	846	C
25	DA	896	A
25	DA	1009	A
25	DA	1022	G

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Mol	Chain	Res	Type
25	DA	1060	U
25	DA	1210	A
25	DA	1300	U
25	DA	1379	A
25	DA	1558	A
25	DA	1786	A
25	DA	1912	A
25	DA	2202(E)	A
25	DA	2225	A
25	DA	2447	G
25	DA	2601	C
25	DA	2791	C

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

There are no non-standard protein/DNA/RNA residues in this entry.

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 2414 ligands modelled in this entry, 2414 are monoatomic - leaving 0 for Mogul analysis.

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, 95^{th} 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	AA	1504/1504 (100%)	0.20	37 (2%) 57 55	46, 108, 215, 381	0
1	CA	1504/1504 (100%)	0.36	40 (2%) 54 53	48, 122, 235, 451	0
2	AV	10/10 (100%)	1.06	1 (10%) 7 8	76, 120, 198, 250	0
2	CV	10/10 (100%)	0.97	3 (30%) 0 0	74, 123, 204, 230	0
3	AW	77/77 (100%)	0.28	1 (1%) 77 76	73, 106, 160, 212	0
3	CW	77/77 (100%)	0.14	1 (1%) 77 76	65, 104, 140, 219	0
4	AY	362/362 (100%)	1.93	128 (35%) 0 0	72, 164, 304, 366	0
4	CY	362/362 (100%)	2.14	131 (36%) 0 0	69, 180, 326, 473	0
5	AB	234/234 (100%)	1.25	53 (22%) 0 1	84, 152, 249, 335	0
5	CB	234/234 (100%)	1.23	63 (26%) 0 0	84, 173, 267, 348	0
6	AC	206/206 (100%)	0.57	25 (12%) 4 5	69, 141, 224, 325	0
6	CC	206/206 (100%)	0.53	22 (10%) 6 7	88, 154, 252, 385	0
7	AD	208/208 (100%)	0.25	4 (1%) 66 65	46, 104, 158, 201	0
7	CD	208/208 (100%)	0.59	19 (9%) 9 10	78, 146, 224, 346	0
8	AE	151/151 (100%)	0.29	13 (8%) 10 12	61, 102, 156, 274	0
8	CE	151/151 (100%)	0.62	15 (9%) 7 8	84, 125, 202, 274	0
9	AF	101/101 (100%)	0.72	17 (16%) 1 2	92, 150, 222, 283	0
9	CF	101/101 (100%)	0.28	10 (9%) 7 8	60, 104, 157, 216	0
10	AG	155/155 (100%)	0.60	17 (10%) 5 6	81, 147, 220, 290	0
10	CG	155/155 (100%)	0.56	19 (12%) 4 5	91, 147, 209, 352	0
11	AH	138/138 (100%)	0.27	7 (5%) 28 28	58, 110, 163, 235	0
11	CH	138/138 (100%)	0.54	9 (6%) 18 20	74, 130, 191, 271	0
12	AI	127/127 (100%)	1.61	41 (32%) 0 0	94, 172, 247, 329	0
12	CI	127/127 (100%)	1.65	40 (31%) 0 0	85, 174, 242, 307	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
13	AJ	98/98 (100%)	1.79	34 (34%) 0 0	85, 172, 278, 357	0
13	CJ	98/98 (100%)	2.15	37 (37%) 0 0	86, 197, 311, 435	0
14	AK	114/114 (100%)	0.84	19 (16%) 1 2	59, 110, 172, 233	0
14	CK	114/114 (100%)	0.47	7 (6%) 21 22	55, 99, 165, 372	0
15	AL	122/122 (100%)	0.23	3 (2%) 57 55	44, 85, 148, 192	0
15	CL	122/122 (100%)	0.25	3 (2%) 57 55	48, 99, 149, 268	0
16	AM	117/117 (100%)	0.64	15 (12%) 3 4	81, 166, 258, 377	0
16	CM	117/117 (100%)	1.12	20 (17%) 1 2	109, 159, 244, 340	0
17	AN	60/60 (100%)	0.82	10 (16%) 1 2	72, 128, 174, 224	0
17	CN	60/60 (100%)	1.05	11 (18%) 1 1	80, 151, 191, 265	0
18	AO	88/88 (100%)	0.46	2 (2%) 60 59	67, 109, 157, 188	0
18	CO	88/88 (100%)	0.12	1 (1%) 80 79	58, 106, 146, 168	0
19	AP	83/83 (100%)	0.62	4 (4%) 30 31	65, 99, 135, 245	0
19	CP	83/83 (100%)	1.39	26 (31%) 0 0	78, 139, 192, 243	0
20	AQ	99/99 (100%)	0.33	4 (4%) 38 37	63, 102, 157, 211	0
20	CQ	99/99 (100%)	0.67	6 (6%) 21 22	76, 116, 167, 283	0
21	AR	70/70 (100%)	2.07	28 (40%) 0 0	76, 134, 215, 266	0
21	CR	70/70 (100%)	0.90	10 (14%) 2 3	70, 112, 182, 225	0
22	AS	78/78 (100%)	1.44	25 (32%) 0 0	113, 164, 229, 318	0
22	CS	78/78 (100%)	1.62	28 (35%) 0 0	112, 174, 250, 339	0
23	AT	99/99 (100%)	0.84	14 (14%) 2 3	68, 115, 202, 272	0
23	CT	99/99 (100%)	0.80	17 (17%) 1 1	84, 134, 222, 336	0
24	AU	24/24 (100%)	3.89	23 (95%) 0 0	102, 150, 217, 233	0
24	CU	24/24 (100%)	3.60	19 (79%) 0 0	126, 169, 229, 236	0
25	BA	2789/2879 (96%)	0.12	72 (2%) 56 54	36, 76, 211, 411	0
25	DA	2789/2879 (96%)	0.06	84 (3%) 50 49	27, 65, 189, 401	0
26	BB	119/119 (100%)	0.27	0 100 100	63, 129, 186, 245	0
26	DB	119/119 (100%)	0.30	2 (1%) 70 68	73, 119, 167, 276	0
27	BD	271/271 (100%)	0.30	13 (4%) 30 31	31, 66, 114, 224	0
27	DD	271/271 (100%)	-0.01	5 (1%) 68 67	14, 56, 107, 221	0
28	BE	204/204 (100%)	0.40	10 (4%) 29 29	35, 82, 148, 377	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
28	DE	204/204 (100%)	0.09	5 (2%) 57 55	29, 74, 138, 256	0
29	BF	202/202 (100%)	0.01	1 (0%) 91 90	28, 81, 163, 345	0
29	DF	202/202 (100%)	0.10	2 (0%) 82 81	13, 69, 145, 300	0
30	BG	181/181 (100%)	1.06	40 (22%) 0 1	78, 147, 221, 323	0
30	DG	181/181 (100%)	0.75	29 (16%) 1 2	73, 136, 220, 288	0
31	BH	159/159 (100%)	1.37	49 (30%) 0 0	86, 172, 263, 376	0
31	DH	159/159 (100%)	0.07	7 (4%) 34 34	48, 100, 157, 286	0
32	BI	145/145 (100%)	2.16	60 (41%) 0 0	74, 188, 473, 558	0
32	DI	145/145 (100%)	0.76	15 (10%) 6 8	47, 118, 209, 462	0
33	BK	147/147 (100%)	5.37	122 (82%) 0 0	155, 266, 359, 430	0
33	DK	147/147 (100%)	4.51	120 (81%) 0 0	115, 275, 372, 435	0
34	BN	137/137 (100%)	0.44	6 (4%) 34 34	51, 89, 139, 220	0
34	DN	137/137 (100%)	0.02	0 100 100	37, 84, 149, 192	0
35	BO	122/122 (100%)	-0.15	0 100 100	44, 77, 121, 158	0
35	DO	122/122 (100%)	-0.15	0 100 100	31, 67, 117, 149	0
36	BP	146/146 (100%)	0.75	13 (8%) 9 11	27, 100, 201, 293	0
36	DP	146/146 (100%)	0.55	15 (10%) 6 8	23, 85, 172, 304	0
37	BQ	134/134 (100%)	0.39	7 (5%) 27 27	45, 86, 159, 419	0
37	DQ	134/134 (100%)	0.25	7 (5%) 27 27	41, 83, 175, 469	0
38	BR	117/117 (100%)	0.21	1 (0%) 84 83	37, 83, 141, 190	0
38	DR	117/117 (100%)	0.13	4 (3%) 45 44	32, 74, 137, 174	0
39	BS	98/98 (100%)	1.15	25 (25%) 0 0	61, 135, 212, 245	0
39	DS	98/98 (100%)	0.70	14 (14%) 2 3	72, 116, 180, 203	0
40	BT	137/137 (100%)	0.51	7 (5%) 28 28	54, 95, 195, 362	0
40	DT	137/137 (100%)	0.44	14 (10%) 6 8	34, 90, 194, 343	0
41	BU	117/117 (100%)	0.47	6 (5%) 28 28	36, 73, 137, 173	0
41	DU	117/117 (100%)	0.57	4 (3%) 45 44	35, 74, 125, 363	0
42	BV	101/101 (100%)	0.16	2 (1%) 65 64	49, 93, 159, 283	0
42	DV	101/101 (100%)	0.44	9 (8%) 9 11	34, 96, 153, 283	0
43	BW	112/112 (100%)	-0.09	1 (0%) 84 83	28, 66, 124, 378	0
43	DW	112/112 (100%)	-0.11	0 100 100	38, 66, 125, 210	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å^2)	Q<0.9
44	BX	92/92 (100%)	0.08	2 (2%) 62 60	61, 87, 139, 179	0
44	DX	92/92 (100%)	0.09	1 (1%) 80 79	34, 66, 106, 168	0
45	BY	100/100 (100%)	1.41	23 (23%) 0 1	46, 112, 248, 418	0
45	DY	100/100 (100%)	1.11	15 (15%) 2 2	50, 92, 223, 452	0
46	BZ	187/187 (100%)	0.67	17 (9%) 9 10	75, 130, 200, 267	0
46	DZ	187/187 (100%)	0.46	11 (5%) 22 23	56, 123, 182, 260	0
47	B0	76/76 (100%)	0.30	2 (2%) 56 54	54, 84, 150, 259	0
47	D0	76/76 (100%)	0.33	3 (3%) 39 38	37, 80, 115, 238	0
48	B1	88/88 (100%)	0.44	5 (5%) 23 24	46, 90, 156, 264	0
48	D1	88/88 (100%)	0.36	4 (4%) 33 33	23, 69, 147, 267	0
49	B2	62/62 (100%)	0.50	6 (9%) 7 9	67, 119, 210, 257	0
49	D2	62/62 (100%)	0.61	7 (11%) 5 6	33, 75, 176, 304	0
50	B3	59/59 (100%)	0.86	6 (10%) 6 8	52, 80, 144, 224	0
50	D3	59/59 (100%)	0.42	3 (5%) 28 28	42, 81, 143, 236	0
51	B4	30/30 (100%)	0.75	5 (16%) 1 2	107, 184, 297, 335	0
51	D4	30/30 (100%)	1.43	11 (36%) 0 0	125, 215, 272, 361	0
52	B5	52/52 (100%)	0.33	3 (5%) 23 24	32, 75, 181, 213	0
52	D5	52/52 (100%)	-0.14	1 (1%) 66 65	20, 77, 172, 269	0
53	B6	44/44 (100%)	8.21	44 (100%) 0 0	118, 225, 304, 330	0
53	D6	44/44 (100%)	7.05	42 (95%) 0 0	136, 208, 276, 330	0
54	B7	48/48 (100%)	0.89	6 (12%) 3 4	35, 60, 131, 156	0
54	D7	48/48 (100%)	0.27	3 (6%) 20 21	19, 36, 94, 156	0
55	B8	63/63 (100%)	0.39	2 (3%) 47 46	38, 78, 155, 190	0
55	D8	63/63 (100%)	0.24	3 (4%) 30 31	33, 62, 142, 213	0
All	All	21328/21508 (99%)	0.56	2078 (9%) 7 9	13, 103, 238, 558	0

All (2078) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
33	DK	6	ALA	23.8
53	B6	40	CYS	20.9
33	DK	1	MET	20.5
33	BK	135	GLY	18.7
53	D6	13	CYS	18.6

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Mol	Chain	Res	Type	RSRZ
4	CY	93	PRO	17.8
33	BK	141	ALA	17.6
4	CY	94	ALA	17.5
33	BK	66	THR	17.3
53	B6	41	PRO	16.8
45	DY	52	SER	16.7
32	BI	86	THR	16.7
53	B6	49	HIS	16.2
4	CY	55	PRO	16.0
33	BK	18	THR	16.0
4	CY	91	GLU	15.6
4	CY	92	LEU	14.8
4	AY	91	GLU	14.7
45	BY	53	PRO	14.7
4	CY	53	ASN	14.5
45	BY	52	SER	14.0
29	DF	207	GLY	14.0
53	D6	51	GLU	14.0
33	BK	17	ALA	13.9
1	AA	68(N)	U	13.8
53	D6	36	LEU	13.8
53	B6	39	TYR	13.7
13	CJ	72	VAL	13.5
53	B6	47	THR	13.5
1	AA	68(M)	U	13.1
4	CY	52	TRP	12.8
53	B6	26	ASN	12.7
45	DY	53	PRO	12.5
4	CY	51	LEU	12.4
33	BK	140	GLY	12.3
53	B6	51	GLU	12.3
53	B6	13	CYS	12.2
33	DK	15	GLY	12.1
53	D6	26	ASN	12.0
53	B6	12	GLU	12.0
33	BK	19	PRO	11.9
33	BK	30	HIS	11.8
10	CG	84	ASN	11.8
4	AY	47	GLU	11.8
33	BK	57	ILE	11.6
4	AY	376	GLU	11.5
53	D6	20	ASN	11.3

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Mol	Chain	Res	Type	RSRZ
33	BK	77	LEU	11.3
33	BK	55	VAL	11.2
25	BA	2794(C)	C	11.2
53	B6	50	ARG	11.1
33	DK	5	VAL	11.0
1	AA	68(J)	G	10.9
33	BK	78	ILE	10.8
4	AY	45	ARG	10.8
33	DK	47	ASN	10.8
33	BK	29	GLN	10.8
53	B6	16	CYS	10.7
1	AA	68(L)	U	10.6
33	BK	69	THR	10.6
33	DK	14	ALA	10.5
32	BI	85	GLU	10.5
12	CI	8	GLY	10.5
25	DA	1093	G	10.3
53	D6	47	THR	10.3
33	BK	100	THR	10.2
33	BK	27	LEU	10.2
33	BK	142	PRO	10.0
53	B6	14	THR	9.9
53	B6	48	VAL	9.9
33	BK	71	THR	9.9
45	DY	59	GLY	9.8
13	CJ	73	ASP	9.8
1	CA	68(O)	A	9.6
33	BK	11	GLN	9.6
33	DK	48	MET	9.6
53	B6	42	TRP	9.6
24	CU	5	ASP	9.5
25	DA	271(N)	G	9.4
33	DK	124	ALA	9.3
25	BA	1087	G	9.3
36	BP	150	ALA	9.3
33	BK	7	VAL	9.2
4	AY	46	LEU	9.2
4	CY	95	GLU	9.2
53	D6	24	GLU	9.2
53	D6	39	TYR	9.2
4	CY	61	VAL	9.1
33	DK	114	ASP	9.0

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Mol	Chain	Res	Type	RSRZ
25	BA	2794(B)	U	8.9
53	D6	37	ARG	8.9
4	CY	102	PRO	8.9
53	B6	17	LYS	8.8
53	B6	31	PRO	8.8
4	AY	375	VAL	8.7
33	BK	96	VAL	8.7
5	AB	7	VAL	8.6
32	BI	72	LEU	8.6
33	BK	33	ASN	8.6
53	B6	38	LYS	8.6
33	DK	111	LYS	8.6
33	DK	22	PRO	8.5
53	D6	49	HIS	8.5
23	CT	106	ALA	8.5
33	BK	2	LYS	8.5
53	D6	35	GLU	8.5
33	BK	70	LYS	8.4
32	BI	121	LYS	8.4
53	B6	43	CYS	8.4
33	BK	72	PRO	8.4
24	AU	24	ARG	8.4
33	BK	136	VAL	8.4
33	BK	137	GLU	8.4
53	D6	21	TYR	8.3
33	BK	1	MET	8.3
32	BI	101	LEU	8.3
53	D6	34	LEU	8.3
33	DK	30	HIS	8.3
1	CA	68(J)	G	8.3
4	AY	48	ASP	8.2
10	CG	85	TYR	8.2
33	BK	6	ALA	8.2
4	CY	45	ARG	8.2
33	DK	113	PRO	8.2
53	B6	36	LEU	8.2
32	BI	109	ILE	8.1
33	BK	99	ILE	8.1
4	AY	56	GLU	8.0
33	DK	49	GLY	8.0
33	BK	46	ALA	8.0
32	BI	119	PRO	8.0

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Mol	Chain	Res	Type	RSRZ
33	DK	83	GLY	7.9
33	BK	139	VAL	7.9
53	D6	42	TRP	7.9
33	BK	104	VAL	7.9
13	CJ	71	LEU	7.9
53	D6	11	LEU	7.9
33	BK	138	VAL	7.9
53	D6	43	CYS	7.9
10	CG	82	GLY	7.9
12	CI	7	THR	7.9
53	D6	19	ARG	7.8
4	CY	56	GLU	7.8
32	BI	145	VAL	7.8
53	D6	22	ALA	7.8
25	DA	270(O)	U	7.8
53	D6	38	LYS	7.7
53	B6	30	THR	7.7
4	AY	94	ALA	7.7
40	DT	136	GLN	7.7
53	B6	37	ARG	7.6
33	BK	65	PHE	7.6
53	B6	24	GLU	7.6
32	BI	100	ALA	7.6
4	CY	314	GLU	7.5
33	DK	89	HIS	7.5
33	BK	80	LYS	7.4
33	BK	56	GLU	7.4
53	D6	9	LEU	7.4
28	BE	204	ALA	7.4
33	BK	95	LYS	7.4
33	DK	125	ARG	7.4
51	D4	58	TYR	7.3
4	CY	63	GLN	7.3
53	D6	52	VAL	7.3
47	D0	85	ALA	7.3
53	D6	31	PRO	7.2
33	BK	68	VAL	7.2
30	BG	2	PRO	7.2
33	BK	22	PRO	7.2
45	BY	51	VAL	7.2
53	B6	45	LYS	7.2
33	BK	127	ILE	7.2

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Mol	Chain	Res	Type	RSRZ
25	BA	271(S)	C	7.2
33	BK	32	ALA	7.2
53	B6	35	GLU	7.2
24	AU	25	LYS	7.2
13	AJ	72	VAL	7.1
4	CY	50	SER	7.1
24	AU	23	PRO	7.1
33	DK	23	VAL	7.1
33	DK	7	VAL	7.0
53	B6	29	ASN	7.0
53	B6	44	ARG	7.0
25	DA	1082	U	7.0
4	CY	89	MET	7.0
10	AG	80	VAL	6.9
5	AB	48	MET	6.9
4	CY	200	HIS	6.9
2	AV	24	A	6.9
13	CJ	8	LEU	6.9
4	AY	42	LEU	6.8
33	DK	84	LEU	6.8
13	AJ	34	VAL	6.8
12	AI	15	ALA	6.8
33	BK	54	PRO	6.8
4	AY	38	ARG	6.8
4	AY	377	ALA	6.8
32	BI	87	LYS	6.8
32	BI	118	LYS	6.8
30	BG	86	MET	6.8
33	BK	28	GLY	6.7
32	BI	108	THR	6.7
33	BK	31	GLY	6.7
33	DK	127	ILE	6.7
33	BK	58	THR	6.7
25	BA	2794(D)	A	6.7
32	DI	89	TYR	6.7
33	BK	75	SER	6.6
12	AI	61	ALA	6.6
53	D6	46	HIS	6.6
5	AB	203	GLY	6.6
4	CY	353	ASP	6.6
4	AY	58	ALA	6.6
25	BA	271(N)	G	6.6

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Mol	Chain	Res	Type	RSRZ
33	DK	65	PHE	6.6
29	BF	207	GLY	6.5
33	DK	88	ALA	6.5
33	BK	60	TYR	6.5
4	CY	57	ALA	6.5
33	BK	97	GLY	6.5
25	DA	1536	A	6.5
33	DK	136	VAL	6.5
26	DB	52	A	6.5
33	DK	82	ALA	6.5
30	BG	69	ALA	6.4
33	DK	12	LEU	6.4
25	DA	276	C	6.4
33	DK	16	LYS	6.4
33	BK	21	PRO	6.4
53	B6	34	LEU	6.4
33	BK	10	LEU	6.4
53	B6	20	ASN	6.4
33	BK	44	ALA	6.4
1	CA	68(Q)	U	6.4
53	D6	12	GLU	6.4
13	CJ	35	SER	6.4
33	BK	26	ALA	6.3
4	CY	90	GLU	6.3
1	AA	68(K)	U	6.3
12	CI	5	TYR	6.3
21	AR	31	LEU	6.3
4	CY	377	ALA	6.3
32	BI	82	ARG	6.3
4	AY	59	ARG	6.2
53	D6	32	ASN	6.2
32	BI	81	VAL	6.2
53	B6	11	LEU	6.2
53	D6	50	ARG	6.2
33	DK	55	VAL	6.2
9	AF	101	ALA	6.2
24	CU	4	GLY	6.2
33	DK	31	GLY	6.2
4	CY	17	ASN	6.2
53	D6	14	THR	6.1
1	CA	68(R)	C	6.1
32	BI	111	PRO	6.1

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Mol	Chain	Res	Type	RSRZ
22	AS	81	ARG	6.1
33	DK	108	ALA	6.1
12	CI	46	ALA	6.1
53	D6	48	VAL	6.1
32	BI	91	SER	6.1
33	BK	25	PRO	6.1
53	D6	10	LEU	6.1
53	D6	41	PRO	6.1
33	BK	79	ARG	6.0
33	DK	56	GLU	6.0
16	CM	4	ILE	6.0
25	DA	2794(D)	A	6.0
25	BA	270(O)	U	6.0
21	AR	22	VAL	6.0
13	AJ	35	SER	6.0
4	CY	58	ALA	6.0
4	AY	95	GLU	6.0
33	DK	57	ILE	6.0
5	CB	239	VAL	5.9
4	AY	63	GLN	5.9
13	CJ	6	ILE	5.9
12	AI	19	LEU	5.9
12	CI	4	TYR	5.9
4	CY	311	LEU	5.9
13	CJ	70	ARG	5.9
46	BZ	28	MET	5.9
50	B3	1	MET	5.9
1	AA	1129	C	5.9
49	D2	15	LYS	5.9
1	CA	68(P)	C	5.9
4	AY	51	LEU	5.9
33	BK	12	LEU	5.9
4	CY	54	ASP	5.9
10	CG	83	ALA	5.9
33	BK	88	ALA	5.9
24	CU	2	GLY	5.9
4	AY	89	MET	5.9
5	AB	122	PHE	5.9
21	AR	43	PHE	5.9
13	CJ	36	GLY	5.9
33	BK	8	VAL	5.8
12	CI	9	ARG	5.8

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Mol	Chain	Res	Type	RSRZ
12	CI	19	LEU	5.8
4	AY	92	LEU	5.8
24	CU	17	THR	5.8
13	CJ	5	ARG	5.8
53	B6	46	HIS	5.8
33	DK	11	GLN	5.8
33	DK	71	THR	5.8
33	DK	51	ALA	5.8
33	DK	112	MET	5.7
24	AU	17	THR	5.7
12	AI	62	TYR	5.7
45	DY	51	VAL	5.7
16	CM	30	ALA	5.7
4	AY	93	PRO	5.7
10	AG	84	ASN	5.7
33	BK	126	MET	5.7
25	DA	1535	U	5.7
33	DK	98	ARG	5.7
33	DK	77	LEU	5.7
25	DA	2794(E)	A	5.7
53	B6	21	TYR	5.7
53	B6	15	GLU	5.7
49	D2	16	LEU	5.7
5	AB	41	ILE	5.7
10	AG	85	TYR	5.6
33	DK	104	VAL	5.6
53	D6	23	THR	5.6
30	DG	2	PRO	5.6
6	AC	81	GLY	5.6
33	BK	3	LYS	5.6
4	AY	346	PRO	5.6
33	BK	64	SER	5.6
25	BA	1089	G	5.5
24	CU	25	LYS	5.5
1	CA	68(K)	U	5.5
33	DK	126	MET	5.5
33	BK	45	THR	5.5
10	CG	79	ARG	5.5
24	AU	22	ARG	5.5
33	BK	61	ALA	5.5
22	CS	48	THR	5.5
4	AY	52	TRP	5.5

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Mol	Chain	Res	Type	RSRZ
25	BA	2794(E)	A	5.5
25	DA	1506(B)	A	5.5
10	AG	79	ARG	5.5
33	BK	89	HIS	5.5
21	AR	47	THR	5.5
4	CY	192	LEU	5.4
33	DK	44	ALA	5.4
4	CY	315	VAL	5.4
46	BZ	27	VAL	5.4
25	DA	2794(C)	C	5.4
32	DI	88	ILE	5.4
25	DA	1088	A	5.4
25	BA	1104	C	5.4
32	BI	68	LEU	5.4
32	BI	36	ALA	5.4
33	BK	24	GLY	5.4
4	AY	55	PRO	5.4
12	AI	9	ARG	5.4
5	AB	40	HIS	5.4
5	CB	133	LYS	5.4
33	DK	52	ILE	5.4
33	BK	102	GLU	5.4
33	BK	59	ILE	5.3
53	B6	22	ALA	5.3
4	CY	59	ARG	5.3
45	BY	59	GLY	5.3
25	DA	1080	C	5.3
33	DK	54	PRO	5.3
33	DK	66	THR	5.3
33	BK	37	PHE	5.2
23	AT	103	GLY	5.2
33	DK	80	LYS	5.2
4	CY	360	ALA	5.2
32	BI	120	ILE	5.2
33	DK	86	LYS	5.2
13	CJ	4	ILE	5.2
4	AY	41	GLU	5.2
53	D6	40	CYS	5.2
4	CY	42	LEU	5.2
33	BK	43	ALA	5.2
4	CY	316	ARG	5.2
33	DK	13	PRO	5.2

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Mol	Chain	Res	Type	RSRZ
1	CA	68(S)	C	5.2
33	DK	50	ASP	5.1
33	DK	110	GLN	5.1
25	BA	271(C)	U	5.1
33	DK	4	VAL	5.1
22	AS	35	SER	5.1
4	AY	90	GLU	5.1
39	BS	39	ILE	5.1
33	DK	45	THR	5.1
4	CY	199	VAL	5.1
5	AB	12	GLU	5.1
5	CB	12	GLU	5.1
4	AY	219	ALA	5.1
33	BK	14	ALA	5.1
4	CY	101	LYS	5.1
25	DA	1089	G	5.1
4	AY	60	LYS	5.1
33	DK	28	GLY	5.1
33	BK	41	PHE	5.1
22	CS	40	ILE	5.1
4	AY	327	TYR	5.0
33	BK	94	GLU	5.0
1	CA	1129	C	5.0
4	CY	201	ARG	5.0
4	AY	160	GLN	5.0
4	CY	160	GLN	5.0
33	DK	145	LYS	5.0
13	CJ	87	THR	5.0
4	AY	57	ALA	5.0
4	AY	374	GLU	5.0
33	DK	100	THR	5.0
23	AT	98	PRO	5.0
53	B6	25	LYS	5.0
33	DK	118	THR	5.0
33	BK	23	VAL	5.0
12	AI	3	GLN	5.0
54	B7	48	LYS	5.0
4	CY	372	THR	5.0
33	DK	70	LYS	5.0
45	BY	50	ARG	4.9
4	CY	260	SER	4.9
4	AY	372	THR	4.9

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Mol	Chain	Res	Type	RSRZ
17	AN	2	ALA	4.9
54	B7	47	ARG	4.9
1	CA	68(N)	U	4.9
33	BK	40	ALA	4.9
23	CT	103	GLY	4.9
1	AA	1028(D)	C	4.9
4	AY	44	ARG	4.9
13	CJ	83	GLU	4.9
4	AY	43	GLU	4.9
24	AU	5	ASP	4.9
6	AC	79	ARG	4.9
46	BZ	160	GLY	4.9
24	AU	18	TYR	4.9
22	CS	41	VAL	4.8
25	DA	1092	C	4.8
12	AI	65	VAL	4.8
1	CA	68(L)	U	4.8
13	CJ	74	ILE	4.8
25	BA	2794(A)	G	4.8
12	AI	8	GLY	4.8
24	CU	6	ARG	4.8
12	AI	64	THR	4.8
25	BA	1083	U	4.8
39	BS	52	SER	4.8
5	CB	7	VAL	4.8
4	AY	61	VAL	4.8
4	AY	64	GLU	4.8
49	B2	43	GLN	4.8
17	CN	2	ALA	4.8
25	DA	1087	G	4.8
32	DI	80	PRO	4.8
33	DK	78	ILE	4.7
33	DK	10	LEU	4.7
9	AF	91	VAL	4.7
53	B6	23	THR	4.7
22	CS	61	TYR	4.7
19	CP	11	SER	4.7
33	DK	75	SER	4.7
1	CA	1028(D)	C	4.7
25	DA	1067	A	4.7
32	BI	1	MET	4.7
53	B6	27	LYS	4.7

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Mol	Chain	Res	Type	RSRZ
13	CJ	9	ARG	4.7
10	CG	80	VAL	4.7
53	D6	28	ARG	4.7
45	BY	79	CYS	4.7
32	BI	20	ASP	4.7
25	BA	1067	A	4.7
22	AS	74	PHE	4.7
13	AJ	33	GLN	4.7
33	BK	76	TYR	4.7
25	BA	2793	G	4.7
33	DK	134	MET	4.7
49	B2	5	GLU	4.7
33	BK	42	ASN	4.7
33	DK	76	TYR	4.7
13	CJ	39	PRO	4.7
33	DK	95	LYS	4.6
4	CY	312	ARG	4.6
5	CB	96	ARG	4.6
33	DK	87	GLY	4.6
25	BA	1080	C	4.6
33	DK	17	ALA	4.6
4	AY	65	ALA	4.6
4	CY	99	ALA	4.6
5	AB	43	ASP	4.6
33	BK	81	ALA	4.6
33	DK	18	THR	4.6
5	AB	18	GLY	4.6
21	AR	23	LYS	4.6
13	CJ	38	ILE	4.6
25	DA	1090	U	4.6
12	AI	85	LEU	4.6
53	D6	16	CYS	4.6
4	AY	335	LYS	4.6
10	CG	3	ARG	4.6
24	CU	7	ARG	4.6
6	AC	80	GLY	4.6
14	AK	50	TYR	4.6
28	BE	60	ASN	4.5
33	DK	46	ALA	4.5
33	DK	141	ALA	4.5
22	CS	71	LEU	4.5
4	CY	103	GLU	4.5

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Mol	Chain	Res	Type	RSRZ
33	DK	94	GLU	4.5
25	BA	2894	G	4.5
19	CP	18	ARG	4.5
4	CY	217	SER	4.5
5	AB	118	LEU	4.5
4	CY	378	GLU	4.5
19	CP	12	LYS	4.5
7	AD	42	GLN	4.5
33	DK	58	THR	4.5
33	DK	142	PRO	4.5
4	AY	200	HIS	4.5
5	AB	231	GLU	4.5
19	CP	34	GLU	4.4
13	AJ	88	LEU	4.4
12	AI	63	ILE	4.4
19	CP	1	MET	4.4
41	DU	118	GLY	4.4
12	AI	14	VAL	4.4
13	AJ	20	ALA	4.4
25	DA	1173	A	4.4
4	AY	334	VAL	4.4
39	DS	27	SER	4.4
16	CM	2	ALA	4.4
10	CG	5	ARG	4.4
10	AG	156	TRP	4.4
33	BK	49	GLY	4.4
32	BI	97	ILE	4.4
33	DK	26	ALA	4.4
5	AB	15	VAL	4.4
6	CC	101	LEU	4.4
21	AR	88	LYS	4.4
5	CB	18	GLY	4.4
12	CI	62	TYR	4.4
33	DK	115	LEU	4.4
33	DK	19	PRO	4.4
33	DK	81	ALA	4.4
33	DK	29	GLN	4.4
12	CI	17	VAL	4.3
25	BA	1535	U	4.3
25	DA	2793	G	4.3
53	D6	17	LYS	4.3
5	CB	29	ALA	4.3

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Mol	Chain	Res	Type	RSRZ
12	CI	90	PRO	4.3
33	DK	123	ALA	4.3
5	AB	207	ALA	4.3
4	AY	330	ASP	4.3
33	DK	85	GLU	4.3
4	CY	60	LYS	4.3
4	AY	220	GLY	4.3
39	DS	37	ALA	4.3
53	B6	19	ARG	4.3
32	BI	122	GLU	4.3
25	DA	2894	G	4.3
33	DK	146	ASP	4.3
33	BK	50	ASP	4.3
33	DK	27	LEU	4.3
11	AH	131	GLY	4.3
10	CG	77	SER	4.2
25	DA	2802	G	4.2
33	DK	79	ARG	4.2
33	DK	140	GLY	4.2
12	CI	18	PHE	4.2
53	D6	45	LYS	4.2
4	CY	313	GLY	4.2
4	CY	332	ASN	4.2
21	AR	78	LEU	4.2
31	BH	101	ARG	4.2
46	BZ	169	GLU	4.2
4	AY	40	LYS	4.2
25	DA	357(E)	U	4.2
4	AY	82	LEU	4.2
5	CB	44	LEU	4.2
12	AI	82	ALA	4.2
4	AY	49	PRO	4.2
45	BY	2	ARG	4.2
21	AR	24	ALA	4.2
12	CI	20	ARG	4.2
23	CT	60	GLU	4.2
24	CU	12	LYS	4.2
32	BI	123	LEU	4.2
16	CM	97	PRO	4.2
25	BA	1046	A	4.1
25	DA	2803	C	4.1
4	CY	342	MET	4.1

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Mol	Chain	Res	Type	RSRZ
25	BA	2794	C	4.1
25	DA	1057	A	4.1
30	BG	87	PRO	4.1
51	D4	49	GLU	4.1
5	CB	188	ALA	4.1
5	CB	215	LEU	4.1
16	CM	19	LEU	4.1
12	AI	4	TYR	4.1
33	DK	25	PRO	4.1
33	DK	72	PRO	4.1
4	AY	198	GLY	4.1
53	B6	32	ASN	4.1
6	CC	66	VAL	4.1
10	AG	82	GLY	4.1
21	CR	88	LYS	4.1
23	CT	64	ASP	4.1
31	BH	161	GLY	4.1
21	AR	44	LEU	4.1
4	AY	342	MET	4.1
4	CY	66	ALA	4.1
5	CB	229	VAL	4.1
53	B6	52	VAL	4.1
12	AI	18	PHE	4.1
33	DK	3	LYS	4.1
25	BA	1084	A	4.1
13	AJ	4	ILE	4.1
12	AI	26	VAL	4.1
21	AR	62	GLU	4.1
33	DK	121	GLU	4.1
4	AY	86	LEU	4.1
16	AM	19	LEU	4.1
33	BK	134	MET	4.0
24	AU	2	GLY	4.0
46	DZ	27	VAL	4.0
22	CS	47	HIS	4.0
25	DA	1534	G	4.0
24	AU	11	GLY	4.0
33	BK	73	PRO	4.0
5	AB	163	PHE	4.0
13	AJ	74	ILE	4.0
23	AT	99	LEU	4.0
4	CY	67	ARG	4.0

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Mol	Chain	Res	Type	RSRZ
45	BY	87	LYS	4.0
13	AJ	21	GLN	4.0
4	CY	322	SER	4.0
4	AY	53	ASN	4.0
32	BI	61	ARG	4.0
39	BS	95	HIS	4.0
25	DA	11	G	4.0
24	AU	8	THR	4.0
36	BP	87	ASP	4.0
12	AI	81	ILE	4.0
33	BK	47	ASN	4.0
9	AF	6	VAL	4.0
12	AI	7	THR	4.0
53	D6	30	THR	4.0
31	BH	31	GLY	4.0
8	AE	19	MET	4.0
4	CY	206	SER	4.0
31	BH	56	SER	4.0
4	CY	371	GLY	4.0
31	BH	55	PRO	4.0
5	CB	43	ASP	4.0
21	AR	29	PHE	4.0
22	CS	62	ILE	4.0
4	AY	313	GLY	3.9
33	DK	116	ASN	3.9
16	AM	94	ARG	3.9
1	AA	68(O)	A	3.9
4	AY	50	SER	3.9
5	AB	35	GLU	3.9
24	CU	18	TYR	3.9
36	BP	149	GLU	3.9
53	D6	25	LYS	3.9
25	DA	277	A	3.9
5	AB	214	ILE	3.9
16	CM	16	ASP	3.9
21	AR	32	ARG	3.9
7	CD	7	PRO	3.9
8	CE	24	ARG	3.9
10	AG	78	ARG	3.9
41	DU	117	GLN	3.9
5	CB	42	ILE	3.9
51	D4	57	ILE	3.9

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Mol	Chain	Res	Type	RSRZ
25	BA	271(R)	C	3.9
14	AK	109	VAL	3.9
19	CP	17	TYR	3.9
25	DA	1086	A	3.9
5	AB	42	ILE	3.9
16	AM	30	ALA	3.9
33	BK	133	SER	3.9
28	BE	55	ASN	3.9
13	CJ	75	ILE	3.9
33	BK	62	ASP	3.9
33	BK	48	MET	3.9
30	DG	176	LEU	3.9
31	BH	105	LEU	3.9
30	DG	137	GLU	3.9
49	D2	12	GLU	3.9
32	BI	35	LEU	3.8
33	DK	117	THR	3.8
22	AS	49	ILE	3.8
45	DY	2	ARG	3.8
16	CM	98	VAL	3.8
33	BK	5	VAL	3.8
33	DK	59	ILE	3.8
14	CK	12	ARG	3.8
53	B6	28	ARG	3.8
27	BD	35	LYS	3.8
4	AY	322	SER	3.8
5	CB	211	ILE	3.8
53	B6	33	LYS	3.8
33	DK	96	VAL	3.8
13	CJ	80	LYS	3.8
33	BK	63	ARG	3.8
39	BS	88	ASP	3.8
46	DZ	87	ASP	3.8
54	B7	46	VAL	3.8
30	BG	21	ARG	3.8
13	AJ	90	LEU	3.8
9	CF	94	GLN	3.8
31	BH	106	THR	3.8
22	AS	41	VAL	3.8
25	DA	2892	A	3.8
6	AC	103	VAL	3.8
33	BK	4	VAL	3.8

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Mol	Chain	Res	Type	RSRZ
11	CH	131	GLY	3.8
33	BK	109	LYS	3.8
33	DK	101	TRP	3.8
31	BH	67	LEU	3.8
13	AJ	73	ASP	3.8
33	DK	138	VAL	3.8
10	CG	78	ARG	3.7
27	DD	26	LYS	3.7
33	DK	135	GLY	3.7
5	AB	36	ARG	3.7
10	CG	4	ARG	3.7
16	CM	46	LYS	3.7
31	BH	123	PHE	3.7
25	BA	2802	G	3.7
33	BK	143	GLU	3.7
13	AJ	75	ILE	3.7
25	DA	155(C)	U	3.7
46	DZ	88	PHE	3.7
31	BH	125	VAL	3.7
36	BP	110	TYR	3.7
30	DG	87	PRO	3.7
4	CY	252	GLY	3.7
4	CY	275	CYS	3.7
6	AC	105	GLU	3.7
30	BG	12	TYR	3.7
33	BK	38	VAL	3.7
12	CI	6	GLY	3.7
1	CA	68(M)	U	3.7
25	BA	1086	A	3.7
4	CY	29	ILE	3.7
17	AN	60	SER	3.7
12	CI	2	GLU	3.7
14	AK	11	LYS	3.7
5	CB	13	ALA	3.7
39	BS	36	TYR	3.7
39	DS	38	GLN	3.7
25	BA	1173	A	3.7
25	DA	1073	A	3.7
33	BK	108	ALA	3.7
8	AE	20	GLN	3.7
5	AB	99	GLY	3.7
10	CG	81	GLY	3.7

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Mol	Chain	Res	Type	RSRZ
10	AG	88	PRO	3.7
4	AY	103	GLU	3.7
12	AI	2	GLU	3.7
45	BY	58	GLY	3.6
9	AF	89	MET	3.6
21	AR	69	THR	3.6
4	AY	243	ASP	3.6
12	CI	15	ALA	3.6
13	CJ	26	ALA	3.6
5	CB	15	VAL	3.6
5	CB	214	ILE	3.6
4	CY	196	GLU	3.6
21	AR	83	GLU	3.6
4	CY	309	LYS	3.6
53	B6	9	LEU	3.6
4	AY	353	ASP	3.6
31	DH	169	VAL	3.6
25	DA	2804	C	3.6
30	BG	82	LEU	3.6
4	AY	102	PRO	3.6
5	CB	54	THR	3.6
8	CE	118	ILE	3.6
33	BK	113	PRO	3.6
25	BA	1061	U	3.6
7	CD	16	GLY	3.6
1	AA	1028(E)	G	3.6
33	BK	9	LYS	3.6
4	AY	37	THR	3.6
12	CI	64	THR	3.6
33	BK	53	VAL	3.6
40	DT	135	VAL	3.6
22	AS	52	TYR	3.6
21	AR	26	LEU	3.6
23	CT	104	LEU	3.6
25	DA	271(C)	U	3.6
25	DA	2794(B)	U	3.6
39	BS	97	ARG	3.6
51	D4	41	ILE	3.6
1	AA	1130	A	3.6
48	D1	85	LEU	3.6
31	BH	96	ALA	3.6
39	DS	26	LEU	3.6

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Mol	Chain	Res	Type	RSRZ
7	CD	42	GLN	3.6
22	AS	50	ALA	3.6
33	DK	130	SER	3.6
28	BE	58	ARG	3.5
25	BA	2896	C	3.5
39	BS	49	VAL	3.5
46	DZ	28	MET	3.5
32	BI	105	HIS	3.5
53	B6	18	ARG	3.5
9	AF	92	LYS	3.5
13	AJ	89	ASP	3.5
22	CS	35	SER	3.5
5	AB	165	VAL	3.5
5	CB	238	LEU	3.5
40	BT	129	ARG	3.5
43	BW	112	GLY	3.5
4	CY	19	SER	3.5
5	CB	165	VAL	3.5
24	CU	24	ARG	3.5
25	BA	271(T)	G	3.5
5	AB	187	LEU	3.5
5	AB	202	PRO	3.5
4	CY	247	ALA	3.5
9	AF	99	ALA	3.5
9	AF	97	PHE	3.5
13	AJ	6	ILE	3.5
32	BI	128	LEU	3.5
48	D1	28	GLY	3.5
25	BA	1082	U	3.5
39	BS	37	ALA	3.5
23	AT	83	ARG	3.5
25	DA	2896	C	3.5
33	BK	93	ARG	3.5
45	DY	50	ARG	3.5
5	CB	132	LYS	3.5
6	CC	50	ALA	3.5
22	AS	75	ALA	3.5
13	AJ	85	LEU	3.5
5	CB	125	PRO	3.5
12	AI	92	TYR	3.5
31	BH	18	GLU	3.5
4	AY	324	ILE	3.5

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Mol	Chain	Res	Type	RSRZ
36	DP	148	LEU	3.5
4	AY	228	ASP	3.5
14	AK	27	ASN	3.5
33	DK	97	GLY	3.5
25	DA	2805	G	3.5
31	BH	80	SER	3.5
5	AB	230	VAL	3.5
4	AY	218	PHE	3.5
31	BH	111	HIS	3.5
48	D1	27	GLU	3.4
1	CA	1003	G	3.4
4	CY	49	PRO	3.4
6	AC	85	ARG	3.4
22	AS	4	SER	3.4
22	AS	51	VAL	3.4
24	AU	10	ARG	3.4
4	AY	177	ILE	3.4
4	AY	308	LEU	3.4
25	BA	1045	A	3.4
25	BA	1112	G	3.4
12	AI	91	ASP	3.4
33	DK	107	ILE	3.4
24	CU	16	GLY	3.4
4	CY	370	GLN	3.4
19	CP	38	TYR	3.4
25	DA	2794(A)	G	3.4
41	BU	117	GLN	3.4
5	CB	227	GLY	3.4
33	DK	67	PHE	3.4
4	CY	34	GLN	3.4
25	BA	2790	A	3.4
46	BZ	171	ILE	3.4
24	AU	14	TRP	3.4
4	AY	260	SER	3.4
24	AU	21	TYR	3.4
33	DK	8	VAL	3.4
30	BG	23	PHE	3.4
4	AY	336	ASP	3.4
12	AI	21	PRO	3.4
32	BI	84	GLY	3.4
25	BA	1088	A	3.4
4	CY	62	SER	3.4

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Mol	Chain	Res	Type	RSRZ
4	CY	310	ALA	3.4
45	BY	83	THR	3.4
31	BH	27	LYS	3.4
6	CC	206	GLU	3.4
17	AN	14	PRO	3.4
53	D6	29	ASN	3.4
5	AB	215	LEU	3.4
21	AR	39	VAL	3.4
5	AB	223	ILE	3.4
15	CL	27	LYS	3.4
1	AA	1257	U	3.4
33	DK	24	GLY	3.4
45	BY	6	HIS	3.4
13	CJ	69	ASN	3.4
33	DK	133	SER	3.4
33	BK	15	GLY	3.4
1	AA	1138	G	3.4
6	CC	207	VAL	3.4
32	BI	127	VAL	3.4
39	BS	58	LEU	3.4
33	BK	101	TRP	3.4
21	AR	56	THR	3.4
45	DY	17	SER	3.4
25	DA	1081	U	3.3
33	BK	13	PRO	3.3
4	CY	281	GLN	3.3
14	AK	12	ARG	3.3
30	BG	165	THR	3.3
13	AJ	10	GLY	3.3
31	BH	64	LEU	3.3
25	BA	2803	C	3.3
25	DA	1537	C	3.3
8	AE	18	ARG	3.3
24	CU	21	TYR	3.3
12	AI	6	GLY	3.3
32	BI	16	GLY	3.3
1	CA	1025	U	3.3
32	DI	67	ARG	3.3
4	CY	331	LYS	3.3
46	BZ	161	VAL	3.3
25	BA	896	A	3.3
53	D6	15	GLU	3.3

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Mol	Chain	Res	Type	RSRZ
21	AR	46	GLU	3.3
7	CD	37	PRO	3.3
14	AK	42	TRP	3.3
48	D1	81	ARG	3.3
5	AB	201	ILE	3.3
33	DK	106	GLU	3.3
28	BE	186	GLY	3.3
4	AY	175	ALA	3.3
8	CE	17	ALA	3.3
4	AY	85	LEU	3.3
30	DG	34	LEU	3.3
5	CB	231	GLU	3.3
5	AB	44	LEU	3.3
19	CP	5	ARG	3.3
30	BG	168	GLU	3.3
45	BY	91	GLU	3.3
9	AF	90	VAL	3.3
51	B4	54	LYS	3.3
25	DA	271(Q)	A	3.2
33	DK	73	PRO	3.2
5	CB	218	ALA	3.2
13	AJ	27	ALA	3.2
13	AJ	17	ASP	3.2
19	AP	17	TYR	3.2
30	DG	3	LEU	3.2
19	CP	9	PHE	3.2
32	BI	103	ARG	3.2
24	CU	14	TRP	3.2
10	AG	115	ARG	3.2
1	CA	1002	G	3.2
7	AD	146	ILE	3.2
9	AF	94	GLN	3.2
21	AR	51	LEU	3.2
25	DA	6	A	3.2
4	CY	193	LEU	3.2
32	BI	50	ARG	3.2
41	BU	91	ASP	3.2
13	AJ	38	ILE	3.2
4	AY	97	ARG	3.2
4	AY	311	LEU	3.2
12	CI	16	ARG	3.2
4	AY	21	ASN	3.2

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Mol	Chain	Res	Type	RSRZ
4	CY	333	TYR	3.2
21	AR	49	LYS	3.2
4	AY	233	VAL	3.2
4	CY	262	VAL	3.2
25	DA	2402	C	3.2
33	BK	85	GLU	3.2
8	AE	13	ILE	3.2
13	AJ	71	LEU	3.2
33	BK	34	ILE	3.2
4	AY	99	ALA	3.2
13	CJ	99	LYS	3.2
19	AP	7	ALA	3.2
39	DS	87	PHE	3.2
30	DG	96	ARG	3.2
45	DY	54	LYS	3.2
46	BZ	118	GLN	3.2
55	D8	35	GLN	3.2
4	CY	376	GLU	3.2
25	BA	1090	U	3.2
31	DH	170	ARG	3.2
22	AS	71	LEU	3.2
4	AY	245	MET	3.2
24	AU	9	ARG	3.2
5	CB	41	ILE	3.2
5	CB	187	LEU	3.2
16	CM	96	LEU	3.2
17	CN	60	SER	3.2
47	D0	61	ALA	3.2
13	CJ	88	LEU	3.1
32	BI	94	ALA	3.1
4	CY	253	PRO	3.1
25	DA	1071	G	3.1
25	DA	1077	A	3.1
45	DY	86	ARG	3.1
12	AI	46	ALA	3.1
4	CY	46	LEU	3.1
7	CD	10	ARG	3.1
30	BG	33	ARG	3.1
32	DI	12	LEU	3.1
40	DT	115	ARG	3.1
24	AU	13	ILE	3.1
4	AY	107	ALA	3.1

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Mol	Chain	Res	Type	RSRZ
4	CY	373	GLU	3.1
31	BH	124	GLU	3.1
25	DA	1091	G	3.1
12	CI	85	LEU	3.1
13	CJ	79	ARG	3.1
20	CQ	8	GLY	3.1
22	CS	49	ILE	3.1
33	BK	67	PHE	3.1
22	CS	44	MET	3.1
7	CD	12	CYS	3.1
30	BG	34	LEU	3.1
6	AC	56	ASP	3.1
28	BE	57	LYS	3.1
4	CY	305	GLU	3.1
9	AF	100	ASN	3.1
21	AR	48	GLY	3.1
23	CT	100	ILE	3.1
12	CI	128	ARG	3.1
5	AB	188	ALA	3.1
4	CY	327	TYR	3.1
5	AB	45	GLN	3.1
14	AK	25	TYR	3.1
19	CP	35	LYS	3.1
27	BD	26	LYS	3.1
33	DK	99	ILE	3.1
5	AB	119	GLU	3.1
13	AJ	5	ARG	3.1
6	CC	73	PRO	3.1
17	CN	8	GLU	3.1
41	BU	90	VAL	3.1
4	CY	18	ALA	3.1
22	CS	75	ALA	3.1
12	AI	84	ALA	3.1
19	CP	7	ALA	3.1
45	BY	86	ARG	3.1
16	CM	17	VAL	3.1
25	BA	1093	G	3.1
12	CI	80	GLY	3.1
39	BS	34	HIS	3.1
13	AJ	66	ARG	3.1
5	CB	32	ILE	3.1
22	AS	33	THR	3.1

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Mol	Chain	Res	Type	RSRZ
45	BY	47	LYS	3.1
25	DA	1072	C	3.1
6	CC	169	ALA	3.1
4	CY	31	ASP	3.0
32	BI	96	ASP	3.0
32	BI	107	ILE	3.0
16	AM	7	VAL	3.0
30	DG	48	GLU	3.0
12	AI	20	ARG	3.0
8	CE	19	MET	3.0
40	BT	130	ALA	3.0
5	AB	137	ARG	3.0
46	BZ	87	ASP	3.0
21	CR	31	LEU	3.0
13	CJ	22	LYS	3.0
22	CS	42	PRO	3.0
31	BH	58	GLU	3.0
4	AY	145	TRP	3.0
10	CG	156	TRP	3.0
31	BH	24	VAL	3.0
30	DG	78	SER	3.0
25	DA	2794	C	3.0
28	DE	204	ALA	3.0
12	AI	17	VAL	3.0
4	CY	341	LEU	3.0
45	BY	88	LYS	3.0
21	CR	29	PHE	3.0
6	AC	71	ALA	3.0
33	BK	98	ARG	3.0
4	CY	98	GLU	3.0
6	AC	188	LEU	3.0
12	AI	56	LEU	3.0
16	AM	42	ALA	3.0
20	CQ	17	LYS	3.0
39	DS	11	LYS	3.0
25	DA	1026	U	3.0
25	DA	2895	U	3.0
46	BZ	96	VAL	3.0
30	BG	41	GLN	3.0
39	BS	30	ARG	3.0
40	BT	2	ASN	3.0
47	B0	79	VAL	3.0

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Mol	Chain	Res	Type	RSRZ
25	BA	270(P)	C	3.0
33	DK	21	PRO	3.0
13	CJ	89	ASP	3.0
16	AM	96	LEU	3.0
23	AT	89	ARG	3.0
49	B2	3	LEU	3.0
4	CY	328	VAL	3.0
9	CF	4	TYR	3.0
14	AK	107	SER	3.0
21	CR	39	VAL	3.0
40	DT	129	ARG	3.0
22	AS	44	MET	3.0
30	DG	26	GLN	3.0
32	BI	125	GLU	3.0
7	CD	14	ARG	3.0
32	BI	12	LEU	3.0
13	AJ	3	LYS	3.0
37	DQ	24	GLY	2.9
15	AL	27	LYS	2.9
4	CY	326	SER	2.9
5	AB	95	GLN	2.9
13	AJ	100	THR	2.9
25	BA	1103	A	2.9
31	BH	169	VAL	2.9
25	BA	1113	U	2.9
1	CA	1362	C	2.9
4	AY	18	ALA	2.9
4	CY	233	VAL	2.9
6	CC	77	ILE	2.9
25	BA	1075	C	2.9
14	AK	82	VAL	2.9
46	DZ	9	TYR	2.9
33	BK	114	ASP	2.9
33	BK	146	ASP	2.9
12	AI	126	SER	2.9
54	B7	45	ALA	2.9
1	AA	1440(I)	A	2.9
8	CE	18	ARG	2.9
31	BH	152	ARG	2.9
4	AY	371	GLY	2.9
4	CY	352	GLY	2.9
4	AY	133	ILE	2.9

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Mol	Chain	Res	Type	RSRZ
30	BG	26	GLN	2.9
22	AS	53	ASN	2.9
32	BI	112	LYS	2.9
8	AE	14	ARG	2.9
11	CH	102	ARG	2.9
30	DG	25	TYR	2.9
4	CY	153	TYR	2.9
5	AB	218	ALA	2.9
51	B4	51	TYR	2.9
13	AJ	64	GLU	2.9
32	BI	117	GLU	2.9
32	BI	90	GLY	2.9
13	AJ	8	LEU	2.9
19	CP	19	ILE	2.9
30	DG	86	MET	2.9
33	BK	107	ILE	2.9
23	AT	44	ALA	2.9
1	AA	1024	G	2.9
1	AA	1123	A	2.9
19	CP	14	ASN	2.9
22	CS	53	ASN	2.9
5	CB	30	ARG	2.9
10	AG	5	ARG	2.9
11	CH	3	THR	2.9
23	AT	102	GLY	2.9
4	AY	39	LEU	2.9
21	AR	50	ILE	2.9
5	CB	122	PHE	2.9
39	BS	87	PHE	2.9
31	DH	116	GLU	2.9
4	AY	17	ASN	2.9
24	AU	20	LYS	2.9
24	CU	11	GLY	2.9
25	BA	2792	G	2.9
39	DS	39	ILE	2.9
49	D2	44	LEU	2.9
5	AB	116	GLU	2.9
37	BQ	91	GLU	2.9
37	DQ	139	GLU	2.9
12	AI	95	LYS	2.9
31	BH	25	LYS	2.9
6	CC	76	VAL	2.9

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Mol	Chain	Res	Type	RSRZ
6	AC	104	GLN	2.9
7	AD	4	TYR	2.9
25	BA	1044	G	2.9
4	AY	54	ASP	2.9
24	CU	3	LYS	2.9
5	CB	213	LEU	2.9
10	AG	81	GLY	2.9
37	DQ	100	GLY	2.9
6	CC	70	VAL	2.8
40	DT	1	MET	2.8
4	CY	219	ALA	2.8
12	AI	16	ARG	2.8
14	AK	28	THR	2.8
24	CU	8	THR	2.8
30	BG	171	ALA	2.8
49	D2	14	ARG	2.8
30	BG	172	LEU	2.8
4	CY	234	VAL	2.8
5	CB	80	ILE	2.8
27	BD	34	VAL	2.8
4	CY	218	PHE	2.8
30	BG	83	ARG	2.8
36	BP	51	PHE	2.8
4	AY	261	ALA	2.8
8	AE	21	ALA	2.8
30	BG	13	GLU	2.8
49	D2	43	GLN	2.8
23	AT	91	LEU	2.8
33	DK	120	LEU	2.8
36	DP	104	GLY	2.8
4	CY	375	VAL	2.8
51	B4	37	PRO	2.8
22	CS	28	LYS	2.8
36	DP	150	ALA	2.8
23	AT	92	LEU	2.8
14	AK	51	LYS	2.8
14	AK	110	ASP	2.8
22	AS	34	TRP	2.8
33	BK	82	ALA	2.8
25	BA	270(N)	G	2.8
34	BN	56	LEU	2.8
9	CF	92	LYS	2.8

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Mol	Chain	Res	Type	RSRZ
16	CM	27	LYS	2.8
25	BA	2897	U	2.8
9	CF	95	GLU	2.8
4	CY	323	GLN	2.8
4	AY	202	LEU	2.8
4	AY	333	TYR	2.8
9	AF	39	LYS	2.8
11	AH	107	LEU	2.8
32	DI	77	LEU	2.8
39	BS	68	GLN	2.8
33	DK	53	VAL	2.8
39	BS	53	SER	2.8
14	CK	21	ILE	2.8
1	CA	1286	A	2.8
25	DA	878	A	2.8
32	BI	60	GLU	2.8
4	AY	345	ASP	2.8
4	AY	137	ALA	2.8
17	AN	12	ARG	2.8
22	CS	29	ARG	2.8
25	BA	1081	U	2.8
38	DR	3	HIS	2.8
39	BS	59	LYS	2.8
1	CA	66	G	2.8
25	DA	2792	G	2.8
19	CP	4	ILE	2.8
22	AS	55	LYS	2.8
4	AY	251	GLY	2.8
31	BH	98	LEU	2.8
6	AC	157	ILE	2.8
21	CR	32	ARG	2.8
25	BA	1074	G	2.8
33	BK	128	ALA	2.8
14	AK	13	GLN	2.8
25	DA	900	A	2.8
30	DG	29	TRP	2.8
13	CJ	7	LYS	2.8
31	BH	59	ARG	2.8
4	CY	119	LEU	2.8
4	CY	351	ASP	2.8
6	AC	207	VAL	2.8
10	AG	131	LYS	2.8

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Mol	Chain	Res	Type	RSRZ
12	CI	124	GLN	2.8
31	BH	97	ARG	2.8
48	B1	81	ARG	2.8
32	DI	101	LEU	2.8
33	BK	20	ALA	2.8
12	CI	127	LYS	2.8
42	DV	36	PRO	2.8
4	CY	222	GLU	2.7
1	CA	1028(E)	G	2.7
37	BQ	83	MET	2.7
28	BE	88	GLY	2.7
30	DG	80	PHE	2.7
38	DR	2	ARG	2.7
4	CY	356	ASP	2.7
30	BG	166	ASP	2.7
32	DI	90	GLY	2.7
33	BK	147	ALA	2.7
25	DA	1084	A	2.7
31	BH	29	PRO	2.7
4	CY	338	ARG	2.7
5	AB	17	PHE	2.7
30	DG	88	ILE	2.7
40	BT	48	ILE	2.7
1	AA	994	A	2.7
1	CA	136	C	2.7
46	BZ	29	TYR	2.7
4	AY	96	GLU	2.7
9	AF	95	GLU	2.7
31	BH	32	GLU	2.7
34	BN	84	ARG	2.7
14	CK	117	ASN	2.7
5	AB	220	ASP	2.7
45	BY	5	MET	2.7
1	AA	1026	G	2.7
1	CA	1440(I)	A	2.7
7	CD	4	TYR	2.7
4	AY	312	ARG	2.7
33	DK	90	LYS	2.7
37	BQ	139	GLU	2.7
1	CA	1149	C	2.7
25	BA	2895	U	2.7
31	BH	103	LEU	2.7

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Mol	Chain	Res	Type	RSRZ
39	BS	56	LEU	2.7
15	AL	60	THR	2.7
5	CB	137	ARG	2.7
33	BK	111	LYS	2.7
40	DT	93	ARG	2.7
40	DT	133	GLU	2.7
7	CD	181	MET	2.7
42	BV	90	PRO	2.7
6	AC	67	THR	2.7
23	CT	81	LYS	2.7
30	BG	178	PHE	2.7
33	BK	144	VAL	2.7
36	BP	88	LEU	2.7
25	BA	1085	A	2.7
45	BY	99	CYS	2.7
4	AY	325	ARG	2.7
5	AB	227	GLY	2.7
25	BA	2893	G	2.7
32	BI	21	VAL	2.7
33	DK	92	GLY	2.7
4	AY	87	GLU	2.7
4	CY	354	LEU	2.7
5	CB	36	ARG	2.7
23	CT	86	ARG	2.7
31	BH	95	ARG	2.7
4	AY	199	VAL	2.7
19	CP	6	LEU	2.7
55	B8	35	GLN	2.7
52	D5	48	GLU	2.7
5	AB	88	ALA	2.7
6	AC	43	LEU	2.7
23	AT	104	LEU	2.7
25	BA	2892	A	2.7
54	D7	48	LYS	2.7
1	CA	1362(A)	C	2.7
1	CA	1048	G	2.7
25	BA	1058	G	2.7
4	CY	271	ILE	2.7
17	AN	19	ARG	2.6
36	BP	148	LEU	2.6
22	CS	46	GLY	2.6
10	AG	4	ARG	2.6

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Mol	Chain	Res	Type	RSRZ
1	CA	1440(C)	G	2.6
4	CY	145	TRP	2.6
32	DI	11	ASN	2.6
30	DG	35	GLU	2.6
25	DA	899	A	2.6
4	AY	265	VAL	2.6
6	CC	72	LYS	2.6
22	CS	18	LYS	2.6
33	DK	109	LYS	2.6
12	CI	3	GLN	2.6
52	B5	31	VAL	2.6
5	AB	19	HIS	2.6
12	AI	101	PHE	2.6
4	CY	374	GLU	2.6
11	CH	132	GLU	2.6
19	CP	29	ASP	2.6
22	CS	81	ARG	2.6
25	BA	270(K)	C	2.6
31	BH	26	VAL	2.6
4	CY	261	ALA	2.6
5	CB	33	TYR	2.6
12	AI	79	LEU	2.6
48	B1	85	LEU	2.6
25	BA	1483	G	2.6
22	CS	70	LYS	2.6
36	BP	107	LYS	2.6
4	AY	176	GLY	2.6
5	CB	38	GLY	2.6
7	CD	8	VAL	2.6
13	AJ	24	VAL	2.6
13	AJ	36	GLY	2.6
21	AR	42	ARG	2.6
42	DV	28	GLU	2.6
30	DG	82	LEU	2.6
4	AY	189	ALA	2.6
14	AK	94	ALA	2.6
20	AQ	44	ALA	2.6
25	DA	12	U	2.6
38	BR	3	HIS	2.6
4	AY	307	GLU	2.6
16	CM	45	VAL	2.6
25	DA	271(M)	G	2.6

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Mol	Chain	Res	Type	RSRZ
42	DV	48	GLY	2.6
15	AL	59	LEU	2.6
46	DZ	70	LEU	2.6
4	AY	241	ARG	2.6
23	CT	89	ARG	2.6
13	AJ	99	LYS	2.6
41	BU	80	ILE	2.6
1	CA	1117	G	2.6
21	CR	34	TYR	2.6
39	DS	36	TYR	2.6
5	CB	204	ASN	2.6
4	CY	28	GLY	2.6
36	BP	10	PRO	2.6
4	AY	131	LEU	2.6
4	CY	152	MET	2.6
8	CE	45	PHE	2.6
14	CK	81	ASP	2.6
16	CM	118	ALA	2.6
19	CP	32	TYR	2.6
5	AB	164	VAL	2.6
12	CI	65	VAL	2.6
24	AU	4	GLY	2.6
46	DZ	11	GLU	2.6
25	BA	2202(D)	G	2.6
25	DA	357(D)	G	2.6
12	AI	102	LEU	2.6
22	CS	15	LEU	2.6
25	DA	1076	C	2.6
25	DA	1066	U	2.6
32	BI	4	ILE	2.6
12	AI	5	TYR	2.6
30	BG	84	LYS	2.6
31	BH	17	VAL	2.6
10	CG	58	PRO	2.6
4	AY	100	LEU	2.6
4	AY	350	LEU	2.6
4	CY	296	LEU	2.6
21	AR	25	THR	2.6
42	BV	36	PRO	2.6
22	AS	31	ILE	2.6
30	BG	88	ILE	2.6
1	AA	1131	G	2.6

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Mol	Chain	Res	Type	RSRZ
25	BA	1098	A	2.6
5	CB	59	GLU	2.6
6	AC	78	GLY	2.6
49	D2	5	GLU	2.6
51	D4	56	GLU	2.6
4	CY	241	ARG	2.6
22	CS	45	VAL	2.6
30	BG	70	VAL	2.6
33	DK	139	VAL	2.6
46	DZ	80	ARG	2.6
54	D7	47	ARG	2.6
7	CD	108	LEU	2.6
9	AF	96	PRO	2.6
13	AJ	39	PRO	2.6
9	CF	97	PHE	2.5
15	CL	31	PHE	2.5
30	BG	125	PHE	2.5
36	BP	121	LYS	2.5
1	AA	1395	C	2.5
4	CY	223	VAL	2.5
13	CJ	28	ARG	2.5
51	D4	36	VAL	2.5
7	AD	5	ILE	2.5
24	CU	23	PRO	2.5
4	CY	216	THR	2.5
7	CD	209	ARG	2.5
31	BH	132	ARG	2.5
33	BK	51	ALA	2.5
49	B2	6	VAL	2.5
1	AA	68(S)	C	2.5
20	AQ	43	LEU	2.5
30	BG	19	LEU	2.5
1	CA	935	A	2.5
45	BY	55	TYR	2.5
25	DA	1542	G	2.5
17	CN	11	LYS	2.5
12	AI	83	ARG	2.5
16	CM	25	ILE	2.5
22	CS	12	ASP	2.5
2	CV	23	A	2.5
12	CI	87	GLN	2.5
12	CI	94	ALA	2.5

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Mol	Chain	Res	Type	RSRZ
28	DE	151	TYR	2.5
32	BI	89	TYR	2.5
32	BI	104	GLN	2.5
36	DP	107	LYS	2.5
21	CR	40	LEU	2.5
30	BG	173	LEU	2.5
1	AA	1392	G	2.5
25	BA	1056	G	2.5
32	DI	138	ILE	2.5
9	CF	68	PRO	2.5
50	B3	2	PRO	2.5
1	CA	1136	U	2.5
5	CB	31	TYR	2.5
5	CB	203	GLY	2.5
6	AC	68	VAL	2.5
8	CE	97	GLY	2.5
12	CI	55	ALA	2.5
30	DG	159	VAL	2.5
33	DK	32	ALA	2.5
36	DP	105	LEU	2.5
4	AY	343	ARG	2.5
33	DK	132	ARG	2.5
6	CC	202	ILE	2.5
19	CP	33	ILE	2.5
33	BK	36	GLU	2.5
19	CP	37	GLY	2.5
39	DS	41	ASP	2.5
55	D8	64	TYR	2.5
4	CY	266	HIS	2.5
8	CE	78	HIS	2.5
25	DA	1083	U	2.5
40	DT	125	ARG	2.5
39	BS	40	ILE	2.5
50	D3	1	MET	2.5
12	CI	104	ARG	2.5
14	CK	61	ALA	2.5
24	AU	16	GLY	2.5
24	AU	19	GLY	2.5
31	BH	112	PRO	2.5
33	DK	129	GLY	2.5
42	DV	16	PRO	2.5
46	BZ	5	LEU	2.5

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Mol	Chain	Res	Type	RSRZ
17	AN	17	LYS	2.5
32	BI	93	THR	2.5
42	DV	19	LYS	2.5
4	AY	352	GLY	2.5
16	AM	87	TYR	2.5
32	BI	25	TYR	2.5
32	BI	83	ALA	2.5
46	BZ	152	ALA	2.5
25	BA	271(U)	A	2.5
4	AY	143	CYS	2.5
5	CB	216	SER	2.5
6	AC	77	ILE	2.5
18	AO	59	MET	2.5
7	CD	11	LEU	2.5
25	DA	508	G	2.5
25	DA	1068	G	2.5
49	B2	10	LEU	2.5
52	B5	53	ALA	2.5
5	AB	139	LYS	2.5
10	CG	33	ASP	2.5
33	BK	91	PRO	2.5
25	DA	901	A	2.5
23	AT	86	ARG	2.5
5	CB	81	VAL	2.5
1	AA	1028(H)	G	2.5
1	AA	1224	G	2.5
5	CB	35	GLU	2.5
12	AI	51	ARG	2.5
4	AY	332	ASN	2.4
5	AB	229	VAL	2.4
17	AN	33	VAL	2.4
24	CU	19	GLY	2.4
25	DA	2632	A	2.4
39	DS	28	VAL	2.4
45	BY	45	VAL	2.4
25	DA	1061	U	2.4
25	DA	2897	U	2.4
22	AS	73	GLU	2.4
46	BZ	97	GLU	2.4
4	AY	164	VAL	2.4
6	AC	151	VAL	2.4
24	AU	3	LYS	2.4

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Mol	Chain	Res	Type	RSRZ
25	DA	7	G	2.4
25	DA	357(F)	G	2.4
36	DP	138	LEU	2.4
12	CI	88	TYR	2.4
26	DB	27	C	2.4
27	DD	2	ALA	2.4
24	CU	15	ARG	2.4
4	AY	347	GLU	2.4
46	BZ	162	GLU	2.4
4	CY	240	LEU	2.4
4	AY	201	ARG	2.4
14	CK	50	TYR	2.4
4	CY	274	THR	2.4
25	BA	1071	G	2.4
32	BI	134	PRO	2.4
32	DI	35	LEU	2.4
6	CC	190	ARG	2.4
10	CG	26	PHE	2.4
20	CQ	42	TYR	2.4
21	AR	34	TYR	2.4
13	AJ	87	THR	2.4
22	CS	31	ILE	2.4
24	AU	12	LYS	2.4
16	AM	82	MET	2.4
16	AM	102	ARG	2.4
28	DE	58	ARG	2.4
32	DI	5	LEU	2.4
48	B1	20	ARG	2.4
11	CH	25	ASP	2.4
5	AB	120	ALA	2.4
10	CG	2	ALA	2.4
4	CY	96	GLU	2.4
19	CP	54	GLU	2.4
5	CB	202	PRO	2.4
12	CI	83	ARG	2.4
33	BK	105	LEU	2.4
1	CA	1038	C	2.4
30	DG	84	LYS	2.4
36	BP	128	HIS	2.4
39	BS	29	PHE	2.4
1	AA	1398	A	2.4
6	CC	71	ALA	2.4

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Mol	Chain	Res	Type	RSRZ
1	AA	1023	G	2.4
4	AY	230	GLU	2.4
25	DA	10	G	2.4
30	DG	39	ILE	2.4
37	DQ	10	ARG	2.4
36	DP	106	LEU	2.4
19	CP	39	TYR	2.4
55	B8	64	TYR	2.4
23	CT	83	ARG	2.4
31	BH	38	SER	2.4
4	CY	120	LEU	2.4
11	AH	2	LEU	2.4
40	BT	1	MET	2.4
37	BQ	32	PHE	2.4
4	AY	144	ASP	2.4
8	AE	131	ILE	2.4
1	AA	1128	C	2.4
1	CA	1140	C	2.4
4	CY	202	LEU	2.4
34	BN	161	LEU	2.4
46	DZ	118	GLN	2.4
4	AY	373	GLU	2.4
6	CC	83	ARG	2.4
39	DS	25	ARG	2.4
40	DT	94	ALA	2.4
25	BA	2190	G	2.4
41	DU	72	HIS	2.4
5	CB	69	LEU	2.4
53	B6	10	LEU	2.4
14	AK	46	GLY	2.4
46	DZ	153	SER	2.4
19	CP	8	ARG	2.4
31	BH	87	LEU	2.4
39	BS	48	LEU	2.4
1	CA	933	G	2.4
25	DA	1078	U	2.4
33	DK	103	GLN	2.4
17	AN	9	LYS	2.4
22	CS	59	PRO	2.4
23	AT	65	LYS	2.4
6	AC	84	ILE	2.4
9	AF	8	ILE	2.4

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Mol	Chain	Res	Type	RSRZ
40	DT	114	LEU	2.4
4	AY	321	GLY	2.3
12	CI	105	ASP	2.3
25	BA	1048	A	2.3
37	DQ	105	GLU	2.3
40	DT	36	GLU	2.3
17	CN	14	PRO	2.3
13	AJ	29	ARG	2.3
50	B3	29	ARG	2.3
16	CM	13	LYS	2.3
2	CV	15	A	2.3
23	CT	105	SER	2.3
11	AH	35	ILE	2.3
14	AK	108	ILE	2.3
25	DA	1094	U	2.3
8	CE	14	ARG	2.3
19	AP	6	LEU	2.3
30	BG	90	LEU	2.3
31	BH	102	ALA	2.3
32	BI	65	ALA	2.3
36	DP	7	ARG	2.3
53	D6	44	ARG	2.3
6	AC	147	LYS	2.3
19	CP	13	HIS	2.3
30	DG	160	VAL	2.3
4	CY	141	GLU	2.3
5	CB	45	GLN	2.3
5	AB	234	PRO	2.3
5	CB	118	LEU	2.3
6	AC	50	ALA	2.3
22	AS	15	LEU	2.3
25	BA	6	A	2.3
30	BG	22	ARG	2.3
30	BG	131	TYR	2.3
33	DK	131	ALA	2.3
23	CT	102	GLY	2.3
24	AU	7	ARG	2.3
5	AB	115	LEU	2.3
11	CH	2	LEU	2.3
17	AN	30	ALA	2.3
25	BA	2805	G	2.3
5	AB	136	VAL	2.3

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Mol	Chain	Res	Type	RSRZ
12	CI	14	VAL	2.3
32	BI	3	VAL	2.3
25	DA	1095	A	2.3
13	AJ	28	ARG	2.3
33	BK	103	GLN	2.3
13	CJ	17	ASP	2.3
5	AB	31	TYR	2.3
29	DF	206	ILE	2.3
30	BG	25	TYR	2.3
33	BK	16	LYS	2.3
5	AB	232	PRO	2.3
20	CQ	57	VAL	2.3
17	CN	12	ARG	2.3
23	CT	85	MET	2.3
31	DH	59	ARG	2.3
51	D4	60	GLU	2.3
5	AB	132	LYS	2.3
19	AP	48	TRP	2.3
38	DR	91	GLN	2.3
16	AM	25	ILE	2.3
42	DV	20	LEU	2.3
4	CY	273	VAL	2.3
31	BH	43	VAL	2.3
4	AY	206	SER	2.3
12	AI	66	ARG	2.3
4	AY	88	LEU	2.3
25	DA	1099	G	2.3
5	CB	163	PHE	2.3
6	CC	68	VAL	2.3
11	CH	61	VAL	2.3
13	CJ	34	VAL	2.3
15	CL	125	LYS	2.3
16	CM	111	LYS	2.3
22	AS	32	LYS	2.3
4	AY	323	GLN	2.3
25	BA	2804	C	2.3
23	CT	76	ALA	2.3
22	AS	48	THR	2.3
27	BD	98	VAL	2.3
7	CD	15	GLU	2.3
30	BG	35	GLU	2.3
33	DK	137	GLU	2.3

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Mol	Chain	Res	Type	RSRZ
36	BP	119	GLU	2.3
31	BH	41	MET	2.3
8	CE	91	LEU	2.3
14	AK	43	SER	2.3
31	BH	63	SER	2.3
5	AB	219	VAL	2.3
36	DP	110	TYR	2.3
7	CD	23	GLY	2.3
4	CY	41	GLU	2.3
27	BD	30	GLU	2.3
34	BN	73	ASP	2.3
45	BY	62	GLU	2.3
4	CY	195	PRO	2.3
1	CA	1287	A	2.3
9	CF	64	GLN	2.3
13	CJ	96	ILE	2.3
22	AS	40	ILE	2.3
31	DH	60	ARG	2.3
16	CM	21	TYR	2.3
31	BH	19	VAL	2.3
33	BK	131	ALA	2.3
44	BX	88	LYS	2.3
45	DY	47	LYS	2.3
51	D4	51	TYR	2.3
8	AE	29	GLY	2.3
9	AF	5	GLU	2.3
31	BH	104	GLU	2.3
4	CY	348	ASN	2.3
25	DA	1079	C	2.3
5	AB	213	LEU	2.3
8	AE	24	ARG	2.3
21	AR	79	LEU	2.3
20	CQ	65	ILE	2.3
21	CR	43	PHE	2.3
39	BS	35	ILE	2.3
34	BN	145	VAL	2.3
4	CY	198	GLY	2.2
12	CI	110	GLU	2.2
31	DH	167	GLU	2.2
4	CY	325	ARG	2.2
33	DK	93	ARG	2.2
1	AA	1397	C	2.2

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Mol	Chain	Res	Type	RSRZ
19	CP	41	PRO	2.2
32	BI	2	LYS	2.2
4	AY	349	VAL	2.2
5	CB	77	ALA	2.2
5	CB	235	SER	2.2
12	CI	82	ALA	2.2
31	BH	155	SER	2.2
8	AE	88	LYS	2.2
27	DD	35	LYS	2.2
30	DG	79	ASN	2.2
51	B4	65	CYS	2.2
27	BD	101	GLU	2.2
13	CJ	85	LEU	2.2
23	AT	72	LEU	2.2
40	DT	132	LYS	2.2
23	AT	64	ASP	2.2
30	BG	101	ILE	2.2
1	CA	68(H)	G	2.2
19	CP	65	GLN	2.2
25	DA	1062	G	2.2
39	BS	70	GLY	2.2
32	BI	58	LEU	2.2
6	CC	78	GLY	2.2
8	CE	73	ASN	2.2
10	AG	33	ASP	2.2
16	AM	60	VAL	2.2
19	CP	23	ASP	2.2
14	CK	89	ALA	2.2
17	CN	5	ALA	2.2
22	AS	79	THR	2.2
30	DG	115	ARG	2.2
40	BT	125	ARG	2.2
47	D0	12	ASN	2.2
4	AY	337	HIS	2.2
9	CF	98	LEU	2.2
22	AS	57	HIS	2.2
54	B7	42	LEU	2.2
13	CJ	19	SER	2.2
25	DA	1075	C	2.2
5	CB	72	GLY	2.2
12	CI	12	GLU	2.2
42	DV	18	LEU	2.2

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Mol	Chain	Res	Type	RSRZ
42	DV	40	LEU	2.2
50	B3	28	LEU	2.2
30	BG	78	SER	2.2
45	DY	63	LYS	2.2
47	B0	74	ARG	2.2
7	CD	179	GLU	2.2
48	B1	36	GLY	2.2
8	CE	77	PRO	2.2
27	BD	36	PRO	2.2
32	BI	54	GLN	2.2
46	BZ	159	PRO	2.2
33	DK	69	THR	2.2
37	DQ	21	THR	2.2
36	DP	15	ARG	2.2
31	BH	52	VAL	2.2
39	BS	31	SER	2.2
39	DS	49	VAL	2.2
45	DY	99	CYS	2.2
6	CC	46	GLU	2.2
5	CB	78	GLN	2.2
10	CG	155	ARG	2.2
5	CB	152	PHE	2.2
16	AM	13	LYS	2.2
21	AR	72	ARG	2.2
25	BA	1043	C	2.2
25	BA	2402	C	2.2
25	BA	1042	G	2.2
5	CB	230	VAL	2.2
25	DA	155(B)	U	2.2
32	DI	70	GLU	2.2
51	D4	59	VAL	2.2
1	AA	723	U	2.2
14	AK	17	GLY	2.2
32	BI	124	GLY	2.2
32	DI	16	GLY	2.2
33	DK	64	SER	2.2
1	AA	1531	A	2.2
21	CR	44	LEU	2.2
33	BK	74	ALA	2.2
10	AG	112	PRO	2.2
11	CH	101	PRO	2.2
27	BD	102	LYS	2.2

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Mol	Chain	Res	Type	RSRZ
31	BH	23	ARG	2.2
6	AC	69	HIS	2.2
23	CT	56	MET	2.2
4	CY	270	GLY	2.2
16	CM	57	ARG	2.2
28	DE	76	ARG	2.2
4	AY	168	ASP	2.2
9	AF	7	ASN	2.2
28	BE	73	GLU	2.2
32	DI	4	ILE	2.2
4	CY	138	GLY	2.2
7	CD	44	GLY	2.2
25	DA	645	C	2.2
37	BQ	33	GLY	2.2
17	AN	29	ARG	2.2
55	D8	34	TRP	2.2
4	AY	354	LEU	2.2
5	AB	210	SER	2.2
5	CB	237	ALA	2.2
17	CN	10	ALA	2.2
18	CO	69	TYR	2.2
27	BD	2	ALA	2.2
39	DS	29	PHE	2.2
54	B7	18	PHE	2.2
45	DY	79	CYS	2.2
31	BH	50	VAL	2.2
8	AE	127	ASN	2.2
8	CE	75	THR	2.2
11	AH	59	LEU	2.1
12	CI	92	TYR	2.1
22	AS	80	TYR	2.1
1	CA	990	C	2.1
4	CY	43	GLU	2.1
4	CY	346	PRO	2.1
27	DD	34	VAL	2.1
45	BY	54	LYS	2.1
46	DZ	179	ASP	2.1
6	CC	80	GLY	2.1
25	DA	1074	G	2.1
1	CA	977	A	2.1
4	AY	23	TRP	2.1
22	CS	30	LEU	2.1

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Mol	Chain	Res	Type	RSRZ
30	DG	27	ASN	2.1
30	DG	178	PHE	2.1
10	AG	11	GLN	2.1
6	CC	127	ARG	2.1
8	CE	25	ARG	2.1
30	DG	76	SER	2.1
32	BI	57	ARG	2.1
25	BA	1026	U	2.1
33	DK	91	PRO	2.1
52	B5	2	ALA	2.1
30	BG	30	GLU	2.1
33	BK	132	ARG	2.1
4	AY	244	VAL	2.1
13	CJ	23	ILE	2.1
32	BI	37	VAL	2.1
4	AY	84	GLY	2.1
4	CY	251	GLY	2.1
30	DG	97	ASP	2.1
36	DP	100	LEU	2.1
39	BS	55	ALA	2.1
39	BS	92	TYR	2.1
4	AY	154	THR	2.1
27	DD	23	GLU	2.1
2	CV	24	A	2.1
5	CB	234	PRO	2.1
6	CC	47	LEU	2.1
12	CI	123	PRO	2.1
1	AA	1260	C	2.1
16	AM	64	TRP	2.1
30	DG	164	GLU	2.1
8	AE	129	ILE	2.1
36	DP	114	ILE	2.1
4	CY	220	GLY	2.1
5	CB	232	PRO	2.1
36	BP	85	LEU	2.1
4	AY	159	ARG	2.1
7	CD	110	PHE	2.1
10	AG	26	PHE	2.1
25	DA	1098	A	2.1
1	CA	1026	G	2.1
41	BU	113	ALA	2.1
4	CY	244	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
5	CB	212	GLN	2.1
6	AC	102	ASN	2.1
28	BE	75	VAL	2.1
18	AO	25	THR	2.1
30	BG	157	ILE	2.1
13	CJ	55	LYS	2.1
31	DH	62	LYS	2.1
37	DQ	83	MET	2.1
49	B2	7	ARG	2.1
8	AE	45	PHE	2.1
9	AF	88	VAL	2.1
25	DA	1506(A)	A	2.1
39	DS	34	HIS	2.1
4	AY	309	LYS	2.1
13	CJ	48	THR	2.1
16	AM	43	THR	2.1
25	BA	2791	C	2.1
25	DA	1056	G	2.1
50	B3	26	LEU	2.1
4	CY	156	PHE	2.1
13	AJ	77	PRO	2.1
7	CD	38	TYR	2.1
20	AQ	42	TYR	2.1
4	AY	314	GLU	2.1
38	DR	102	GLU	2.1
4	CY	259	ASP	2.1
11	AH	118	VAL	2.1
13	CJ	29	ARG	2.1
21	CR	42	ARG	2.1
28	BE	159	HIS	2.1
27	BD	147	LEU	2.1
30	BG	43	LEU	2.1
30	BG	85	GLY	2.1
39	BS	32	LEU	2.1
41	BU	74	LEU	2.1
1	AA	1286	A	2.1
34	BN	74	PHE	2.1
45	DY	92	ASN	2.1
1	AA	1116	C	2.1
12	CI	125	TYR	2.1
4	AY	223	VAL	2.1
4	AY	227	VAL	2.1

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Mol	Chain	Res	Type	RSRZ
22	CS	37	ARG	2.1
30	BG	52	ILE	2.1
45	BY	17	SER	2.1
4	CY	100	LEU	2.1
14	AK	45	GLY	2.1
37	BQ	24	GLY	2.1
45	DY	58	GLY	2.1
4	CY	40	LYS	2.1
25	BA	1070	A	2.1
41	DU	58	ARG	2.1
31	BH	162	ILE	2.1
5	AB	16	HIS	2.1
10	CG	153	HIS	2.1
22	CS	72	GLY	2.1
20	AQ	16	GLN	2.1
27	BD	67	PHE	2.1
37	BQ	115	MET	2.1
1	AA	1302	U	2.1
3	CW	47	U	2.1
9	CF	46	ARG	2.1
24	AU	15	ARG	2.1
27	BD	31	LYS	2.1
30	BG	72	ARG	2.1
53	D6	27	LYS	2.1
4	CY	349	VAL	2.1
12	AI	13	ALA	2.1
4	AY	235	LEU	2.1
8	CE	80	ILE	2.1
12	CI	50	LEU	2.1
46	BZ	33	LEU	2.1
1	CA	1039	C	2.1
13	CJ	30	SER	2.1
25	BA	1102	C	2.1
1	AA	1144	G	2.0
1	CA	68(I)	G	2.0
5	CB	141	GLU	2.0
17	CN	21	TYR	2.0
1	CA	1125	U	2.0
22	CS	33	THR	2.0
51	B4	36	VAL	2.0
5	CB	222	ILE	2.0
11	AH	130	GLY	2.0

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Mol	Chain	Res	Type	RSRZ
12	CI	102	LEU	2.0
32	BI	34	GLY	2.0
32	BI	45	LYS	2.0
33	DK	35	MET	2.0
46	BZ	127	LYS	2.0
51	D4	54	LYS	2.0
23	CT	80	ARG	2.0
40	DT	91	ARG	2.0
23	CT	50	GLU	2.0
50	B3	34	GLU	2.0
5	CB	71	VAL	2.0
30	BG	11	TYR	2.0
31	BH	133	VAL	2.0
4	AY	329	LEU	2.0
6	CC	87	LEU	2.0
1	CA	1187	G	2.0
28	DE	112	GLY	2.0
31	BH	30	LYS	2.0
33	BK	125	ARG	2.0
36	DP	130	PHE	2.0
5	CB	135	GLN	2.0
1	AA	1000	A	2.0
25	BA	2629	A	2.0
42	DV	14	VAL	2.0
1	AA	1027	C	2.0
1	AA	1038	C	2.0
4	CY	237	PRO	2.0
16	CM	41	PRO	2.0
20	CQ	14	LYS	2.0
30	DG	133	LEU	2.0
36	DP	82	GLY	2.0
44	DX	3	THR	2.0
48	B1	84	GLY	2.0
54	D7	23	ARG	2.0
21	AR	28	GLU	2.0
40	BT	106	SER	2.0
51	D4	47	VAL	2.0
6	AC	73	PRO	2.0
9	CF	69	GLU	2.0
12	AI	127	LYS	2.0
27	BD	96	HIS	2.0
31	BH	115	VAL	2.0

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Mol	Chain	Res	Type	RSRZ
12	AI	47	LEU	2.0
17	CN	26	ARG	2.0
36	DP	89	ALA	2.0
44	BX	86	GLY	2.0
6	AC	186	PHE	2.0
16	CM	113	PRO	2.0
3	AW	21	A	2.0
17	CN	13	THR	2.0
40	DT	2	ASN	2.0
5	CB	10	LEU	2.0
11	CH	119	LEU	2.0
16	AM	21	TYR	2.0
45	BY	3	VAL	2.0
50	D3	8	LEU	2.0
50	D3	28	LEU	2.0

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

There are no non-standard protein/DNA/RNA residues in this entry.

6.3 Carbohydrates (i)

There are no monosaccharides in this entry.

6.4 Ligands (i)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3022	1/1	-0.48	0.79	168,168,168,168	0
56	MG	AA	1831	1/1	-0.15	1.10	203,203,203,203	0
56	MG	BA	2918	1/1	-0.08	1.68	191,191,191,191	0
56	MG	CA	1792	1/1	-0.04	1.12	122,122,122,122	0
56	MG	AA	1854	1/1	-0.03	0.48	187,187,187,187	0
56	MG	CA	1746	1/1	0.01	0.15	255,255,255,255	0
56	MG	BA	3197	1/1	0.01	0.14	215,215,215,215	0
56	MG	CA	1626	1/1	0.04	0.43	109,109,109,109	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	2921	1/1	0.04	0.21	113,113,113,113	0
56	MG	AA	1764	1/1	0.06	0.91	103,103,103,103	0
56	MG	CA	1898	1/1	0.07	0.36	126,126,126,126	0
56	MG	AA	1780	1/1	0.07	1.15	105,105,105,105	0
56	MG	AT	201	1/1	0.09	0.32	117,117,117,117	0
56	MG	CA	1736	1/1	0.10	0.39	193,193,193,193	0
56	MG	CA	1677	1/1	0.11	1.25	138,138,138,138	0
56	MG	BA	3078	1/1	0.14	0.76	117,117,117,117	0
56	MG	DA	3348	1/1	0.14	0.71	165,165,165,165	0
56	MG	AC	301	1/1	0.17	1.50	98,98,98,98	0
56	MG	BA	3435	1/1	0.22	1.05	112,112,112,112	0
56	MG	DA	3484	1/1	0.26	0.59	98,98,98,98	0
56	MG	BA	3717	1/1	0.27	0.16	100,100,100,100	0
56	MG	BB	223	1/1	0.28	0.41	242,242,242,242	0
56	MG	CA	1633	1/1	0.28	0.33	143,143,143,143	0
56	MG	DB	218	1/1	0.28	0.51	111,111,111,111	0
56	MG	BA	3713	1/1	0.29	0.98	123,123,123,123	0
56	MG	DA	3072	1/1	0.30	0.63	94,94,94,94	0
56	MG	AA	1979	1/1	0.31	0.77	118,118,118,118	0
56	MG	CA	1631	1/1	0.32	1.38	119,119,119,119	0
56	MG	BA	3153	1/1	0.32	0.33	81,81,81,81	0
56	MG	BA	3369	1/1	0.35	1.02	74,74,74,74	0
56	MG	AA	1765	1/1	0.35	0.61	74,74,74,74	0
56	MG	CA	1809	1/1	0.35	1.24	117,117,117,117	0
56	MG	CA	1613	1/1	0.36	0.87	71,71,71,71	0
56	MG	DA	3004	1/1	0.37	0.41	100,100,100,100	0
56	MG	AA	1612	1/1	0.38	0.67	87,87,87,87	0
56	MG	CA	1748	1/1	0.38	0.52	78,78,78,78	0
56	MG	CA	1605	1/1	0.38	0.31	159,159,159,159	0
56	MG	BA	3672	1/1	0.38	0.47	88,88,88,88	0
56	MG	BA	3718	1/1	0.38	0.25	163,163,163,163	0
56	MG	CA	1912	1/1	0.38	0.43	152,152,152,152	0
56	MG	DB	209	1/1	0.39	0.73	143,143,143,143	0
56	MG	DA	3541	1/1	0.39	0.79	70,70,70,70	0
56	MG	CA	1806	1/1	0.40	0.32	95,95,95,95	0
56	MG	AA	1629	1/1	0.40	0.90	83,83,83,83	0
56	MG	AA	1717	1/1	0.40	0.31	99,99,99,99	0
56	MG	AA	1950	1/1	0.41	0.41	102,102,102,102	0
56	MG	CA	1833	1/1	0.41	0.82	65,65,65,65	0
56	MG	CA	1741	1/1	0.41	0.30	104,104,104,104	0
56	MG	CA	1606	1/1	0.42	0.37	115,115,115,115	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3186	1/1	0.42	0.47	98,98,98,98	0
56	MG	BA	2922	1/1	0.42	0.75	108,108,108,108	0
56	MG	BA	3592	1/1	0.42	0.24	132,132,132,132	0
56	MG	BA	3607	1/1	0.43	0.18	105,105,105,105	0
56	MG	BA	3450	1/1	0.43	0.97	83,83,83,83	0
56	MG	DA	3092	1/1	0.43	1.39	200,200,200,200	0
56	MG	CA	1800	1/1	0.43	0.63	124,124,124,124	0
56	MG	AA	1723	1/1	0.44	0.31	106,106,106,106	0
56	MG	AA	1642	1/1	0.44	0.30	120,120,120,120	0
56	MG	AA	1945	1/1	0.44	0.41	115,115,115,115	0
56	MG	DA	3401	1/1	0.46	0.39	81,81,81,81	0
56	MG	AA	1697	1/1	0.46	0.20	148,148,148,148	0
56	MG	BA	3588	1/1	0.46	0.80	120,120,120,120	0
56	MG	CY	401	1/1	0.46	0.53	103,103,103,103	0
56	MG	CA	1699	1/1	0.46	0.44	152,152,152,152	0
56	MG	CA	1860	1/1	0.47	0.27	133,133,133,133	0
56	MG	AA	1639	1/1	0.47	0.79	114,114,114,114	0
56	MG	DA	2948	1/1	0.47	0.64	94,94,94,94	0
56	MG	BA	3591	1/1	0.47	1.28	102,102,102,102	0
56	MG	CA	1772	1/1	0.48	0.64	66,66,66,66	0
56	MG	CA	1681	1/1	0.48	0.56	136,136,136,136	0
56	MG	BA	3618	1/1	0.48	0.58	79,79,79,79	0
56	MG	CA	1643	1/1	0.49	0.10	126,126,126,126	0
56	MG	DA	3054	1/1	0.49	0.64	93,93,93,93	0
56	MG	CA	1794	1/1	0.50	0.34	60,60,60,60	0
56	MG	BA	3542	1/1	0.50	0.40	116,116,116,116	0
56	MG	AA	1770	1/1	0.50	0.36	86,86,86,86	0
56	MG	BB	206	1/1	0.50	0.23	188,188,188,188	0
56	MG	CA	1750	1/1	0.50	0.25	222,222,222,222	0
56	MG	AA	1957	1/1	0.50	0.79	109,109,109,109	0
56	MG	BA	3247	1/1	0.50	0.55	105,105,105,105	0
56	MG	DA	3044	1/1	0.51	0.42	87,87,87,87	0
56	MG	CA	1712	1/1	0.51	0.21	106,106,106,106	0
56	MG	CA	1856	1/1	0.52	0.40	136,136,136,136	0
56	MG	CA	1732	1/1	0.52	0.77	131,131,131,131	0
56	MG	CA	1777	1/1	0.52	0.29	98,98,98,98	0
56	MG	AA	1653	1/1	0.52	0.26	105,105,105,105	0
56	MG	BA	3261	1/1	0.52	0.72	89,89,89,89	0
56	MG	CA	1842	1/1	0.52	0.79	137,137,137,137	0
56	MG	DV	201	1/1	0.52	0.43	85,85,85,85	0
56	MG	BA	3213	1/1	0.53	0.48	125,125,125,125	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3606	1/1	0.53	0.38	72,72,72,72	0
56	MG	BA	3569	1/1	0.53	0.48	87,87,87,87	0
56	MG	BA	3003	1/1	0.53	0.59	113,113,113,113	0
56	MG	AA	1687	1/1	0.53	0.13	85,85,85,85	0
56	MG	CA	1725	1/1	0.54	0.90	78,78,78,78	0
56	MG	AA	1796	1/1	0.54	0.68	129,129,129,129	0
56	MG	DB	204	1/1	0.54	0.28	78,78,78,78	0
56	MG	AA	1846	1/1	0.54	0.42	118,118,118,118	0
56	MG	BA	3548	1/1	0.54	0.64	88,88,88,88	0
56	MG	CA	1914	1/1	0.54	0.27	96,96,96,96	0
56	MG	AA	1804	1/1	0.55	1.32	108,108,108,108	0
56	MG	DA	3405	1/1	0.55	0.21	91,91,91,91	0
56	MG	CA	1817	1/1	0.55	0.32	111,111,111,111	0
56	MG	BA	3119	1/1	0.55	1.15	133,133,133,133	0
56	MG	CA	1907	1/1	0.55	0.54	77,77,77,77	0
56	MG	BA	3665	1/1	0.55	0.24	117,117,117,117	0
56	MG	DA	3350	1/1	0.55	0.19	76,76,76,76	0
56	MG	DA	3351	1/1	0.55	0.45	116,116,116,116	0
56	MG	BA	3583	1/1	0.56	0.69	87,87,87,87	0
56	MG	DA	3582	1/1	0.56	0.38	95,95,95,95	0
56	MG	DA	3060	1/1	0.56	0.20	77,77,77,77	0
56	MG	BA	2950	1/1	0.56	0.85	87,87,87,87	0
56	MG	CA	1706	1/1	0.56	0.18	88,88,88,88	0
56	MG	BA	3600	1/1	0.56	0.59	73,73,73,73	0
56	MG	BA	3064	1/1	0.57	0.44	63,63,63,63	0
56	MG	BA	2974	1/1	0.57	0.29	85,85,85,85	0
56	MG	BA	2997	1/1	0.57	0.21	104,104,104,104	0
56	MG	BA	2935	1/1	0.57	0.53	89,89,89,89	0
56	MG	CA	1820	1/1	0.57	0.85	193,193,193,193	0
56	MG	BA	3263	1/1	0.57	0.40	66,66,66,66	0
56	MG	BA	3173	1/1	0.57	0.81	67,67,67,67	0
56	MG	AA	1790	1/1	0.57	0.40	53,53,53,53	0
56	MG	DA	2949	1/1	0.57	1.12	94,94,94,94	0
56	MG	BA	3236	1/1	0.58	0.34	132,132,132,132	0
56	MG	DA	3548	1/1	0.58	0.43	85,85,85,85	0
56	MG	AA	1728	1/1	0.58	0.21	130,130,130,130	0
56	MG	BA	3599	1/1	0.58	0.59	93,93,93,93	0
56	MG	AA	1783	1/1	0.58	0.41	127,127,127,127	0
56	MG	DA	3244	1/1	0.58	0.22	59,59,59,59	0
56	MG	DA	3248	1/1	0.58	1.19	66,66,66,66	0
56	MG	AA	1699	1/1	0.59	0.42	85,85,85,85	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	CA	1724	1/1	0.59	0.30	108,108,108,108	0
56	MG	BA	2915	1/1	0.59	0.27	102,102,102,102	0
56	MG	BA	2939	1/1	0.59	0.45	79,79,79,79	0
56	MG	BB	211	1/1	0.59	1.35	132,132,132,132	0
56	MG	BA	3012	1/1	0.59	0.99	91,91,91,91	0
56	MG	AA	1631	1/1	0.59	0.81	76,76,76,76	0
56	MG	BA	2958	1/1	0.59	0.15	103,103,103,103	0
56	MG	DA	3339	1/1	0.59	0.32	63,63,63,63	0
56	MG	BA	2959	1/1	0.59	0.71	81,81,81,81	0
56	MG	CA	1710	1/1	0.59	1.27	97,97,97,97	0
56	MG	AW	109	1/1	0.60	0.69	91,91,91,91	0
56	MG	AA	1767	1/1	0.60	0.56	102,102,102,102	0
56	MG	CA	1753	1/1	0.60	0.28	63,63,63,63	0
56	MG	DA	3531	1/1	0.60	0.42	92,92,92,92	0
56	MG	CA	1682	1/1	0.60	0.14	152,152,152,152	0
56	MG	CA	1687	1/1	0.60	0.20	58,58,58,58	0
56	MG	CA	1836	1/1	0.60	0.33	94,94,94,94	0
56	MG	CA	1837	1/1	0.60	0.24	66,66,66,66	0
56	MG	AA	1689	1/1	0.60	0.14	169,169,169,169	0
56	MG	AW	107	1/1	0.60	0.46	102,102,102,102	0
56	MG	BA	2943	1/1	0.60	1.09	98,98,98,98	0
56	MG	AT	203	1/1	0.61	1.74	99,99,99,99	0
56	MG	BA	3697	1/1	0.61	0.12	64,64,64,64	0
56	MG	BA	3011	1/1	0.61	0.58	82,82,82,82	0
56	MG	BA	3158	1/1	0.61	0.28	150,150,150,150	0
56	MG	BA	2926	1/1	0.61	0.56	80,80,80,80	0
56	MG	BA	3584	1/1	0.61	0.49	96,96,96,96	0
56	MG	BA	3175	1/1	0.61	0.54	109,109,109,109	0
56	MG	CA	1752	1/1	0.61	0.44	83,83,83,83	0
56	MG	DA	3381	1/1	0.61	0.44	43,43,43,43	0
56	MG	BA	3465	1/1	0.61	0.60	114,114,114,114	0
56	MG	BA	3589	1/1	0.62	0.20	135,135,135,135	0
56	MG	CA	1640	1/1	0.62	0.33	78,78,78,78	0
56	MG	CA	1816	1/1	0.62	0.64	77,77,77,77	0
56	MG	BA	3168	1/1	0.62	1.18	78,78,78,78	0
56	MG	DA	3577	1/1	0.62	0.64	80,80,80,80	0
56	MG	CA	1647	1/1	0.62	0.43	98,98,98,98	0
56	MG	DA	3626	1/1	0.62	0.29	117,117,117,117	0
56	MG	DA	3632	1/1	0.62	0.19	135,135,135,135	0
56	MG	CA	1669	1/1	0.62	1.73	118,118,118,118	0
56	MG	DB	205	1/1	0.62	0.33	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3602	1/1	0.62	0.46	117,117,117,117	0
56	MG	AA	1726	1/1	0.62	0.51	141,141,141,141	0
56	MG	DA	2914	1/1	0.62	0.46	97,97,97,97	0
56	MG	AA	1947	1/1	0.63	0.49	89,89,89,89	0
56	MG	BA	3722	1/1	0.63	0.26	80,80,80,80	0
56	MG	BA	3081	1/1	0.63	0.18	79,79,79,79	0
56	MG	CA	1920	1/1	0.63	0.13	138,138,138,138	0
56	MG	CA	1735	1/1	0.63	0.84	108,108,108,108	0
56	MG	DA	3398	1/1	0.63	0.79	107,107,107,107	0
56	MG	DA	2903	1/1	0.63	0.45	77,77,77,77	0
56	MG	BA	3085	1/1	0.63	0.49	116,116,116,116	0
56	MG	DB	208	1/1	0.63	0.31	83,83,83,83	0
56	MG	AY	403	1/1	0.63	0.87	87,87,87,87	0
56	MG	DA	3497	1/1	0.63	0.28	61,61,61,61	0
56	MG	CA	1603	1/1	0.63	0.23	255,255,255,255	0
56	MG	BA	3482	1/1	0.64	1.30	74,74,74,74	0
56	MG	AA	1727	1/1	0.64	0.48	93,93,93,93	0
56	MG	AA	1742	1/1	0.64	1.36	197,197,197,197	0
56	MG	CA	1926	1/1	0.64	0.73	101,101,101,101	0
56	MG	DA	3097	1/1	0.64	0.51	68,68,68,68	0
56	MG	DA	2953	1/1	0.64	0.17	151,151,151,151	0
56	MG	AA	1855	1/1	0.64	0.15	103,103,103,103	0
56	MG	DA	3428	1/1	0.64	0.65	71,71,71,71	0
56	MG	DA	3308	1/1	0.64	0.90	72,72,72,72	0
56	MG	DA	3489	1/1	0.64	0.33	51,51,51,51	0
56	MG	BA	3573	1/1	0.64	0.24	81,81,81,81	0
56	MG	DA	3516	1/1	0.64	0.42	70,70,70,70	0
56	MG	DA	3527	1/1	0.64	0.27	77,77,77,77	0
56	MG	DA	3052	1/1	0.65	0.52	76,76,76,76	0
56	MG	CA	1796	1/1	0.65	0.16	41,41,41,41	0
56	MG	AA	1645	1/1	0.65	0.32	82,82,82,82	0
56	MG	CA	1645	1/1	0.65	1.03	113,113,113,113	0
56	MG	CA	1828	1/1	0.65	0.28	135,135,135,135	0
56	MG	AA	1702	1/1	0.65	0.65	97,97,97,97	0
56	MG	BA	3105	1/1	0.66	0.24	122,122,122,122	0
56	MG	CA	1740	1/1	0.66	0.21	101,101,101,101	0
56	MG	CA	1884	1/1	0.66	0.53	79,79,79,79	0
56	MG	AA	1890	1/1	0.66	0.15	124,124,124,124	0
56	MG	DA	3088	1/1	0.66	0.38	86,86,86,86	0
56	MG	AA	1782	1/1	0.66	0.56	77,77,77,77	0
56	MG	BA	3577	1/1	0.66	0.91	88,88,88,88	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3118	1/1	0.66	0.18	61,61,61,61	0
56	MG	DA	3122	1/1	0.66	0.35	67,67,67,67	0
56	MG	BA	2949	1/1	0.66	0.43	70,70,70,70	0
56	MG	DA	3001	1/1	0.66	0.53	79,79,79,79	0
56	MG	AY	401	1/1	0.66	0.54	119,119,119,119	0
56	MG	CA	1646	1/1	0.66	0.12	113,113,113,113	0
56	MG	BA	3255	1/1	0.67	0.38	66,66,66,66	0
56	MG	CA	1874	1/1	0.67	1.45	89,89,89,89	0
56	MG	CA	1877	1/1	0.67	0.84	154,154,154,154	0
56	MG	CA	1882	1/1	0.67	0.52	81,81,81,81	0
56	MG	BB	216	1/1	0.67	0.54	109,109,109,109	0
56	MG	BA	2976	1/1	0.67	0.44	112,112,112,112	0
56	MG	CA	1658	1/1	0.67	0.49	93,93,93,93	0
56	MG	AW	102	1/1	0.67	0.48	94,94,94,94	0
56	MG	CA	1671	1/1	0.67	0.31	92,92,92,92	0
56	MG	AW	104	1/1	0.67	1.33	95,95,95,95	0
56	MG	AA	1688	1/1	0.67	0.24	80,80,80,80	0
56	MG	AA	1952	1/1	0.67	0.09	53,53,53,53	0
56	MG	BA	3111	1/1	0.67	0.12	96,96,96,96	0
56	MG	BA	3212	1/1	0.67	0.36	109,109,109,109	0
56	MG	BA	2946	1/1	0.67	0.46	61,61,61,61	0
56	MG	BA	3123	1/1	0.67	0.25	156,156,156,156	0
56	MG	BA	3062	1/1	0.67	0.21	110,110,110,110	0
56	MG	CA	1843	1/1	0.67	0.32	103,103,103,103	0
56	MG	CA	1854	1/1	0.67	0.41	98,98,98,98	0
56	MG	CA	1790	1/1	0.67	0.84	86,86,86,86	0
56	MG	CW	113	1/1	0.68	0.20	89,89,89,89	0
56	MG	CA	1698	1/1	0.68	0.27	100,100,100,100	0
56	MG	CA	1801	1/1	0.68	0.31	76,76,76,76	0
56	MG	AW	113	1/1	0.68	0.31	96,96,96,96	0
56	MG	CA	1703	1/1	0.68	0.19	89,89,89,89	0
56	MG	DA	2940	1/1	0.68	0.18	94,94,94,94	0
56	MG	AW	115	1/1	0.68	0.35	111,111,111,111	0
56	MG	DA	3532	1/1	0.68	0.25	72,72,72,72	0
56	MG	AA	1619	1/1	0.68	0.74	69,69,69,69	0
56	MG	DA	3544	1/1	0.68	0.41	73,73,73,73	0
56	MG	BA	3284	1/1	0.68	0.46	82,82,82,82	0
56	MG	DA	2964	1/1	0.68	0.41	65,65,65,65	0
56	MG	DA	3343	1/1	0.68	0.49	76,76,76,76	0
56	MG	DA	2975	1/1	0.68	0.91	79,79,79,79	0
56	MG	BA	3290	1/1	0.68	0.25	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AA	1917	1/1	0.68	0.15	86,86,86,86	0
56	MG	DA	3373	1/1	0.68	0.19	86,86,86,86	0
56	MG	BA	3218	1/1	0.68	0.60	82,82,82,82	0
56	MG	BA	3065	1/1	0.68	0.23	90,90,90,90	0
56	MG	BA	3073	1/1	0.68	0.51	124,124,124,124	0
56	MG	BA	3639	1/1	0.68	0.41	79,79,79,79	0
56	MG	CA	1783	1/1	0.69	0.10	82,82,82,82	0
56	MG	DA	3073	1/1	0.69	0.46	80,80,80,80	0
56	MG	DA	3075	1/1	0.69	0.38	75,75,75,75	0
56	MG	AA	1824	1/1	0.69	0.68	108,108,108,108	0
56	MG	DA	2911	1/1	0.69	1.04	84,84,84,84	0
56	MG	CA	1731	1/1	0.69	0.11	139,139,139,139	0
56	MG	DA	3511	1/1	0.69	0.36	64,64,64,64	0
56	MG	BA	3663	1/1	0.69	0.28	105,105,105,105	0
56	MG	DA	3119	1/1	0.69	0.50	82,82,82,82	0
56	MG	AA	1829	1/1	0.69	1.54	232,232,232,232	0
56	MG	DA	3128	1/1	0.69	0.27	101,101,101,101	0
56	MG	AA	1879	1/1	0.69	0.48	99,99,99,99	0
56	MG	BA	2932	1/1	0.69	0.16	78,78,78,78	0
56	MG	BA	3536	1/1	0.69	0.64	66,66,66,66	0
56	MG	DA	3338	1/1	0.69	0.79	76,76,76,76	0
56	MG	CA	1743	1/1	0.69	0.34	169,169,169,169	0
56	MG	BA	3596	1/1	0.69	0.38	140,140,140,140	0
56	MG	AA	1772	1/1	0.69	0.41	94,94,94,94	0
56	MG	AA	1794	1/1	0.69	0.15	151,151,151,151	0
56	MG	BA	3202	1/1	0.69	0.20	205,205,205,205	0
56	MG	DA	3353	1/1	0.69	0.11	66,66,66,66	0
56	MG	BA	2941	1/1	0.69	0.37	87,87,87,87	0
56	MG	AA	1934	1/1	0.69	0.40	96,96,96,96	0
56	MG	BA	3393	1/1	0.69	0.17	99,99,99,99	0
56	MG	DA	3326	1/1	0.70	0.42	47,47,47,47	0
56	MG	AA	1981	1/1	0.70	0.18	90,90,90,90	0
56	MG	CA	1719	1/1	0.70	0.50	106,106,106,106	0
56	MG	BB	208	1/1	0.70	0.70	82,82,82,82	0
56	MG	AA	1615	1/1	0.70	0.17	87,87,87,87	0
56	MG	BA	3239	1/1	0.70	0.45	99,99,99,99	0
56	MG	DA	3086	1/1	0.70	0.77	120,120,120,120	0
56	MG	BA	3533	1/1	0.70	0.17	97,97,97,97	0
56	MG	CA	1822	1/1	0.70	0.27	112,112,112,112	0
56	MG	CA	1734	1/1	0.70	0.22	196,196,196,196	0
56	MG	BA	3332	1/1	0.70	0.83	58,58,58,58	0
56	MG	AW	110	1/1	0.70	0.27	145,145,145,145	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	2983	1/1	0.70	0.33	77,77,77,77	0
56	MG	CA	1739	1/1	0.70	0.16	122,122,122,122	0
56	MG	DA	3439	1/1	0.70	0.34	66,66,66,66	0
56	MG	AA	1672	1/1	0.70	0.66	73,73,73,73	0
56	MG	CA	1607	1/1	0.70	0.43	138,138,138,138	0
56	MG	BA	2920	1/1	0.70	0.41	70,70,70,70	0
56	MG	DA	2917	1/1	0.71	0.45	83,83,83,83	0
56	MG	CA	1614	1/1	0.71	0.42	122,122,122,122	0
56	MG	AA	1990	1/1	0.71	0.24	58,58,58,58	0
56	MG	DA	3346	1/1	0.71	0.26	90,90,90,90	0
56	MG	BA	3080	1/1	0.71	0.31	112,112,112,112	0
56	MG	AA	1621	1/1	0.71	0.17	74,74,74,74	0
56	MG	BA	2993	1/1	0.71	0.30	57,57,57,57	0
56	MG	BA	3540	1/1	0.71	0.59	84,84,84,84	0
56	MG	BA	3224	1/1	0.71	0.64	85,85,85,85	0
56	MG	BA	3230	1/1	0.71	0.58	103,103,103,103	0
56	MG	DA	3385	1/1	0.71	0.40	77,77,77,77	0
56	MG	BA	3676	1/1	0.71	0.43	181,181,181,181	0
56	MG	BA	3553	1/1	0.71	0.46	92,92,92,92	0
56	MG	DA	3016	1/1	0.71	0.41	99,99,99,99	0
56	MG	DA	3023	1/1	0.71	0.40	71,71,71,71	0
56	MG	BA	3709	1/1	0.71	0.34	97,97,97,97	0
56	MG	BA	2996	1/1	0.71	0.19	209,209,209,209	0
56	MG	CA	1675	1/1	0.71	0.45	75,75,75,75	0
56	MG	DA	3059	1/1	0.71	0.30	82,82,82,82	0
56	MG	AA	1786	1/1	0.71	0.46	71,71,71,71	0
56	MG	AA	1632	1/1	0.71	0.45	87,87,87,87	0
56	MG	BA	3004	1/1	0.71	0.46	99,99,99,99	0
56	MG	BA	3131	1/1	0.71	0.36	65,65,65,65	0
56	MG	CA	1902	1/1	0.71	0.63	128,128,128,128	0
56	MG	AA	1951	1/1	0.71	0.50	73,73,73,73	0
56	MG	BA	2917	1/1	0.71	0.59	188,188,188,188	0
56	MG	AA	1605	1/1	0.71	0.19	142,142,142,142	0
56	MG	BA	3170	1/1	0.71	0.37	60,60,60,60	0
56	MG	AA	1892	1/1	0.71	0.24	108,108,108,108	0
56	MG	AA	1839	1/1	0.71	0.52	88,88,88,88	0
56	MG	AA	1660	1/1	0.71	0.27	105,105,105,105	0
56	MG	DA	3243	1/1	0.71	0.55	77,77,77,77	0
56	MG	CA	1807	1/1	0.71	0.70	195,195,195,195	0
56	MG	DA	2910	1/1	0.71	0.10	90,90,90,90	0
56	MG	DA	3284	1/1	0.71	0.36	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	2973	1/1	0.71	0.53	160,160,160,160	0
56	MG	BA	3605	1/1	0.71	0.09	72,72,72,72	0
56	MG	CA	1904	1/1	0.72	0.26	80,80,80,80	0
56	MG	BA	3093	1/1	0.72	0.43	55,55,55,55	0
56	MG	CA	1802	1/1	0.72	0.31	61,61,61,61	0
56	MG	BA	3098	1/1	0.72	0.59	94,94,94,94	0
56	MG	BA	3189	1/1	0.72	0.45	105,105,105,105	0
56	MG	BA	3307	1/1	0.72	0.20	83,83,83,83	0
56	MG	BA	3711	1/1	0.72	0.16	104,104,104,104	0
56	MG	DA	3430	1/1	0.72	0.16	80,80,80,80	0
56	MG	BA	3194	1/1	0.72	0.34	91,91,91,91	0
56	MG	DA	3449	1/1	0.72	0.25	53,53,53,53	0
56	MG	CD	302	1/1	0.72	0.43	111,111,111,111	0
56	MG	BA	3055	1/1	0.72	0.28	71,71,71,71	0
56	MG	BA	2951	1/1	0.72	0.16	50,50,50,50	0
56	MG	AG	201	1/1	0.72	0.88	78,78,78,78	0
56	MG	BA	3448	1/1	0.72	0.35	72,72,72,72	0
56	MG	CA	1676	1/1	0.72	0.21	88,88,88,88	0
56	MG	BA	3597	1/1	0.72	0.54	91,91,91,91	0
56	MG	CA	1840	1/1	0.72	0.56	101,101,101,101	0
56	MG	DA	2944	1/1	0.72	0.18	94,94,94,94	0
56	MG	BA	3002	1/1	0.72	0.40	91,91,91,91	0
56	MG	AA	1942	1/1	0.72	0.16	92,92,92,92	0
56	MG	BA	3147	1/1	0.72	0.42	88,88,88,88	0
56	MG	BA	3148	1/1	0.72	0.19	111,111,111,111	0
56	MG	AA	1860	1/1	0.72	0.41	62,62,62,62	0
56	MG	BA	2907	1/1	0.72	0.38	129,129,129,129	0
56	MG	BA	3612	1/1	0.72	0.40	96,96,96,96	0
56	MG	AA	1714	1/1	0.72	0.58	114,114,114,114	0
56	MG	DA	3009	1/1	0.72	0.62	130,130,130,130	0
56	MG	BA	3252	1/1	0.72	0.48	78,78,78,78	0
56	MG	AA	1725	1/1	0.72	0.66	121,121,121,121	0
56	MG	BA	3092	1/1	0.72	0.46	99,99,99,99	0
56	MG	CW	102	1/1	0.73	0.57	105,105,105,105	0
56	MG	BA	2927	1/1	0.73	0.25	82,82,82,82	0
56	MG	DA	3070	1/1	0.73	0.60	69,69,69,69	0
56	MG	BA	2930	1/1	0.73	0.60	89,89,89,89	0
56	MG	BA	3529	1/1	0.73	0.31	79,79,79,79	0
56	MG	CA	1670	1/1	0.73	0.29	61,61,61,61	0
56	MG	DA	3416	1/1	0.73	0.18	60,60,60,60	0
56	MG	DA	2905	1/1	0.73	0.14	87,87,87,87	0
56	MG	AA	1778	1/1	0.73	0.19	159,159,159,159	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	CA	1674	1/1	0.73	0.20	107,107,107,107	0
56	MG	AA	1750	1/1	0.73	0.31	77,77,77,77	0
56	MG	DA	3117	1/1	0.73	0.24	72,72,72,72	0
56	MG	BA	3273	1/1	0.73	0.30	110,110,110,110	0
56	MG	BA	3278	1/1	0.73	0.51	115,115,115,115	0
56	MG	DA	3510	1/1	0.73	0.76	69,69,69,69	0
56	MG	AA	1622	1/1	0.73	0.66	70,70,70,70	0
56	MG	BE	301	1/1	0.73	0.56	60,60,60,60	0
56	MG	DA	3522	1/1	0.73	0.19	77,77,77,77	0
56	MG	AA	1811	1/1	0.73	0.38	91,91,91,91	0
56	MG	BA	3300	1/1	0.73	0.39	89,89,89,89	0
56	MG	BA	3629	1/1	0.73	0.88	129,129,129,129	0
56	MG	BA	2925	1/1	0.73	0.59	76,76,76,76	0
56	MG	DA	3287	1/1	0.73	0.84	44,44,44,44	0
56	MG	BA	3574	1/1	0.73	0.40	70,70,70,70	0
56	MG	DA	3325	1/1	0.73	0.48	46,46,46,46	0
56	MG	BA	3309	1/1	0.73	0.35	68,68,68,68	0
56	MG	BA	3668	1/1	0.73	0.20	71,71,71,71	0
56	MG	AA	1874	1/1	0.73	0.41	59,59,59,59	0
56	MG	CA	1720	1/1	0.73	0.45	84,84,84,84	0
56	MG	BA	3084	1/1	0.73	0.50	73,73,73,73	0
56	MG	BA	3020	1/1	0.73	0.55	107,107,107,107	0
56	MG	BA	2981	1/1	0.73	0.36	79,79,79,79	0
56	MG	BA	3035	1/1	0.73	0.13	158,158,158,158	0
56	MG	BA	3053	1/1	0.73	0.45	95,95,95,95	0
56	MG	D0	101	1/1	0.73	0.33	42,42,42,42	0
56	MG	DA	2936	1/1	0.74	0.50	82,82,82,82	0
56	MG	DA	3329	1/1	0.74	0.34	46,46,46,46	0
56	MG	CA	1667	1/1	0.74	0.28	118,118,118,118	0
56	MG	BA	3389	1/1	0.74	0.31	47,47,47,47	0
56	MG	BA	3054	1/1	0.74	0.30	91,91,91,91	0
56	MG	BA	3229	1/1	0.74	0.53	92,92,92,92	0
56	MG	AA	1975	1/1	0.74	0.26	121,121,121,121	0
56	MG	CA	1717	1/1	0.74	0.25	121,121,121,121	0
56	MG	CW	112	1/1	0.74	0.27	103,103,103,103	0
56	MG	AA	1850	1/1	0.74	0.23	98,98,98,98	0
56	MG	BA	3267	1/1	0.74	0.41	123,123,123,123	0
56	MG	DA	3375	1/1	0.74	0.49	78,78,78,78	0
56	MG	CA	1644	1/1	0.74	1.32	120,120,120,120	0
56	MG	CA	1678	1/1	0.74	1.80	128,128,128,128	0
56	MG	DA	3586	1/1	0.74	0.77	133,133,133,133	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3139	1/1	0.74	0.41	73,73,73,73	0
56	MG	DA	3630	1/1	0.74	0.15	76,76,76,76	0
56	MG	BA	3517	1/1	0.74	0.53	55,55,55,55	0
56	MG	CA	1780	1/1	0.74	0.53	72,72,72,72	0
56	MG	BA	3359	1/1	0.74	0.10	106,106,106,106	0
56	MG	AA	1858	1/1	0.74	0.28	132,132,132,132	0
56	MG	CA	1905	1/1	0.74	0.39	84,84,84,84	0
56	MG	DA	3292	1/1	0.74	0.31	34,34,34,34	0
56	MG	DA	2930	1/1	0.74	0.45	86,86,86,86	0
56	MG	DA	3066	1/1	0.74	1.50	90,90,90,90	0
56	MG	D7	101	1/1	0.74	0.48	62,62,62,62	0
56	MG	CW	101	1/1	0.75	0.35	96,96,96,96	0
56	MG	DA	3441	1/1	0.75	0.38	46,46,46,46	0
56	MG	BA	3256	1/1	0.75	0.57	91,91,91,91	0
56	MG	BA	3455	1/1	0.75	0.26	64,64,64,64	0
56	MG	AW	112	1/1	0.75	0.57	82,82,82,82	0
56	MG	CW	116	1/1	0.75	0.14	70,70,70,70	0
56	MG	BA	3479	1/1	0.75	0.47	59,59,59,59	0
56	MG	CA	1850	1/1	0.75	0.40	93,93,93,93	0
56	MG	BA	3082	1/1	0.75	0.34	119,119,119,119	0
56	MG	DA	3521	1/1	0.75	0.30	93,93,93,93	0
56	MG	BA	3494	1/1	0.75	0.18	73,73,73,73	0
56	MG	BA	3496	1/1	0.75	0.43	63,63,63,63	0
56	MG	BA	3501	1/1	0.75	0.19	52,52,52,52	0
56	MG	BA	3264	1/1	0.75	0.48	89,89,89,89	0
56	MG	CA	1738	1/1	0.75	0.38	123,123,123,123	0
56	MG	BA	3130	1/1	0.75	0.50	82,82,82,82	0
56	MG	CA	1887	1/1	0.75	0.43	116,116,116,116	0
56	MG	BA	3156	1/1	0.75	0.50	74,74,74,74	0
56	MG	DA	2937	1/1	0.75	0.67	104,104,104,104	0
56	MG	AA	1681	1/1	0.75	0.22	68,68,68,68	0
56	MG	BA	3117	1/1	0.75	0.21	92,92,92,92	0
56	MG	BA	3433	1/1	0.75	0.37	97,97,97,97	0
56	MG	DA	3386	1/1	0.75	0.22	102,102,102,102	0
56	MG	BA	3225	1/1	0.75	0.28	96,96,96,96	0
56	MG	BB	202	1/1	0.75	0.19	98,98,98,98	0
56	MG	DA	3403	1/1	0.75	0.81	77,77,77,77	0
56	MG	BA	3442	1/1	0.75	0.39	79,79,79,79	0
56	MG	DA	2972	1/1	0.75	0.62	187,187,187,187	0
56	MG	DF	301	1/1	0.75	0.45	37,37,37,37	0
56	MG	DA	3427	1/1	0.75	1.15	84,84,84,84	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3557	1/1	0.75	0.15	97,97,97,97	0
56	MG	BA	3299	1/1	0.75	0.65	102,102,102,102	0
56	MG	BA	3297	1/1	0.76	0.63	122,122,122,122	0
56	MG	BA	3298	1/1	0.76	0.38	101,101,101,101	0
56	MG	CA	1918	1/1	0.76	0.15	107,107,107,107	0
56	MG	DA	3453	1/1	0.76	0.19	85,85,85,85	0
56	MG	BA	3137	1/1	0.76	0.28	83,83,83,83	0
56	MG	BA	2929	1/1	0.76	0.53	64,64,64,64	0
56	MG	DA	3491	1/1	0.76	0.35	71,71,71,71	0
56	MG	BA	3196	1/1	0.76	0.09	84,84,84,84	0
56	MG	CA	1747	1/1	0.76	1.26	122,122,122,122	0
56	MG	AA	1722	1/1	0.76	0.24	72,72,72,72	0
56	MG	BA	3016	1/1	0.76	0.28	168,168,168,168	0
56	MG	DA	3033	1/1	0.76	0.41	93,93,93,93	0
56	MG	BA	3257	1/1	0.76	0.51	69,69,69,69	0
56	MG	DA	3342	1/1	0.76	0.09	83,83,83,83	0
56	MG	AA	1835	1/1	0.76	0.99	76,76,76,76	0
56	MG	BA	2934	1/1	0.76	0.72	79,79,79,79	0
56	MG	BA	3114	1/1	0.76	0.20	119,119,119,119	0
56	MG	BA	3403	1/1	0.76	0.50	79,79,79,79	0
56	MG	CA	1718	1/1	0.76	0.12	136,136,136,136	0
56	MG	BA	3407	1/1	0.76	0.61	78,78,78,78	0
56	MG	DA	3364	1/1	0.76	0.10	80,80,80,80	0
56	MG	CA	1863	1/1	0.76	0.30	69,69,69,69	0
56	MG	DA	2915	1/1	0.76	0.42	78,78,78,78	0
56	MG	BA	3546	1/1	0.76	0.63	200,200,200,200	0
56	MG	CA	1663	1/1	0.76	0.63	210,210,210,210	0
56	MG	DB	201	1/1	0.76	0.34	62,62,62,62	0
56	MG	AA	1748	1/1	0.76	0.24	54,54,54,54	0
56	MG	BA	3550	1/1	0.76	0.12	68,68,68,68	0
56	MG	DB	206	1/1	0.76	0.41	121,121,121,121	0
56	MG	BA	3049	1/1	0.76	0.30	90,90,90,90	0
56	MG	DA	2938	1/1	0.76	0.38	71,71,71,71	0
56	MG	AA	1977	1/1	0.76	0.37	126,126,126,126	0
56	MG	AA	1607	1/1	0.76	0.47	97,97,97,97	0
56	MG	AA	1652	1/1	0.76	0.19	98,98,98,98	0
56	MG	DW	201	1/1	0.76	0.53	76,76,76,76	0
56	MG	CA	1808	1/1	0.76	0.56	74,74,74,74	0
56	MG	BA	3655	1/1	0.76	0.41	87,87,87,87	0
56	MG	DA	3436	1/1	0.77	0.19	68,68,68,68	0
56	MG	BA	3211	1/1	0.77	0.49	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AA	1967	1/1	0.77	0.27	61,61,61,61	0
56	MG	BA	3720	1/1	0.77	0.22	85,85,85,85	0
56	MG	BA	3601	1/1	0.77	0.15	50,50,50,50	0
56	MG	DA	3456	1/1	0.77	0.20	116,116,116,116	0
56	MG	BA	2913	1/1	0.77	0.35	77,77,77,77	0
56	MG	CA	1911	1/1	0.77	1.07	107,107,107,107	0
56	MG	BB	203	1/1	0.77	0.37	78,78,78,78	0
56	MG	BA	3303	1/1	0.77	0.27	69,69,69,69	0
56	MG	DA	3501	1/1	0.77	0.09	96,96,96,96	0
56	MG	DA	2989	1/1	0.77	0.47	53,53,53,53	0
56	MG	DA	2999	1/1	0.77	0.19	102,102,102,102	0
56	MG	CA	1810	1/1	0.77	0.71	121,121,121,121	0
56	MG	DA	3003	1/1	0.77	0.43	59,59,59,59	0
56	MG	BA	3306	1/1	0.77	0.39	68,68,68,68	0
56	MG	AA	1891	1/1	0.77	0.19	67,67,67,67	0
56	MG	DA	3528	1/1	0.77	0.33	54,54,54,54	0
56	MG	BB	215	1/1	0.77	0.34	94,94,94,94	0
56	MG	BA	3110	1/1	0.77	0.37	72,72,72,72	0
56	MG	BB	222	1/1	0.77	0.19	206,206,206,206	0
56	MG	BA	3570	1/1	0.77	0.15	83,83,83,83	0
56	MG	BA	3141	1/1	0.77	0.71	62,62,62,62	0
56	MG	DA	3568	1/1	0.77	0.41	65,65,65,65	0
56	MG	AA	1825	1/1	0.77	0.43	138,138,138,138	0
56	MG	BA	3270	1/1	0.77	0.40	70,70,70,70	0
56	MG	BA	3193	1/1	0.77	0.31	79,79,79,79	0
56	MG	BA	3514	1/1	0.77	1.15	80,80,80,80	0
56	MG	DA	3627	1/1	0.77	0.28	81,81,81,81	0
56	MG	AA	1909	1/1	0.77	0.18	65,65,65,65	0
56	MG	DA	3380	1/1	0.77	0.28	85,85,85,85	0
56	MG	CA	1756	1/1	0.77	0.37	60,60,60,60	0
56	MG	AA	1721	1/1	0.77	0.40	128,128,128,128	0
56	MG	CA	1704	1/1	0.77	0.71	88,88,88,88	0
56	MG	BA	2972	1/1	0.77	0.53	122,122,122,122	0
56	MG	BA	3696	1/1	0.77	0.17	96,96,96,96	0
56	MG	BA	3414	1/1	0.77	0.67	47,47,47,47	0
56	MG	BA	3593	1/1	0.77	0.32	57,57,57,57	0
56	MG	DA	3107	1/1	0.77	0.60	139,139,139,139	0
56	MG	BA	3538	1/1	0.77	0.37	82,82,82,82	0
56	MG	CA	1885	1/1	0.77	0.27	270,270,270,270	0
56	MG	BA	2999	1/1	0.77	0.09	92,92,92,92	0
56	MG	DA	3432	1/1	0.77	0.30	104,104,104,104	0
56	MG	BA	3115	1/1	0.78	0.20	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3320	1/1	0.78	0.11	78,78,78,78	0
56	MG	DA	3007	1/1	0.78	0.13	70,70,70,70	0
56	MG	CA	1691	1/1	0.78	0.32	161,161,161,161	0
56	MG	CA	1693	1/1	0.78	0.42	67,67,67,67	0
56	MG	DA	3502	1/1	0.78	1.32	73,73,73,73	0
56	MG	CA	1617	1/1	0.78	0.38	69,69,69,69	0
56	MG	DA	3030	1/1	0.78	1.40	78,78,78,78	0
56	MG	AA	1686	1/1	0.78	0.42	85,85,85,85	0
56	MG	DA	3517	1/1	0.78	0.42	62,62,62,62	0
56	MG	DA	3519	1/1	0.78	1.54	78,78,78,78	0
56	MG	AA	1777	1/1	0.78	0.17	101,101,101,101	0
56	MG	AA	1826	1/1	0.78	0.36	78,78,78,78	0
56	MG	AA	1900	1/1	0.78	0.30	213,213,213,213	0
56	MG	BA	3182	1/1	0.78	0.60	70,70,70,70	0
56	MG	BA	3185	1/1	0.78	0.65	66,66,66,66	0
56	MG	AA	1866	1/1	0.78	0.18	118,118,118,118	0
56	MG	CA	1869	1/1	0.78	0.38	95,95,95,95	0
56	MG	BA	3462	1/1	0.78	0.41	95,95,95,95	0
56	MG	CA	1793	1/1	0.78	0.26	114,114,114,114	0
56	MG	BA	3610	1/1	0.78	0.40	95,95,95,95	0
56	MG	BA	3248	1/1	0.78	0.49	102,102,102,102	0
56	MG	AA	1757	1/1	0.78	0.32	74,74,74,74	0
56	MG	BA	2983	1/1	0.78	0.17	44,44,44,44	0
56	MG	DA	3611	1/1	0.78	0.88	60,60,60,60	0
56	MG	DA	3395	1/1	0.78	0.13	95,95,95,95	0
56	MG	DA	3095	1/1	0.78	0.13	100,100,100,100	0
56	MG	BA	3140	1/1	0.78	0.34	55,55,55,55	0
56	MG	CA	1900	1/1	0.78	0.49	112,112,112,112	0
56	MG	BA	3650	1/1	0.78	0.48	95,95,95,95	0
56	MG	BA	3067	1/1	0.78	0.17	142,142,142,142	0
56	MG	BA	3661	1/1	0.78	0.69	56,56,56,56	0
56	MG	BA	3143	1/1	0.78	0.43	81,81,81,81	0
56	MG	AW	116	1/1	0.78	0.19	86,86,86,86	0
56	MG	CA	1812	1/1	0.78	0.58	75,75,75,75	0
56	MG	BA	3377	1/1	0.78	0.46	56,56,56,56	0
56	MG	AA	1953	1/1	0.78	0.38	51,51,51,51	0
56	MG	DA	3270	1/1	0.78	0.64	69,69,69,69	0
56	MG	BA	3112	1/1	0.78	0.18	83,83,83,83	0
56	MG	AA	1625	1/1	0.78	0.48	85,85,85,85	0
56	MG	CA	1686	1/1	0.78	0.27	286,286,286,286	0
56	MG	BA	3237	1/1	0.79	0.59	90,90,90,90	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3257	1/1	0.79	0.28	90,90,90,90	0
56	MG	DA	3463	1/1	0.79	0.36	60,60,60,60	0
56	MG	B0	102	1/1	0.79	0.45	68,68,68,68	0
56	MG	DA	2988	1/1	0.79	0.22	85,85,85,85	0
56	MG	CA	1602	1/1	0.79	0.25	112,112,112,112	0
56	MG	CA	1819	1/1	0.79	0.10	59,59,59,59	0
56	MG	DA	3498	1/1	0.79	0.43	80,80,80,80	0
56	MG	BA	3188	1/1	0.79	0.40	78,78,78,78	0
56	MG	BA	3244	1/1	0.79	1.33	67,67,67,67	0
56	MG	CA	1683	1/1	0.79	0.58	62,62,62,62	0
56	MG	BA	2910	1/1	0.79	0.11	79,79,79,79	0
56	MG	DA	3008	1/1	0.79	0.52	70,70,70,70	0
56	MG	AA	1941	1/1	0.79	0.75	100,100,100,100	0
56	MG	CW	110	1/1	0.79	0.11	90,90,90,90	0
56	MG	AA	1815	1/1	0.79	0.35	74,74,74,74	0
56	MG	BA	3507	1/1	0.79	0.27	56,56,56,56	0
56	MG	BA	2992	1/1	0.79	0.51	73,73,73,73	0
56	MG	AA	1823	1/1	0.79	0.29	96,96,96,96	0
56	MG	BA	2994	1/1	0.79	0.51	71,71,71,71	0
56	MG	BA	3205	1/1	0.79	0.45	95,95,95,95	0
56	MG	BA	3032	1/1	0.79	0.67	97,97,97,97	0
56	MG	AA	1946	1/1	0.79	0.30	86,86,86,86	0
56	MG	DA	3367	1/1	0.79	0.21	74,74,74,74	0
56	MG	DA	3371	1/1	0.79	0.39	65,65,65,65	0
56	MG	DA	3062	1/1	0.79	0.47	75,75,75,75	0
56	MG	BA	3265	1/1	0.79	0.21	114,114,114,114	0
56	MG	BA	3048	1/1	0.79	0.33	54,54,54,54	0
56	MG	CA	1872	1/1	0.79	0.31	88,88,88,88	0
56	MG	DA	3618	1/1	0.79	0.27	69,69,69,69	0
56	MG	DA	3621	1/1	0.79	0.40	77,77,77,77	0
56	MG	DA	2916	1/1	0.79	0.49	57,57,57,57	0
56	MG	AA	1797	1/1	0.79	0.36	60,60,60,60	0
56	MG	BA	3128	1/1	0.79	0.99	111,111,111,111	0
56	MG	CA	1879	1/1	0.79	0.35	53,53,53,53	0
56	MG	DA	2931	1/1	0.79	0.22	87,87,87,87	0
56	MG	BA	3275	1/1	0.79	0.44	102,102,102,102	0
56	MG	AA	1752	1/1	0.79	0.37	183,183,183,183	0
56	MG	AA	1646	1/1	0.79	0.10	73,73,73,73	0
56	MG	CA	1728	1/1	0.79	0.20	195,195,195,195	0
56	MG	CA	1892	1/1	0.79	0.14	150,150,150,150	0
56	MG	BA	3568	1/1	0.79	0.17	84,84,84,84	0
56	MG	BA	3628	1/1	0.79	0.67	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AA	1937	1/1	0.79	0.26	51,51,51,51	0
56	MG	DA	3161	1/1	0.79	0.21	10,10,10,10	0
56	MG	BA	3234	1/1	0.79	0.12	83,83,83,83	0
56	MG	BA	3097	1/1	0.79	0.73	73,73,73,73	0
56	MG	DA	3109	1/1	0.80	0.33	65,65,65,65	0
56	MG	BA	3616	1/1	0.80	0.61	62,62,62,62	0
56	MG	BA	3043	1/1	0.80	0.46	155,155,155,155	0
56	MG	BA	3622	1/1	0.80	0.97	68,68,68,68	0
56	MG	DA	3120	1/1	0.80	0.37	76,76,76,76	0
56	MG	BA	3404	1/1	0.80	1.16	82,82,82,82	0
56	MG	BA	3215	1/1	0.80	0.18	88,88,88,88	0
56	MG	BA	3121	1/1	0.80	0.81	137,137,137,137	0
56	MG	DA	3188	1/1	0.80	0.47	50,50,50,50	0
56	MG	DA	3471	1/1	0.80	0.33	55,55,55,55	0
56	MG	DA	3238	1/1	0.80	0.30	89,89,89,89	0
56	MG	CA	1896	1/1	0.80	0.38	95,95,95,95	0
56	MG	BA	3641	1/1	0.80	0.61	60,60,60,60	0
56	MG	CA	1709	1/1	0.80	0.26	61,61,61,61	0
56	MG	BA	3422	1/1	0.80	0.55	42,42,42,42	0
56	MG	DA	2980	1/1	0.80	0.38	57,57,57,57	0
56	MG	BA	3563	1/1	0.80	0.69	83,83,83,83	0
56	MG	BA	2940	1/1	0.80	0.15	67,67,67,67	0
56	MG	AA	1912	1/1	0.80	0.23	87,87,87,87	0
56	MG	BA	3180	1/1	0.80	0.72	113,113,113,113	0
56	MG	AA	1635	1/1	0.80	0.36	106,106,106,106	0
56	MG	AA	1929	1/1	0.80	0.36	79,79,79,79	0
56	MG	BA	3287	1/1	0.80	0.29	55,55,55,55	0
56	MG	BA	3095	1/1	0.80	0.41	90,90,90,90	0
56	MG	BA	3292	1/1	0.80	0.64	40,40,40,40	0
56	MG	AA	1644	1/1	0.80	0.23	57,57,57,57	0
56	MG	DA	3010	1/1	0.80	0.79	54,54,54,54	0
56	MG	BA	3008	1/1	0.80	0.47	66,66,66,66	0
56	MG	CW	105	1/1	0.80	0.64	65,65,65,65	0
56	MG	DA	3026	1/1	0.80	0.24	78,78,78,78	0
56	MG	DA	3349	1/1	0.80	0.58	56,56,56,56	0
56	MG	DA	3027	1/1	0.80	0.15	94,94,94,94	0
56	MG	DA	3576	1/1	0.80	0.28	102,102,102,102	0
56	MG	BA	3488	1/1	0.80	0.33	62,62,62,62	0
56	MG	DA	3352	1/1	0.80	0.13	86,86,86,86	0
56	MG	DA	3583	1/1	0.80	0.16	68,68,68,68	0
56	MG	DA	3585	1/1	0.80	0.26	66,66,66,66	0
56	MG	CA	1665	1/1	0.80	0.58	94,94,94,94	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3362	1/1	0.80	0.99	83,83,83,83	0
56	MG	CA	1737	1/1	0.80	0.93	98,98,98,98	0
56	MG	BA	3241	1/1	0.80	0.62	77,77,77,77	0
56	MG	AA	1897	1/1	0.80	1.14	80,80,80,80	0
56	MG	BA	3245	1/1	0.80	0.58	185,185,185,185	0
56	MG	CM	201	1/1	0.80	1.20	84,84,84,84	0
56	MG	BA	2985	1/1	0.80	0.34	61,61,61,61	0
56	MG	BA	2988	1/1	0.80	0.37	77,77,77,77	0
56	MG	AA	1675	1/1	0.80	0.89	96,96,96,96	0
56	MG	BA	2954	1/1	0.80	0.46	77,77,77,77	0
56	MG	BA	3532	1/1	0.80	0.29	58,58,58,58	0
56	MG	AA	1744	1/1	0.80	0.48	103,103,103,103	0
56	MG	BA	3206	1/1	0.80	0.24	176,176,176,176	0
56	MG	DB	214	1/1	0.80	0.13	110,110,110,110	0
56	MG	BA	3259	1/1	0.80	0.27	77,77,77,77	0
56	MG	CA	1871	1/1	0.80	0.13	56,56,56,56	0
56	MG	BA	3157	1/1	0.80	0.72	57,57,57,57	0
56	MG	DA	3426	1/1	0.80	0.50	63,63,63,63	0
56	MG	AV	101	1/1	0.80	0.75	109,109,109,109	0
56	MG	BA	3613	1/1	0.80	0.60	76,76,76,76	0
56	MG	CA	1630	1/1	0.81	0.22	177,177,177,177	0
56	MG	DA	3043	1/1	0.81	1.55	77,77,77,77	0
56	MG	DA	3327	1/1	0.81	0.20	58,58,58,58	0
56	MG	CA	1708	1/1	0.81	0.37	63,63,63,63	0
56	MG	AA	1738	1/1	0.81	0.65	71,71,71,71	0
56	MG	AA	1872	1/1	0.81	0.69	67,67,67,67	0
56	MG	AA	1873	1/1	0.81	0.23	110,110,110,110	0
56	MG	BA	3712	1/1	0.81	0.50	52,52,52,52	0
56	MG	BA	3419	1/1	0.81	0.35	57,57,57,57	0
56	MG	DA	3064	1/1	0.81	0.19	62,62,62,62	0
56	MG	BA	2964	1/1	0.81	0.25	74,74,74,74	0
56	MG	AA	1700	1/1	0.81	0.51	158,158,158,158	0
56	MG	CA	1895	1/1	0.81	0.31	126,126,126,126	0
56	MG	BA	3543	1/1	0.81	0.29	53,53,53,53	0
56	MG	DA	3074	1/1	0.81	1.36	99,99,99,99	0
56	MG	BA	3086	1/1	0.81	0.55	64,64,64,64	0
56	MG	BA	3436	1/1	0.81	0.30	86,86,86,86	0
56	MG	AA	1989	1/1	0.81	0.21	70,70,70,70	0
56	MG	AA	1828	1/1	0.81	0.10	97,97,97,97	0
56	MG	AA	1716	1/1	0.81	0.46	103,103,103,103	0
56	MG	DA	2956	1/1	0.81	0.32	59,59,59,59	0
56	MG	DA	3106	1/1	0.81	0.32	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3096	1/1	0.81	0.79	173,173,173,173	0
56	MG	BB	213	1/1	0.81	0.35	93,93,93,93	0
56	MG	BA	3060	1/1	0.81	0.53	80,80,80,80	0
56	MG	DA	2979	1/1	0.81	0.39	81,81,81,81	0
56	MG	BA	3331	1/1	0.81	0.69	121,121,121,121	0
56	MG	DA	3595	1/1	0.81	0.42	106,106,106,106	0
56	MG	AA	1830	1/1	0.81	0.73	179,179,179,179	0
56	MG	BA	3571	1/1	0.81	0.49	68,68,68,68	0
56	MG	BA	3346	1/1	0.81	0.12	111,111,111,111	0
56	MG	AA	1733	1/1	0.81	1.05	94,94,94,94	0
56	MG	DA	3421	1/1	0.81	0.35	76,76,76,76	0
56	MG	BA	3364	1/1	0.81	0.14	82,82,82,82	0
56	MG	AA	1774	1/1	0.81	0.41	68,68,68,68	0
56	MG	AT	202	1/1	0.81	0.40	100,100,100,100	0
56	MG	BA	3585	1/1	0.81	0.48	87,87,87,87	0
56	MG	BA	2991	1/1	0.81	0.36	80,80,80,80	0
56	MG	CA	1610	1/1	0.81	0.27	78,78,78,78	0
56	MG	BA	3391	1/1	0.81	0.64	78,78,78,78	0
56	MG	CA	1766	1/1	0.81	0.39	49,49,49,49	0
56	MG	DA	3447	1/1	0.81	0.64	89,89,89,89	0
56	MG	BA	3242	1/1	0.81	0.52	63,63,63,63	0
56	MG	DA	3290	1/1	0.81	0.29	38,38,38,38	0
56	MG	CA	1866	1/1	0.81	0.71	85,85,85,85	0
56	MG	BA	3520	1/1	0.81	0.46	51,51,51,51	0
56	MG	DX	101	1/1	0.81	0.41	99,99,99,99	0
56	MG	DA	3317	1/1	0.81	0.17	48,48,48,48	0
56	MG	AA	1971	1/1	0.81	0.18	60,60,60,60	0
56	MG	DA	3266	1/1	0.82	0.55	64,64,64,64	0
56	MG	CA	1689	1/1	0.82	0.21	52,52,52,52	0
56	MG	DA	3459	1/1	0.82	0.26	76,76,76,76	0
56	MG	BA	3087	1/1	0.82	0.49	82,82,82,82	0
56	MG	BA	3258	1/1	0.82	0.56	67,67,67,67	0
56	MG	CA	1696	1/1	0.82	0.30	66,66,66,66	0
56	MG	BA	3151	1/1	0.82	0.30	80,80,80,80	0
56	MG	DA	3307	1/1	0.82	0.18	82,82,82,82	0
56	MG	AA	1931	1/1	0.82	0.24	102,102,102,102	0
56	MG	BA	2923	1/1	0.82	1.32	85,85,85,85	0
56	MG	BA	3068	1/1	0.82	0.44	115,115,115,115	0
56	MG	AA	1973	1/1	0.82	0.64	65,65,65,65	0
56	MG	DA	3035	1/1	0.82	0.36	71,71,71,71	0
56	MG	DA	3038	1/1	0.82	0.37	77,77,77,77	0
56	MG	BA	3523	1/1	0.82	0.59	47,47,47,47	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	2960	1/1	0.82	0.50	74,74,74,74	0
56	MG	AA	1679	1/1	0.82	0.13	112,112,112,112	0
56	MG	CA	1649	1/1	0.82	0.15	63,63,63,63	0
56	MG	CA	1650	1/1	0.82	0.18	170,170,170,170	0
56	MG	BA	3135	1/1	0.82	0.45	55,55,55,55	0
56	MG	CA	1795	1/1	0.82	0.62	84,84,84,84	0
56	MG	DA	2926	1/1	0.82	0.54	91,91,91,91	0
56	MG	CA	1662	1/1	0.82	0.55	90,90,90,90	0
56	MG	DA	3535	1/1	0.82	0.31	67,67,67,67	0
56	MG	DA	3539	1/1	0.82	0.31	98,98,98,98	0
56	MG	CA	1798	1/1	0.82	0.32	79,79,79,79	0
56	MG	BA	3587	1/1	0.82	0.93	104,104,104,104	0
56	MG	CA	1722	1/1	0.82	0.72	168,168,168,168	0
56	MG	AA	1751	1/1	0.82	0.58	108,108,108,108	0
56	MG	DA	3571	1/1	0.82	0.94	70,70,70,70	0
56	MG	BA	3276	1/1	0.82	0.56	107,107,107,107	0
56	MG	AA	1616	1/1	0.82	0.46	87,87,87,87	0
56	MG	DA	3578	1/1	0.82	0.55	57,57,57,57	0
56	MG	DA	3369	1/1	0.82	0.59	86,86,86,86	0
56	MG	BA	3279	1/1	0.82	0.34	80,80,80,80	0
56	MG	DA	3089	1/1	0.82	0.10	70,70,70,70	0
56	MG	BA	3664	1/1	0.82	0.21	82,82,82,82	0
56	MG	DA	3589	1/1	0.82	0.18	74,74,74,74	0
56	MG	DA	2950	1/1	0.82	0.15	61,61,61,61	0
56	MG	DA	3601	1/1	0.82	0.33	61,61,61,61	0
56	MG	BA	3083	1/1	0.82	0.22	69,69,69,69	0
56	MG	CA	1811	1/1	0.82	0.27	54,54,54,54	0
56	MG	DA	2963	1/1	0.82	0.34	62,62,62,62	0
56	MG	BA	3477	1/1	0.82	0.32	54,54,54,54	0
56	MG	DA	3112	1/1	0.82	0.21	141,141,141,141	0
56	MG	AA	1753	1/1	0.82	0.52	72,72,72,72	0
56	MG	BA	3674	1/1	0.82	0.32	55,55,55,55	0
56	MG	AA	1746	1/1	0.82	0.38	93,93,93,93	0
56	MG	AA	1713	1/1	0.82	0.14	84,84,84,84	0
56	MG	DA	3121	1/1	0.82	0.19	41,41,41,41	0
56	MG	DA	3424	1/1	0.82	0.40	52,52,52,52	0
56	MG	CA	1916	1/1	0.82	0.62	77,77,77,77	0
56	MG	BA	3491	1/1	0.82	0.25	85,85,85,85	0
56	MG	DB	213	1/1	0.82	0.21	76,76,76,76	0
56	MG	CA	1823	1/1	0.82	0.30	166,166,166,166	0
56	MG	DA	3178	1/1	0.82	0.31	40,40,40,40	0
56	MG	DA	2991	1/1	0.82	0.68	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DQ	201	1/1	0.82	0.22	49,49,49,49	0
56	MG	CA	1921	1/1	0.82	0.26	108,108,108,108	0
56	MG	BA	3701	1/1	0.82	0.34	74,74,74,74	0
56	MG	CA	1831	1/1	0.82	0.48	62,62,62,62	0
56	MG	BA	3560	1/1	0.82	0.37	47,47,47,47	0
56	MG	BA	3561	1/1	0.82	0.33	58,58,58,58	0
56	MG	DA	3454	1/1	0.83	0.34	62,62,62,62	0
56	MG	BA	3304	1/1	0.83	0.45	167,167,167,167	0
56	MG	BX	102	1/1	0.83	0.35	50,50,50,50	0
56	MG	AA	1864	1/1	0.83	0.20	116,116,116,116	0
56	MG	DA	3470	1/1	0.83	0.22	81,81,81,81	0
56	MG	BA	2975	1/1	0.83	0.23	77,77,77,77	0
56	MG	DA	3478	1/1	0.83	0.17	67,67,67,67	0
56	MG	BA	3460	1/1	0.83	0.24	51,51,51,51	0
56	MG	AA	1650	1/1	0.83	0.16	93,93,93,93	0
56	MG	BA	3318	1/1	0.83	0.18	93,93,93,93	0
56	MG	BA	3473	1/1	0.83	0.81	70,70,70,70	0
56	MG	BA	3326	1/1	0.83	0.63	56,56,56,56	0
56	MG	AA	1992	1/1	0.83	0.27	84,84,84,84	0
56	MG	BA	3480	1/1	0.83	0.29	77,77,77,77	0
56	MG	BA	3222	1/1	0.83	0.46	70,70,70,70	0
56	MG	CA	1622	1/1	0.83	0.40	59,59,59,59	0
56	MG	BA	3487	1/1	0.83	0.40	51,51,51,51	0
56	MG	BA	3223	1/1	0.83	0.24	58,58,58,58	0
56	MG	BA	3581	1/1	0.83	0.45	94,94,94,94	0
56	MG	BA	3176	1/1	0.83	0.29	52,52,52,52	0
56	MG	BA	3179	1/1	0.83	0.88	98,98,98,98	0
56	MG	CW	111	1/1	0.83	0.30	82,82,82,82	0
56	MG	CA	1642	1/1	0.83	0.73	82,82,82,82	0
56	MG	BA	3693	1/1	0.83	0.18	65,65,65,65	0
56	MG	CA	1727	1/1	0.83	0.14	112,112,112,112	0
56	MG	BA	3367	1/1	0.83	0.36	84,84,84,84	0
56	MG	BA	3500	1/1	0.83	0.38	72,72,72,72	0
56	MG	BA	3698	1/1	0.83	0.32	55,55,55,55	0
56	MG	DA	3542	1/1	0.83	0.51	70,70,70,70	0
56	MG	BA	3010	1/1	0.83	0.48	93,93,93,93	0
56	MG	AA	1640	1/1	0.83	0.12	102,102,102,102	0
56	MG	DA	3063	1/1	0.83	0.18	99,99,99,99	0
56	MG	DA	2907	1/1	0.83	0.10	75,75,75,75	0
56	MG	AA	1641	1/1	0.83	0.12	121,121,121,121	0
56	MG	CA	1653	1/1	0.83	0.15	53,53,53,53	0
56	MG	AA	1938	1/1	0.83	0.13	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3579	1/1	0.83	0.36	36,36,36,36	0
56	MG	CA	1844	1/1	0.83	0.82	104,104,104,104	0
56	MG	CA	1660	1/1	0.83	0.41	94,94,94,94	0
56	MG	AA	1903	1/1	0.83	0.22	51,51,51,51	0
56	MG	DA	3077	1/1	0.83	0.35	77,77,77,77	0
56	MG	DA	3081	1/1	0.83	0.40	87,87,87,87	0
56	MG	DA	3594	1/1	0.83	0.30	50,50,50,50	0
56	MG	DA	3082	1/1	0.83	0.09	67,67,67,67	0
56	MG	BA	3522	1/1	0.83	1.09	96,96,96,96	0
56	MG	BA	3069	1/1	0.83	0.23	69,69,69,69	0
56	MG	DA	3616	1/1	0.83	0.23	65,65,65,65	0
56	MG	AA	1740	1/1	0.83	0.40	105,105,105,105	0
56	MG	DA	3390	1/1	0.83	0.74	53,53,53,53	0
56	MG	BA	3405	1/1	0.83	0.70	64,64,64,64	0
56	MG	BA	3074	1/1	0.83	0.09	108,108,108,108	0
56	MG	CA	1870	1/1	0.83	0.11	73,73,73,73	0
56	MG	BA	3075	1/1	0.83	0.69	73,73,73,73	0
56	MG	BB	205	1/1	0.83	0.30	64,64,64,64	0
56	MG	AA	1609	1/1	0.83	0.21	46,46,46,46	0
56	MG	AA	1705	1/1	0.83	0.28	101,101,101,101	0
56	MG	BB	209	1/1	0.83	0.27	91,91,91,91	0
56	MG	BA	3541	1/1	0.83	0.21	44,44,44,44	0
56	MG	BA	3608	1/1	0.83	0.95	54,54,54,54	0
56	MG	AA	1921	1/1	0.83	0.34	68,68,68,68	0
56	MG	DA	3429	1/1	0.83	0.78	59,59,59,59	0
56	MG	AA	1925	1/1	0.83	0.52	63,63,63,63	0
56	MG	CA	1890	1/1	0.83	0.26	59,59,59,59	0
56	MG	CA	1789	1/1	0.83	0.93	184,184,184,184	0
56	MG	DA	3130	1/1	0.83	0.61	69,69,69,69	0
56	MG	CA	1893	1/1	0.83	0.46	125,125,125,125	0
56	MG	DA	3162	1/1	0.83	0.15	23,23,23,23	0
56	MG	BA	3209	1/1	0.83	0.33	96,96,96,96	0
56	MG	AA	1986	1/1	0.83	0.79	69,69,69,69	0
56	MG	AA	1775	1/1	0.84	0.95	66,66,66,66	0
56	MG	BA	3409	1/1	0.84	0.19	115,115,115,115	0
56	MG	CA	1604	1/1	0.84	0.47	99,99,99,99	0
56	MG	BA	3138	1/1	0.84	0.28	82,82,82,82	0
56	MG	BA	3554	1/1	0.84	0.39	62,62,62,62	0
56	MG	DA	2934	1/1	0.84	0.29	76,76,76,76	0
56	MG	DA	3067	1/1	0.84	0.58	83,83,83,83	0
56	MG	DA	3068	1/1	0.84	0.28	69,69,69,69	0
56	MG	BA	3050	1/1	0.84	0.34	60,60,60,60	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	CA	1897	1/1	0.84	0.24	227,227,227,227	0
56	MG	BA	3208	1/1	0.84	0.40	87,87,87,87	0
56	MG	BA	3071	1/1	0.84	0.24	52,52,52,52	0
56	MG	CA	1901	1/1	0.84	0.24	54,54,54,54	0
56	MG	BA	3702	1/1	0.84	0.20	61,61,61,61	0
56	MG	BA	3503	1/1	0.84	0.69	195,195,195,195	0
56	MG	BA	2987	1/1	0.84	0.40	79,79,79,79	0
56	MG	DA	3083	1/1	0.84	0.76	125,125,125,125	0
56	MG	AA	1966	1/1	0.84	0.29	51,51,51,51	0
56	MG	CA	1908	1/1	0.84	0.27	84,84,84,84	0
56	MG	CA	1690	1/1	0.84	0.16	69,69,69,69	0
56	MG	DA	3090	1/1	0.84	0.25	47,47,47,47	0
56	MG	AA	1787	1/1	0.84	0.31	79,79,79,79	0
56	MG	DA	3560	1/1	0.84	0.42	55,55,55,55	0
56	MG	DA	3564	1/1	0.84	0.54	25,25,25,25	0
56	MG	DA	2967	1/1	0.84	0.90	86,86,86,86	0
56	MG	DA	3376	1/1	0.84	0.42	43,43,43,43	0
56	MG	DA	3574	1/1	0.84	0.44	67,67,67,67	0
56	MG	BA	3715	1/1	0.84	0.44	75,75,75,75	0
56	MG	DA	3098	1/1	0.84	0.28	57,57,57,57	0
56	MG	BA	3077	1/1	0.84	0.23	50,50,50,50	0
56	MG	DA	2976	1/1	0.84	0.39	71,71,71,71	0
56	MG	BA	3122	1/1	0.84	0.14	89,89,89,89	0
56	MG	BA	3451	1/1	0.84	0.60	83,83,83,83	0
56	MG	CA	1761	1/1	0.84	0.48	49,49,49,49	0
56	MG	BA	3524	1/1	0.84	0.26	95,95,95,95	0
56	MG	DA	3402	1/1	0.84	0.65	28,28,28,28	0
56	MG	DA	3591	1/1	0.84	0.15	129,129,129,129	0
56	MG	CV	102	1/1	0.84	0.70	78,78,78,78	0
56	MG	AA	1993	1/1	0.84	0.36	73,73,73,73	0
56	MG	DA	2993	1/1	0.84	0.41	85,85,85,85	0
56	MG	DA	3609	1/1	0.84	0.24	27,27,27,27	0
56	MG	DA	2997	1/1	0.84	0.89	132,132,132,132	0
56	MG	CA	1776	1/1	0.84	0.68	125,125,125,125	0
56	MG	CW	104	1/1	0.84	0.28	87,87,87,87	0
56	MG	DA	3158	1/1	0.84	0.46	18,18,18,18	0
56	MG	CA	1851	1/1	0.84	0.36	94,94,94,94	0
56	MG	BA	3582	1/1	0.84	0.57	72,72,72,72	0
56	MG	BA	3638	1/1	0.84	0.31	73,73,73,73	0
56	MG	BA	2921	1/1	0.84	0.66	95,95,95,95	0
56	MG	BA	3191	1/1	0.84	0.32	64,64,64,64	0
56	MG	CW	115	1/1	0.84	0.30	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	CA	1865	1/1	0.84	0.48	108,108,108,108	0
56	MG	BA	3390	1/1	0.84	0.41	44,44,44,44	0
56	MG	CA	1714	1/1	0.84	0.18	104,104,104,104	0
56	MG	BA	3653	1/1	0.84	0.16	62,62,62,62	0
56	MG	BA	3654	1/1	0.84	0.24	86,86,86,86	0
56	MG	DA	3455	1/1	0.84	0.20	72,72,72,72	0
56	MG	BA	3537	1/1	0.84	0.32	60,60,60,60	0
56	MG	BA	3039	1/1	0.84	0.78	176,176,176,176	0
56	MG	AA	1680	1/1	0.84	0.17	87,87,87,87	0
56	MG	BA	3397	1/1	0.84	0.89	67,67,67,67	0
56	MG	DA	3297	1/1	0.84	0.42	64,64,64,64	0
56	MG	BA	3162	1/1	0.84	0.51	60,60,60,60	0
56	MG	AA	1676	1/1	0.84	0.32	152,152,152,152	0
56	MG	D1	101	1/1	0.84	0.17	66,66,66,66	0
56	MG	BA	3199	1/1	0.84	0.29	69,69,69,69	0
56	MG	BA	3468	1/1	0.85	0.26	67,67,67,67	0
56	MG	DA	3494	1/1	0.85	0.28	112,112,112,112	0
56	MG	CA	1857	1/1	0.85	0.59	73,73,73,73	0
56	MG	BA	3472	1/1	0.85	0.48	56,56,56,56	0
56	MG	DA	3499	1/1	0.85	0.17	98,98,98,98	0
56	MG	DA	3057	1/1	0.85	0.11	107,107,107,107	0
56	MG	CA	1861	1/1	0.85	0.50	79,79,79,79	0
56	MG	BA	3623	1/1	0.85	0.28	79,79,79,79	0
56	MG	DA	3336	1/1	0.85	0.18	51,51,51,51	0
56	MG	BA	3204	1/1	0.85	0.33	65,65,65,65	0
56	MG	CA	1755	1/1	0.85	0.91	120,120,120,120	0
56	MG	BA	3343	1/1	0.85	0.24	73,73,73,73	0
56	MG	BA	2971	1/1	0.85	1.04	89,89,89,89	0
56	MG	AA	1817	1/1	0.85	0.55	175,175,175,175	0
56	MG	BA	3154	1/1	0.85	0.84	169,169,169,169	0
56	MG	CA	1688	1/1	0.85	0.26	45,45,45,45	0
56	MG	DA	3530	1/1	0.85	0.29	70,70,70,70	0
56	MG	BA	3567	1/1	0.85	0.40	75,75,75,75	0
56	MG	BA	3485	1/1	0.85	0.49	53,53,53,53	0
56	MG	CA	1782	1/1	0.85	0.54	56,56,56,56	0
56	MG	BA	3486	1/1	0.85	0.27	47,47,47,47	0
56	MG	DA	3356	1/1	0.85	0.13	107,107,107,107	0
56	MG	CA	1788	1/1	0.85	0.19	66,66,66,66	0
56	MG	AA	1819	1/1	0.85	0.96	84,84,84,84	0
56	MG	BA	2904	1/1	0.85	0.22	48,48,48,48	0
56	MG	AA	1822	1/1	0.85	0.17	69,69,69,69	0
56	MG	BA	3492	1/1	0.85	0.60	102,102,102,102	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AW	105	1/1	0.85	0.07	55,55,55,55	0
56	MG	BA	3167	1/1	0.85	0.38	60,60,60,60	0
56	MG	AA	1882	1/1	0.85	0.48	32,32,32,32	0
56	MG	BA	3031	1/1	0.85	0.50	255,255,255,255	0
56	MG	AA	1848	1/1	0.85	0.26	125,125,125,125	0
56	MG	AA	1678	1/1	0.85	0.16	101,101,101,101	0
56	MG	CA	1711	1/1	0.85	0.66	88,88,88,88	0
56	MG	BA	3508	1/1	0.85	0.30	67,67,67,67	0
56	MG	AA	1939	1/1	0.85	0.11	61,61,61,61	0
56	MG	BA	3124	1/1	0.85	0.54	79,79,79,79	0
56	MG	BA	3519	1/1	0.85	0.64	93,93,93,93	0
56	MG	CA	1909	1/1	0.85	0.16	133,133,133,133	0
56	MG	AA	1668	1/1	0.85	0.35	90,90,90,90	0
56	MG	AA	1724	1/1	0.85	0.46	133,133,133,133	0
56	MG	AA	1729	1/1	0.85	0.49	99,99,99,99	0
56	MG	BA	3132	1/1	0.85	0.40	53,53,53,53	0
56	MG	DA	3604	1/1	0.85	0.42	58,58,58,58	0
56	MG	AA	1745	1/1	0.85	0.21	80,80,80,80	0
56	MG	DA	3425	1/1	0.85	0.55	52,52,52,52	0
56	MG	DA	2995	1/1	0.85	0.18	65,65,65,65	0
56	MG	BA	3240	1/1	0.85	0.22	75,75,75,75	0
56	MG	AA	1809	1/1	0.85	0.18	106,106,106,106	0
56	MG	CA	1922	1/1	0.85	0.32	67,67,67,67	0
56	MG	CA	1730	1/1	0.85	0.16	80,80,80,80	0
56	MG	DA	3629	1/1	0.85	0.23	67,67,67,67	0
56	MG	CA	1657	1/1	0.85	0.24	95,95,95,95	0
56	MG	DA	3434	1/1	0.85	0.45	61,61,61,61	0
56	MG	BA	3190	1/1	0.85	0.27	49,49,49,49	0
56	MG	CA	1659	1/1	0.85	0.38	57,57,57,57	0
56	MG	AA	1604	1/1	0.85	0.21	91,91,91,91	0
56	MG	AA	1867	1/1	0.85	1.19	96,96,96,96	0
56	MG	DA	3014	1/1	0.85	0.19	54,54,54,54	0
56	MG	CW	107	1/1	0.85	0.10	50,50,50,50	0
56	MG	DB	210	1/1	0.85	0.25	82,82,82,82	0
56	MG	DA	3261	1/1	0.85	0.26	32,32,32,32	0
56	MG	BA	3059	1/1	0.85	0.36	43,43,43,43	0
56	MG	AA	1758	1/1	0.85	0.17	48,48,48,48	0
56	MG	DD	301	1/1	0.85	0.19	62,62,62,62	0
56	MG	BA	3310	1/1	0.85	0.50	117,117,117,117	0
56	MG	DF	302	1/1	0.85	0.25	25,25,25,25	0
56	MG	DA	3029	1/1	0.85	0.29	73,73,73,73	0
56	MG	DQ	202	1/1	0.85	0.28	31,31,31,31	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3611	1/1	0.85	0.23	67,67,67,67	0
56	MG	BA	2965	1/1	0.85	0.47	167,167,167,167	0
56	MG	BA	2966	1/1	0.85	0.36	49,49,49,49	0
56	MG	BA	2967	1/1	0.85	0.59	77,77,77,77	0
56	MG	DA	3486	1/1	0.85	0.37	62,62,62,62	0
56	MG	BA	3617	1/1	0.85	0.16	88,88,88,88	0
56	MG	AA	1763	1/1	0.86	0.27	88,88,88,88	0
56	MG	DA	2996	1/1	0.86	0.22	65,65,65,65	0
56	MG	BA	3070	1/1	0.86	0.55	159,159,159,159	0
56	MG	CA	1919	1/1	0.86	0.24	39,39,39,39	0
56	MG	BA	3708	1/1	0.86	0.19	61,61,61,61	0
56	MG	DA	3196	1/1	0.86	0.35	30,30,30,30	0
56	MG	DA	3002	1/1	0.86	0.33	139,139,139,139	0
56	MG	BA	2952	1/1	0.86	0.08	55,55,55,55	0
56	MG	BA	3024	1/1	0.86	0.31	65,65,65,65	0
56	MG	CA	1729	1/1	0.86	0.21	139,139,139,139	0
56	MG	DA	3250	1/1	0.86	0.61	77,77,77,77	0
56	MG	BA	3604	1/1	0.86	0.37	72,72,72,72	0
56	MG	DA	3260	1/1	0.86	0.27	58,58,58,58	0
56	MG	AA	1732	1/1	0.86	0.23	60,60,60,60	0
56	MG	BA	2957	1/1	0.86	0.46	71,71,71,71	0
56	MG	DA	3013	1/1	0.86	0.39	55,55,55,55	0
56	MG	DA	3271	1/1	0.86	0.27	65,65,65,65	0
56	MG	CA	1835	1/1	0.86	0.57	61,61,61,61	0
56	MG	BA	3166	1/1	0.86	0.29	70,70,70,70	0
56	MG	DA	3504	1/1	0.86	0.34	68,68,68,68	0
56	MG	DA	3289	1/1	0.86	0.26	45,45,45,45	0
56	MG	DA	3017	1/1	0.86	0.17	60,60,60,60	0
56	MG	AA	1913	1/1	0.86	0.39	35,35,35,35	0
56	MG	DA	3294	1/1	0.86	0.53	64,64,64,64	0
56	MG	CA	1839	1/1	0.86	0.13	38,38,38,38	0
56	MG	DA	3300	1/1	0.86	0.27	69,69,69,69	0
56	MG	BA	3478	1/1	0.86	0.12	63,63,63,63	0
56	MG	DA	3028	1/1	0.86	0.35	55,55,55,55	0
56	MG	CA	1841	1/1	0.86	0.77	77,77,77,77	0
56	MG	BA	3721	1/1	0.86	0.19	86,86,86,86	0
56	MG	BA	3361	1/1	0.86	0.19	106,106,106,106	0
56	MG	BA	3723	1/1	0.86	0.20	71,71,71,71	0
56	MG	AA	1643	1/1	0.86	0.25	114,114,114,114	0
56	MG	BA	3040	1/1	0.86	0.27	85,85,85,85	0
56	MG	BA	3614	1/1	0.86	0.16	107,107,107,107	0
56	MG	DA	3046	1/1	0.86	0.35	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3047	1/1	0.86	0.71	69,69,69,69	0
56	MG	DA	3049	1/1	0.86	0.61	52,52,52,52	0
56	MG	DA	3559	1/1	0.86	0.61	51,51,51,51	0
56	MG	CR	101	1/1	0.86	1.59	182,182,182,182	0
56	MG	BA	3559	1/1	0.86	0.31	76,76,76,76	0
56	MG	DA	3055	1/1	0.86	0.12	75,75,75,75	0
56	MG	AA	1734	1/1	0.86	0.24	66,66,66,66	0
56	MG	DA	3058	1/1	0.86	0.10	72,72,72,72	0
56	MG	BA	3370	1/1	0.86	0.36	50,50,50,50	0
56	MG	BA	2962	1/1	0.86	0.70	78,78,78,78	0
56	MG	BA	2995	1/1	0.86	0.22	92,92,92,92	0
56	MG	BB	214	1/1	0.86	0.20	68,68,68,68	0
56	MG	CA	1754	1/1	0.86	1.40	162,162,162,162	0
56	MG	AA	1923	1/1	0.86	0.11	72,72,72,72	0
56	MG	DA	3365	1/1	0.86	0.37	55,55,55,55	0
56	MG	BA	3227	1/1	0.86	0.22	90,90,90,90	0
56	MG	AA	1684	1/1	0.86	0.86	62,62,62,62	0
56	MG	AA	1881	1/1	0.86	0.46	54,54,54,54	0
56	MG	DA	3592	1/1	0.86	0.19	73,73,73,73	0
56	MG	BA	3640	1/1	0.86	0.51	60,60,60,60	0
56	MG	BF	1901	1/1	0.86	0.28	74,74,74,74	0
56	MG	AA	1658	1/1	0.86	0.16	76,76,76,76	0
56	MG	BA	3088	1/1	0.86	0.18	167,167,167,167	0
56	MG	BA	3089	1/1	0.86	0.58	72,72,72,72	0
56	MG	DA	3610	1/1	0.86	0.52	56,56,56,56	0
56	MG	AA	1606	1/1	0.86	0.13	77,77,77,77	0
56	MG	DA	3612	1/1	0.86	0.18	52,52,52,52	0
56	MG	CA	1886	1/1	0.86	0.18	100,100,100,100	0
56	MG	AA	1651	1/1	0.86	0.30	84,84,84,84	0
56	MG	DA	3392	1/1	0.86	0.13	38,38,38,38	0
56	MG	AA	1827	1/1	0.86	0.41	98,98,98,98	0
56	MG	CA	1695	1/1	0.86	0.41	108,108,108,108	0
56	MG	DA	3400	1/1	0.86	0.35	88,88,88,88	0
56	MG	AA	1637	1/1	0.86	0.12	67,67,67,67	0
56	MG	DA	2951	1/1	0.86	0.20	78,78,78,78	0
56	MG	DA	3091	1/1	0.86	0.57	96,96,96,96	0
56	MG	DA	2952	1/1	0.86	0.69	68,68,68,68	0
56	MG	DA	3407	1/1	0.86	0.11	62,62,62,62	0
56	MG	DA	3411	1/1	0.86	0.56	59,59,59,59	0
56	MG	BA	3302	1/1	0.86	0.69	63,63,63,63	0
56	MG	BA	3423	1/1	0.86	0.28	38,38,38,38	0
56	MG	DA	3423	1/1	0.86	0.20	35,35,35,35	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DB	212	1/1	0.86	0.09	84,84,84,84	0
56	MG	CA	1611	1/1	0.86	0.32	71,71,71,71	0
56	MG	AA	1898	1/1	0.86	0.23	70,70,70,70	0
56	MG	AA	1759	1/1	0.86	0.88	88,88,88,88	0
56	MG	BA	3590	1/1	0.86	0.26	90,90,90,90	0
56	MG	CA	1618	1/1	0.86	0.48	49,49,49,49	0
56	MG	CA	1619	1/1	0.86	0.11	128,128,128,128	0
56	MG	BA	3305	1/1	0.86	0.16	62,62,62,62	0
56	MG	BA	3149	1/1	0.86	0.17	44,44,44,44	0
56	MG	AA	1762	1/1	0.86	0.25	95,95,95,95	0
56	MG	BA	3308	1/1	0.86	0.16	88,88,88,88	0
56	MG	BA	3152	1/1	0.86	0.13	72,72,72,72	0
56	MG	CA	1637	1/1	0.86	0.29	53,53,53,53	0
56	MG	BA	3700	1/1	0.86	0.37	60,60,60,60	0
56	MG	DA	3145	1/1	0.86	0.26	39,39,39,39	0
56	MG	BA	3322	1/1	0.87	0.28	46,46,46,46	0
56	MG	BA	3662	1/1	0.87	0.42	87,87,87,87	0
56	MG	BA	3221	1/1	0.87	0.22	77,77,77,77	0
56	MG	DA	3079	1/1	0.87	0.38	62,62,62,62	0
56	MG	DA	3080	1/1	0.87	0.38	84,84,84,84	0
56	MG	BA	3181	1/1	0.87	0.51	56,56,56,56	0
56	MG	CA	1917	1/1	0.87	0.33	123,123,123,123	0
56	MG	CA	1672	1/1	0.87	0.25	78,78,78,78	0
56	MG	B0	101	1/1	0.87	0.27	33,33,33,33	0
56	MG	DA	2986	1/1	0.87	0.36	110,110,110,110	0
56	MG	BA	3146	1/1	0.87	0.28	57,57,57,57	0
56	MG	BA	3666	1/1	0.87	0.28	67,67,67,67	0
56	MG	BA	2903	1/1	0.87	0.41	83,83,83,83	0
56	MG	AA	1894	1/1	0.87	0.27	124,124,124,124	0
56	MG	DA	3094	1/1	0.87	0.26	30,30,30,30	0
56	MG	AA	1666	1/1	0.87	0.43	91,91,91,91	0
56	MG	BA	3013	1/1	0.87	0.81	81,81,81,81	0
56	MG	DA	3368	1/1	0.87	0.14	83,83,83,83	0
56	MG	AA	1667	1/1	0.87	0.30	53,53,53,53	0
56	MG	DA	3104	1/1	0.87	0.33	70,70,70,70	0
56	MG	CA	1684	1/1	0.87	0.48	87,87,87,87	0
56	MG	CA	1847	1/1	0.87	0.28	84,84,84,84	0
56	MG	CA	1849	1/1	0.87	0.23	75,75,75,75	0
56	MG	BA	3469	1/1	0.87	0.16	82,82,82,82	0
56	MG	BA	3366	1/1	0.87	0.45	31,31,31,31	0
56	MG	DA	3569	1/1	0.87	0.34	52,52,52,52	0
56	MG	DA	3384	1/1	0.87	0.31	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3017	1/1	0.87	0.36	27,27,27,27	0
56	MG	BA	3281	1/1	0.87	0.23	73,73,73,73	0
56	MG	CA	1615	1/1	0.87	0.50	110,110,110,110	0
56	MG	BA	3192	1/1	0.87	0.26	90,90,90,90	0
56	MG	CA	1770	1/1	0.87	0.31	39,39,39,39	0
56	MG	AA	1634	1/1	0.87	0.28	78,78,78,78	0
56	MG	BA	3380	1/1	0.87	0.69	49,49,49,49	0
56	MG	CA	1621	1/1	0.87	0.36	48,48,48,48	0
56	MG	CA	1779	1/1	0.87	0.36	72,72,72,72	0
56	MG	DA	3160	1/1	0.87	0.57	45,45,45,45	0
56	MG	BA	3387	1/1	0.87	0.18	49,49,49,49	0
56	MG	BA	2936	1/1	0.87	0.10	65,65,65,65	0
56	MG	DA	2909	1/1	0.87	0.60	85,85,85,85	0
56	MG	CA	1700	1/1	0.87	0.81	180,180,180,180	0
56	MG	DA	3189	1/1	0.87	0.52	27,27,27,27	0
56	MG	BA	3291	1/1	0.87	0.48	94,94,94,94	0
56	MG	DA	3216	1/1	0.87	0.30	23,23,23,23	0
56	MG	AA	1638	1/1	0.87	0.81	132,132,132,132	0
56	MG	CA	1705	1/1	0.87	0.24	94,94,94,94	0
56	MG	DA	3037	1/1	0.87	0.42	77,77,77,77	0
56	MG	CA	1881	1/1	0.87	0.19	111,111,111,111	0
56	MG	DA	3042	1/1	0.87	0.62	50,50,50,50	0
56	MG	AA	1988	1/1	0.87	0.40	53,53,53,53	0
56	MG	CA	1636	1/1	0.87	0.97	56,56,56,56	0
56	MG	DA	3045	1/1	0.87	0.40	62,62,62,62	0
56	MG	AA	1801	1/1	0.87	0.16	88,88,88,88	0
56	MG	BA	3564	1/1	0.87	0.42	28,28,28,28	0
56	MG	BA	3200	1/1	0.87	0.95	63,63,63,63	0
56	MG	BA	3163	1/1	0.87	0.53	93,93,93,93	0
56	MG	BA	3164	1/1	0.87	0.29	62,62,62,62	0
56	MG	DA	3288	1/1	0.87	0.37	57,57,57,57	0
56	MG	BA	3497	1/1	0.87	0.17	78,78,78,78	0
56	MG	DB	207	1/1	0.87	0.14	87,87,87,87	0
56	MG	BA	3626	1/1	0.87	0.57	62,62,62,62	0
56	MG	AA	1935	1/1	0.87	0.18	39,39,39,39	0
56	MG	AA	1956	1/1	0.87	0.32	110,110,110,110	0
56	MG	DA	2945	1/1	0.87	0.50	88,88,88,88	0
56	MG	AA	1698	1/1	0.87	0.70	97,97,97,97	0
56	MG	DA	3304	1/1	0.87	0.15	41,41,41,41	0
56	MG	DA	3472	1/1	0.87	0.24	52,52,52,52	0
56	MG	BA	3415	1/1	0.87	0.24	47,47,47,47	0
56	MG	DA	3482	1/1	0.87	0.54	50,50,50,50	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AA	1868	1/1	0.87	0.24	49,49,49,49	0
56	MG	DH	201	1/1	0.87	0.26	64,64,64,64	0
56	MG	DA	3309	1/1	0.87	0.27	81,81,81,81	0
56	MG	AA	1914	1/1	0.87	0.14	53,53,53,53	0
56	MG	BA	3644	1/1	0.87	0.32	106,106,106,106	0
56	MG	AA	1806	1/1	0.87	0.47	111,111,111,111	0
56	MG	BA	3107	1/1	0.87	0.56	87,87,87,87	0
56	MG	AA	1920	1/1	0.87	0.11	71,71,71,71	0
56	MG	BA	3079	1/1	0.87	0.41	48,48,48,48	0
56	MG	DA	3500	1/1	0.87	0.76	72,72,72,72	0
56	MG	BA	3217	1/1	0.88	0.20	65,65,65,65	0
56	MG	CA	1867	1/1	0.88	0.23	82,82,82,82	0
56	MG	CA	1868	1/1	0.88	0.25	69,69,69,69	0
56	MG	DA	3473	1/1	0.88	0.17	51,51,51,51	0
56	MG	DA	3474	1/1	0.88	0.26	55,55,55,55	0
56	MG	CA	1767	1/1	0.88	0.49	50,50,50,50	0
56	MG	DA	3481	1/1	0.88	0.17	73,73,73,73	0
56	MG	CA	1768	1/1	0.88	0.24	55,55,55,55	0
56	MG	AA	1617	1/1	0.88	0.24	108,108,108,108	0
56	MG	DA	3296	1/1	0.88	0.14	69,69,69,69	0
56	MG	BA	3682	1/1	0.88	0.27	64,64,64,64	0
56	MG	DA	3490	1/1	0.88	0.26	96,96,96,96	0
56	MG	BA	3685	1/1	0.88	1.06	79,79,79,79	0
56	MG	DA	3302	1/1	0.88	0.40	83,83,83,83	0
56	MG	DA	3496	1/1	0.88	0.33	40,40,40,40	0
56	MG	CA	1876	1/1	0.88	0.31	127,127,127,127	0
56	MG	BA	3598	1/1	0.88	0.29	62,62,62,62	0
56	MG	BA	3178	1/1	0.88	0.42	52,52,52,52	0
56	MG	CA	1616	1/1	0.88	0.41	61,61,61,61	0
56	MG	BA	3358	1/1	0.88	0.50	150,150,150,150	0
56	MG	DA	3318	1/1	0.88	0.46	42,42,42,42	0
56	MG	DA	3319	1/1	0.88	0.17	34,34,34,34	0
56	MG	DA	3508	1/1	0.88	0.36	37,37,37,37	0
56	MG	AA	1852	1/1	0.88	0.13	89,89,89,89	0
56	MG	DA	3321	1/1	0.88	0.36	66,66,66,66	0
56	MG	DA	3322	1/1	0.88	0.21	46,46,46,46	0
56	MG	BA	3539	1/1	0.88	0.53	71,71,71,71	0
56	MG	CA	1620	1/1	0.88	0.23	74,74,74,74	0
56	MG	BA	3603	1/1	0.88	0.12	88,88,88,88	0
56	MG	AA	1779	1/1	0.88	0.52	74,74,74,74	0
56	MG	DA	3523	1/1	0.88	0.96	76,76,76,76	0
56	MG	DA	3331	1/1	0.88	0.24	93,93,93,93	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3335	1/1	0.88	0.29	38,38,38,38	0
56	MG	CA	1702	1/1	0.88	0.43	75,75,75,75	0
56	MG	BA	2968	1/1	0.88	0.22	46,46,46,46	0
56	MG	AA	1739	1/1	0.88	0.10	88,88,88,88	0
56	MG	DA	3076	1/1	0.88	0.26	88,88,88,88	0
56	MG	DA	2955	1/1	0.88	0.26	30,30,30,30	0
56	MG	AA	1624	1/1	0.88	0.42	45,45,45,45	0
56	MG	AA	1808	1/1	0.88	0.20	70,70,70,70	0
56	MG	CA	1634	1/1	0.88	0.26	74,74,74,74	0
56	MG	DA	2966	1/1	0.88	0.31	42,42,42,42	0
56	MG	BA	3282	1/1	0.88	0.52	78,78,78,78	0
56	MG	DA	2970	1/1	0.88	0.66	69,69,69,69	0
56	MG	BA	3371	1/1	0.88	0.74	55,55,55,55	0
56	MG	BA	2908	1/1	0.88	0.37	235,235,235,235	0
56	MG	AA	1613	1/1	0.88	0.11	83,83,83,83	0
56	MG	AA	1620	1/1	0.88	0.31	76,76,76,76	0
56	MG	BA	3150	1/1	0.88	0.32	79,79,79,79	0
56	MG	AA	1970	1/1	0.88	0.29	62,62,62,62	0
56	MG	AA	1690	1/1	0.88	0.57	174,174,174,174	0
56	MG	AA	1695	1/1	0.88	0.11	71,71,71,71	0
56	MG	CA	1813	1/1	0.88	0.38	99,99,99,99	0
56	MG	CA	1815	1/1	0.88	0.18	80,80,80,80	0
56	MG	CA	1648	1/1	0.88	0.47	155,155,155,155	0
56	MG	BA	2986	1/1	0.88	0.40	45,45,45,45	0
56	MG	DA	3379	1/1	0.88	0.26	54,54,54,54	0
56	MG	BA	3076	1/1	0.88	0.10	48,48,48,48	0
56	MG	DA	3590	1/1	0.88	0.45	74,74,74,74	0
56	MG	BA	2919	1/1	0.88	0.09	127,127,127,127	0
56	MG	DA	3116	1/1	0.88	0.17	124,124,124,124	0
56	MG	CA	1655	1/1	0.88	0.23	65,65,65,65	0
56	MG	BA	3246	1/1	0.88	0.42	47,47,47,47	0
56	MG	CA	1825	1/1	0.88	0.21	80,80,80,80	0
56	MG	BA	3406	1/1	0.88	0.44	28,28,28,28	0
56	MG	DA	3393	1/1	0.88	0.74	95,95,95,95	0
56	MG	AA	1907	1/1	0.88	0.49	45,45,45,45	0
56	MG	AA	1908	1/1	0.88	0.47	56,56,56,56	0
56	MG	AA	1836	1/1	0.88	0.39	139,139,139,139	0
56	MG	AA	1792	1/1	0.88	0.32	84,84,84,84	0
56	MG	DA	3139	1/1	0.88	0.20	33,33,33,33	0
56	MG	CA	1664	1/1	0.88	0.25	78,78,78,78	0
56	MG	BA	3165	1/1	0.88	0.26	59,59,59,59	0
56	MG	BA	3651	1/1	0.88	0.30	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3015	1/1	0.88	0.53	91,91,91,91	0
56	MG	CA	1668	1/1	0.88	0.37	118,118,118,118	0
56	MG	BA	2924	1/1	0.88	1.07	64,64,64,64	0
56	MG	DA	3019	1/1	0.88	0.29	67,67,67,67	0
56	MG	DB	202	1/1	0.88	0.12	51,51,51,51	0
56	MG	BA	3511	1/1	0.88	0.34	91,91,91,91	0
56	MG	AA	1760	1/1	0.88	0.16	172,172,172,172	0
56	MG	DA	3201	1/1	0.88	0.34	25,25,25,25	0
56	MG	BA	3431	1/1	0.88	0.28	67,67,67,67	0
56	MG	DA	3223	1/1	0.88	0.18	75,75,75,75	0
56	MG	BA	3432	1/1	0.88	0.43	69,69,69,69	0
56	MG	AA	1614	1/1	0.88	0.33	51,51,51,51	0
56	MG	B8	101	1/1	0.88	0.28	38,38,38,38	0
56	MG	DA	3032	1/1	0.88	0.18	82,82,82,82	0
56	MG	BA	3052	1/1	0.88	0.41	118,118,118,118	0
56	MG	AA	1916	1/1	0.88	0.48	49,49,49,49	0
56	MG	DB	219	1/1	0.88	0.80	66,66,66,66	0
56	MG	CA	1680	1/1	0.88	0.88	77,77,77,77	0
56	MG	BA	2928	1/1	0.88	0.24	80,80,80,80	0
56	MG	DA	3262	1/1	0.88	0.42	65,65,65,65	0
56	MG	BA	3444	1/1	0.88	0.52	65,65,65,65	0
56	MG	BA	3531	1/1	0.88	0.30	71,71,71,71	0
56	MG	CA	1764	1/1	0.88	0.38	50,50,50,50	0
56	MG	DQ	204	1/1	0.88	0.40	41,41,41,41	0
56	MG	DA	3275	1/1	0.88	0.83	52,52,52,52	0
56	MG	DA	2912	1/1	0.88	0.30	78,78,78,78	0
56	MG	DA	3460	1/1	0.88	0.16	67,67,67,67	0
56	MG	DA	3461	1/1	0.88	0.13	73,73,73,73	0
56	MG	DA	3285	1/1	0.88	0.21	63,63,63,63	0
56	MG	DA	3467	1/1	0.88	0.22	60,60,60,60	0
56	MG	AA	1837	1/1	0.89	0.17	64,64,64,64	0
56	MG	CA	1742	1/1	0.89	0.56	61,61,61,61	0
56	MG	BA	3620	1/1	0.89	0.23	73,73,73,73	0
56	MG	DA	3039	1/1	0.89	0.81	72,72,72,72	0
56	MG	DA	3041	1/1	0.89	0.18	59,59,59,59	0
56	MG	BA	3621	1/1	0.89	0.38	106,106,106,106	0
56	MG	AA	1803	1/1	0.89	0.37	77,77,77,77	0
56	MG	AA	1932	1/1	0.89	0.47	159,159,159,159	0
56	MG	BB	212	1/1	0.89	0.35	99,99,99,99	0
56	MG	BA	3476	1/1	0.89	0.69	52,52,52,52	0
56	MG	AA	1933	1/1	0.89	0.54	63,63,63,63	0
56	MG	DA	2918	1/1	0.89	0.12	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AA	1627	1/1	0.89	0.52	64,64,64,64	0
56	MG	BA	3286	1/1	0.89	0.55	63,63,63,63	0
56	MG	BA	3382	1/1	0.89	0.67	51,51,51,51	0
56	MG	DA	3301	1/1	0.89	0.33	52,52,52,52	0
56	MG	CA	1673	1/1	0.89	0.33	73,73,73,73	0
56	MG	AA	1682	1/1	0.89	0.81	124,124,124,124	0
56	MG	CA	1765	1/1	0.89	0.25	38,38,38,38	0
56	MG	BA	3289	1/1	0.89	0.23	83,83,83,83	0
56	MG	DA	3061	1/1	0.89	0.12	62,62,62,62	0
56	MG	DA	3315	1/1	0.89	0.65	60,60,60,60	0
56	MG	AA	1972	1/1	0.89	0.41	56,56,56,56	0
56	MG	BP	201	1/1	0.89	0.31	54,54,54,54	0
56	MG	BT	201	1/1	0.89	0.27	63,63,63,63	0
56	MG	DA	3505	1/1	0.89	0.18	63,63,63,63	0
56	MG	BA	3645	1/1	0.89	0.33	48,48,48,48	0
56	MG	BA	3647	1/1	0.89	0.30	88,88,88,88	0
56	MG	AA	1807	1/1	0.89	0.27	45,45,45,45	0
56	MG	B1	101	1/1	0.89	0.44	75,75,75,75	0
56	MG	BA	3392	1/1	0.89	0.47	63,63,63,63	0
56	MG	BA	3099	1/1	0.89	0.54	141,141,141,141	0
56	MG	BA	2979	1/1	0.89	1.08	77,77,77,77	0
56	MG	DA	2954	1/1	0.89	0.50	90,90,90,90	0
56	MG	DA	3333	1/1	0.89	0.11	47,47,47,47	0
56	MG	CA	1785	1/1	0.89	0.37	63,63,63,63	0
56	MG	CA	1786	1/1	0.89	0.41	84,84,84,84	0
56	MG	DA	3337	1/1	0.89	0.28	51,51,51,51	0
56	MG	DA	2960	1/1	0.89	0.50	68,68,68,68	0
56	MG	BA	2947	1/1	0.89	0.44	52,52,52,52	0
56	MG	DA	3533	1/1	0.89	0.26	71,71,71,71	0
56	MG	DA	3340	1/1	0.89	0.37	67,67,67,67	0
56	MG	AA	1718	1/1	0.89	0.16	75,75,75,75	0
56	MG	DA	2965	1/1	0.89	0.33	74,74,74,74	0
56	MG	AA	1630	1/1	0.89	0.58	55,55,55,55	0
56	MG	BA	3499	1/1	0.89	0.20	40,40,40,40	0
56	MG	BA	3026	1/1	0.89	0.60	114,114,114,114	0
56	MG	AA	1691	1/1	0.89	0.11	84,84,84,84	0
56	MG	AA	1857	1/1	0.89	0.59	45,45,45,45	0
56	MG	BA	3412	1/1	0.89	0.82	58,58,58,58	0
56	MG	BA	3198	1/1	0.89	0.41	66,66,66,66	0
56	MG	DA	3355	1/1	0.89	0.19	102,102,102,102	0
56	MG	DA	3570	1/1	0.89	0.37	72,72,72,72	0
56	MG	DA	3093	1/1	0.89	0.53	76,76,76,76	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3358	1/1	0.89	0.18	141,141,141,141	0
56	MG	BA	3034	1/1	0.89	0.23	36,36,36,36	0
56	MG	DA	2982	1/1	0.89	0.25	44,44,44,44	0
56	MG	BA	3251	1/1	0.89	0.26	55,55,55,55	0
56	MG	DA	3366	1/1	0.89	0.29	84,84,84,84	0
56	MG	BA	3515	1/1	0.89	0.42	58,58,58,58	0
56	MG	DA	3103	1/1	0.89	0.15	65,65,65,65	0
56	MG	BA	3683	1/1	0.89	0.72	55,55,55,55	0
56	MG	BA	2953	1/1	0.89	0.18	56,56,56,56	0
56	MG	DA	2990	1/1	0.89	0.29	61,61,61,61	0
56	MG	BA	3688	1/1	0.89	0.19	59,59,59,59	0
56	MG	BA	3594	1/1	0.89	0.34	88,88,88,88	0
56	MG	DA	3113	1/1	0.89	0.22	110,110,110,110	0
56	MG	DA	2994	1/1	0.89	0.33	62,62,62,62	0
56	MG	CA	1624	1/1	0.89	0.36	98,98,98,98	0
56	MG	DA	3600	1/1	0.89	0.22	23,23,23,23	0
56	MG	DA	3383	1/1	0.89	0.38	51,51,51,51	0
56	MG	DA	3602	1/1	0.89	0.25	22,22,22,22	0
56	MG	AA	1692	1/1	0.89	0.55	134,134,134,134	0
56	MG	CA	1629	1/1	0.89	0.24	93,93,93,93	0
56	MG	DA	2998	1/1	0.89	0.62	62,62,62,62	0
56	MG	AA	1710	1/1	0.89	0.22	79,79,79,79	0
56	MG	DA	3000	1/1	0.89	0.22	68,68,68,68	0
56	MG	DA	3125	1/1	0.89	0.72	161,161,161,161	0
56	MG	DA	3127	1/1	0.89	0.52	88,88,88,88	0
56	MG	BA	3313	1/1	0.89	0.31	63,63,63,63	0
56	MG	DA	3623	1/1	0.89	0.29	52,52,52,52	0
56	MG	DA	3625	1/1	0.89	0.14	82,82,82,82	0
56	MG	AQ	201	1/1	0.89	0.17	68,68,68,68	0
56	MG	BA	3434	1/1	0.89	0.55	55,55,55,55	0
56	MG	AA	1661	1/1	0.89	0.16	58,58,58,58	0
56	MG	DA	3006	1/1	0.89	0.43	66,66,66,66	0
56	MG	BA	3704	1/1	0.89	0.22	43,43,43,43	0
56	MG	BA	3323	1/1	0.89	0.25	47,47,47,47	0
56	MG	CA	1723	1/1	0.89	0.15	76,76,76,76	0
56	MG	DB	203	1/1	0.89	0.14	66,66,66,66	0
56	MG	DA	3174	1/1	0.89	0.29	49,49,49,49	0
56	MG	BA	3438	1/1	0.89	0.66	49,49,49,49	0
56	MG	BA	3710	1/1	0.89	0.27	81,81,81,81	0
56	MG	BA	3126	1/1	0.89	0.80	235,235,235,235	0
56	MG	AA	1895	1/1	0.89	0.24	33,33,33,33	0
56	MG	DA	3198	1/1	0.89	0.44	41,41,41,41	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3129	1/1	0.89	0.31	72,72,72,72	0
56	MG	BA	3449	1/1	0.89	0.33	49,49,49,49	0
56	MG	DA	3219	1/1	0.89	0.30	42,42,42,42	0
56	MG	BA	3169	1/1	0.89	0.08	64,64,64,64	0
56	MG	DA	3224	1/1	0.89	0.18	40,40,40,40	0
56	MG	DA	3233	1/1	0.89	0.33	62,62,62,62	0
56	MG	AA	1922	1/1	0.89	0.33	86,86,86,86	0
56	MG	DA	3241	1/1	0.89	0.19	28,28,28,28	0
56	MG	BA	3171	1/1	0.89	0.20	43,43,43,43	0
56	MG	CA	1651	1/1	0.89	0.38	95,95,95,95	0
56	MG	BA	3456	1/1	0.89	0.11	65,65,65,65	0
56	MG	DA	3451	1/1	0.89	0.52	56,56,56,56	0
56	MG	DQ	203	1/1	0.89	0.17	67,67,67,67	0
56	MG	AA	1896	1/1	0.89	0.77	77,77,77,77	0
56	MG	BA	2931	1/1	0.89	0.47	98,98,98,98	0
56	MG	DA	3258	1/1	0.89	0.49	58,58,58,58	0
56	MG	DA	3031	1/1	0.89	0.25	77,77,77,77	0
56	MG	DA	3458	1/1	0.89	0.17	64,64,64,64	0
56	MG	AA	1656	1/1	0.89	0.26	61,61,61,61	0
56	MG	BA	3177	1/1	0.89	0.15	78,78,78,78	0
56	MG	D7	102	1/1	0.89	0.21	32,32,32,32	0
56	MG	DA	2987	1/1	0.90	0.18	63,63,63,63	0
56	MG	BA	3038	1/1	0.90	0.15	58,58,58,58	0
56	MG	AA	1648	1/1	0.90	0.24	61,61,61,61	0
56	MG	DA	3493	1/1	0.90	0.18	57,57,57,57	0
56	MG	CA	1827	1/1	0.90	0.13	45,45,45,45	0
56	MG	AA	1669	1/1	0.90	0.60	68,68,68,68	0
56	MG	DA	3332	1/1	0.90	0.33	45,45,45,45	0
56	MG	BA	3041	1/1	0.90	0.25	68,68,68,68	0
56	MG	BA	3127	1/1	0.90	0.47	102,102,102,102	0
56	MG	BA	3504	1/1	0.90	0.16	39,39,39,39	0
56	MG	AA	1820	1/1	0.90	0.32	166,166,166,166	0
56	MG	BA	3430	1/1	0.90	0.26	47,47,47,47	0
56	MG	BA	3509	1/1	0.90	0.30	75,75,75,75	0
56	MG	BA	3321	1/1	0.90	0.21	50,50,50,50	0
56	MG	DA	3341	1/1	0.90	0.52	55,55,55,55	0
56	MG	BA	3262	1/1	0.90	0.16	75,75,75,75	0
56	MG	BA	3671	1/1	0.90	0.24	84,84,84,84	0
56	MG	DA	3512	1/1	0.90	0.48	33,33,33,33	0
56	MG	DA	3114	1/1	0.90	0.19	81,81,81,81	0
56	MG	BA	2969	1/1	0.90	0.27	79,79,79,79	0
56	MG	BA	3000	1/1	0.90	0.11	64,64,64,64	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AA	1841	1/1	0.90	0.31	113,113,113,113	0
56	MG	BA	3679	1/1	0.90	0.26	27,27,27,27	0
56	MG	CA	1608	1/1	0.90	0.05	86,86,86,86	0
56	MG	DA	3526	1/1	0.90	0.29	61,61,61,61	0
56	MG	AA	1701	1/1	0.90	0.12	79,79,79,79	0
56	MG	BA	3133	1/1	0.90	0.26	48,48,48,48	0
56	MG	AW	118	1/1	0.90	0.61	69,69,69,69	0
56	MG	DA	3357	1/1	0.90	0.51	78,78,78,78	0
56	MG	DA	3011	1/1	0.90	0.40	47,47,47,47	0
56	MG	BA	3687	1/1	0.90	0.23	56,56,56,56	0
56	MG	BA	3353	1/1	0.90	0.35	54,54,54,54	0
56	MG	BA	3689	1/1	0.90	0.32	67,67,67,67	0
56	MG	DA	2906	1/1	0.90	0.26	70,70,70,70	0
56	MG	BA	3527	1/1	0.90	0.42	31,31,31,31	0
56	MG	CA	1864	1/1	0.90	0.39	157,157,157,157	0
56	MG	CA	1773	1/1	0.90	0.14	62,62,62,62	0
56	MG	AA	1802	1/1	0.90	0.40	55,55,55,55	0
56	MG	AA	1955	1/1	0.90	0.33	87,87,87,87	0
56	MG	AA	1654	1/1	0.90	0.41	61,61,61,61	0
56	MG	BA	2977	1/1	0.90	0.41	72,72,72,72	0
56	MG	AA	1899	1/1	0.90	0.15	89,89,89,89	0
56	MG	BA	3142	1/1	0.90	0.48	67,67,67,67	0
56	MG	BA	3459	1/1	0.90	0.26	80,80,80,80	0
56	MG	DA	3382	1/1	0.90	0.40	49,49,49,49	0
56	MG	DA	3200	1/1	0.90	0.47	52,52,52,52	0
56	MG	BA	3063	1/1	0.90	0.48	75,75,75,75	0
56	MG	DA	3203	1/1	0.90	0.22	51,51,51,51	0
56	MG	CA	1875	1/1	0.90	1.09	267,267,267,267	0
56	MG	DA	2929	1/1	0.90	0.24	77,77,77,77	0
56	MG	DA	3391	1/1	0.90	0.19	57,57,57,57	0
56	MG	BA	3014	1/1	0.90	0.20	44,44,44,44	0
56	MG	AA	1958	1/1	0.90	0.29	72,72,72,72	0
56	MG	BA	3466	1/1	0.90	0.40	39,39,39,39	0
56	MG	CA	1791	1/1	0.90	0.64	91,91,91,91	0
56	MG	BA	3376	1/1	0.90	0.16	59,59,59,59	0
56	MG	CA	1883	1/1	0.90	0.28	78,78,78,78	0
56	MG	BA	3066	1/1	0.90	0.16	61,61,61,61	0
56	MG	DA	3246	1/1	0.90	0.64	51,51,51,51	0
56	MG	DA	2941	1/1	0.90	0.20	93,93,93,93	0
56	MG	BA	3470	1/1	0.90	0.50	65,65,65,65	0
56	MG	DA	3048	1/1	0.90	0.64	49,49,49,49	0
56	MG	DA	3413	1/1	0.90	0.71	79,79,79,79	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AA	1962	1/1	0.90	0.30	55,55,55,55	0
56	MG	DA	3420	1/1	0.90	0.24	86,86,86,86	0
56	MG	DA	3259	1/1	0.90	0.30	49,49,49,49	0
56	MG	DA	3422	1/1	0.90	0.26	77,77,77,77	0
56	MG	DA	2947	1/1	0.90	0.38	192,192,192,192	0
56	MG	BA	3552	1/1	0.90	0.23	29,29,29,29	0
56	MG	AA	1965	1/1	0.90	0.13	37,37,37,37	0
56	MG	CA	1799	1/1	0.90	0.38	51,51,51,51	0
56	MG	DA	3268	1/1	0.90	0.34	52,52,52,52	0
56	MG	DA	3269	1/1	0.90	0.25	42,42,42,42	0
56	MG	AA	1883	1/1	0.90	0.38	50,50,50,50	0
56	MG	BA	3294	1/1	0.90	0.53	75,75,75,75	0
56	MG	BA	3296	1/1	0.90	0.58	59,59,59,59	0
56	MG	DA	3283	1/1	0.90	0.32	26,26,26,26	0
56	MG	DA	3435	1/1	0.90	0.73	68,68,68,68	0
56	MG	CA	1803	1/1	0.90	0.25	146,146,146,146	0
56	MG	DA	3437	1/1	0.90	0.10	59,59,59,59	0
56	MG	BA	3724	1/1	0.90	0.75	119,119,119,119	0
56	MG	DA	3440	1/1	0.90	0.48	58,58,58,58	0
56	MG	BA	2902	1/1	0.90	0.19	86,86,86,86	0
56	MG	DA	2957	1/1	0.90	0.23	64,64,64,64	0
56	MG	DA	3065	1/1	0.90	0.30	88,88,88,88	0
56	MG	AW	103	1/1	0.90	0.22	70,70,70,70	0
56	MG	BA	3027	1/1	0.90	0.24	85,85,85,85	0
56	MG	BA	3634	1/1	0.90	0.37	11,11,11,11	0
56	MG	BA	3394	1/1	0.90	0.49	56,56,56,56	0
56	MG	CA	1906	1/1	0.90	0.11	114,114,114,114	0
56	MG	DB	215	1/1	0.90	0.14	79,79,79,79	0
56	MG	DB	217	1/1	0.90	0.16	121,121,121,121	0
56	MG	BA	3155	1/1	0.90	0.61	93,93,93,93	0
56	MG	DA	2969	1/1	0.90	0.14	68,68,68,68	0
56	MG	DB	220	1/1	0.90	0.30	40,40,40,40	0
56	MG	BA	3301	1/1	0.90	0.15	64,64,64,64	0
56	MG	AA	1940	1/1	0.90	0.17	82,82,82,82	0
56	MG	DA	3305	1/1	0.90	0.38	46,46,46,46	0
56	MG	DA	3306	1/1	0.90	0.55	48,48,48,48	0
56	MG	DA	2973	1/1	0.90	0.23	57,57,57,57	0
56	MG	CA	1910	1/1	0.90	0.34	77,77,77,77	0
56	MG	AA	1901	1/1	0.90	0.27	71,71,71,71	0
56	MG	AA	1888	1/1	0.90	0.41	49,49,49,49	0
56	MG	CA	1913	1/1	0.90	0.47	69,69,69,69	0
56	MG	DA	3475	1/1	0.90	0.13	54,54,54,54	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DW	202	1/1	0.90	0.25	50,50,50,50	0
56	MG	DA	2981	1/1	0.90	0.41	105,105,105,105	0
56	MG	BA	3646	1/1	0.90	0.21	52,52,52,52	0
56	MG	AA	1769	1/1	0.90	0.35	79,79,79,79	0
56	MG	D5	102	1/1	0.90	0.10	68,68,68,68	0
56	MG	DA	2985	1/1	0.90	0.18	107,107,107,107	0
56	MG	BA	3254	1/1	0.90	0.24	93,93,93,93	0
56	MG	BA	3226	1/1	0.91	0.25	58,58,58,58	0
56	MG	CA	1824	1/1	0.91	0.55	118,118,118,118	0
56	MG	DA	3036	1/1	0.91	0.10	80,80,80,80	0
56	MG	BA	3288	1/1	0.91	0.27	71,71,71,71	0
56	MG	AA	1800	1/1	0.91	0.42	87,87,87,87	0
56	MG	AA	1833	1/1	0.91	0.26	72,72,72,72	0
56	MG	AA	1834	1/1	0.91	0.25	178,178,178,178	0
56	MG	DA	3273	1/1	0.91	0.54	30,30,30,30	0
56	MG	DA	3462	1/1	0.91	0.66	55,55,55,55	0
56	MG	AA	1862	1/1	0.91	0.79	212,212,212,212	0
56	MG	DA	3276	1/1	0.91	0.18	26,26,26,26	0
56	MG	DA	3281	1/1	0.91	0.15	48,48,48,48	0
56	MG	DA	3282	1/1	0.91	0.41	42,42,42,42	0
56	MG	BA	3572	1/1	0.91	0.20	62,62,62,62	0
56	MG	BA	3669	1/1	0.91	0.65	53,53,53,53	0
56	MG	AA	1737	1/1	0.91	0.30	72,72,72,72	0
56	MG	DA	3286	1/1	0.91	0.29	42,42,42,42	0
56	MG	CA	1838	1/1	0.91	0.48	66,66,66,66	0
56	MG	BA	2963	1/1	0.91	0.38	63,63,63,63	0
56	MG	BA	3576	1/1	0.91	0.41	97,97,97,97	0
56	MG	BA	3675	1/1	0.91	0.26	145,145,145,145	0
56	MG	DA	3050	1/1	0.91	0.55	56,56,56,56	0
56	MG	DA	3293	1/1	0.91	0.28	58,58,58,58	0
56	MG	AA	1949	1/1	0.91	0.15	60,60,60,60	0
56	MG	AA	1715	1/1	0.91	0.15	86,86,86,86	0
56	MG	DA	3492	1/1	0.91	0.20	61,61,61,61	0
56	MG	DA	2919	1/1	0.91	0.62	50,50,50,50	0
56	MG	DA	3298	1/1	0.91	0.35	46,46,46,46	0
56	MG	DA	2920	1/1	0.91	0.21	83,83,83,83	0
56	MG	CA	1627	1/1	0.91	0.56	85,85,85,85	0
56	MG	DA	2924	1/1	0.91	0.56	43,43,43,43	0
56	MG	DA	3303	1/1	0.91	0.68	53,53,53,53	0
56	MG	CA	1845	1/1	0.91	0.22	60,60,60,60	0
56	MG	BA	3681	1/1	0.91	0.19	42,42,42,42	0
56	MG	CA	1848	1/1	0.91	0.32	113,113,113,113	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3401	1/1	0.91	0.42	28,28,28,28	0
56	MG	DA	2932	1/1	0.91	0.14	59,59,59,59	0
56	MG	CA	1733	1/1	0.91	0.23	197,197,197,197	0
56	MG	DA	3310	1/1	0.91	0.49	52,52,52,52	0
56	MG	AA	1924	1/1	0.91	0.47	55,55,55,55	0
56	MG	CA	1853	1/1	0.91	0.13	52,52,52,52	0
56	MG	DA	3514	1/1	0.91	0.21	48,48,48,48	0
56	MG	BA	3056	1/1	0.91	0.47	117,117,117,117	0
56	MG	BA	3495	1/1	0.91	0.08	51,51,51,51	0
56	MG	DA	3071	1/1	0.91	0.12	92,92,92,92	0
56	MG	DA	3520	1/1	0.91	0.63	93,93,93,93	0
56	MG	BA	3145	1/1	0.91	0.38	53,53,53,53	0
56	MG	BA	3006	1/1	0.91	0.21	107,107,107,107	0
56	MG	BA	3691	1/1	0.91	0.28	45,45,45,45	0
56	MG	CA	1641	1/1	0.91	0.13	135,135,135,135	0
56	MG	AA	1677	1/1	0.91	0.18	65,65,65,65	0
56	MG	BA	3061	1/1	0.91	0.61	61,61,61,61	0
56	MG	DA	3529	1/1	0.91	0.29	70,70,70,70	0
56	MG	AA	1991	1/1	0.91	0.09	96,96,96,96	0
56	MG	CA	1744	1/1	0.91	0.21	95,95,95,95	0
56	MG	BA	3413	1/1	0.91	0.13	21,21,21,21	0
56	MG	BA	3102	1/1	0.91	0.18	61,61,61,61	0
56	MG	BA	3195	1/1	0.91	0.18	97,97,97,97	0
56	MG	DA	3085	1/1	0.91	0.22	49,49,49,49	0
56	MG	AA	1926	1/1	0.91	0.39	37,37,37,37	0
56	MG	BA	3703	1/1	0.91	0.97	70,70,70,70	0
56	MG	AA	1771	1/1	0.91	0.14	55,55,55,55	0
56	MG	DA	3547	1/1	0.91	0.38	70,70,70,70	0
56	MG	AA	1930	1/1	0.91	0.45	198,198,198,198	0
56	MG	DA	3557	1/1	0.91	0.19	16,16,16,16	0
56	MG	CA	1652	1/1	0.91	0.91	193,193,193,193	0
56	MG	BA	3512	1/1	0.91	0.20	42,42,42,42	0
56	MG	CA	1760	1/1	0.91	0.18	67,67,67,67	0
56	MG	DA	3565	1/1	0.91	0.18	51,51,51,51	0
56	MG	BA	3513	1/1	0.91	0.26	40,40,40,40	0
56	MG	AA	1674	1/1	0.91	0.27	126,126,126,126	0
56	MG	AA	1707	1/1	0.91	0.11	67,67,67,67	0
56	MG	AA	1847	1/1	0.91	0.32	209,209,209,209	0
56	MG	DA	3101	1/1	0.91	0.31	101,101,101,101	0
56	MG	DA	3102	1/1	0.91	0.53	126,126,126,126	0
56	MG	BA	2909	1/1	0.91	0.34	114,114,114,114	0
56	MG	AA	1743	1/1	0.91	0.41	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3521	1/1	0.91	0.23	53,53,53,53	0
56	MG	CA	1771	1/1	0.91	0.20	70,70,70,70	0
56	MG	DA	3359	1/1	0.91	0.35	57,57,57,57	0
56	MG	DA	3108	1/1	0.91	0.41	74,74,74,74	0
56	MG	DA	2977	1/1	0.91	0.68	84,84,84,84	0
56	MG	DA	3110	1/1	0.91	0.20	63,63,63,63	0
56	MG	BA	3719	1/1	0.91	0.09	125,125,125,125	0
56	MG	BA	3324	1/1	0.91	0.34	15,15,15,15	0
56	MG	BA	2945	1/1	0.91	0.40	76,76,76,76	0
56	MG	BA	3437	1/1	0.91	0.72	82,82,82,82	0
56	MG	BA	3525	1/1	0.91	0.44	40,40,40,40	0
56	MG	BA	2911	1/1	0.91	0.54	91,91,91,91	0
56	MG	CA	1899	1/1	0.91	0.44	41,41,41,41	0
56	MG	BA	3439	1/1	0.91	0.37	59,59,59,59	0
56	MG	BA	3441	1/1	0.91	0.27	56,56,56,56	0
56	MG	AA	1736	1/1	0.91	0.47	83,83,83,83	0
56	MG	BA	3443	1/1	0.91	0.38	18,18,18,18	0
56	MG	BA	3535	1/1	0.91	0.33	68,68,68,68	0
56	MG	BA	3619	1/1	0.91	0.28	53,53,53,53	0
56	MG	DA	3615	1/1	0.91	0.27	57,57,57,57	0
56	MG	BB	210	1/1	0.91	0.11	88,88,88,88	0
56	MG	BA	3341	1/1	0.91	0.29	69,69,69,69	0
56	MG	DA	3619	1/1	0.91	0.49	53,53,53,53	0
56	MG	BA	3446	1/1	0.91	0.22	93,93,93,93	0
56	MG	DA	3156	1/1	0.91	0.35	33,33,33,33	0
56	MG	DA	3624	1/1	0.91	0.25	35,35,35,35	0
56	MG	BA	2948	1/1	0.91	0.59	56,56,56,56	0
56	MG	BA	3344	1/1	0.91	0.53	39,39,39,39	0
56	MG	BA	3624	1/1	0.91	0.27	83,83,83,83	0
56	MG	BA	3269	1/1	0.91	0.27	66,66,66,66	0
56	MG	CA	1797	1/1	0.91	0.91	61,61,61,61	0
56	MG	DA	3631	1/1	0.91	0.23	85,85,85,85	0
56	MG	BB	217	1/1	0.91	0.19	99,99,99,99	0
56	MG	BB	220	1/1	0.91	0.13	123,123,123,123	0
56	MG	AW	108	1/1	0.91	0.39	72,72,72,72	0
56	MG	BA	3356	1/1	0.91	0.26	43,43,43,43	0
56	MG	BA	3271	1/1	0.91	0.27	68,68,68,68	0
56	MG	DA	3406	1/1	0.91	0.16	62,62,62,62	0
56	MG	BA	3272	1/1	0.91	0.40	49,49,49,49	0
56	MG	BA	3547	1/1	0.91	0.17	43,43,43,43	0
56	MG	CA	1924	1/1	0.91	0.54	73,73,73,73	0
56	MG	DA	3415	1/1	0.91	0.37	46,46,46,46	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3207	1/1	0.91	0.47	41,41,41,41	0
56	MG	DA	3417	1/1	0.91	0.29	145,145,145,145	0
56	MG	DA	3419	1/1	0.91	0.24	54,54,54,54	0
56	MG	DA	3210	1/1	0.91	0.32	38,38,38,38	0
56	MG	DA	3212	1/1	0.91	0.53	42,42,42,42	0
56	MG	DA	3213	1/1	0.91	0.26	60,60,60,60	0
56	MG	CA	1925	1/1	0.91	0.33	94,94,94,94	0
56	MG	BA	3125	1/1	0.91	0.36	106,106,106,106	0
56	MG	BA	3549	1/1	0.91	0.12	66,66,66,66	0
56	MG	BA	3643	1/1	0.91	0.49	57,57,57,57	0
56	MG	DA	3226	1/1	0.91	0.31	20,20,20,20	0
56	MG	AA	1755	1/1	0.91	0.13	123,123,123,123	0
56	MG	AA	1853	1/1	0.91	0.24	69,69,69,69	0
56	MG	DP	202	1/1	0.91	0.40	73,73,73,73	0
56	MG	BA	3036	1/1	0.91	0.34	131,131,131,131	0
56	MG	DA	3242	1/1	0.91	0.48	40,40,40,40	0
56	MG	DA	3020	1/1	0.91	0.17	74,74,74,74	0
56	MG	AA	1766	1/1	0.91	0.34	77,77,77,77	0
56	MG	BA	3172	1/1	0.91	0.29	62,62,62,62	0
56	MG	AA	1816	1/1	0.91	0.25	69,69,69,69	0
56	MG	BA	3174	1/1	0.91	0.15	69,69,69,69	0
56	MG	DA	3255	1/1	0.91	0.30	44,44,44,44	0
56	MG	AW	114	1/1	0.91	0.19	82,82,82,82	0
56	MG	DA	3445	1/1	0.91	0.27	46,46,46,46	0
56	MG	BA	3474	1/1	0.91	0.40	44,44,44,44	0
56	MG	CA	1821	1/1	0.91	0.21	56,56,56,56	0
56	MG	BA	3657	1/1	0.91	0.27	55,55,55,55	0
56	MG	BA	3425	1/1	0.92	0.33	202,202,202,202	0
56	MG	DA	3487	1/1	0.92	0.61	108,108,108,108	0
56	MG	BA	3426	1/1	0.92	0.29	28,28,28,28	0
56	MG	CA	1775	1/1	0.92	0.20	47,47,47,47	0
56	MG	CA	1666	1/1	0.92	0.31	73,73,73,73	0
56	MG	BA	3429	1/1	0.92	0.61	43,43,43,43	0
56	MG	BA	2912	1/1	0.92	0.37	67,67,67,67	0
56	MG	BA	3134	1/1	0.92	0.85	122,122,122,122	0
56	MG	DA	3495	1/1	0.92	0.12	63,63,63,63	0
56	MG	AA	1747	1/1	0.92	0.29	109,109,109,109	0
56	MG	BA	3136	1/1	0.92	0.64	205,205,205,205	0
56	MG	BA	3183	1/1	0.92	0.20	79,79,79,79	0
56	MG	DA	3105	1/1	0.92	0.42	94,94,94,94	0
56	MG	BB	204	1/1	0.92	0.13	53,53,53,53	0
56	MG	BA	3526	1/1	0.92	0.36	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	AA	1703	1/1	0.92	0.40	64,64,64,64	0
56	MG	DA	3503	1/1	0.92	0.13	92,92,92,92	0
56	MG	AA	1663	1/1	0.92	0.25	44,44,44,44	0
56	MG	BA	3530	1/1	0.92	0.38	57,57,57,57	0
56	MG	DA	3507	1/1	0.92	0.43	70,70,70,70	0
56	MG	BA	3187	1/1	0.92	0.24	56,56,56,56	0
56	MG	BA	3249	1/1	0.92	0.24	84,84,84,84	0
56	MG	AA	1886	1/1	0.92	0.40	65,65,65,65	0
56	MG	DA	2992	1/1	0.92	0.28	63,63,63,63	0
56	MG	BA	3534	1/1	0.92	0.13	32,32,32,32	0
56	MG	AA	1618	1/1	0.92	0.41	104,104,104,104	0
56	MG	BA	3627	1/1	0.92	0.28	100,100,100,100	0
56	MG	DA	3344	1/1	0.92	0.33	29,29,29,29	0
56	MG	AA	1859	1/1	0.92	0.33	177,177,177,177	0
56	MG	AA	1812	1/1	0.92	0.39	273,273,273,273	0
56	MG	BB	218	1/1	0.92	0.45	50,50,50,50	0
56	MG	DA	3124	1/1	0.92	0.29	32,32,32,32	0
56	MG	DA	3524	1/1	0.92	0.18	67,67,67,67	0
56	MG	BA	3091	1/1	0.92	0.20	125,125,125,125	0
56	MG	BA	3336	1/1	0.92	0.34	31,31,31,31	0
56	MG	BA	3144	1/1	0.92	0.15	53,53,53,53	0
56	MG	BA	2955	1/1	0.92	0.21	45,45,45,45	0
56	MG	CA	1694	1/1	0.92	0.64	69,69,69,69	0
56	MG	BA	3051	1/1	0.92	0.31	32,32,32,32	0
56	MG	DA	3005	1/1	0.92	0.47	89,89,89,89	0
56	MG	AA	1944	1/1	0.92	0.42	67,67,67,67	0
56	MG	BA	3454	1/1	0.92	0.24	60,60,60,60	0
56	MG	DA	3537	1/1	0.92	0.33	62,62,62,62	0
56	MG	DA	3363	1/1	0.92	0.18	42,42,42,42	0
56	MG	AA	1761	1/1	0.92	0.30	118,118,118,118	0
56	MG	CV	101	1/1	0.92	0.28	87,87,87,87	0
56	MG	AA	1843	1/1	0.92	0.24	124,124,124,124	0
56	MG	AA	1865	1/1	0.92	0.42	98,98,98,98	0
56	MG	BA	2961	1/1	0.92	0.24	83,83,83,83	0
56	MG	CW	103	1/1	0.92	0.08	57,57,57,57	0
56	MG	DA	3190	1/1	0.92	0.15	25,25,25,25	0
56	MG	B5	101	1/1	0.92	0.21	34,34,34,34	0
56	MG	BA	3266	1/1	0.92	0.33	73,73,73,73	0
56	MG	BA	3362	1/1	0.92	0.26	26,26,26,26	0
56	MG	DA	3566	1/1	0.92	0.21	43,43,43,43	0
56	MG	AA	1948	1/1	0.92	0.95	103,103,103,103	0
56	MG	BA	3203	1/1	0.92	0.49	98,98,98,98	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3656	1/1	0.92	0.20	31,31,31,31	0
56	MG	DA	3208	1/1	0.92	0.59	29,29,29,29	0
56	MG	DA	3024	1/1	0.92	0.27	65,65,65,65	0
56	MG	DA	3211	1/1	0.92	0.32	33,33,33,33	0
56	MG	BA	3103	1/1	0.92	0.36	89,89,89,89	0
56	MG	BA	3658	1/1	0.92	0.43	71,71,71,71	0
56	MG	DA	3388	1/1	0.92	0.14	63,63,63,63	0
56	MG	AA	1983	1/1	0.92	1.07	76,76,76,76	0
56	MG	CA	1826	1/1	0.92	0.36	73,73,73,73	0
56	MG	DA	3220	1/1	0.92	0.29	43,43,43,43	0
56	MG	CA	1715	1/1	0.92	0.32	79,79,79,79	0
56	MG	CA	1716	1/1	0.92	0.21	86,86,86,86	0
56	MG	DA	3396	1/1	0.92	0.24	18,18,18,18	0
56	MG	BA	3471	1/1	0.92	0.11	45,45,45,45	0
56	MG	DA	3227	1/1	0.92	0.20	45,45,45,45	0
56	MG	AA	1984	1/1	0.92	0.23	42,42,42,42	0
56	MG	CA	1834	1/1	0.92	0.33	108,108,108,108	0
56	MG	BA	3007	1/1	0.92	0.46	170,170,170,170	0
56	MG	BA	3373	1/1	0.92	0.49	39,39,39,39	0
56	MG	AA	1845	1/1	0.92	0.49	67,67,67,67	0
56	MG	AA	1670	1/1	0.92	0.35	77,77,77,77	0
56	MG	BA	3378	1/1	0.92	0.39	30,30,30,30	0
56	MG	BA	3160	1/1	0.92	0.34	51,51,51,51	0
56	MG	CA	1726	1/1	0.92	0.26	80,80,80,80	0
56	MG	DA	3251	1/1	0.92	0.29	32,32,32,32	0
56	MG	DA	3252	1/1	0.92	0.28	42,42,42,42	0
56	MG	AA	1730	1/1	0.92	0.20	78,78,78,78	0
56	MG	AA	1871	1/1	0.92	0.18	29,29,29,29	0
56	MG	BA	3216	1/1	0.92	0.24	48,48,48,48	0
56	MG	BA	3116	1/1	0.92	0.16	87,87,87,87	0
56	MG	DA	3622	1/1	0.92	0.22	50,50,50,50	0
56	MG	BA	2933	1/1	0.92	0.22	69,69,69,69	0
56	MG	BA	3579	1/1	0.92	0.46	65,65,65,65	0
56	MG	BA	3580	1/1	0.92	0.54	60,60,60,60	0
56	MG	DA	3263	1/1	0.92	0.35	61,61,61,61	0
56	MG	DA	3051	1/1	0.92	0.17	64,64,64,64	0
56	MG	CA	1628	1/1	0.92	0.16	86,86,86,86	0
56	MG	BA	3219	1/1	0.92	0.62	78,78,78,78	0
56	MG	CA	1852	1/1	0.92	0.25	93,93,93,93	0
56	MG	BA	3489	1/1	0.92	0.22	54,54,54,54	0
56	MG	DA	3433	1/1	0.92	0.17	27,27,27,27	0
56	MG	BA	3220	1/1	0.92	0.24	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AA	1754	1/1	0.92	0.58	72,72,72,72	0
56	MG	AA	1954	1/1	0.92	0.29	142,142,142,142	0
56	MG	DA	3278	1/1	0.92	0.30	83,83,83,83	0
56	MG	CA	1858	1/1	0.92	0.22	97,97,97,97	0
56	MG	BA	3398	1/1	0.92	0.61	64,64,64,64	0
56	MG	BA	3399	1/1	0.92	0.55	38,38,38,38	0
56	MG	BA	3695	1/1	0.92	0.10	95,95,95,95	0
56	MG	AA	1611	1/1	0.92	0.18	109,109,109,109	0
56	MG	DB	211	1/1	0.92	0.31	35,35,35,35	0
56	MG	DA	2942	1/1	0.92	0.19	69,69,69,69	0
56	MG	BA	3018	1/1	0.92	0.18	59,59,59,59	0
56	MG	BA	3293	1/1	0.92	0.19	62,62,62,62	0
56	MG	BA	3699	1/1	0.92	0.31	70,70,70,70	0
56	MG	BA	2937	1/1	0.92	0.23	71,71,71,71	0
56	MG	BA	2906	1/1	0.92	0.27	84,84,84,84	0
56	MG	AA	1832	1/1	0.92	0.15	67,67,67,67	0
56	MG	BA	3505	1/1	0.92	1.25	101,101,101,101	0
56	MG	BA	3506	1/1	0.92	0.42	53,53,53,53	0
56	MG	BA	3707	1/1	0.92	0.05	84,84,84,84	0
56	MG	AA	1821	1/1	0.92	0.13	70,70,70,70	0
56	MG	AA	1880	1/1	0.92	0.32	43,43,43,43	0
56	MG	DI	201	1/1	0.92	0.21	49,49,49,49	0
56	MG	DI	202	1/1	0.92	0.14	54,54,54,54	0
56	MG	DA	3466	1/1	0.92	0.26	90,90,90,90	0
56	MG	AA	1959	1/1	0.92	0.23	63,63,63,63	0
56	MG	BA	3510	1/1	0.92	0.34	86,86,86,86	0
56	MG	DA	2958	1/1	0.92	0.85	95,95,95,95	0
56	MG	CA	1880	1/1	0.92	0.82	118,118,118,118	0
56	MG	BA	3235	1/1	0.92	0.07	63,63,63,63	0
56	MG	BA	2982	1/1	0.92	0.31	86,86,86,86	0
56	MG	AA	1961	1/1	0.92	0.18	53,53,53,53	0
56	MG	DA	3477	1/1	0.92	0.66	56,56,56,56	0
56	MG	BA	3716	1/1	0.92	0.07	80,80,80,80	0
56	MG	BA	3238	1/1	0.92	0.37	61,61,61,61	0
56	MG	BA	2984	1/1	0.92	0.48	40,40,40,40	0
56	MG	DA	3312	1/1	0.92	0.17	61,61,61,61	0
56	MG	DA	3485	1/1	0.92	0.79	120,120,120,120	0
56	MG	DA	3412	1/1	0.93	0.26	60,60,60,60	0
56	MG	CA	1774	1/1	0.93	0.26	59,59,59,59	0
56	MG	DA	3414	1/1	0.93	0.15	48,48,48,48	0
56	MG	DA	3299	1/1	0.93	0.41	38,38,38,38	0
56	MG	AA	1889	1/1	0.93	0.20	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	CA	1707	1/1	0.93	0.18	50,50,50,50	0
56	MG	DA	3538	1/1	0.93	0.11	70,70,70,70	0
56	MG	AA	1741	1/1	0.93	0.29	91,91,91,91	0
56	MG	DA	3159	1/1	0.93	0.32	62,62,62,62	0
56	MG	AA	1985	1/1	0.93	0.32	108,108,108,108	0
56	MG	DA	3543	1/1	0.93	0.17	88,88,88,88	0
56	MG	DA	2968	1/1	0.93	0.15	54,54,54,54	0
56	MG	BA	3280	1/1	0.93	0.16	84,84,84,84	0
56	MG	DA	3164	1/1	0.93	0.17	30,30,30,30	0
56	MG	AA	1936	1/1	0.93	0.77	94,94,94,94	0
56	MG	DA	3175	1/1	0.93	0.33	38,38,38,38	0
56	MG	BA	3464	1/1	0.93	0.33	84,84,84,84	0
56	MG	DA	3562	1/1	0.93	0.20	45,45,45,45	0
56	MG	DA	3563	1/1	0.93	0.48	62,62,62,62	0
56	MG	CA	1784	1/1	0.93	0.50	96,96,96,96	0
56	MG	AA	1781	1/1	0.93	0.34	42,42,42,42	0
56	MG	BA	3201	1/1	0.93	0.29	71,71,71,71	0
56	MG	DA	3567	1/1	0.93	0.20	74,74,74,74	0
56	MG	BA	3408	1/1	0.93	0.28	50,50,50,50	0
56	MG	AA	1671	1/1	0.93	0.30	87,87,87,87	0
56	MG	CA	1862	1/1	0.93	0.31	117,117,117,117	0
56	MG	BA	3411	1/1	0.93	0.36	31,31,31,31	0
56	MG	DA	3573	1/1	0.93	0.14	34,34,34,34	0
56	MG	AA	1636	1/1	0.93	0.20	97,97,97,97	0
56	MG	BY	201	1/1	0.93	0.21	30,30,30,30	0
56	MG	AA	1918	1/1	0.93	0.21	51,51,51,51	0
56	MG	BA	3001	1/1	0.93	0.08	86,86,86,86	0
56	MG	AO	101	1/1	0.93	0.33	110,110,110,110	0
56	MG	DA	3443	1/1	0.93	0.22	45,45,45,45	0
56	MG	DA	3444	1/1	0.93	0.25	55,55,55,55	0
56	MG	DA	3584	1/1	0.93	0.34	49,49,49,49	0
56	MG	AA	1785	1/1	0.93	0.32	62,62,62,62	0
56	MG	BA	3630	1/1	0.93	0.36	19,19,19,19	0
56	MG	DA	3448	1/1	0.93	0.21	43,43,43,43	0
56	MG	B8	102	1/1	0.93	0.27	39,39,39,39	0
56	MG	DA	3334	1/1	0.93	0.36	72,72,72,72	0
56	MG	DA	2901	1/1	0.93	0.27	47,47,47,47	0
56	MG	AA	1711	1/1	0.93	0.21	83,83,83,83	0
56	MG	DA	3221	1/1	0.93	0.25	38,38,38,38	0
56	MG	BA	3635	1/1	0.93	0.43	37,37,37,37	0
56	MG	DA	3457	1/1	0.93	0.44	64,64,64,64	0
56	MG	BA	3042	1/1	0.93	0.30	67,67,67,67	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3113	1/1	0.93	0.48	109,109,109,109	0
56	MG	DA	2908	1/1	0.93	0.28	60,60,60,60	0
56	MG	DA	3230	1/1	0.93	0.14	41,41,41,41	0
56	MG	AA	1712	1/1	0.93	0.31	166,166,166,166	0
56	MG	DA	3237	1/1	0.93	0.47	42,42,42,42	0
56	MG	BA	3586	1/1	0.93	0.26	17,17,17,17	0
56	MG	BA	3045	1/1	0.93	1.47	103,103,103,103	0
56	MG	DA	3469	1/1	0.93	0.20	55,55,55,55	0
56	MG	BA	3046	1/1	0.93	0.45	126,126,126,126	0
56	MG	AA	1875	1/1	0.93	0.14	37,37,37,37	0
56	MG	BA	2901	1/1	0.93	0.93	123,123,123,123	0
56	MG	BA	3372	1/1	0.93	0.27	27,27,27,27	0
56	MG	DA	3087	1/1	0.93	0.74	52,52,52,52	0
56	MG	BA	3648	1/1	0.93	0.29	54,54,54,54	0
56	MG	AA	1969	1/1	0.93	0.55	63,63,63,63	0
56	MG	AA	1789	1/1	0.93	0.18	63,63,63,63	0
56	MG	CA	1888	1/1	0.93	0.17	67,67,67,67	0
56	MG	DA	3256	1/1	0.93	0.18	41,41,41,41	0
56	MG	DA	3361	1/1	0.93	0.29	73,73,73,73	0
56	MG	BA	3652	1/1	0.93	0.19	63,63,63,63	0
56	MG	DA	2922	1/1	0.93	0.15	47,47,47,47	0
56	MG	CA	1891	1/1	0.93	0.22	63,63,63,63	0
56	MG	AA	1623	1/1	0.93	0.10	84,84,84,84	0
56	MG	CA	1818	1/1	0.93	0.26	71,71,71,71	0
56	MG	AA	1776	1/1	0.93	0.56	146,146,146,146	0
56	MG	AA	1756	1/1	0.93	0.14	87,87,87,87	0
56	MG	AA	1863	1/1	0.93	0.34	53,53,53,53	0
56	MG	DA	3267	1/1	0.93	0.16	32,32,32,32	0
56	MG	DA	3372	1/1	0.93	0.19	40,40,40,40	0
56	MG	BA	3440	1/1	0.93	0.40	37,37,37,37	0
56	MG	CA	1749	1/1	0.93	0.18	64,64,64,64	0
56	MG	BA	3385	1/1	0.93	0.35	50,50,50,50	0
56	MG	BA	3660	1/1	0.93	0.36	45,45,45,45	0
56	MG	DA	3272	1/1	0.93	0.25	53,53,53,53	0
56	MG	AA	1603	1/1	0.93	0.22	64,64,64,64	0
56	MG	CA	1903	1/1	0.93	0.26	73,73,73,73	0
56	MG	BA	3057	1/1	0.93	0.34	65,65,65,65	0
56	MG	AA	1706	1/1	0.93	0.43	186,186,186,186	0
56	MG	DA	3279	1/1	0.93	0.27	29,29,29,29	0
56	MG	DA	3280	1/1	0.93	0.49	59,59,59,59	0
56	MG	DA	3387	1/1	0.93	0.22	39,39,39,39	0
56	MG	BA	3228	1/1	0.93	0.13	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3161	1/1	0.93	0.45	73,73,73,73	0
56	MG	BA	2989	1/1	0.93	0.33	84,84,84,84	0
56	MG	CA	1763	1/1	0.93	0.19	46,46,46,46	0
56	MG	DP	201	1/1	0.93	0.26	43,43,43,43	0
56	MG	CA	1697	1/1	0.93	0.74	50,50,50,50	0
56	MG	DA	3034	1/1	0.93	0.60	49,49,49,49	0
56	MG	DA	3518	1/1	0.93	0.44	63,63,63,63	0
56	MG	CA	1635	1/1	0.93	0.18	119,119,119,119	0
56	MG	BA	3555	1/1	0.93	0.18	94,94,94,94	0
56	MG	BA	3231	1/1	0.93	0.20	39,39,39,39	0
56	MG	CA	1701	1/1	0.93	0.21	88,88,88,88	0
56	MG	DA	3291	1/1	0.93	0.41	44,44,44,44	0
56	MG	CA	1769	1/1	0.93	0.17	58,58,58,58	0
56	MG	DA	3525	1/1	0.93	0.13	58,58,58,58	0
56	MG	BA	3670	1/1	0.93	0.30	79,79,79,79	0
56	MG	BA	3609	1/1	0.93	0.57	149,149,149,149	0
56	MG	BA	3233	1/1	0.93	0.30	55,55,55,55	0
56	MG	AA	1910	1/1	0.93	0.56	68,68,68,68	0
56	MG	BA	2916	1/1	0.94	0.32	37,37,37,37	0
56	MG	CA	1692	1/1	0.94	0.27	62,62,62,62	0
56	MG	AW	106	1/1	0.94	0.20	87,87,87,87	0
56	MG	DA	3228	1/1	0.94	0.39	31,31,31,31	0
56	MG	DA	3515	1/1	0.94	0.09	76,76,76,76	0
56	MG	BA	3283	1/1	0.94	0.21	67,67,67,67	0
56	MG	DA	3370	1/1	0.94	0.42	66,66,66,66	0
56	MG	BA	3677	1/1	0.94	0.40	18,18,18,18	0
56	MG	DA	2943	1/1	0.94	0.15	25,25,25,25	0
56	MG	BA	2956	1/1	0.94	0.16	42,42,42,42	0
56	MG	DA	3239	1/1	0.94	0.44	43,43,43,43	0
56	MG	BA	3232	1/1	0.94	0.22	65,65,65,65	0
56	MG	DA	3377	1/1	0.94	0.32	58,58,58,58	0
56	MG	BA	2998	1/1	0.94	0.31	65,65,65,65	0
56	MG	BA	3447	1/1	0.94	0.20	64,64,64,64	0
56	MG	CA	1612	1/1	0.94	0.30	82,82,82,82	0
56	MG	AA	1963	1/1	0.94	0.21	80,80,80,80	0
56	MG	AA	1964	1/1	0.94	0.16	84,84,84,84	0
56	MG	AA	1673	1/1	0.94	0.20	104,104,104,104	0
56	MG	AA	1685	1/1	0.94	0.15	199,199,199,199	0
56	MG	CA	1894	1/1	0.94	0.07	89,89,89,89	0
56	MG	BA	3690	1/1	0.94	0.12	66,66,66,66	0
56	MG	AW	111	1/1	0.94	0.12	91,91,91,91	0
56	MG	DA	3389	1/1	0.94	0.21	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	AA	1649	1/1	0.94	0.90	110,110,110,110	0
56	MG	AA	1696	1/1	0.94	0.22	96,96,96,96	0
56	MG	DA	2959	1/1	0.94	0.51	48,48,48,48	0
56	MG	BA	3457	1/1	0.94	0.24	68,68,68,68	0
56	MG	BA	3383	1/1	0.94	0.34	39,39,39,39	0
56	MG	BA	3384	1/1	0.94	0.09	71,71,71,71	0
56	MG	CA	1804	1/1	0.94	0.37	78,78,78,78	0
56	MG	DA	3546	1/1	0.94	0.34	62,62,62,62	0
56	MG	DA	3264	1/1	0.94	0.23	44,44,44,44	0
56	MG	CA	1805	1/1	0.94	0.25	63,63,63,63	0
56	MG	CA	1625	1/1	0.94	0.36	125,125,125,125	0
56	MG	BA	3295	1/1	0.94	0.65	97,97,97,97	0
56	MG	BA	3106	1/1	0.94	0.22	57,57,57,57	0
56	MG	AA	1784	1/1	0.94	0.07	72,72,72,72	0
56	MG	BA	3109	1/1	0.94	0.23	63,63,63,63	0
56	MG	DA	3084	1/1	0.94	0.35	83,83,83,83	0
56	MG	AA	1851	1/1	0.94	0.28	111,111,111,111	0
56	MG	BA	3615	1/1	0.94	0.22	73,73,73,73	0
56	MG	AA	1876	1/1	0.94	0.50	123,123,123,123	0
56	MG	AA	1602	1/1	0.94	0.24	163,163,163,163	0
56	MG	DA	2978	1/1	0.94	0.46	64,64,64,64	0
56	MG	AA	1628	1/1	0.94	0.64	213,213,213,213	0
56	MG	BA	3395	1/1	0.94	0.75	107,107,107,107	0
56	MG	BA	3396	1/1	0.94	0.34	43,43,43,43	0
56	MG	AA	1708	1/1	0.94	0.23	103,103,103,103	0
56	MG	BA	2970	1/1	0.94	0.25	93,93,93,93	0
56	MG	BA	3714	1/1	0.94	0.12	94,94,94,94	0
56	MG	DA	3096	1/1	0.94	0.31	82,82,82,82	0
56	MG	AA	1731	1/1	0.94	0.14	57,57,57,57	0
56	MG	DA	3581	1/1	0.94	0.32	69,69,69,69	0
56	MG	BA	3551	1/1	0.94	0.26	52,52,52,52	0
56	MG	BA	3625	1/1	0.94	0.38	117,117,117,117	0
56	MG	BA	3400	1/1	0.94	0.19	37,37,37,37	0
56	MG	AA	1980	1/1	0.94	0.66	76,76,76,76	0
56	MG	AA	1856	1/1	0.94	0.46	134,134,134,134	0
56	MG	DA	3431	1/1	0.94	0.27	74,74,74,74	0
56	MG	BA	3207	1/1	0.94	0.19	65,65,65,65	0
56	MG	BA	3556	1/1	0.94	0.63	54,54,54,54	0
56	MG	BA	3483	1/1	0.94	0.13	23,23,23,23	0
56	MG	BA	3558	1/1	0.94	0.23	71,71,71,71	0
56	MG	BB	201	1/1	0.94	0.14	59,59,59,59	0
56	MG	BA	3019	1/1	0.94	0.20	109,109,109,109	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	CA	1656	1/1	0.94	0.48	52,52,52,52	0
56	MG	CW	106	1/1	0.94	0.20	59,59,59,59	0
56	MG	AA	1885	1/1	0.94	0.15	61,61,61,61	0
56	MG	CW	108	1/1	0.94	0.37	26,26,26,26	0
56	MG	BA	3311	1/1	0.94	0.40	17,17,17,17	0
56	MG	BA	3562	1/1	0.94	0.34	45,45,45,45	0
56	MG	DA	3446	1/1	0.94	0.16	59,59,59,59	0
56	MG	DA	3614	1/1	0.94	0.29	50,50,50,50	0
56	MG	CA	1745	1/1	0.94	0.20	115,115,115,115	0
56	MG	BA	3210	1/1	0.94	0.10	76,76,76,76	0
56	MG	CW	114	1/1	0.94	0.20	61,61,61,61	0
56	MG	AA	1719	1/1	0.94	0.13	92,92,92,92	0
56	MG	DA	3452	1/1	0.94	0.28	73,73,73,73	0
56	MG	BA	3565	1/1	0.94	0.30	63,63,63,63	0
56	MG	AA	1887	1/1	0.94	0.09	70,70,70,70	0
56	MG	CY	402	1/1	0.94	0.26	44,44,44,44	0
56	MG	DA	3316	1/1	0.94	0.23	49,49,49,49	0
56	MG	CA	1846	1/1	0.94	0.39	101,101,101,101	0
56	MG	DA	3129	1/1	0.94	0.35	104,104,104,104	0
56	MG	AA	1791	1/1	0.94	0.37	59,59,59,59	0
56	MG	BA	3493	1/1	0.94	0.23	61,61,61,61	0
56	MG	DA	3141	1/1	0.94	0.44	15,15,15,15	0
56	MG	BA	3649	1/1	0.94	0.27	104,104,104,104	0
56	MG	DA	3323	1/1	0.94	0.14	42,42,42,42	0
56	MG	DA	3465	1/1	0.94	0.20	60,60,60,60	0
56	MG	AA	1987	1/1	0.94	0.58	121,121,121,121	0
56	MG	AA	1720	1/1	0.94	0.36	86,86,86,86	0
56	MG	DA	3468	1/1	0.94	0.38	33,33,33,33	0
56	MG	AA	1793	1/1	0.94	0.36	127,127,127,127	0
56	MG	CA	1758	1/1	0.94	0.20	40,40,40,40	0
56	MG	DA	3330	1/1	0.94	0.40	36,36,36,36	0
56	MG	BA	2942	1/1	0.94	0.51	37,37,37,37	0
56	MG	BA	3268	1/1	0.94	0.50	102,102,102,102	0
56	MG	DA	3025	1/1	0.94	0.14	30,30,30,30	0
56	MG	DA	3167	1/1	0.94	0.18	13,13,13,13	0
56	MG	BA	3575	1/1	0.94	0.21	63,63,63,63	0
56	MG	AA	1861	1/1	0.94	0.52	42,42,42,42	0
56	MG	DA	3480	1/1	0.94	0.28	42,42,42,42	0
56	MG	DA	3176	1/1	0.94	0.41	13,13,13,13	0
56	MG	BA	3340	1/1	0.94	0.33	31,31,31,31	0
56	MG	DA	2913	1/1	0.94	0.73	70,70,70,70	0
56	MG	AA	1709	1/1	0.94	0.23	71,71,71,71	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3427	1/1	0.94	0.38	35,35,35,35	0
56	MG	DE	301	1/1	0.94	0.29	29,29,29,29	0
56	MG	AA	1893	1/1	0.94	0.52	48,48,48,48	0
56	MG	CA	1679	1/1	0.94	0.19	81,81,81,81	0
56	MG	AA	1927	1/1	0.94	0.17	48,48,48,48	0
56	MG	DA	3345	1/1	0.94	0.24	68,68,68,68	0
56	MG	AA	1795	1/1	0.94	0.08	65,65,65,65	0
56	MG	AW	101	1/1	0.94	0.33	105,105,105,105	0
56	MG	DA	3204	1/1	0.94	0.17	35,35,35,35	0
56	MG	BA	3354	1/1	0.94	0.32	38,38,38,38	0
56	MG	AA	1655	1/1	0.94	0.52	80,80,80,80	0
56	MG	DA	3209	1/1	0.94	0.21	17,17,17,17	0
56	MG	BA	3277	1/1	0.94	0.27	51,51,51,51	0
56	MG	AA	1840	1/1	0.94	1.44	79,79,79,79	0
56	MG	AA	1683	1/1	0.94	0.15	249,249,249,249	0
56	MG	CA	1873	1/1	0.94	0.21	207,207,207,207	0
56	MG	CA	1778	1/1	0.94	0.45	36,36,36,36	0
56	MG	DA	3218	1/1	0.94	0.18	29,29,29,29	0
56	MG	AA	1799	1/1	0.94	0.78	85,85,85,85	0
56	MG	D5	101	1/1	0.94	0.28	71,71,71,71	0
56	MG	DA	2933	1/1	0.94	0.34	35,35,35,35	0
56	MG	BA	3363	1/1	0.94	0.44	19,19,19,19	0
56	MG	CA	1781	1/1	0.94	0.50	59,59,59,59	0
56	MG	CA	1915	1/1	0.95	0.70	67,67,67,67	0
56	MG	BA	3365	1/1	0.95	0.34	14,14,14,14	0
56	MG	DA	3404	1/1	0.95	0.54	61,61,61,61	0
56	MG	BA	3595	1/1	0.95	0.27	39,39,39,39	0
56	MG	AA	1911	1/1	0.95	0.11	38,38,38,38	0
56	MG	DA	3131	1/1	0.95	0.55	40,40,40,40	0
56	MG	DA	3408	1/1	0.95	0.20	51,51,51,51	0
56	MG	DA	3536	1/1	0.95	0.55	50,50,50,50	0
56	MG	DA	3132	1/1	0.95	0.46	13,13,13,13	0
56	MG	DA	3134	1/1	0.95	0.44	18,18,18,18	0
56	MG	DA	3135	1/1	0.95	0.49	17,17,17,17	0
56	MG	BA	3120	1/1	0.95	0.51	62,62,62,62	0
56	MG	BA	3484	1/1	0.95	0.34	104,104,104,104	0
56	MG	DA	3295	1/1	0.95	0.33	48,48,48,48	0
56	MG	BA	3659	1/1	0.95	0.15	46,46,46,46	0
56	MG	DA	3418	1/1	0.95	0.20	11,11,11,11	0
56	MG	DA	3146	1/1	0.95	0.74	50,50,50,50	0
56	MG	DA	3148	1/1	0.95	0.53	34,34,34,34	0
56	MG	DA	3554	1/1	0.95	0.44	13,13,13,13	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3150	1/1	0.95	0.44	17,17,17,17	0
56	MG	AA	1768	1/1	0.95	0.19	183,183,183,183	0
56	MG	CA	1923	1/1	0.95	0.14	77,77,77,77	0
56	MG	BA	2944	1/1	0.95	0.19	62,62,62,62	0
56	MG	BA	3544	1/1	0.95	0.17	55,55,55,55	0
56	MG	DA	2961	1/1	0.95	0.37	143,143,143,143	0
56	MG	DA	2962	1/1	0.95	0.14	59,59,59,59	0
56	MG	CA	1638	1/1	0.95	0.17	118,118,118,118	0
56	MG	CA	1639	1/1	0.95	0.09	100,100,100,100	0
56	MG	AA	1704	1/1	0.95	0.45	186,186,186,186	0
56	MG	AA	1608	1/1	0.95	0.76	108,108,108,108	0
56	MG	AA	1915	1/1	0.95	0.14	50,50,50,50	0
56	MG	BA	3375	1/1	0.95	0.32	30,30,30,30	0
56	MG	DA	3181	1/1	0.95	0.36	13,13,13,13	0
56	MG	DA	3183	1/1	0.95	0.38	16,16,16,16	0
56	MG	DA	3056	1/1	0.95	0.21	77,77,77,77	0
56	MG	CA	1855	1/1	0.95	0.27	197,197,197,197	0
56	MG	AA	1878	1/1	0.95	0.28	56,56,56,56	0
56	MG	DA	3193	1/1	0.95	0.08	34,34,34,34	0
56	MG	DA	3194	1/1	0.95	0.10	28,28,28,28	0
56	MG	BA	3090	1/1	0.95	0.43	60,60,60,60	0
56	MG	AA	1982	1/1	0.95	0.14	73,73,73,73	0
56	MG	DA	3199	1/1	0.95	0.53	36,36,36,36	0
56	MG	CA	1713	1/1	0.95	0.19	88,88,88,88	0
56	MG	BA	3379	1/1	0.95	0.39	23,23,23,23	0
56	MG	CA	1787	1/1	0.95	0.28	77,77,77,77	0
56	MG	BA	3028	1/1	0.95	0.48	70,70,70,70	0
56	MG	DA	3206	1/1	0.95	0.42	23,23,23,23	0
56	MG	BA	3029	1/1	0.95	0.27	44,44,44,44	0
56	MG	DA	3593	1/1	0.95	0.15	70,70,70,70	0
56	MG	AA	1749	1/1	0.95	0.29	114,114,114,114	0
56	MG	AA	1662	1/1	0.95	0.27	108,108,108,108	0
56	MG	BA	2905	1/1	0.95	0.35	54,54,54,54	0
56	MG	BB	221	1/1	0.95	0.10	65,65,65,65	0
56	MG	CA	1654	1/1	0.95	0.27	106,106,106,106	0
56	MG	BA	3386	1/1	0.95	0.16	39,39,39,39	0
56	MG	DA	3605	1/1	0.95	0.16	59,59,59,59	0
56	MG	DA	3215	1/1	0.95	0.54	46,46,46,46	0
56	MG	BA	3680	1/1	0.95	0.14	35,35,35,35	0
56	MG	AA	1813	1/1	0.95	0.29	134,134,134,134	0
56	MG	BA	3388	1/1	0.95	0.59	22,22,22,22	0
56	MG	DA	3613	1/1	0.95	0.11	49,49,49,49	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AA	1814	1/1	0.95	0.48	58,58,58,58	0
56	MG	BA	3101	1/1	0.95	0.16	106,106,106,106	0
56	MG	DA	3078	1/1	0.95	0.19	75,75,75,75	0
56	MG	CA	1661	1/1	0.95	0.20	68,68,68,68	0
56	MG	BA	3686	1/1	0.95	0.43	28,28,28,28	0
56	MG	BA	3037	1/1	0.95	0.18	101,101,101,101	0
56	MG	BA	3327	1/1	0.95	0.33	28,28,28,28	0
56	MG	BA	3330	1/1	0.95	0.31	27,27,27,27	0
56	MG	AA	1838	1/1	0.95	0.19	56,56,56,56	0
56	MG	BA	3005	1/1	0.95	0.23	45,45,45,45	0
56	MG	DA	3354	1/1	0.95	0.47	33,33,33,33	0
56	MG	BA	3335	1/1	0.95	0.73	49,49,49,49	0
56	MG	AA	1884	1/1	0.95	0.39	47,47,47,47	0
56	MG	BA	3337	1/1	0.95	0.52	20,20,20,20	0
56	MG	BA	3458	1/1	0.95	0.20	52,52,52,52	0
56	MG	BA	3338	1/1	0.95	0.21	28,28,28,28	0
56	MG	DA	3360	1/1	0.95	0.16	64,64,64,64	0
56	MG	DA	3483	1/1	0.95	0.33	96,96,96,96	0
56	MG	AA	1773	1/1	0.95	0.49	281,281,281,281	0
56	MG	DA	3245	1/1	0.95	0.48	45,45,45,45	0
56	MG	CA	1814	1/1	0.95	0.25	156,156,156,156	0
56	MG	DA	3247	1/1	0.95	0.19	55,55,55,55	0
56	MG	BA	3633	1/1	0.95	0.48	12,12,12,12	0
56	MG	DA	3249	1/1	0.95	0.48	120,120,120,120	0
56	MG	BA	3461	1/1	0.95	0.50	23,23,23,23	0
56	MG	BA	3108	1/1	0.95	0.38	61,61,61,61	0
56	MG	BA	3637	1/1	0.95	0.15	20,20,20,20	0
56	MG	BA	3342	1/1	0.95	0.20	25,25,25,25	0
56	MG	BA	3706	1/1	0.95	0.46	102,102,102,102	0
56	MG	DA	3099	1/1	0.95	0.07	79,79,79,79	0
56	MG	DA	3012	1/1	0.95	0.34	102,102,102,102	0
56	MG	DA	3374	1/1	0.95	0.29	54,54,54,54	0
56	MG	AA	1659	1/1	0.95	0.23	88,88,88,88	0
56	MG	BA	3009	1/1	0.95	0.18	86,86,86,86	0
56	MG	AA	1904	1/1	0.95	0.42	43,43,43,43	0
56	MG	DA	3378	1/1	0.95	0.37	54,54,54,54	0
56	MG	BA	3253	1/1	0.95	0.13	73,73,73,73	0
56	MG	BA	3528	1/1	0.95	0.54	53,53,53,53	0
56	MG	DA	3018	1/1	0.95	0.08	83,83,83,83	0
56	MG	CA	1685	1/1	0.95	0.18	104,104,104,104	0
56	MG	AA	1869	1/1	0.95	0.56	34,34,34,34	0
56	MG	DA	3022	1/1	0.95	0.21	80,80,80,80	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	3047	1/1	0.95	0.30	50,50,50,50	0
56	MG	DA	2939	1/1	0.95	0.63	66,66,66,66	0
56	MG	CA	1829	1/1	0.95	0.68	49,49,49,49	0
56	MG	DA	3115	1/1	0.95	0.16	60,60,60,60	0
56	MG	AY	402	1/1	0.95	0.16	40,40,40,40	0
56	MG	AA	1665	1/1	0.95	0.15	59,59,59,59	0
56	MG	AA	1842	1/1	0.95	0.20	98,98,98,98	0
56	MG	CA	1762	1/1	0.95	0.14	28,28,28,28	0
56	MG	AA	1657	1/1	0.95	0.28	112,112,112,112	0
56	MG	DA	2946	1/1	0.95	0.58	55,55,55,55	0
56	MG	BA	3260	1/1	0.95	0.25	109,109,109,109	0
56	MG	DA	3397	1/1	0.95	0.36	54,54,54,54	0
56	MG	DA	3123	1/1	0.95	0.63	72,72,72,72	0
56	MG	DA	3399	1/1	0.95	0.09	85,85,85,85	0
56	MG	BA	3417	1/1	0.95	0.25	56,56,56,56	0
56	MG	BA	3118	1/1	0.95	0.44	132,132,132,132	0
56	MG	DA	3166	1/1	0.96	0.25	25,25,25,25	0
56	MG	BA	3351	1/1	0.96	0.54	29,29,29,29	0
56	MG	DA	3173	1/1	0.96	0.60	46,46,46,46	0
56	MG	AA	1968	1/1	0.96	0.89	86,86,86,86	0
56	MG	BA	3467	1/1	0.96	0.16	103,103,103,103	0
56	MG	BA	3428	1/1	0.96	0.26	51,51,51,51	0
56	MG	DA	2902	1/1	0.96	0.25	65,65,65,65	0
56	MG	DA	3179	1/1	0.96	0.21	13,13,13,13	0
56	MG	BA	3094	1/1	0.96	0.43	38,38,38,38	0
56	MG	BA	3355	1/1	0.96	0.26	18,18,18,18	0
56	MG	AA	1805	1/1	0.96	0.24	71,71,71,71	0
56	MG	BA	3516	1/1	0.96	0.16	29,29,29,29	0
56	MG	BA	3317	1/1	0.96	0.39	16,16,16,16	0
56	MG	DA	3191	1/1	0.96	0.37	28,28,28,28	0
56	MG	DA	3192	1/1	0.96	0.25	38,38,38,38	0
56	MG	AA	1610	1/1	0.96	0.19	65,65,65,65	0
56	MG	BA	3360	1/1	0.96	0.54	24,24,24,24	0
56	MG	BA	3475	1/1	0.96	0.61	55,55,55,55	0
56	MG	CA	1601	1/1	0.96	0.17	34,34,34,34	0
56	MG	DA	2974	1/1	0.96	0.18	90,90,90,90	0
56	MG	BA	3159	1/1	0.96	0.20	151,151,151,151	0
56	MG	DA	3587	1/1	0.96	0.10	90,90,90,90	0
56	MG	DA	3100	1/1	0.96	0.42	97,97,97,97	0
56	MG	BA	3058	1/1	0.96	0.38	60,60,60,60	0
56	MG	CA	1751	1/1	0.96	0.58	163,163,163,163	0
56	MG	BA	3023	1/1	0.96	0.54	58,58,58,58	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3040	1/1	0.96	0.32	102,102,102,102	0
56	MG	AA	1626	1/1	0.96	0.09	91,91,91,91	0
56	MG	BA	3325	1/1	0.96	0.55	39,39,39,39	0
56	MG	BA	3481	1/1	0.96	0.16	59,59,59,59	0
56	MG	CA	1859	1/1	0.96	0.60	132,132,132,132	0
56	MG	AA	1633	1/1	0.96	0.16	45,45,45,45	0
56	MG	DA	3488	1/1	0.96	0.07	70,70,70,70	0
56	MG	DA	2984	1/1	0.96	0.26	34,34,34,34	0
56	MG	DA	3606	1/1	0.96	0.17	54,54,54,54	0
56	MG	DA	3607	1/1	0.96	0.19	30,30,30,30	0
56	MG	DA	3394	1/1	0.96	0.28	49,49,49,49	0
56	MG	DA	3111	1/1	0.96	0.28	84,84,84,84	0
56	MG	CA	1609	1/1	0.96	0.19	100,100,100,100	0
56	MG	DA	2923	1/1	0.96	0.15	28,28,28,28	0
56	MG	CA	1759	1/1	0.96	0.41	65,65,65,65	0
56	MG	DA	2925	1/1	0.96	0.55	80,80,80,80	0
56	MG	DA	3311	1/1	0.96	0.30	54,54,54,54	0
56	MG	BA	3044	1/1	0.96	0.35	53,53,53,53	0
56	MG	DA	3617	1/1	0.96	0.18	46,46,46,46	0
56	MG	DA	3314	1/1	0.96	0.36	65,65,65,65	0
56	MG	DA	2927	1/1	0.96	0.30	91,91,91,91	0
56	MG	BA	3402	1/1	0.96	0.33	37,37,37,37	0
56	MG	DA	3225	1/1	0.96	0.39	59,59,59,59	0
56	MG	BA	3274	1/1	0.96	0.12	105,105,105,105	0
56	MG	AA	1844	1/1	0.96	0.26	78,78,78,78	0
56	MG	BA	3673	1/1	0.96	0.24	133,133,133,133	0
56	MG	DA	3409	1/1	0.96	0.32	102,102,102,102	0
56	MG	DA	3506	1/1	0.96	0.20	53,53,53,53	0
56	MG	DA	3229	1/1	0.96	0.28	37,37,37,37	0
56	MG	BA	3445	1/1	0.96	0.16	19,19,19,19	0
56	MG	DA	3232	1/1	0.96	0.61	48,48,48,48	0
56	MG	DA	3324	1/1	0.96	0.48	13,13,13,13	0
56	MG	AA	1974	1/1	0.96	0.20	48,48,48,48	0
56	MG	DA	3235	1/1	0.96	0.59	41,41,41,41	0
56	MG	BA	3334	1/1	0.96	0.35	65,65,65,65	0
56	MG	BA	3490	1/1	0.96	0.22	45,45,45,45	0
56	MG	DA	3126	1/1	0.96	0.71	65,65,65,65	0
56	MG	BA	2938	1/1	0.96	0.21	81,81,81,81	0
56	MG	BA	3374	1/1	0.96	0.24	30,30,30,30	0
56	MG	BA	3030	1/1	0.96	0.45	64,64,64,64	0
56	MG	AA	1905	1/1	0.96	0.19	59,59,59,59	0
56	MG	BA	3452	1/1	0.96	0.67	53,53,53,53	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AW	117	1/1	0.96	0.14	68,68,68,68	0
56	MG	DA	3133	1/1	0.96	0.36	20,20,20,20	0
56	MG	BA	2914	1/1	0.96	0.32	122,122,122,122	0
56	MG	BA	3498	1/1	0.96	0.07	67,67,67,67	0
56	MG	DA	3137	1/1	0.96	0.29	23,23,23,23	0
56	MG	DB	216	1/1	0.96	0.09	51,51,51,51	0
56	MG	AA	1693	1/1	0.96	0.33	74,74,74,74	0
56	MG	DA	3140	1/1	0.96	0.41	11,11,11,11	0
56	MG	DA	3253	1/1	0.96	0.36	30,30,30,30	0
56	MG	DA	3254	1/1	0.96	0.31	50,50,50,50	0
56	MG	AA	1788	1/1	0.96	0.28	175,175,175,175	0
56	MG	BA	3072	1/1	0.96	0.17	88,88,88,88	0
56	MG	DA	3347	1/1	0.96	0.21	23,23,23,23	0
56	MG	CW	109	1/1	0.96	0.08	49,49,49,49	0
56	MG	DA	3438	1/1	0.96	0.28	73,73,73,73	0
56	MG	DA	3147	1/1	0.96	0.23	20,20,20,20	0
56	MG	BA	3418	1/1	0.96	0.20	27,27,27,27	0
56	MG	DN	201	1/1	0.96	0.14	56,56,56,56	0
56	MG	DA	3540	1/1	0.96	0.20	85,85,85,85	0
56	MG	CA	1832	1/1	0.96	0.19	65,65,65,65	0
56	MG	DA	3442	1/1	0.96	0.40	64,64,64,64	0
56	MG	DA	3152	1/1	0.96	0.39	23,23,23,23	0
56	MG	DA	3153	1/1	0.96	0.48	22,22,22,22	0
56	MG	BA	3285	1/1	0.96	0.24	66,66,66,66	0
56	MG	BA	3694	1/1	0.96	0.15	35,35,35,35	0
56	MG	AA	1818	1/1	0.96	0.16	44,44,44,44	0
56	MG	CA	1889	1/1	0.96	0.06	92,92,92,92	0
56	MG	DA	3555	1/1	0.96	0.28	14,14,14,14	0
56	MG	DA	3556	1/1	0.96	0.23	19,19,19,19	0
56	MG	BA	3347	1/1	0.96	0.23	27,27,27,27	0
56	MG	DA	3558	1/1	0.96	0.34	14,14,14,14	0
56	MG	BA	3463	1/1	0.96	0.30	106,106,106,106	0
56	MG	BA	3349	1/1	0.96	0.39	43,43,43,43	0
56	MG	DA	3165	1/1	0.96	0.47	25,25,25,25	0
57	ZN	CN	101	1/1	0.96	0.15	111,111,111,111	0
56	MG	BA	3518	1/1	0.97	0.25	27,27,27,27	0
56	MG	CA	1632	1/1	0.97	0.17	84,84,84,84	0
56	MG	DA	3021	1/1	0.97	0.48	66,66,66,66	0
56	MG	BD	301	1/1	0.97	0.23	15,15,15,15	0
56	MG	BA	3705	1/1	0.97	0.12	62,62,62,62	0
56	MG	BA	3453	1/1	0.97	0.47	40,40,40,40	0
56	MG	AA	1849	1/1	0.97	0.12	95,95,95,95	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BA	2978	1/1	0.97	0.67	72,72,72,72	0
56	MG	DA	3597	1/1	0.97	0.41	22,22,22,22	0
56	MG	DA	3214	1/1	0.97	0.39	22,22,22,22	0
56	MG	BX	101	1/1	0.97	0.12	55,55,55,55	0
56	MG	BA	3424	1/1	0.97	0.13	32,32,32,32	0
56	MG	DA	3603	1/1	0.97	0.09	17,17,17,17	0
56	MG	DA	3217	1/1	0.97	0.40	24,24,24,24	0
56	MG	DA	3136	1/1	0.97	0.45	12,12,12,12	0
56	MG	AA	1798	1/1	0.97	0.17	47,47,47,47	0
56	MG	BA	2980	1/1	0.97	0.25	74,74,74,74	0
56	MG	DA	3608	1/1	0.97	0.57	50,50,50,50	0
56	MG	CA	1830	1/1	0.97	0.15	80,80,80,80	0
56	MG	DA	2928	1/1	0.97	0.20	55,55,55,55	0
56	MG	BA	3214	1/1	0.97	0.23	85,85,85,85	0
56	MG	AA	1919	1/1	0.97	0.56	47,47,47,47	0
56	MG	BA	3631	1/1	0.97	0.34	8,8,8,8	0
56	MG	BA	3632	1/1	0.97	0.39	15,15,15,15	0
56	MG	BA	3015	1/1	0.97	0.33	71,71,71,71	0
56	MG	AA	1976	1/1	0.97	0.09	60,60,60,60	0
56	MG	DA	2935	1/1	0.97	0.14	89,89,89,89	0
56	MG	DA	3231	1/1	0.97	0.42	32,32,32,32	0
56	MG	DA	3154	1/1	0.97	0.28	12,12,12,12	0
56	MG	BA	3339	1/1	0.97	0.28	26,26,26,26	0
56	MG	DA	3234	1/1	0.97	0.13	31,31,31,31	0
56	MG	DA	3157	1/1	0.97	0.21	23,23,23,23	0
56	MG	DA	3236	1/1	0.97	0.64	30,30,30,30	0
56	MG	BA	3636	1/1	0.97	0.47	28,28,28,28	0
56	MG	AA	1664	1/1	0.97	0.30	64,64,64,64	0
56	MG	AA	1978	1/1	0.97	0.30	129,129,129,129	0
56	MG	DA	3534	1/1	0.97	0.52	70,70,70,70	0
56	MG	DA	3240	1/1	0.97	0.14	35,35,35,35	0
56	MG	BA	3566	1/1	0.97	0.14	63,63,63,63	0
56	MG	AA	1877	1/1	0.97	0.49	37,37,37,37	0
56	MG	AA	1943	1/1	0.97	0.13	45,45,45,45	0
56	MG	BA	3642	1/1	0.97	0.35	34,34,34,34	0
56	MG	BA	3312	1/1	0.97	0.52	20,20,20,20	0
56	MG	BA	3021	1/1	0.97	0.13	111,111,111,111	0
56	MG	DA	3464	1/1	0.97	0.60	42,42,42,42	0
56	MG	DA	3168	1/1	0.97	0.40	33,33,33,33	0
56	MG	DA	3172	1/1	0.97	0.58	24,24,24,24	0
56	MG	DA	3545	1/1	0.97	0.19	91,91,91,91	0
56	MG	BA	3314	1/1	0.97	0.49	13,13,13,13	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	AA	1902	1/1	0.97	0.22	33,33,33,33	0
56	MG	BA	3100	1/1	0.97	0.22	70,70,70,70	0
56	MG	DA	3550	1/1	0.97	0.39	18,18,18,18	0
56	MG	DA	3553	1/1	0.97	0.45	21,21,21,21	0
56	MG	BA	3352	1/1	0.97	0.25	17,17,17,17	0
56	MG	DA	3177	1/1	0.97	0.31	21,21,21,21	0
56	MG	AA	1870	1/1	0.97	0.42	73,73,73,73	0
56	MG	DA	3328	1/1	0.97	0.52	48,48,48,48	0
56	MG	BA	3692	1/1	0.97	0.36	56,56,56,56	0
56	MG	DA	3180	1/1	0.97	0.45	37,37,37,37	0
56	MG	DA	3476	1/1	0.97	0.31	73,73,73,73	0
56	MG	DA	3561	1/1	0.97	0.18	16,16,16,16	0
56	MG	AA	1735	1/1	0.97	0.36	52,52,52,52	0
56	MG	DA	3182	1/1	0.97	0.50	24,24,24,24	0
56	MG	DA	3479	1/1	0.97	0.12	55,55,55,55	0
56	MG	BA	3184	1/1	0.97	0.29	37,37,37,37	0
56	MG	BA	3578	1/1	0.97	0.27	32,32,32,32	0
56	MG	DA	2904	1/1	0.97	0.60	71,71,71,71	0
56	MG	BA	3025	1/1	0.97	0.30	66,66,66,66	0
56	MG	AA	1601	1/1	0.97	0.36	92,92,92,92	0
56	MG	CA	1623	1/1	0.97	0.17	43,43,43,43	0
56	MG	DA	3410	1/1	0.97	0.15	22,22,22,22	0
56	MG	DA	3572	1/1	0.97	0.12	51,51,51,51	0
56	MG	BA	3416	1/1	0.97	0.42	42,42,42,42	0
56	MG	AA	1694	1/1	0.97	0.28	165,165,165,165	0
56	MG	AA	1960	1/1	0.97	0.24	48,48,48,48	0
56	MG	DA	3197	1/1	0.97	0.22	21,21,21,21	0
56	MG	BB	219	1/1	0.97	0.30	33,33,33,33	0
56	MG	BA	3328	1/1	0.97	0.57	35,35,35,35	0
56	MG	DA	3580	1/1	0.97	0.49	79,79,79,79	0
56	MG	DA	3069	1/1	0.97	0.23	32,32,32,32	0
56	MG	CA	1721	1/1	0.97	0.12	74,74,74,74	0
56	MG	DA	3202	1/1	0.97	0.40	25,25,25,25	0
56	MG	BA	3420	1/1	0.97	0.39	34,34,34,34	0
56	MG	DA	3277	1/1	0.97	0.38	45,45,45,45	0
56	MG	BA	3421	1/1	0.97	0.21	79,79,79,79	0
56	MG	AA	1906	1/1	0.98	0.70	38,38,38,38	0
56	MG	BA	2990	1/1	0.98	0.12	47,47,47,47	0
56	MG	DA	3143	1/1	0.98	0.48	19,19,19,19	0
56	MG	DA	3144	1/1	0.98	0.41	14,14,14,14	0
56	MG	BA	3667	1/1	0.98	0.37	52,52,52,52	0
56	MG	DA	3628	1/1	0.98	0.21	295,295,295,295	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	BB	207	1/1	0.98	0.14	84,84,84,84	0
56	MG	BA	3357	1/1	0.98	0.17	64,64,64,64	0
56	MG	DA	3265	1/1	0.98	0.15	40,40,40,40	0
56	MG	DA	3184	1/1	0.98	0.38	14,14,14,14	0
56	MG	DA	3185	1/1	0.98	0.17	12,12,12,12	0
56	MG	DA	3186	1/1	0.98	0.18	51,51,51,51	0
56	MG	DA	3187	1/1	0.98	0.27	32,32,32,32	0
56	MG	BA	3319	1/1	0.98	0.41	19,19,19,19	0
56	MG	DA	3313	1/1	0.98	0.39	12,12,12,12	0
56	MG	DA	3149	1/1	0.98	0.41	22,22,22,22	0
56	MG	BA	3320	1/1	0.98	0.39	23,23,23,23	0
56	MG	BA	3345	1/1	0.98	0.29	20,20,20,20	0
56	MG	DA	3274	1/1	0.98	0.36	45,45,45,45	0
56	MG	BA	3545	1/1	0.98	0.51	245,245,245,245	0
56	MG	DA	3588	1/1	0.98	0.26	24,24,24,24	0
56	MG	B3	101	1/1	0.98	0.43	26,26,26,26	0
56	MG	DA	3155	1/1	0.98	0.39	18,18,18,18	0
56	MG	DA	3450	1/1	0.98	0.15	64,64,64,64	0
56	MG	DA	3195	1/1	0.98	0.17	20,20,20,20	0
56	MG	AA	1810	1/1	0.98	0.06	87,87,87,87	0
56	MG	DA	2971	1/1	0.98	0.15	132,132,132,132	0
56	MG	AA	1647	1/1	0.98	0.21	34,34,34,34	0
56	MG	DA	3596	1/1	0.98	0.43	15,15,15,15	0
56	MG	BA	3410	1/1	0.98	0.10	25,25,25,25	0
56	MG	DA	3598	1/1	0.98	0.36	12,12,12,12	0
56	MG	DA	3599	1/1	0.98	0.31	14,14,14,14	0
56	MG	CA	1878	1/1	0.98	0.35	66,66,66,66	0
56	MG	BA	3033	1/1	0.98	0.24	78,78,78,78	0
56	MG	BA	3350	1/1	0.98	0.38	28,28,28,28	0
56	MG	DA	3549	1/1	0.98	0.34	16,16,16,16	0
56	MG	DA	3163	1/1	0.98	0.29	31,31,31,31	0
56	MG	DA	3551	1/1	0.98	0.38	13,13,13,13	0
56	MG	DA	3552	1/1	0.98	0.50	19,19,19,19	0
56	MG	BA	3678	1/1	0.98	0.30	20,20,20,20	0
56	MG	DA	3205	1/1	0.98	0.24	36,36,36,36	0
56	MG	DA	3053	1/1	0.98	0.12	61,61,61,61	0
56	MG	BA	3104	1/1	0.98	0.15	120,120,120,120	0
56	MG	BA	3381	1/1	0.98	0.34	17,17,17,17	0
56	MG	DA	3509	1/1	0.98	0.22	142,142,142,142	0
56	MG	BA	3243	1/1	0.98	0.25	149,149,149,149	0
56	MG	DA	3170	1/1	0.98	0.11	12,12,12,12	0
56	MG	DA	3171	1/1	0.98	0.23	25,25,25,25	0

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Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors(Å^2)	Q<0.9
56	MG	DA	3513	1/1	0.98	0.20	34,34,34,34	0
56	MG	BA	3315	1/1	0.98	0.19	17,17,17,17	0
56	MG	BA	3368	1/1	0.98	0.28	25,25,25,25	0
56	MG	BA	3684	1/1	0.98	0.29	47,47,47,47	0
56	MG	D5	103	1/1	0.98	0.33	61,61,61,61	0
56	MG	DA	3620	1/1	0.98	0.48	50,50,50,50	0
56	MG	DA	3138	1/1	0.98	0.36	12,12,12,12	0
57	ZN	CD	301	1/1	0.98	0.34	109,109,109,109	0
56	MG	BA	3316	1/1	0.98	0.15	26,26,26,26	0
56	MG	DA	3151	1/1	0.99	0.22	12,12,12,12	0
56	MG	CA	1757	1/1	0.99	0.45	43,43,43,43	0
56	MG	DA	3222	1/1	0.99	0.35	17,17,17,17	0
56	MG	DA	3575	1/1	0.99	0.10	49,49,49,49	0
56	MG	BA	3329	1/1	0.99	0.46	19,19,19,19	0
56	MG	BA	3333	1/1	0.99	0.42	12,12,12,12	0
56	MG	AA	1928	1/1	0.99	0.08	67,67,67,67	0
56	MG	BA	3502	1/1	0.99	0.23	26,26,26,26	0
56	MG	BA	3250	1/1	0.99	0.17	269,269,269,269	0
56	MG	BA	3348	1/1	0.99	0.43	25,25,25,25	0
57	ZN	AD	301	1/1	0.99	0.29	71,71,71,71	0
57	ZN	AN	101	1/1	0.99	0.17	115,115,115,115	0
56	MG	DA	3142	1/1	0.99	0.42	30,30,30,30	0
56	MG	DA	3169	1/1	0.99	0.31	33,33,33,33	0

6.5 Other polymers (i)

There are no such residues in this entry.